S. HRG. 108–440, PT. 1

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2005

HEARINGS

BEFORE THE

COMMITTEE ON ARMED SERVICES
UNITED STATES SENATE

ONE HUNDRED EIGHTH CONGRESS

SECOND SESSION

ON

S. 2400

TO AUTHORIZE APPROPRIATIONS FOR FISCAL YEAR 2005 FOR MILITARY ACTIVITIES OF THE DEPARTMENT OF DEFENSE, FOR MILITARY CONSTRUCTION, AND FOR DEFENSE ACTIVITIES OF THE DEPARTMENT OF ENERGY, TO PRESCRIBE PERSONNEL STRENGTHS FOR SUCH FISCAL YEAR FOR THE ARMED FORCES, AND FOR OTHER PURPOSES

PART 1

MILITARY POSTURE
SERVICE CHIEFS
SERVICE SECRETARIES
UNIFIED AND COMBATANT COMMANDERS
MISSILE DEFENSE
ATOMIC ENERGY DEFENSE ACTIVITIES OF THE DEPARTMENT OF ENERGY
ROLE OF U.S. NORTHERN COMMAND AND U.S. SPECIAL OPERATIONS COMMAND
UNIFIED AND REGIONAL COMMANDERS
CONTINGENT RESERVE FUND REQUEST

FEBRUARY 4, 10; MARCH 2, 4, 11, 23, 25; APRIL 1; MAY 13, 2004

Printed for the use of the Committee on Armed Services

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2005—Part 1

MILITARY POSTURE ● SERVICE CHIEFS ● SERVICE SECRETARIES ● UNIFIED AND COMBATANT COMMANDERS ● MISSILE DEFENSE ● ATOMIC ENERGY DEFENSE ACTIVITIES OF THE DEPARTMENT OF ENERGY ● ROLE OF U.S. NORTHERN COMMAND AND U.S. SPECIAL OPERATIONS COMMAND ● UNIFIED AND REGIONAL COMMANDERS ● CONTINGENT RESERVE FUND REQUEST

S. HRG. 108–440, PT. 1

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2005

HEARINGS

BEFORE THE

COMMITTEE ON ARMED SERVICES
UNITED STATES SENATE

ONE HUNDRED EIGHTH CONGRESS

SECOND SESSION

ON

S. 2400

TO AUTHORIZE APPROPRIATIONS FOR FISCAL YEAR 2005 FOR MILITARY ACTIVITIES OF THE DEPARTMENT OF DEFENSE, FOR MILITARY CONSTRUCTION, AND FOR DEFENSE ACTIVITIES OF THE DEPARTMENT OF ENERGY, TO PRESCRIBE PERSONNEL STRENGTHS FOR SUCH FISCAL YEAR FOR THE ARMED FORCES, AND FOR OTHER PURPOSES

PART 1

MILITARY POSTURE
SERVICE CHIEFS
SERVICE SECRETARIES
UNIFIED AND COMBATANT COMMANDERS
MISSILE DEFENSE
ATOMIC ENERGY DEFENSE ACTIVITIES OF THE DEPARTMENT OF ENERGY
ROLE OF U.S. NORTHERN COMMAND AND U.S. SPECIAL OPERATIONS COMMAND
UNIFIED AND REGIONAL COMMANDERS
CONTINGENT RESERVE FUND REQUEST

FEBRUARY 4, 10; MARCH 2, 4, 11, 23, 25; APRIL 1; MAY 13, 2004

Printed for the use of the Committee on Armed Services

U.S. GOVERNMENT PRINTING OFFICE

93–571 PDF WASHINGTON : 2005

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
Fax: (202) 512–2250 Mail: Stop SSOP, Washington, DC 20402–0001

COMMITTEE ON ARMED SERVICES

JOHN WARNER, Virginia, *Chairman*

JOHN McCAIN, Arizona
JAMES M. INHOFE, Oklahoma
PAT ROBERTS, Kansas
WAYNE ALLARD, Colorado
JEFF SESSIONS, Alabama
SUSAN M. COLLINS, Maine
JOHN ENSIGN, Nevada
JAMES M. TALENT, Missouri
SAXBY CHAMBLISS, Georgia
LINDSEY O. GRAHAM, South Carolina
ELIZABETH DOLE, North Carolina
JOHN CORNYN, Texas

CARL LEVIN, Michigan
EDWARD M. KENNEDY, Massachusetts
ROBERT C. BYRD, West Virginia
JOSEPH I. LIEBERMAN, Connecticut
JACK REED, Rhode Island
DANIEL K. AKAKA, Hawaii
BILL NELSON, Florida
E. BENJAMIN NELSON, Nebraska
MARK DAYTON, Minnesota
EVAN BAYH, Indiana
HILLARY RODHAM CLINTON, New York
MARK PRYOR, Arkansas

JUDITH A. ANSLEY, *Staff Director*
RICHARD D. DEBOBES, *Democratic Staff Director*

CONTENTS

CHRONOLOGICAL LIST OF WITNESSES

MILITARY POSTURE

FEBRUARY 4, 2004

Page

Rumsfeld, Hon. Donald H., Secretary of Defense; Accompanied by Hon. Dov S. Zakheim, Comptroller, Department of Defense; Gen. Peter Pace, USMC, Vice Chairman, Joint Chiefs of Staff; Hon. Steven Cambone, Under Secretary for Intelligence; and Hon. David S.C. Chu, Under Secretary for Personnel and Readiness 10

SERVICE CHIEFS

FEBRUARY 10, 2004

Schoomaker, GEN Peter J., USA, Chief of Staff, United States Army; Accompanied by LTG Steven Blum, USA, Chief, National Guard Bureau 143
Clark, ADM Vernon E., USN, Chief of Naval Operations 186
Hagee, Gen. Michael W., USMC, Commandant of the Marine Corps 209
Jumper, Gen. John P., USAF, Chief of Staff, United States Air Force 227

SERVICE SECRETARIES

MARCH 2, 2004

Brownlee, Hon. Les, Acting Secretary of the Army 886
England, Hon. Gordon R., Secretary of the Navy 902
Roche, Hon. James G., Secretary of the Air Force 917

UNIFIED AND REGIONAL COMMANDERS ON THEIR MILITARY STRATEGY AND OPERATIONAL REQUIREMENTS

MARCH 4, 2004

Abizaid, GEN John P., USA, Commander, United States Central Command ... 990
Jones, Gen. James L., USMC, Commander, United States European Command, and Supreme Allied Commander, Europe 1007

BALLISTIC MISSILE DEFENSE

MARCH 11, 2004

Wynne, Hon. Michael W., Acting Under Secretary of Defense for Acquisition, Technology, and Logistics 1082
Christie, Hon. Thomas P., Director, Operational Test and Evaluation 1086
Ellis, ADM James O., Jr., USN, Commander, United States Strategic Command 1090
Kadish, Lt. Gen. Ronald T., USAF, Director, Missile Defense Agency 1096
Dodgen, LTG Larry J., USA, Commander, Space and Missile Defense Command 1110

Page

ATOMIC ENERGY DEFENSE ACTIVITIES OF THE DEPARTMENT OF ENERGY

MARCH 23, 2004

Abraham, Hon. Spencer, Secretary of Energy 1178

THE ROLE OF U.S. NORTHERN COMMAND AND U.S. SPECIAL OPERATIONS COMMAND IN DEFENDING THE HOMELAND AND IN THE GLOBAL WAR ON TERRORISM

MARCH 25, 2004

O'Connell, Hon. Thomas W., Assistant Secretary of Defense for Special Operations and Low Intensity Conflict 1233
Brown, GEN Bryan D., USA, Commander, United States Special Operations Command 1239
McHale, Hon. Paul, Assistant Secretary of Defense for Homeland Defense 1247
Eberhart, Gen. Ralph E., USAF, Commander, United States Northern Command, and Commander, North American Aerospace Defense Command 1256

UNIFIED AND REGIONAL COMMANDERS ON THEIR MILITARY STRATEGY AND OPERATIONAL REQUIREMENTS

APRIL 1, 2004

Fargo, ADM Thomas B., USN, Commander, United States Pacific Command .. 1313
LaPorte, GEN Leon J., USA, Commander, United Nations Command and Republic of Korea/United States Combined Forces Command, and Commander, United States Forces Korea; Accompanied by Maj. Gen. Timothy Donovan, USMC, C–5, United States Forces Korea 1338
Hill, GEN James T., USA, Commander, United States Southern Command 1355

CONTINGENT RESERVE FUND REQUEST

MAY 13, 2004

Wolfowitz, Hon. Paul D., Deputy Secretary of Defense 1405
Kaplan, Hon. Joel D., Office of Management and Budget 1411
Pace, Gen. Peter, USMC, Vice Chairman of the Joint Chiefs of Staff 1415

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2005

WEDNESDAY, FEBRUARY 4, 2004

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

MILITARY POSTURE

The committee met, pursuant to notice, at 9:34 a.m. in room HR–2118, Rayburn House Office Building, Senator John Warner (chairman) presiding.

Committee members present: Senators Warner, McCain, Roberts, Sessions, Collins, Ensign, Talent, Chambliss, Graham, Dole, Cornyn, Levin, Kennedy, Reed, Akaka, Bill Nelson, Ben Nelson, Dayton, Bayh, Clinton, and Pryor.

Committee staff members present: Judith A. Ansley, staff director; Marie Fabrizio Dickinson, chief clerk; Cindy Pearson, assistant chief clerk and security manager; and Leah C. Brewer, nominations and hearings clerk.

Majority staff members present: Charles W. Alsup, professional staff member; L. David Cherington, counsel; Regina A. Dubey, research assistant; Brian R. Green, professional staff member; William C. Greenwalt, professional staff member; Ambrose R. Hock, professional staff member; Gregory T. Kiley, professional staff member; Thomas L. MacKenzie, professional staff member; Elaine A. McCusker, professional staff member; Lucian L. Niemeyer, professional staff member; Paula J. Philbin, professional staff member; Lynn F. Rusten, professional staff member; Joseph T. Sixeas, professional staff member; Scott W. Stucky, general counsel; Diana G. Tabler, professional staff member; and Richard F. Walsh, counsel.

Minority staff members present: Richard D. DeBobes, Democratic staff director; Daniel J. Cox, Jr., professional staff member; Madelyn R. Creedon, minority counsel; Kenneth M. Crosswait, professional staff member; Gabriella Eisen, research assistant; Evelyn N. Farkas, professional staff member; Richard W. Fieldhouse, professional staff member; Creighton Greene, professional staff member; Jeremy L. Hekhuis, professional staff member; Bridget W. Higgins, special assistant; Maren R. Leed, professional staff member; Gerald J. Leeling, minority counsel; Peter K. Levine, minority counsel; and William G.P. Monahan, minority counsel.

Staff assistants present: Michael N. Berger, Andrew W. Florell, and Sara R. Mareno.

Committee members' assistants present: Christopher J. Paul, assistant to Senator McCain; Arch Galloway II, assistant to Senator Sessions; James P. Dohoney, Jr. and Derek J. Maurer, assistants to Senator Collins; Lindsey R. Neas, assistant to Senator Talent; Clyde A. Taylor IV, assistant to Senator Chambliss; Aleix Jarvis and Meredith Moseley, assistants to Senator Graham; Christine O. Hill, assistant to Senator Dole; Russell J. Thomasson, assistant to Senator Cornyn; Sharon L. Waxman, Mieke Y. Eoyang, and Jarret A. Wright, assistants to Senator Kennedy; Elizabeth King, assistant to Senator Reed; Davelyn Noelani Kalipi, assistant to Senator Akaka; William K. Sutey, assistant to Senator Bill Nelson; Eric Pierce, assistant to Senator Ben Nelson; Todd Rosenblum, assistant to Senator Bayh; Andrew Shapiro, assistant to Senator Clinton; and Terri Glaze, assistant to Senator Pryor.

OPENING STATEMENT OF SENATOR JOHN WARNER, CHAIRMAN

Chairman WARNER. Good morning, everyone. I am not sure what the precedents are for the Senate Armed Services Committee commandeering the other body's chamber, but nevertheless, sitting up here, I feel somewhat like a bishop. A very impressive setting. I thank my distinguished friend, the chairman of the House Armed Services Committee, Duncan Hunter; and the ranking Democrat, another dear friend, Ike Skelton; and Robert Rangel, the staff director.

The committee meets today to receive annual testimony from the Secretary of Defense and the Joint Chiefs of Staff—this morning represented by the Vice Chairman, General Pace, in the absence of General Myers, who had the untimely loss of his brother, Chuck Myers.

Senator MCCAIN. Mr. Chairman, I do not think we have order here.

Chairman WARNER. I think you have a point, and I cannot judge from the noise up here. We will ask the audience to refrain from conversation, please. Thank you.

We are to receive the posture of the United States Armed Forces and President Bush's defense budget request for fiscal year 2005 and the Future Years Defense Program (FYDP). Secretary Rumsfeld and Vice Chairman Pace, we welcome you again back before the committee and commend you once again for the outstanding leadership that you both continue, as a team, to provide our Nation and to our men and women in uniform and their families.

There are few precedents for the challenges you face in this post-September 11 world, but in every way you have met the challenges.

I start today by recognizing the men and women of the Armed Forces of the United States who, together with a coalition of nations, liberated Iraq, a country larger than Germany and Italy combined, in roughly 3 weeks. This combined force accomplished this with unprecedented precision and casualties were far below the estimates. Nevertheless, we grieve each and every one who was lost or wounded and express our compassion to their families.

Iraq, a nation that for decades had known only tyranny and oppression, is now moving forward to a future of freedom and opportunity for all of its people.

While the mission of the U.S. and the coalition forces continues in Iraq, much has been accomplished since Operation Iraqi Freedom began last March. The world is a safer place and Iraq is a better place because, along with many nations, the U.S. confronted a brutal dictator who has defied the mandates of the international community for over a decade.

Disagreements will continue about the process and the timing of the decision to use force, but on one thing there can be no disagreement: the professionalism, the performance, and the sacrifices of the men and women in uniform were, are, and always will be inspiring. Every American is justifiably proud of the U.S. Armed Forces. The security of the United States of America is in good hands today with its military.

As we meet this morning, hundreds of thousands of our service members are engaged around the world and here at home, defending our Nation in Operation Enduring Freedom, Operation Iraqi Freedom, and other military operations in the ongoing global war on terrorism. These brave men and women and their families deserve our continued support, and they will get it from this committee—the equipment, the resources, the support they need to perform their missions today and tomorrow and into the future.

We must remember that defense of our homeland begins on the distant battlefields of the world. Our forward-deployed forces are and will remain our first line of defense. This committee's responsibility will continue to be to ensure that these troops remain the best equipped, the best trained, and the most capable forces in the world.

I am encouraged by my initial review of the President's defense budget for the fiscal year 2005. This request of $401.7 billion for the Department represents a 5-percent increase over the fiscal year 2004 authorized level and the fourth straight year of growth for the defense budget. This sends a strong signal to the world of America's commitment to freedom, and the President and you, Mr. Secretary, deserve special recognition because we know the competitive forces in our budget today. But to get this increase was necessary.

As Congress works its will on the budget request, we must be mindful of potential problems. We are putting increased demands on our forces around the world, increased demands on their families, and increased demands on our Reserve and National Guard. We are blessed with a military that is responding to these demands with extraordinary commitment, but even the best military has its limits.

As we proceed with the hearing today—and I am going to ask unanimous consent that the full balance of my statement be included in the record—we are learning of the President's initiative to strengthen America's Intelligence Community. I commend the President for this leadership, and we await greater details about the commission envisioned and its membership. In testimony before this committee last week, Dr. David Kay, former Special Adviser to Director Tenet, told us that, based on the findings to date of the Iraq Survey Group (ISG)—that is the military force in country conducting the survey—prewar estimates about large stockpiles of weapons of mass destruction (WMD) may have been incorrect.

As Dr. Kay stated, "We were almost all wrong, and I certainly include myself there."

While that is one serious finding to date, he also told us of positive findings: that the ISG had discovered a quantum of evidence that includes evidence of Saddam Hussein's intent to pursue a WMD program on a large scale; evidence of actual and ongoing chemical and biological research programs; evidence of an active program to use the deadly chemical ricin as a weapon, a program that was only interrupted by the start of the war in March; evidence of ballistic missile programs that clearly violated terms of the United Nations (U.N.) Security Council resolution; and there was much more.

The work of the ISG under General Dayton and Mr. Duelfer continues. Final judgments should in fairness await the outcome of their work.

Dr. Kay also told us that he had found absolutely no evidence of any intelligence analyst being pressured to change or exaggerate any intelligence conclusions. On the contrary, he reminded us all that the basic assessment of Iraq's WMD holdings had been consistent since 1998, when U.N. inspectors left Iraq. Dr. Kay as well as many others have reminded us that intelligence efforts often differ from what is later actually found on the ground. The important thing is when they differ to understand why.

Based on the intelligence available to the President, not only U.S. intelligence but that of the U.N. and other nations, Dr. Kay felt that the President could have reached no other conclusion: Iraq had caches of chemical and biological weapons, had used them in the past, and was likely to use them in the future.

As Dr. Kay stated, "It was reasonable to conclude that Iraq posed an imminent threat. What we learned during the inspection made Iraq a more dangerous place potentially than in fact we thought it was even before the war."

As I stated earlier, the world is a safer place and Iraq is a better place because a real and growing threat has been eliminated. We did the right thing at the right time to rid Iraq of this brutal regime.

There are currently six ongoing investigations—the President's contemplated commission would be the seventh—concerning Iraqi WMD programs, including, most importantly, the ISG. As I mentioned, it is an ongoing operation, fully funded by Congress. It is under the direction of General Dayton and Charles Duelfer. It is important that the work of these investigations be completed, and I hope that we will receive from the Secretary some estimates of the timetable in which that is likely to be done.

An independent panel can build on the good work already begun and ultimately contribute to the recommendations on how to make our Intelligence Community stronger and more effective.

The security of our troops in harm's way and of our Nation will be improved by these reviews. I wish to commend the distinguished chairman of the Intelligence Committee. I am privileged to serve on that committee with him, and I believe that that committee has done notable work, and perhaps you will comment on that in the course of the hearing.

Mr. Secretary, I hope you can address your views on these issues related to the Iraqi WMD and the current situation in Iraq in your opening testimony. For example, the President's National Security Adviser, Condoleezza Rice, stated, "There are differences between what we knew going in and what we found on the ground." The question to you is, what steps are you taking to ensure that the ongoing intelligence activities of defense intelligence agencies, particularly the Defense Intelligence Agency (DIA) and the National Security Agency (NSA), are as complete and analytically rigorous as possible?

We must bear in mind that a lot of focus is on the Central Intelligence Agency (CIA) and George Tenet, but our distinguished witness today has under his jurisdiction a very considerable component of the Intelligence Community.

Mr. Secretary, are you beginning to examine your prewar planning and preparation in light of the findings we know to date? There have been public accusations of manipulation or exaggeration of prewar intelligence by policymakers. You are among the first of the administration witnesses to testify before Congress on this subject. I say to you most respectfully, how do you respond?

I have been privileged to have known you and worked with you for I suspect over 30 years and, speaking for myself, I have absolutely 100 percent confidence in your integrity. But you should look us square in the eye and give us your own views on this subject.

Mr. Secretary, the plan as laid down by Ambassador Bremer and approved by the Iraqi Governing Council calls for a series of steps over the next few months culminating in the transfer of sovereignty to Iraqi authority on June 30 of this year. Are these milestones and final target dates achievable? What significant challenges remain? What accommodations are being made to ensure our troops can continue to operate and the ISG can continue its important work in a sovereign nation, presumably, after this transfer on the 30th?

Again, gentlemen, we welcome you. General Pace, we will have the opportunity to hear your testimony and your views, and I would certainly invite you to make any comments that you wish to make about the WMD program.

Senator Levin.

[The prepared statement of Senator Warner follows:]

PREPARED STATEMENT BY SENATOR JOHN WARNER

The committee meets today to receive annual testimony from the Secretary of Defense and the Joint Chiefs of Staff on the posture of the U.S. Armed Forces and President Bush's defense budget request for fiscal year 2005 and the Future Years Defense Program.

Secretary Rumsfeld and Vice Chairman Pace, we welcome you back before the committee and commend you, once again, for the outstanding leadership you both continue, as a team, to provide our Nation and to our men and women in uniform and their families. There are few precedents for the challenges you face in this post-September 11 world, but you have been equal to the task.

I start today by recognizing the men and women of our Armed Forces who, together with a coalition of nations, liberated Iraq, a country larger than Germany and Italy combined, in roughly 3 weeks. This combined force accomplished this with unprecedented precision and casualties far below estimates. Iraq, a nation that for decades had known only tyranny and oppression, is now moving forward to a future of freedom and opportunity for all of its people.

While the mission of U.S. and coalition forces continues in Iraq, much has been accomplished since Operation Iraqi Freedom began last March. The world is a safer place, and Iraq is a better place, because, along with many nations, the U.S. confronted a brutal dictator who had defied the mandates of the international community for over a decade. Disagreements will continue about the process and timing of the decision to use force, but on one thing there is no disagreement: the professionalism, performance, and sacrifice of our troops was, is, and always will be, inspiring. Every American is justifiably proud of the U.S. Armed Forces. The security of America is in good hands with today's military.

As we meet this morning, hundreds of thousands of our service members are engaged around the world and here at home, defending our Nation in Operation Enduring Freedom, Operation Iraqi Freedom, and other military operations in the ongoing global war on terrorism. These brave men and women, and their families, deserve our continued support. They will get it from this committee—the equipment, the resources, the support they need to perform their missions.

As President Bush remarked when he signed last year's Defense Authorization Act in November:

> "Every member of the United States military is now involved in a great and historic task. The stakes for our country could not be higher. We face enemies that measure their progress by the chaos they inflict, the fear they spread, and the innocent lives they destroy. America's military is standing between our country and grave danger. You're standing for order and hope and democracy in Afghanistan and Iraq. You're standing up for the security of all free nations, and for the advance of freedom."

Our President continues to provide the strongest of leadership.

We must remember that defense of our homeland begins on the distant battlefields of the world. Our forward deployed forces are—and will remain—our first line of defense. This committee's responsibility will continue to be to ensure that these troops remain the best equipped, best trained, most capable forces in the world.

It is critical that we fully honor the service of our men and women in uniform, and that we keep faith with their dedication to duty through adequate pay raises, timely modernization of equipment and facilities, and sustained investment in those programs that enhance the quality of life of our service personnel and their families.

I am encouraged by my initial review of the President's defense budget request for fiscal year 2005. This request of $401.7 billion for the Department represents a 5-percent increase over the fiscal year 2004 authorized level, and the fourth straight year of growth for the defense budget. This sends a strong signal to the world of America's commitment to freedom.

As Congress works its will on this budget request, we must be mindful of potential problems. We are putting increased demands on our forces around the world, increased demands on their families, and increased demands on our Reserve and National Guard. We are blessed with a military that has responded to these demands with extraordinary commitment, but even the best military has its limits.

As we perform our annual budget review, we must—and we will—carefully analyze the effects of these challenges on our men and women in uniform, and their families. Congress will, I am confident, make the investments needed to ensure we have the people and the capabilities necessary to meet these challenges.

There will be many questions. To assist Congress, I hope you can address some of these questions in your testimony this morning, including:

- Do we have enough people, the right mix of people, and the capabilities in the Armed Forces to meet the threats of the foreseeable future?
- Are we doing all we can to ensure that our forces deployed overseas—both active and Reserve components (RC)—have the best possible equipment and support?
- Are the lessons learned from recent military operations being rapidly shared and integrated across the entire force and with our allies?
- What increased role can we realistically expect NATO and other nations to play in the global war on terrorism?
- As we reposition forces to meet new global threats, do we have the facilities, infrastructure, and mobility assets we will need?

These are but a few of the complex issues we must work on together to solve in the months and years ahead.

As we proceed with this hearing today, we are learning of the President's initiative to strengthen America's intelligence community. I commend the President for his leadership.

In testimony before this committee, last week, Dr. David Kay, former Special Advisor to Director Tenet, told us that, based on the findings of the Iraq Survey Group,

to date, prewar estimates about large WMD stockpiles may have been wrong. As Dr. Kay stated, ". . . we were almost all wrong, and I certainly include myself here." While that is one serious finding, to date, he also told us that the ISG had discovered a quantum of evidence, that includes:

- evidence of Saddam Hussein's intent to pursue WMD program on a large scale;
- actual, ongoing chemical and biological research programs;
- an active program to use the deadly chemical "ricin" as a weapon a program that was only interrupted by the start of the war in March; and,
- evidence of ballistic missile programs that clearly violated the terms of U.N. Security Council Resolutions.

Dr. Kay also told us that he had found absolutely no evidence of any intelligence analyst being pressured to change or exaggerate any intelligence conclusions. On the contrary, he reminded us all that the basic assessment of Iraq's WMD holdings had been consistent since 1998, when U.N. inspectors left Iraq. Dr. Kay, as well as many others, have reminded us that intelligence efforts often differ from what is actually found on the ground later. The important thing is when they differ, to understand why.

Based on the intelligence available to the President not only U.S. intelligence but that of the U.N. and other nations, Dr. Kay felt that the President could have reached no other conclusion: Iraq had caches of chemical and biological weapons, had used them in the past, and was likely to use them in the future. As he stated, ". . . it was reasonable to conclude that Iraq posed an imminent threat. What we learned during the inspection made Iraq a more dangerous place, potentially, than, in fact, we thought it was even before the war."

As I stated earlier, the world is a safer place and Iraq is a better place because a real and growing threat has been eliminated. We did the right thing to rid Iraq of this brutal regime.

There are currently six ongoing investigations concerning Iraqi WMD programs, including the work of the Iraq Survey Group funded by Congress and under the direction of General Dayton and Charles Duelfer. It is important that the work of these investigations be completed. An independent panel can build on the good work already begun and, ultimately, contribute to the recommendations on how to make our intelligence community stronger and more effective. The security of our troops in harm's way and of our Nation will be improved by these reviews.

I hope you can address your views on these issues related to Iraqi WMD and the current situation in Iraq in your opening testimony. For example:

- The President's National Security Advisor, Condoleeza Rice, has stated, ". . . there are differences between what we knew going in and what we found on the ground." What steps are you taking to ensure that the ongoing intelligence activities of Defense intelligence agencies particularly DIA and NSA are as complete and analytically rigorous as possible?
- Are you beginning to examine your pre-war planning and preparation in light of the findings we know, to date?
- There have been public accusations of manipulation or exaggeration of pre-war intelligence by policy makers. You are among the first in the administration to testify before Congress on this subject. How do you respond to these accusations?
- The plan, as laid down by Ambassador Bremer and approved by the Iraqi Governing Council calls for a series of steps over the next few months, culminating in a transfer of sovereignty to Iraqi authority on June 30 of this year. Are these milestones and final target date achievable? What significant challenges remain?
- What accommodations are being made to ensure our troops can continue to operate, and the ISG can continue its important work, in a sovereign nation after this transfer of sovereignty?

Again, gentlemen, I thank you for your service. Your continued commitment to our uniformed and civilian personnel and their families, your leadership during time of war, and your focus on preparing our Armed Forces to meet the threats of the future have greatly enhanced our national security.

Senator Levin.

STATEMENT OF SENATOR CARL LEVIN

Senator LEVIN. Thank you, Mr. Chairman.

Let me first join you in welcoming Secretary Rumsfeld, General Pace, and Dr. Zakheim back to the Armed Services Committee for

their annual posture hearing. Much has happened in the world since our last posture hearing. The rapid advance of our Armed Forces in Operation Iraqi Freedom (OIF) and the total collapse of the Iraqi regime stand as a testament to the courage and to the dedication of our men and women in uniform, who remain by far the best trained, best equipped, and most capable military force in the world today. They are the standard against which all other military forces are measured.

Unfortunately, military operations in Iraq did not come to an end with the President's announcement on May 1. In early July, General Tommy Franks announced that continued violence and uncertainty in Iraq would make significant reductions in U.S. force levels unlikely for the foreseeable future. Six months later, we still have roughly 125,000 troops in Iraq, with almost 180,000 more serving in support roles outside of the country. We are in the process of rotating in fresh units to ensure that we will be able to sustain this presence for years to come.

The current rotation of U.S. forces into Iraq will result in a drawdown to 110,000 troops. The drawdown is based upon the belief that Iraqi police in the Iraqi Civil Defense Corps (ICDC) will be able to take the lead in providing security in Baghdad and other Iraqi cities. I am concerned that this will set the Iraqi security forces up for failures, as there is a real question as to whether they are ready to take on and defeat the insurgents who are targeting Iraqis as well as U.S. and other coalition forces.

The new Iraqi army, whose mission is limited to external defense, will not have a role in providing domestic security for their fellow citizens. I remain convinced, as I have written to Secretary Rumsfeld, the President, and others in the administration, that the recall of units of the Iraqi army at the middle grade and below would have been a better way to help handle the insurgent threat.

Our troops in Iraq face extremely hazardous conditions, including improved explosive devices, ambushes, car bombs, mortar attacks, and shoulder-fired antiaircraft missiles.

In addition, roughly 10,000 American troops continue to engage in military operations against hostile forces in Afghanistan. Tens of thousands more soldiers, sailors, airmen, and marines are deployed in Korea and other hot spots around the world, including numerous countries that had not seen an American in uniform before September 11, 2001.

Congress and the American people will provide the support that is needed by our troops in the field. In less than a year, we have enacted two emergency supplemental appropriation acts, for $62 billion and $87 billion, to cover the costs of our operations in Iraq and Afghanistan. It has been reported that an additional supplemental appropriation of $50 billion to $55 billion will likely be required to fund continued operations over the next fiscal year.

I have no doubt that if our troops need the money Congress will provide it. However, that money should have been part of the budget before us, not left to a supplemental and therefore not part of the projected budget deficit. A fair deficit projection would have included those costs since we are planning on those costs.

The pace of operations has placed a great strain on our forces. We have seen the imposition of stop-loss requirements to prevent

troops from leaving the force when their term of service is finished. Some have been deployed for extended periods, and some have been deployed repeatedly. Some units have been told that they would be going home soon, only to have their tours of duty extended. Others have been denied clear information about when their deployments would end. In the last 2½ years, we have seen the largest sustained call-ups of National Guard and Reserve components since the establishment of an all-volunteer military force.

A year ago, as our Nation was being prepared to go to war in Iraq, a number of us expressed the view that our cause would be strongest and our long-term success would be more certain if we actively solicited the support of the international community. While America's Armed Forces have proven and continue to prove every day that they are ready to take on any military challenge anywhere in the world, I continue to believe that we are paying a steep price for the failure to obtain the political support of the international community, which would make the occupation one of the world community, to include Muslim nations, and not just an occupation by Western nations. It would therefore be less difficult and less dangerous.

The strains on our Armed Forces are very real. Concerns about morale and potentially about recruitment and retention are real. The risks posed to our Guard and Reserve system are real. These are issues that we must do everything in our power to help address.

Finally, in the wake of the testimony of Chief Weapons Inspector Dr. David Kay, who concluded that the prewar intelligence on Iraqi WMD was fundamentally wrong, this committee has a particular responsibility to look into how intelligence failures affected planning for and the conduct of Operation Iraqi Freedom. I am deeply concerned that my request to the Department of Defense (DOD) for information concerning the impact that intelligence had on the planning for and the conduct of Operation Iraqi Freedom has so far been denied by the Department.

My specific request was for a briefing on the planning process generally, including how the intelligence affected that planning, and an overview of the final approved war plan for Operation Iraqi Freedom to the extent that it can be shared with Congress.

I am also concerned that it has taken so long for the Department to respond to my request of November the 25th of last year for information relating to the Office of Special Plans, which was established by Under Secretary Feith and which reportedly involved the review, analysis, and promulgation of intelligence outside of the U.S. Intelligence Community.

My specific request in the case of the Office of Special Plans was for documents relating to the establishment, functions, and responsibilities of that office and the Policy Counterterrorism Evaluation Group, and for documents produced by either of those two entities, a list of personnel directly related to those two offices, and communications from those two offices to key agencies.

Finally, this morning apparently some of the information was delivered to us. But after, just at a quick perusal of that information, we also see that much of what we asked for is still being denied by the Department, and that is simply indefensible. We have an ob-

ligation and a responsibility to oversee the operations of this Department. I have been repeatedly promised that information by Mr. Feith and there just was no justification for the long delay in forwarding what information came to us this morning. I do hope, Mr. Secretary, that you will straighten this out for us.

I look forward to the testimony of our witnesses and I welcome them all back to this committee.

Chairman WARNER. Thank you, Senator Levin.

Mr. Secretary.

STATEMENT OF HON. DONALD H. RUMSFELD, SECRETARY OF DEFENSE; ACCOMPANIED BY HON. DOV S. ZAKHEIM, COMPTROLLER, DEPARTMENT OF DEFENSE; GEN. PETER PACE, USMC, VICE CHAIRMAN, JOINT CHIEFS OF STAFF; HON. STEVEN CAMBONE, UNDER SECRETARY FOR INTELLIGENCE; AND HON. DAVID S.C. CHU, UNDER SECRETARY FOR PERSONNEL AND READINESS

Secretary RUMSFELD. Thank you very much, Mr. Chairman, members of the committee. I appreciate this opportunity to testify on our DOD budget and request that my full statement be included in the record.

I, too, regret that General Myers could not be with us today because of the loss of his brother. I have, in addition to General Pace and Dr. Zakheim, brought two individuals, two under secretaries, along in the event that there are questions on the intelligence side or on the force level side. Dr. David Chu is here and is available, and Dr. Steve Cambone. Dr. Chu of course is the Under Secretary for Personnel and Readiness, and Dr. Cambone is the Under Secretary for Intelligence.

I, too, want to commend the courageous men and women in uniform and also the civilians in the DOD that serve all over the globe as well. What they have accomplished since our country was attacked 28 months ago is truly impressive. They have helped to overthrow 2 terrorist regimes, to capture or kill 45 of the 55 most wanted in Iraq, including Saddam Hussein and his sons, to capture or kill close to two-thirds of known senior al Qaeda operatives, and to disrupt terrorist cells on several continents. We value their service, their sacrifice, and the sacrifice of their families as well.

When this administration took office 3 years ago, the President charged us to change the status quo and prepare the Department to meet the new threats of the 21st century. To meet that charge, we have fashioned a new defense strategy, a new force sizing construct, a new approach to balancing risks. We have issued a new unified command plan, taken steps to attract and retain the needed talent in our Armed Forces, including targeted pay raises and quality of life improvements for the troops and their families.

We have instituted what we believe to be more realistic budgeting so that the Department now looks to budget supplementals for unknown warfighting costs and not to simply sustain readiness. We have completed a nuclear posture review. We have transformed the way the Department prepares its war plans. We have adopted a new lessons-learned approach during Operation Iraqi Freedom and undertaken a comprehensive review of our global force posture. With your help, we are establishing the new National Security Per-

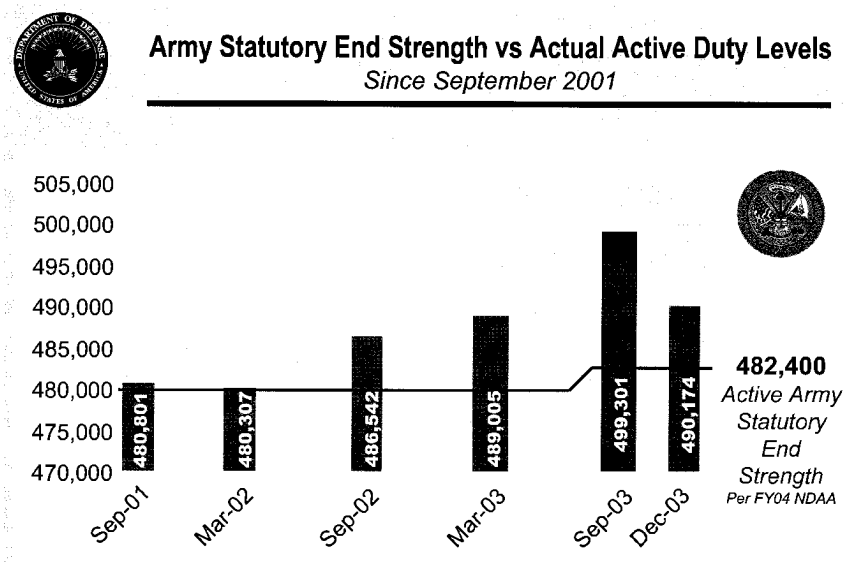
sonnel System (NSPS) that should better enable us to manage our 746,000 civilian employees.

The scope and scale of what has been done, what has been accomplished, and what has been initiated is substantial. Our challenge is to build on these efforts even as we fight the global war on terror.

One effect of the global war on terror has been a significant increase in operational tempo and an increased demand on the force. To manage the demand on the force, we have to first be very clear about what the problem really is, so that we can work together to fashion appropriate solutions.

The increased demand on the force we are experiencing today is, we believe, very likely a spike, driven by the deployment of 115,000 troops in Iraq. For the moment, the increased demand is real, and we have taken a number of immediate actions. We are increasing international military participation in Iraq. We have accelerated the training of Iraqi security forces, now more than 200,000 strong. Our forces are hunting down those who threaten Iraq's stability and transition to self-reliance.

Another way to deal with the increased demand on the force is to add more people. Well, we have already done so—we might want to put up a chart there——



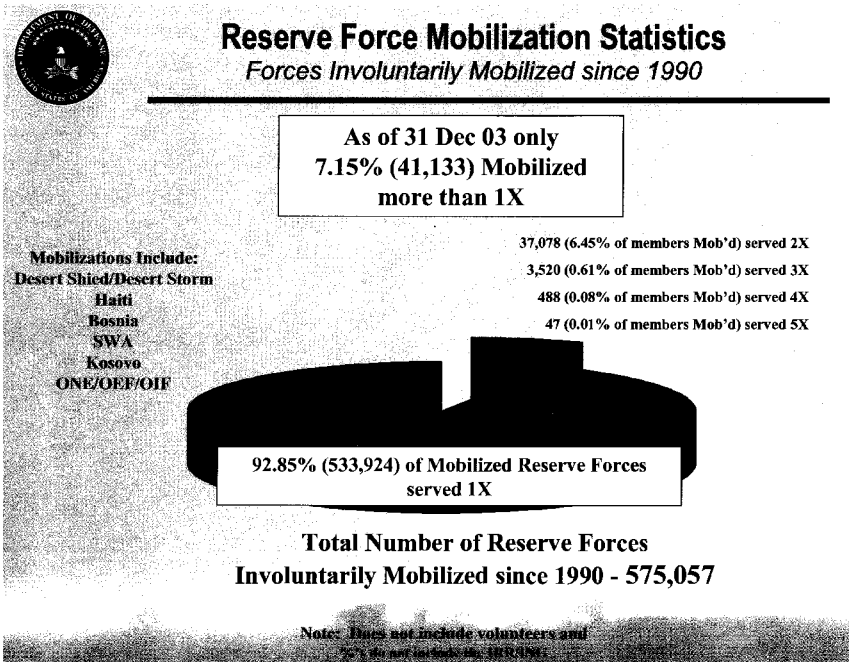
—a fact that many people seem not to understand. Using the powers granted by Congress, we have already increased Active-Duty Force levels by nearly 33,000 above pre-emergency authorized end strength. We have done this over the past 2 years, as you can see. If the war on terror demands it, we will not hesitate to increase force levels even more using those emergency authorities provided by Congress.

But it should give us pause that even a temporary increase in our force levels was and remains necessary. Think about it. At this moment we have a pool of about 2.6 million men and women, active and Reserve. Yet the deployment of 115,000 troops in Iraq has required that we temporarily increase the size of the force by 33,000. That suggests strongly that the real problem is not the size of the force per se, but rather the way the force has been managed and the mix of capabilities at our disposal. It suggests that our challenge is considerably more complex than simply adding more troops.

General Pete Schoomaker, the Army Chief of Staff, compares the problem to a rain barrel in which the spigot is near the top. When you turn the spigot on, it only draws off the water at the very top. The task—you have two choices: You can either increase the size of the barrel and leave the spigot where it is or you can lower the spigot and start drawing on the contents of the entire barrel.

The answer in my view is most certainly not a bigger rain barrel. The answer is to move the spigot down so that all the water is accessible and can be used and so that we can take full advantage of the skills and talents of everyone who serves in the Guard and Reserve.

Another chart, please, Commander.



I do not know if you can see that up there. But I keep hearing people talk about the stress on the Guard and the Reserve. The fact is that since September 11, 2001, we have mobilized only 36 percent of the Selected Reserve, a little over one-third of the available forces in the Selected Reserve. But while certain skills are in

demand, as the chart shows, only a very small fraction of the Guard and Reserve, just 7.15 percent, have been involuntarily mobilized more than once since 1990, 13 years ago. Over 13 years we have mobilized only 7.15 percent of the Guard and Reserve involuntarily more than once.

That means that the same people are getting stressed and they are getting used and used, but the vast majority of the Guard and Reserve are not being used. Over 60 percent have not been mobilized to fight the global war on terror. Indeed, I am told that a full 58 percent of the current selected Reserve, or about 500,000 troops, have not been involuntarily mobilized in the past 10 years.

Now, what does that tell us? First, it argues that we have too few Guard and Reserve Forces with the skill sets that are in high demand. We obviously, therefore, have too many Guard and Reserve Forces with skill sets that are in little or no demand.

Second, it indicates that we need to rebalance the skill sets within the Reserve components and also between the active and the Reserve components so that we have enough of the right kinds of forces available to accomplish the needed missions.

Third, it suggests that we need to focus on transforming the forces for the future, making sure we continue to increase the capability of the force, thus our ability to do more with the forces that we have. We are working to do just that.

In looking at our global force posture review, some observers had focused on the number of troops, tanks, and ships that we might add or remove from a given part of the world, Europe, Asia, or somewhere else. I would submit that that may well not be the best measure. If you have 10 of something, say ships, and you reduce the number by 5, you end up with half as many. But if you replace the remaining half with ships that have double the capability, then you have really not reduced your capability even though the numbers have been reduced.

That is true of troops. That is true of aircraft. It is true of going from dumb bombs to precision bombs. Today the Navy is reducing force levels. Yet, because of the way they are arranging themselves, they will have more combat power available than they did when they had more people. In Operation Iraqi Freedom, the Navy surged more than half of the fleet to the Persian Gulf region for the fight. With the end of the major combat operations, instead of keeping two or three carrier strike groups forward, they quickly redeployed all their carrier strike groups to home base. By doing so they reset the force in a way that will allow them to surge over 50 percent more combat power on short notice to deal with future contingencies.

The result? Today six aircraft carrier strike groups are available to respond immediately to any crisis that might confront us—all while the Navy is moderately reducing the size of its Active Force.

The Army, by contrast, has put forward a plan that, by using emergency powers, will increase force levels by about 6 percent. Because of the way he will do it, the Army estimates that they will be adding, not 6 percent, but up to 30 percent more combat power. Instead of adding more divisions, Pete Schoomaker and the acting Secretary of the Army are focusing instead on creating a 21st cen-

tury modular army made up of self-contained, more self-sustaining brigades that are available to work for any division commander.

As a result, the intention is that 75 percent of the Army's brigade structure would always be ready in the event of a crisis. The Army plans will increase the number of active and Reserve brigades significantly over the next 4 years, but because we will be using emergency powers we will have the flexibility to reduce the number of active troops if, as, and when the security situation permits.

The point is this: The focus needs to be on more than just numbers. We should be focusing on finding ways to better manage the forces we have and on increasing the speed, agility, modularity, capability, and usability of those forces. Today DOD has several dozen initiatives under way to improve management of the force and to increase its capability. We are investing in new information age technologies and less manpower-intensive platforms and technologies.

We are working to increase the jointness of our forces, taking civilian tasks currently done by uniformed personnel and converting them into civilian jobs, freeing military personnel for military tasks. We have begun consultations with allies and friends about ways to transform our global force posture to further increase our capability. We are working to rebalance the active and Reserve components, taking skills that are found almost exclusively in the Reserves and moving forces out of low-demand specialties, such as heavy artillery, and into higher demand capabilities, such as Military Police, civil affairs, and Special Operations Forces.

A number of the members of the committee have served in the Guard and Reserve. Each of us knew when we signed up that it was not simply to serve 1 weekend and 2 weeks active duty. We signed up so that if war was visited on our country we would be ready to become part of the Active Force, and on September 11 war was visited on our country.

If we were not to call up the Guard and Reserves today, then why would we have them at all? This is the purpose of the Guard and Reserve. It is what they signed up for, and, God bless them, the vast majority are eager to serve, a fact borne out by the large number of those who stepped forward and volunteered to be mobilized for service in Afghanistan and in Iraq.

Our responsibility is to do everything we can to see that they are treated respectfully, managed effectively, and that we have the tools they need to win today's wars and to deter future conflicts.

Today, because DOD has the flexibility to adjust troop levels as the security situation may require, we believe that a statutory end strength increase will take away our flexibility to manage the force. First, if the current increased demand turns out to be a spike, the Department would face a substantial cost of supporting a larger force when it may no longer be needed.

Second, if we permanently increase statutory end strength, we will have to take the cost out of the DOD top line. That will require cuts in other parts of the defense budget—crowding out investments and the programs that will allow us to manage the force better and to make it more capable.

I urge Congress not to lock us into a force size and structure that may or may not be appropriate in the period ahead. During the period of the emergency, we have all the flexibility that is required and we have been using it.

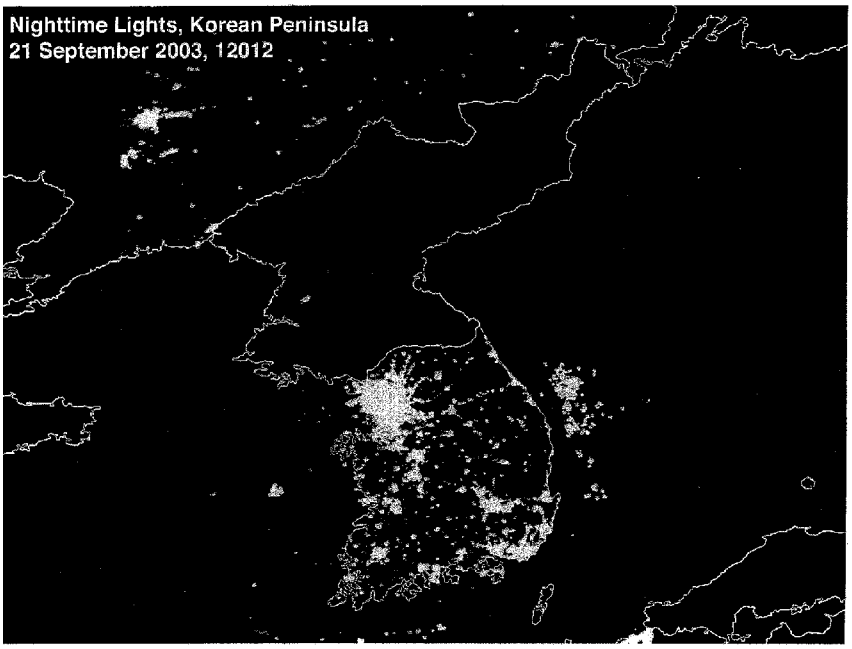
The 2005 budget before you is in a real sense a request for a second installment on funding for the transformational priorities set out in the President's 2004 request. In 2005, we have requested $29 billion for investments in transforming military capabilities. We have requested additional funds to strengthen intelligence, including critical funds to increase DOD human intelligence capabilities, persistent surveillance, as well as technical analysis and information-sharing.

We have requested $11.1 billion to support procurement of nine ships in 2005. In all, the President has requested $75 billion for procurement in 2005 and $69 billion for research, development, testing, and evaluation.

We also need your continuing support for two initiatives that are critical to the 21st century transformation, the Global Posture Review and the Base Realignment and Closure (BRAC) Commission scheduled for 2005. These are important initiatives. We need BRAC to rationalize our infrastructure and the new defense strategy and to eliminate unneeded bases and facilities that are costing the taxpayers billions of dollars to support. We need the global posture changes to help us reposition our forces around the world so that they are stationed—not where the wars of the 20th century happened to end, but rather arranged in a way that will allow them to deter and, as necessary, defeat potential adversaries who might threaten our security or that of our friends and allies in the 21st century. These two are inextricably linked.

Mr. Chairman, the President has asked Congress for $401.7 billion for fiscal year 2005. It is an enormous amount of taxpayers' hard-earned money. Such investments will likely be required for a number of years to come because our Nation is engaged in a struggle that could well go on for a number of years. Our objective is to ensure that our Armed Forces remain the best trained, best equipped fighting force in the world and that we treat the volunteers who make up the force with the respect commensurate with their sacrifice and their dedication.

Before turning to questions, let me make some comments in response to your request on the subject of intelligence and WMD and the testimony that Dr. Kay presented to this committee. During my confirmation hearing before this committee, I was asked what would keep me up at night, and I answered, "Intelligence." I said that because the challenge facing the Intelligence Community today is truly difficult. Their task is to penetrate closed societies—and you might want to put that picture of a closed society up——



—and organizations and try and learn things our adversaries do not want them to know.

That is the Korean Peninsula. The Demilitarized Zone (DMZ) is the line in the middle. South Korea, the same people as in North Korea, has light. It is a satellite photo. It has light and energy and opportunity and a vibrant, democratic system. North Korea is a dark, dark country. The little dot of light to the left in the center of North Korea is Pyongyang.

So their task is to penetrate these closed societies and organizations, to try and learn things that our adversaries do not want them to know, the Intelligence Community, often not knowing precisely what it is that we need to know, while our adversaries know precisely what it is that they do not want them to know. That is a tough assignment.

Intelligence agencies are operating in a era of surprise, when new threats can emerge suddenly, with little or no warning, as happened on September 11. It is their task to try to connect the dots before the fact, not after the fact. It is hard enough after the fact, but they are trying to connect the dots before the fact so action can be taken to protect the American people.

They have to do this in an age when the margin for error is modest, when terrorist networks and terrorist states are pursuing weapons of mass destruction and the consequences of underestimating a threat could be the loss of potentially tens of thousands of lives. The men and women in the Intelligence Community have a tough and often thankless job. If they fail the world knows it, and when they succeed, as they often do, to our country's great benefit, their accomplishments often have to remain secret.

Though we cannot discuss those successes always in open session, it would be worth the committee's time to hear of them, and I hope and trust that the Director of Central Intelligence, George Tenet, will be able to make some of those recent examples of successes—and there have been many—public so that the impression that has and is being created of broad intelligence failures can be dispelled.

I can say that the Intelligence Community's support in Afghanistan and Iraq, as well as the global war on terror overall, have contributed to the speed, the precision, and the success of those operations and saved countless lives. We are blessed that so many fine individuals have stepped forward to serve in the Intelligence Community and are willing to work under great pressure and in more than a few cases risk their lives.

They faced a difficult challenge in the case of Iraq. They knew the history of the Iraqi regime, its use of chemical weapons on its own people and its neighbors. They knew what had been discovered during the inspections after the Persian Gulf War, some of which was far more advanced, particularly the nuclear program, than the pre-Gulf War intelligence had indicated. They were keen observers of the reports of the U.N. Special Commission (UNSCOM) in the 1990s. They and others did their best to penetrate the secrets of the regime of Saddam Hussein after the inspectors left in 1998.

It was the consensus of the Intelligence Community and of successive administrations of political parties and of Congress that reviewed the same intelligence and much of the international community, I might add, that Saddam Hussein was pursuing WMD. Saddam Hussein's behavior throughout that period reinforced that conclusion. He did not behave like someone who was disarming and wanted to prove he was doing so. He did not open up his country to the world, as Kazakhstan, Ukraine, and South Africa had previously done and as Libya is doing today.

Instead, he continued to give up tens of billions of dollars in oil revenues under U.N. sanctions when he could have had the sanctions lifted and received those billions of dollars simply by demonstrating that he had disarmed if in fact he had. Why did he do this?

His regime filed with the U.N. what almost everyone agreed was a fraudulent declaration and ignored the final opportunity afforded him by U.N. Security Council Resolution 1441. Why?

Congress and the national security teams of both the Clinton and the Bush administrations looked at essentially the same intelligence. They came to similar conclusions: the Iraqi regime posed a danger and should be changed. Congress passed regime change legislation in 1998. In the end, the coalition of nations decided to enforce the U.N.'s resolutions.

Dr. David Kay served in Iraq for some 6 months directing the work of the ISG and reporting to Director Tenet. He and the ISG have worked hard under difficult and dangerous conditions. They have brought forward important information. Dr. Kay is a scientist and an extremely well experienced weapons inspector. He has outlined for the committee his hypothesis on the difference between prewar estimates of Iraq's WMD and what has been found thus far on the ground.

While it is too early to come to final conclusions, as he indicated, given the work that is still to be done, there are several alternative views that are currently being postulated. First is the theory that WMD may not have existed at the start of the war. I suppose that is possible but not likely.

Second is that it is possible that WMD did exist but was transferred in whole or in part to one or more other countries. We see that theory put forward.

Third, it is possible that the WMD existed but was dispersed and hidden throughout Iraq. We see that possibility proposed by various people.

Next, that it is possible that WMD existed but was destroyed at some moment prior to the end—the beginning of the conflict—or that it is possible that Iraq had small quantities of biological or chemical agents and also a surge capability for rapid buildup and that we may eventually find it in the months ahead.

Or, finally, there is the theory that some have put forward that it could have been a charade by the Iraqis, that Saddam Hussein fooled his neighbors and fooled the world; or that Saddam Hussein fooled the members of his own regime; or that the idea that Saddam Hussein himself might have been fooled by his own people, who may have tricked him into believing that he had capabilities that Iraq really did not have.

These are all theories that are being put forward today. This much has been confirmed: The Intelligence Community got it essentially right on Iraq's missile programs. Iraq was exceeding the U.N.-imposed missile range limits and documents found by the ISG show evidence of high-level negotiations between Iraq and North Korea for the transfer of still longer-range missile technology. If we were to accept that Iraq had a surge capability for biological and chemical weapons, his missiles could have been armed with WMD and used to threaten neighboring countries.

It is the job of Dr. Kay's successor, as the chairman indicated, and the ISG to pursue these issues wherever the facts may take them. It is a difficult task. Think, it took us 10 months to find Saddam Hussein. The reality is that the hole he was found hiding in was large enough to hold enough biological weapons to kill thousands of human beings. Our people had gone past that farm several times—had no idea he was there. Unlike Saddam Hussein, such objects, once buried, can stay buried. In a country the size of California, the chances of inspectors finding something buried in the ground without their being led to it by people knowledgeable about where it was are minimal.

As Dr. Kay has testified, what we have learned thus far has not proven Saddam Hussein had what intelligence indicated and what we believed he had. But it also has not proven the opposite.

The ISG's work is some distance from completion. There are some 1,300 people in the ISG in Iraq working hard to find ground truth. When that work is complete, we will know more. Whatever the final outcome, it is important that we seize the opportunity to derive lessons learned to inform future decisions. In the DOD, the Joint Forces Command has done an extensive review of Operation Iraqi Freedom. The Intelligence Community is also looking at lessons learned. It is doing it under the leadership of Director Tenet

with Dr. Kerr. It is being done in other elements of the community as well.

It is important also that we step back and take a look at the bigger picture and see that U.S. intelligence capabilities are strengthened sufficiently to meet the threats and challenges of this century. The President has announced that he will be forming a bipartisan commission on strengthening U.S. intelligence capabilities. The commission will review the past successes of the Intelligence Community as well as the cases that have not been successes, to examine whether the Intelligence Community has the right skills, the proper resources, and the appropriate authorities to meet the challenges and the threats of the 21st century.

Intelligence will never be perfect. We do not, will not, and cannot know everything that is going on in this world of ours. If at this important moment we mistake intelligence for irrefutable evidence, analysts might become hesitant to inform policymakers of what they think they know and what they know that they do not know, and even what they think. Policymakers bereft of intelligence will find themselves much less able to make prudential judgments, the judgments necessary to protect our country.

I am convinced that the President of the United States did the right thing in Iraq, let there be no doubt. I came to my conclusions based on the intelligence we all saw, just as each of you made your judgments and cast your votes based on the same information. The President has sworn to preserve, protect and defend the Nation. With respect to Iraq, he took the available evidence into account; he took into account September 11; he took into account Saddam Hussein's behavior of deception; he took into account Iraq's ongoing defiance of the U.N. and the fact that he was still shooting at U.S. and U.K. aircraft and the crews that were enforcing U.N. resolutions in northern and southern no-fly zones; and he took into account the fact that this was a vicious regime that had used WMD against its own people and its neighbors and murdered and tortured the Iraqi people for decades.

The President went to the U.N. and the Security Council and passed a seventeenth resolution, and he came here to this Congress and, based on the same intelligence, you voted to support military action if the Iraqi regime failed to take that final opportunity to cooperate with the U.N.

When Saddam Hussein did pass up that final opportunity, the President nonetheless gave him an ultimatum, a final final opportunity to leave the country. Only then, when all alternatives had been fully exhausted, did the coalition act to liberate Iraq. Ours is a safer world today, and the Iraqi people are far better off for that action.

Senator Warner asked in his opening statement if I know of any pressure on intelligence people or manipulation of intelligence, and the answer is absolutely not. I believe that Senator Roberts has attested to that from the analysts and witnesses that he and his committee have interrogated over a period of many months. I believe that Dr. Kay answered exactly the same way—that he talked to analyst after analyst and no manipulation of the data and no indication of anyone expressing concern about pressure.

I thank you, Mr. Chairman, and I would be happy to turn it over to General Pete Pace.

[The prepared statement of Secretary Rumsfeld follows:]

PREPARED STATEMENT BY HON. DONALD H. RUMSFELD

INTRODUCTION

Mr. Chairman, members of the committee, I am pleased to be here today to discuss the progress in the global war on terrorism, our transformation efforts, and to discuss the President's 2005 budget request for the Department of Defense.

First, I want to commend the courageous men and women in uniform and the Department civilians who support them. They are remarkable—and what they have accomplished since our country was attacked 28 months ago is truly impressive. In less than 2½ years, they have:

- Overthrown two terrorist regimes, rescued two nations, and liberated some 50 million people;
- Captured or killed 45 of the 55 most wanted in Iraq—including Iraq's deposed dictator, Saddam Hussein;
- Hunted down thousands of terrorists and regime remnants in Iraq and Afghanistan;
- Captured or killed close to two-thirds of known senior al Qaeda operatives;
- Disrupted terrorist cells on most continents; and
- Likely prevented a number of planned terrorist attacks.

Our forces are steadfast and determined. We value their service and sacrifice, and the sacrifice of their families, who also serve.

We thank the members of this committee for the support you have shown for the troops during the global war on terror. With your support, we have the finest Armed Forces on the face of the Earth.

We have a common challenge: to support the troops and to make sure they have what they will need to defend the Nation in the years ahead.

We are working to do that in a number of ways:

- By giving them the tools they need to win the global war on terror;
- By transforming for the 21st century, so they will have the training and tools they need to prevail in the next wars our Nation may have to fight—wars which could be notably different from today's challenges; and
- By working to ensure that we manage the force properly—so we can continue to attract and retain the best and brightest, and sustain the quality of the All-Volunteer Force.

Each represents a significant challenge in its own right. Yet we must accomplish all of these critical tasks at once.

When this administration took office 3 years ago, the President charged us with a mission—to challenge the status quo, and prepare the Department of Defense to meet the new threats our Nation will face as the 21st century unfolds.

We have done a good deal to meet that charge. Consider just some of what has been accomplished:

- We have fashioned a new defense strategy, a new force sizing construct, and a new approach to balancing risks—one that takes into account not just the risks in immediate war plans, but also the risks to people and transformation.
- We have moved from a "threat-based" to a "capabilities-based" approach to defense planning, focusing not only on who might threaten us, or where, or when—but more on how we might be threatened, and what portfolio of capabilities we will need to deter and defend against those new threats.
- We have fashioned a new Unified Command Plan, with
  - A new Northern Command, that became fully operational last September, to better defend the homeland;
  - The Joint Forces Command focused on transformation; and
  - A new Strategic Command responsible for early warning of, and defense against, missile attack and the conduct of long-range attacks.
- We have also transformed the Special Operations Command, expanding its capabilities and its missions, so that it can not only support missions directed by the regional combatant commanders, but also plan and execute its own missions in the global war on terror, supported by other combatant commands.

• We have taken critical steps to attract and retain talent in our Armed Forces—including targeted pay raises and quality of life improvements for the troops and their families.
• We have instituted realistic budgeting, so the Department now looks to emergency supplementals for the unknown costs of fighting wars, not to sustain readiness.
• We have reorganized the Department to better focus our space activities.
• Congress has established a new Under Secretary of Defense for Intelligence and an Assistant Secretary of Defense for Homeland Defense.
• We have completed the Nuclear Posture Review, and adopted a new approach to deterrence that will enhance our security, while permitting historic deep reductions in offensive nuclear weapons.
• We have pursued a new approach to developing military capabilities. Instead of developing a picture of the perfect system and then building the system to meet that vision of perfection, however long it takes or costs, the new approach is to start with the basics, roll out early models faster, and then add capabilities to the basic system as they become available.
• We have reorganized and revitalized the missile defense research, development, and testing program, and are on track to begin deployment of our Nation's first rudimentary ballistic missile defenses later this year.
• We have established new strategic relationships, that would have been unimaginable just a decade ago, with nations in Central Asia, the Caucasus, and other critical areas of the world.
• We have transformed the way the Department prepares its war plans—reducing the time it takes to develop those plans, increasing the frequency with which they are updated, and structuring our plans to be flexible and adaptable to changes in the security environment.
• We adopted a new "Lessons Learned" approach during Operation Iraqi Freedom, embedding a team with U.S. Central Command that not only studied lessons for future military campaigns, but provided real-time feedback that had an immediate impact on our success in Iraq.
• We made a number of key program decisions that are already having a favorable impact on the capability of the force. Among others:

  • We are converting four Trident nuclear-powered ballistic missile submarines (SSBN) into conventional nuclear-powered cruise missile attack submarines (SSGN) capable of delivering special forces and cruise missiles into denied areas.
  • The Army has deployed its first Stryker brigade to Iraq, is completing conversion of the second, and is replacing the Crusader with a new family of precision artillery that is being developed for the Future Combat System.
  • We have revitalized the B–1 bomber fleet by reducing its size and using the savings to modernize the remaining aircraft with precision weapons and other critical upgrades.

• We have also undertaken a comprehensive review of our global force posture, so we can transform U.S. global capabilities from a structure driven by where the wars of the 20th century ended, to one that positions us to deal with the new threats of the 21st century security environment.
• Using authority granted to us last year, we have established a new Joint National Training Capability, that will help us push joint operational concepts throughout the Department, so our forces train and prepare for war the way they will fight it—jointly.
• We have worked with our Allies to bring NATO into the 21st century—standing up a new NATO Response Force that can deploy in days and weeks instead of months or years, and transforming the NATO Command Structure—including the creation of a new NATO command to drive Alliance transformation.
• With the help of Congress last year, we are now establishing a new National Security Personnel System that should help us better manage our 746,000 civilian employees, and we are using the new authorities granted us last year to preserve military training ranges while keeping our commitment to responsible stewardship of the environment.

The scope and scale of what has been accomplished is remarkable. It will have an impact on the capability of our Armed Forces for many years to come.

We will need your continued support as we go into the critical year ahead.

Our challenge is to build on these successes, and continue the transformation efforts that are now underway. In 2004, our objectives are to:

• Successfully prosecute the global war on terror;
• Further strengthen our combined and joint warfighting capabilities;

- Continue transforming the joint force, making it lighter, more agile and more easily deployable, and instilling a culture that rewards innovation and intelligent risk-taking;
- Strengthen our intelligence capabilities, and refocus our intelligence efforts to support the new defense strategy and our contingency plans;
- Reverse the existing WMD capabilities of unfriendly states and non-state actors, and stop the global spread of WMD;
- Improve our management of the force;
- Refocus our overseas presence, further strengthen key alliances, and improve our security cooperation with nations that are likely partners in future contingencies;
- Continue improving and refining DOD's role in homeland security and homeland defense; and
- Further streamline DOD processes, continuing financial management reform, and shortening acquisition cycle times.

So, we have an ambitious agenda. But none of these tasks can be put off.

Our task is to prepare now for the tomorrow's challenges, even as we fight today's war on terror.

MANAGING THE FORCE

One effect of the global war on terror has been a significant increase in operational tempo, which has resulted in an increased demand on the force. Managing the demand on the force is one of our top priorities. But to do so, we must be clear about the problem—so we can work together to fashion the appropriate solutions.

The increased demand on the force we are experiencing today is likely a "spike," driven by the deployment of nearly 115,000 troops in Iraq. We hope and anticipate that that spike will be temporary. We do not expect to have 115,000 troops permanently deployed in any one campaign.

But for the moment, the increased demand is real—and we are taking a number of immediate actions. Among other things:

- We are increasing international military participation in Iraq.
  - As the President noted in his State of the Union address, 34 countries now have forces deployed in Iraq with U.S. forces and Iraqi security forces.
  - Japan began deploying its Self-Defense Forces to Iraq last month—the first time Japanese forces have been deployed outside their country since the end of World War II.
- As more international forces deploy, we have accelerated the training of Iraqi security forces—now more than 200,000-strong—to hasten the day when the Iraqis themselves will be able to take responsibility for the security and stability of their country, and all foreign forces can leave.
- As we increase Iraq's capability to defend itself, our forces are dealing aggressively with the threat—hunting down those who threaten Iraq's stability and transition to self-reliance.

Another way to deal with the increased demand on the force is to add more people. We have already done so. Using the special powers granted by Congress, we have increased force levels by nearly 33,000 above the pre-emergency authorized end strength.

- The Army is up roughly 7,800 above authorized end strength;
- The Navy is up roughly 6,000;
- The Marine Corps is up some 2,000, and
- The Air Force is up about 17,000.

If the war on terror demands it, we will not hesitate to increase force levels even more using our emergency authorities. Because we are using emergency powers, we have the flexibility to reduce force levels in the period ahead, as the security situation permits, and as our transformation efficiencies bear fruit.

But it should give us pause that even a temporary increase in our force levels was, and remains, necessary. Think about it: At this moment we have a force of 2.6 million people, both active and Reserve:

- 1.4 million Active Forces,
- 876,000 in the Selected Reserve—that is the Guard and Reserve Forces in units; and
- An additional 287,000 in the Individual Ready Reserves.

Yet, despite these large numbers, the deployment of 115,000 troops in Iraq has required that we temporarily increase the size of the force by some 33,000.

That should tell us a great deal about how our forces are organized.

It suggests strongly that the real problem is not the size of the force, per se, but rather the way the force has been managed, and the mix of capabilities at our disposal. It suggests that our challenge is considerably more complex than simply adding more troops.

General Pete Schoomaker, the Army Chief of Staff, compares the problem to a barrel of rainwater, on which the spigot is placed too high up. When you turn it on, it only draws water off the top, while the water at the bottom can't be used. The answer to this problem is most certainly not a bigger rain barrel; the answer is to move the spigot down, so that more of the water is accessible and can be used.

In other words, our challenge today is not simply one of increasing the size of the force. Rather, we must better manage the force we have—to make sure we have enough people in the right skill sets and so that we take full advantage of the skills and talents of everyone who steps forward and volunteers to serve.

Consider another example: I keep hearing people talk about the stress on the Guard and Reserve—that we can't keep calling them up for repeated mobilizations. Well the fact is, since September 11, 2001, we have mobilized roughly 36 percent of the Selected Reserve—a little over one-third of the available forces—and most of those mobilizations are concentrated in certain skill sets. For example:

- We have called up 86 percent of enlisted installation security forces
- 69 percent of enlisted law enforcement forces
- 67 percent of enlisted air crews
- 65 percent of enlisted special forces
- 56 percent of civil affairs officers
- 51 percent of military police officers
- 48 percent of intelligence officers

But, while certain skills are in demand, only a tiny fraction of the Guard and Reserve—just 7.15 percent—have been called up more than once since 1990. The vast majority of our Guard and Reserve Forces—over 60 percent—have not been mobilized to fight the global war on terror. Indeed, I am told that a full 58 percent of the current Selected Reserve—or about 500,000 troops—have not been involuntarily mobilized in the past 10 years.

What does that tell us?

- First, it argues that we have too few Guard and Reserve Forces with certain skill sets that are high demand and too many Guard and Reserve with skills that are in little or no demand.
- Second, it indicates that we need to rebalance the skill sets within the Reserve component, and between the active and Reserve components, so we have enough of the right kinds of forces available to accomplish our missions.
- Third, it suggests that we need to do a far better job of managing the force. That requires that we focus not just on the number of troops available today—though that is important—but on transforming the forces for the future, making sure we continue to increase the capability of the force, and thus our ability to do more with fewer forces.

We are working to do just that.

MASS VS. CAPABILITY

One thing we have learned in the global war on terror is that, in the 21st century, what is critical to success in military conflict is not necessarily mass as much as it is capability.

In Operation Iraqi Freedom, coalition forces defeated a larger adversary. They did it not by bringing more troops to the fight, which we could have done, but by overmatching the enemy with superior speed, power, precision and agility.

To win the wars of the 21st century, the task is to make certain our forces are arranged in a way to ensure we can defeat any adversary, and conduct all of the operations necessary to achieve our strategic objectives.

In looking at our global force posture review, some observers have focused on the number of troops, tanks, or ships that we might add or remove in a given part of the world. I would submit that that may well not be the best measure.

If you have 10 of something—say ships, for the sake of argument—and you reduce the number by 5, you end up with 50 percent fewer of them. But if you replace the remaining five ships with ships that have double the capability of those removed, then obviously you have not reduced capability even though the numbers have been reduced.

The same is true as we look at the overall size of the force. What is critical is the capability of the Armed Forces to project power quickly, precisely, and effectively anywhere in the world.

For example, today the Navy is reducing force levels. Yet because of the way they are arranging themselves, they will have more combat power available than they did when they had more people.

In Operation Iraqi Freedom, the Navy surged more than half the fleet to the Persian Gulf region for the fight. With the end of major combat operations, instead of keeping two or three carrier strike groups forward deployed, as has been traditional Navy practice, they quickly redeployed all their carrier strike groups to home base. By doing so, they reset their force in a way that will allow them to surge over 50 percent more combat power on short notice to deal with future contingencies.

The result? Today, six aircraft carrier strike groups are available to respond immediately to any crisis that might confront us. That capability, coupled with the application of new technologies, gives the Navy growing combat power and greater flexibility to deal with global crises—all while the Navy is moderately reducing the size of its Active Force.

The Army, by contrast, has put forward a plan that, by using emergency powers, will increase the size of its Active Force by roughly 6 percent or up to 30,000 troops above authorized end strength. But because of the way they will do it, General Schoomaker estimates the Army will be adding not 6 percent, but up to 30 percent more combat power.

This is possible because, instead of adding more divisions, the Army is moving away from the Napoleonic division structure designed in the 19th century, focusing instead on creating a 21st century "Modular Army" made up of self-contained, more self-sustaining brigades that are available to work for any division commander.

So, for example, in the event of a crisis, the 4th Infantry Division commander could gather two of his own brigades, and combine them with available brigades from, say, the 1st Armored Division and the National Guard, and deploy them together. The result of this approach is jointness within the Service, as well as between the Services. That jointness—combined with other measures—means that 75 percent of the Army's brigade structure should always be ready in the event of a crisis.

The Army's plan would increase the number of active and Reserve brigades significantly over the next 4 years. But because we will be using emergency powers, we will have the flexibility to reduce the number of troops if the security situation permits—so the Army would not be faced with the substantial cost of supporting a larger force as the security situation and the efficiencies permit.

Yet even if the security situation, and our progress in transformation, were to permit the Army to draw down the force, the new way they are arranging their forces will ensure the U.S. still has more ground combat power—more capability.

So we have two different approaches:

- In one case, the Navy is reducing force levels while increasing capability;
- In the other, the Army is increasing troop levels—but doing so in a way that will significantly increase its capability.
- In both cases, the increase in capability of each Service will be significant.

The point is: our focus needs to be on more than just numbers of troops. It should be on finding ways to better manage the forces we have, and by increasing the speed, agility, modularity, capability, and usability of those forces.

DOD INITIATIVES

Today, using authorities and flexibility Congress has provided, DOD has several dozen initiatives underway to improve management of the force, and increase its capability.

Among other things:

- We are investing in new information age technologies, precision weapons, unmanned air and sea vehicles, and other less manpower-intensive platforms and technologies.
- We are working to increase the jointness of our forces, creating power that exceeds the sum of individual services.
- We are using new flexibility under the Defense Transformation Act to take civilian tasks currently done by uniformed personnel and convert them into civilian jobs—freeing military personnel for military tasks.
- This year, we will begin to move 10,000 military personnel out of civilian tasks and return them to the operational force—effectively increasing force

levels by an additional 10,000 service members in 2004. An additional 10,000 conversions are planned for 2005.

• We have begun consultations with allies and friends about ways to transform our global force posture to further increase capability.

We are also working to rebalance the active and Reserve components. We are taking skills that are now found almost exclusively in Reserve components and moving them into the Active Force, so that we are not completely reliant on the Guard and Reserve for those needed skills. In both the active and Reserve components, we are moving forces out of low demand specialties, such as heavy artillery, and into high-demand capabilities such as military police, civil affairs, and Special Operations Forces.

Already, in 2003, the Services have rebalanced some 10,000 positions within and between the active and Reserve components. For example, the Army is already transforming 18 Reserve field artillery batteries into military police. We intend to expand those efforts this year, with the Services rebalancing an additional 20,000 positions in 2004, and 20,000 more in 2005—for a total of 50,000 rebalanced positions by the end of next year.

We are also working to establish a new approach to military force management called "Continuum of Service." The idea is to create a bridge between the active and Reserve components—allowing both Active and Reserve Forces greater flexibility to move back and forth between full-time and part-time status, and facilitating different levels of participation along that continuum.

Under this approach, a reservist who normally trains 38 days a year could volunteer to move to full-time service for a period of time—or some increased level of service between full-time and his normal Reserve commitment, offering options for expanded service that do not require abandoning civilian life. Similarly, an active service member could request transfer into the Reserve component for a period of time, or some status in between, without jeopardizing his or her career and opportunity for promotion. It would give military retirees with needed skills an opportunity to return to the Service on a flexible basis—and create opportunities for others with specialized skills to serve, so we can take advantage of their experience when the country needs it.

For example, coalition forces in Iraq need skilled linguists—so under the Continuum of Service approach we have recruited 164 Iraqi-Americans into a special Individual Ready Reserve program, and expect to deploy the first program graduates to Iraq this spring.

The "Continuum of Service" would allow the Armed Forces to better take advantage of the high-tech skills many reservists have developed by virtue of their private sector experience—while at the same time creating opportunities for those in the Active Force to acquire those kinds of skills and experiences. It encourages volunteerism and improves our capability to manage the military workforce in a flexible manner with options that currently exist only in the private sector.

We have also been working to fix the mobilization process. We have worked hard over the past year to add more refined planning tools to the process, and make it more respectful of the troops, their families, and their employers. Among other things:

• We have tried to provide earlier notifications, giving troops as much notice as possible before they are mobilized, so they can prepare and arrange their lives before being called up;

• We have worked to ensure that when they are called up, it is for something important and needed—and not to replace someone in a task that could wait until a contingency is over;

• We've tried to ensure that the number of people who have been recently mobilized is as small as possible, and that as many of the forces as possible that are remobilized or extended are volunteers;

• We have tried to limit tours, and give the troops some certainty about the maximum length of their mobilization and when they can expect to resume civilian life. We are doing better, but in my opinion, the process is still not good enough.

We are working each day to make the process better, and more respectful of the brave men and women who make up the Guard and Reserve.

As you can see, we have a number of initiatives underway that we are confident will improve the management and treatment of the Guard and Reserve Forces.

The men and women who make up the Guard and Reserve are all volunteers. They signed up because they love their country, and want to serve when the country needs them.

A number of you on this committee have served in the Guard and Reserve, as have I. Each of us knew when we signed up, it was not to serve 1 weekend a month and 2 weeks active duty. We signed up so that if war was visited upon our country, we would be ready to leave our work and family, and become part of the Active-Duty Force.

Well, on September 11, war was visited on our country. Our nation was attacked—more than 3,000 innocent men, women, and children were killed in an instant. At this moment, in caves and underground bunkers half-a-world away, dangerous adversaries are planning new attacks—attacks they hope will be even more deadly than the one on September 11.

We are a nation at war. If we were not to call up the Guard and Reserves today, then why would we want to have them at all? Why were we asking them to sacrifice time with their families every month to train? Why are the taxpayers paying for postservice benefits, including healthcare and retirement pay, that add up to between $250,000 and $500,000 per reservist?

This is the purpose of the Guard and Reserve. It is what they signed up for. I know that the vast majority are eager to be in the fight—a fact born out by the large number of those who stepped forward and volunteered to be mobilized for service in Iraq.

Our challenge—our responsibility—is to do everything we can to see that they are treated respectfully, managed effectively, and that they have the tools they need to win today's war, and to deter future wars.

We are working to do just that—to better manage the force, and to transform the force to make it more capable for the 21st century.

Today, with authority granted by Congress, DOD has the flexibility to adjust troop levels, as the security situation requires.

- We have authority to increase or decrease, as need arises.
- We are using that authority; and
- We are working on a number of new initiatives that will allow us to better manage and transform the force.

However, we believe that a statutory end strength increase would take away our current flexibility to manage the force:

- First, if the current increased demand turns out to be a spike and if we are successful in the transformation and rebalancing initiatives underway, the Department would face the substantial cost of supporting a larger force when it may no longer be needed—pay and benefits, such as lifetime healthcare, for each service member added, not to mention the additional costs in equipment, facilities, and force protection.
- Second, if we permanently increase statutory end strength, instead of using the already available emergency powers, we will have to take the cost out of our top line. That will require cuts in other parts of the defense budget—crowding out investments in the very programs that will allow us to manage the force and make it more capable.

None of us has a crystal ball to see into the future. You have given us the authority to adjust the size of the force and the flexibility to deal with unknowns. We have been using that authority over the past 2-plus years, even as we work to implement comprehensive measures to better manage the force. I urge Congress to not lock us into a force size and structure that may or may not be appropriate in the period ahead.

Instead, help us to support the Armed Services with the transformational initiatives they now have underway; help us rebalance the Active and Reserve Force, and give the troops more options to contribute along an expanded continuum of service; help us add capability, and transform the force for the future.

2005 BUDGET

The President's 2005 budget requests the funds to do just that.

The President's first defense budgets were designed while our defense strategy review was still taking place. It was last year's budget—the 2004 request—that was the first to fully reflect the new defense strategies and policies.

One of the key budget reforms we implemented last year is the establishment of a 2-year budgeting process in the Department of Defense—so that the hundreds of people who invest time and energy to rebuild major programs every year can be freed up and not be required to do so on an annual basis, and can focus more effectively on implementation.

The 2005 budget before you is, in a real sense, a request for the second installment of funding for the priorities set out in the President's 2004 request.

We did not rebuild every program. We made changes to just 5 percent of the Department's planned 2005 budget, and then only on high-interest and must-fix issues—and then only when the costs incurred to mitigate risks could be matched by savings elsewhere in the budget.

The President's 2005 budget requests continued investments to support the six transformational goals we identified in our 2001 defense review:

- First, we must be able to defend the U.S. homeland and bases of operation overseas;
- Second, we must be able to project and sustain forces in distant theaters;
- Third, we must be able to deny enemies sanctuary;
- Fourth, we must improve our space capabilities and maintain unhindered access to space;
- Fifth, we must harness our advantages in information technology to link up different kinds of U.S. forces, so they can fight jointly; and
- Sixth, we must be able to protect U.S. information networks from attack—and to disable the information networks of our adversaries.

In all, in 2005, we have requested $29 billion for investments in transforming military capabilities that will support each of these critical objectives.

The President's 2005 budget requests $10.3 billion for missile defense, including:

- $9.2 billion for the Missile Defense Agency—an increase of $1.5 billion above the President's 2004 request; and
- $1 billion for Patriot Advanced Capability–3, the Medium Extended Air Defense System, and other short and medium range capabilities;

The budget also includes $239 million in funding for accelerated development of Cruise Missile Defense, with the goal of fielding an initial capability in 2008;

The 2005 budget request includes critical funds for Army Transformation, including:

- $3.2 billion to support continued development of the Future Combat Systems—an increase of $1.5 billion over the 2004 budget; and
- $1.0 billion to fund continued deployment of the new Stryker Brigade Combat Teams, such as the one now serving in Iraq.

We have also requested additional funds to strengthen intelligence, including critical funds to increase DOD Human Intelligence (HUMINT) capabilities, persistent surveillance, as well as technical analysis and information sharing to help us better "connect the dots."

To enhance our communications and intelligence activities, we are requesting:

- $408 million to continue development of the Space Based Radar (SBR)—which will bring potent and transformational capabilities to joint warfighting—the ability to monitor both fixed and mobile targets, deep behind enemy lines and over denied areas, in any kind of weather. SBR is the only system that can provide such capability.
- $775 million for the Transformational Communications Satellite (TSAT) which will provide the joint warfighter with unprecedented communication capability. To give you an idea of the speed and situational awareness the TSAT will provide, consider that transmitting a Global Hawk image over a current Milstar II, as we do today, takes over 12 minutes with TSAT it will take less than a second.
- $600 million for the Joint Tactical Radio System, to provide wireless internet capability to enable information exchange among joint warfighters.

The budget also requests $700 million for Joint Unmanned Combat Air Systems (J–UCAS)—a program that consolidates all the various unmanned combat air vehicle programs, and focuses on developing a common operating system.

The budget requests $14.1 billion for major tactical aircraft programs, including:

- $4.6 billion for the restructured Joint Strike Fighter (JSF) program;
- $4.7 billion to continue procurement of the F/A–22;
- $3.1 billion to continue procurement of the F/A–18E/F; and
- $1.7 billion to support development and procurement of 11 V–22 aircraft.

The budget requests funds for Navy fleet transformation, including $1 billion to continue funding the new CVN–21 aircraft carrier, and $1.6 billion to continue development of a family of 21st century surface combatants including the DDX destroyer, the littoral combat ship, and the CG(X) cruiser.

We have requested $11.1 billion to support procurement of 9 ships in 2005. Fiscal year 2005 begins a period of transition and transformation for shipbuilding as the last DDG 51 destroyers are built, and the first DD(X) destroyer and Littoral Combat Ship are procured. This increased commitment is further shown in the average ship-

building rate for fiscal years 2005–2009 of 9.6 ships per year. This will sustain the current force level and significantly add to Navy capabilities.

In all, the President has requested $75 billion for procurement in 2005 and $69 billion for Research, Development, Testing and Evaluation—funds that are vital to our transformation efforts.

Another area critical to transformation is joint training. Last year, Congress approved funding to establish a new Joint National Training Capability (JNTC), an important initiative that will fundamentally change the way our Armed Forces train for 21st century combat.

We saw the power of joint warfighting in Operation Iraqi Freedom. Our challenge is to bring that kind of joint warfighting experience to the rest of the forces, through both live and virtual joint training and exercises. Thanks to the funds authorized in the 2004 budget, the JNTC's initial operating capability is scheduled to come online in October of this year. We have requested $191 million to continue and expand the JNTC in 2005.

With your help, we have put a stop to the past practice of raiding investment accounts to pay for the immediate operation and maintenance needs. The 2005 request continues that practice. We have requested full funding for the military's readiness accounts, providing $140.6 billion for Operation and Maintenance (O&M) including $43 billion for training and operations. These funds are critical to transformation because they allow us to pay today's urgent bills without robbing the future to do so.

We have also requested funds to support pay and quality of life improvements for the troops—including a 3.5 percent military base pay raise. We have requested funds in the 2005 budget that will also help the Department keep its commitment to eliminate 90 percent of inadequate military family housing units by 2007, with complete elimination projected for 2009. We have requested funds to complete the elimination of out-of-pocket housing costs for military personnel living in private housing. Before 2001, the average service member had to absorb over 18 percent of these costs. By the end of fiscal year 2005, it will be zero. These investments are important to the troops, and also to their families, who also serve—and deserve to live in decent and affordable housing.

I am also appointing a commission to conduct a comprehensive review of military compensation and benefits, with a view toward simplifying and improving them. Today, we have too many pay categories that serve overlapping purposes, or provide incentives where they are most needed. Before making major changes, I urge you to allow the Department to first develop a comprehensive and integrated set of compensation proposals, which we will submit to you next year.

We are also making progress in getting our facilities replacement and recapitalization rate in proper alignment. When we arrived in 2001, the Department was replacing its buildings at a totally unacceptable average of once every 192 years. Today, we have moved the rate down for the third straight year, though it is still too high—to an average of 107 years. The 2005 budget requests $4.3 billion for facilities recapitalization, keeping us on track toward reaching our target rate of 67 years by 2008. We have funded 95 percent of facilities maintenance requirements—up from 93 percent in fiscal year 2004.

The budget also supports our continuing efforts to transform the way DOD does business. With the passage of the Defense Transformation Act last year, we now have the needed authority to establish a new National Security Personnel System, so we can better manage DOD's civilian personnel. Initial implementation will begin this year, and cover roughly 300,000 of DOD's 746,000 civilian employees.

Yet, while progress has been made, the Defense Department still remains bogged down by bureaucratic processes of the industrial age, not the information age. We are working to change that. To help us do so, we have requested funds for a Business Management Modernization Program that will help us overhaul DOD management processes and the information technology systems that support them.

We have also requested that Congress nearly double the Department's General Transfer Authority, from the current limit of $2.1 billion to $4 billion, or roughly 1 percent of the DOD budget. In an age when terrorists move information at the speed of an email, money at the speed of a wire transfer, and people at the speed of a commercial jetliner, it is critical that we have the ability to shift funds between priorities.

We also need your continuing support for two initiatives that are critical to 21st century transformation: the Global Posture Review, and the Base Realignment and Closure (BRAC) Commission round scheduled for 2005.

Mr. Chairman, I cannot overemphasize the importance of proceeding with both of these initiatives.

We need BRAC to rationalize our infrastructure with the new defense strategy, and to eliminate unneeded bases and facilities that are costing the taxpayers billions of dollars to support.

We need the Global Posture Review to help us reposition our forces around the world—so they are stationed not simply where the wars of the 20th century ended, but rather are arranged in a way that will allow them to deter, and as necessary, defeat potential adversaries who might threaten our security, or that of our friends and allies, in the 21st century.

These two efforts are inextricably linked.

It is critical that we move forward with both BRAC and the Global Posture Review—so we can rationalize our foreign and domestic force posture. We appreciate Congress' decision to authorize a BRAC round in 2005—and will continue to consult with you as we proceed with the Global Posture Review.

CONCLUSION

Mr. Chairman, the President has asked Congress for a total of $401.7 billion for fiscal year 2005—an increase over last year's budget. Let there be no doubt: it is a large amount of the taxpayer's hard-earned money. Such investments will likely be required for a number of years to come because our Nation is engaged in a struggle that could well go on for a number of years to come.

Our objective is to ensure that our Armed Forces remain the best trained, best equipped fighting force in the world—and that we treat the volunteers who make up the force with respect commensurate with their service, their sacrifice, and their dedication.

Their task is not easy: they must fight and win a global war on terror that is different from any our Nation as fought before. They must do it, while at the same time preparing to fight the wars of 2010 and beyond—wars which may be as different from today's conflict, as the global war on terror is from the conflicts of the 20th century.

So much is at stake.

Opportunity and prosperity are not possible without the security and stability that our Armed Forces provide.

The United States can afford whatever is necessary to provide for the security of our people and stability in the world. We can continue to live as free people because the industriousness and ingenuity of the American people have provided the resources to build the most powerful and capable Armed Forces in human history—and because we have been blessed with the finest young men and women in uniform—volunteers all—that the world has known.

They are courageous; they are selfless; and they are determined. They stand between this nation and our adversaries, those who wish to visit still further violence on our cities, our homes and our places of work. The men and women of the Armed Forces are hunting the enemies of freedom down—capturing or killing them in the far corners of the world, so they will not kill still more innocent men, women, and children here at home.

We are grateful to them and proud of them. We stand ready to work with you to ensure they are treated with the dignity they deserve, and the respect they earn every day.

Thank you, Mr. Chairman. I'd be pleased to respond to questions.

Chairman WARNER. Thank you, Mr. Secretary. That was a very strong, informative, and forthright statement, and I commend you for it.

General PACE. Mr. Chairman, members of the committee: Thank you very much for this opportunity, and thank you, Mr. Chairman, for your words of condolence to General Myers and his family. I know they deeply appreciate that.

General Myers did write a written statement for submission to this committee, and I would ask that his statement be accepted.

Chairman WARNER. Without objection, the statement of all witnesses today will be incorporated in entirety in the record.

General PACE. Thank you, sir.

Sir, I will keep my remarks short, but I would be remiss if I did not say a couple of things. First, thank you to this committee and to Congress for your strong, sustained, bipartisan support of the

military. I would like to dwell on that for a second. This is not a pro forma statement. You said in your statement, Mr. Chairman, that we have the best trained, best equipped, most capable Armed Forces in the world. We have that because of the resources that Congress provides, and we deeply appreciate it.

Second, a thank-you to the service men and women who serve our country. They are magnificent. They are doing everything we are asking them to do, and we are very proud of what they are doing.

Next, their families who serve at home, whose sacrifices at home are often as equal to or greater than the servicemen and women that they are providing support to overseas—we owe a great debt of gratitude as a Nation to their families.

We also should thank the employers of our National Guard and Reserve. We could not do what we are doing without the skills of our Guard and Reserve. They are quality people, and because they are quality people, there is no doubt in my mind that there are businesses around the United States that have gaps of quality in them because their reservist or their guardsman is away from home. We deeply appreciate the employers' support of those members so they can help protect our country.

We are a Nation at war, but we are not alone. We have invaluable coalition partners, and, together with those coalition partners, we will protect our homelands and we will defeat terrorism.

This will be a long and difficult fight, but it is a fight worthy of the extraordinary efforts of your soldiers, sailors, airmen, marines, and coast guardsmen. When you visit them—and many of you have and we thank you for that—you look them in the eye. You know they get it. They understand what is at stake. They are proud of what they are doing. They know that their good works do not always make the evening news, but they also know that the roads, the hospitals, schools, electric grids, power plants, all the things that they are doing to help restore the basics of society in both Iraq and Afghanistan, are in fact critical to success.

Their extraordinary efforts have been and must continue to be matched here at home by our collective will, patience, and commitment. Our Nation and those who defend her deserve no less.

I am proud to sit here before you today representing all the men and women of our Armed Forces. I am proud to be a part of this process with you, and I look forward to your questions.

[The prepared statement of General Myers follows:]

PREPARED STATEMENT BY GEN. RICHARD B. MYERS, USAF

I am privileged to report to Congress on the state of the United States Armed Forces.

As they were a year ago, our Nation's soldiers, sailors, airmen, marines, and guardsmen are currently operating within our borders and around the globe with dedication, courage and professionalism, alongside our coalition partners, to accomplish a variety of very demanding missions. Global terrorism remains a serious threat, and the stakes in the global war on terrorism remain high.

Over the past year, I have told you that with the patience, will, and commitment of our Nation we would win the war on terrorism. The support we have received from Congress has been superb. From congressional visits to deployed personnel, to support for transformational warfighting programs, to funding for security and stability operations, to improved pay and benefits for our troops, your support for our service men and women has enabled us to make significant progress in the war on terrorism.

We are winning. Saddam Hussein no longer terrorizes the Iraqi people or his neighbors; he is in custody awaiting justice. The Iraqi people are well on their way to establishing a prosperous and peaceful future. They have already assumed a significant role in providing for their own security, and the list of important accomplishments in every sector—education, medical care, business, agriculture, energy, and government, to name a few—is long and growing. We have made substantial progress in Afghanistan as well. The recent Constitutional Loya Jirga is an encouraging example of democracy in action. In both countries, as in the Horn of Africa and other areas, U.S. and coalition personnel work together to capture or kill terrorists, while at the same time improving infrastructure and economic conditions so that peace and freedom can take hold.

Despite the operational demands on our forces, we remain ready to support the President's National Security Strategy to assure our allies, while we dissuade, deter and defeat any adversary. The draft National Military Strategy (NMS), developed in consultation with the service chiefs and combatant commanders describes the ways we will conduct military operations to protect the United States against external attack and aggression, and how we will prevent conflict and surprise attack and prevail against adversaries. The strategy requires that we possess the forces to defend the U.S. homeland and deter forward in four critical regions. If required, we will swiftly defeat the efforts of two adversaries in an overlapping timeframe, while having the ability to "win decisively" in one theater. In addition, because we live in a world marked by uncertainty, our forces must also be prepared to conduct a limited number of lesser contingencies while maintaining sufficient force generation capabilities as a hedge against future challenges.

We appreciate your continued support giving our dedicated personnel the warfighting systems and quality of life they deserve. Our challenge for the coming year and beyond is to stay the course in the war on terrorism as we continue to transform our Armed Forces to conduct future joint operations. We cannot afford to let our recent successes cause us to lose focus or lull us into satisfaction with our current capabilities. The war is not over, and there is still dangerous work to do. To meet this challenge, we continue to focus on three priorities: winning the war on terrorism, enhancing joint warfighting, and transforming for the future.

WAR ON TERRORISM

Twenty-eight months after the terrorist attacks on September 11, defeating global terrorism remains our military's number one priority. We will continue to fight this war on many different fronts, because terrorism comes in many different forms. The stakes remain high, but our resolve remains firm.

The more experience we gain in this fight, the more we recognize that success is dependent on a well-integrated military, interagency and coalition effort. This means the coordinated commitment of the military, diplomatic, informational, economic, financial, law enforcement, and intelligence resources of our Nation—all instruments of our national power. On the international level, coalition military and interagency cooperation has been remarkable. In Iraq, coalition forces from 34 nations are working hard to bring peace and stability to a country brutalized for 3 decades. In Afghanistan, 37 nations are working to secure a democratic government and defeat al Qaeda and remnants of the Taliban regime, with NATO assuming an increasing role in stability and reconstruction efforts.

We have made significant strides coordinating U.S. Government efforts within the interagency and with our coalition partners. One of the ways we have been successful at coordinating interagency efforts is through venues such as the Strategy Working Group, the Senior Leadership Review Board and the Regional Combating Terrorism Strategies. Continued success in this war will depend largely on our ability to organize for a sustained effort and coordinate seamlessly among all government agencies. An even more demanding task is coordinating the efforts of our coalition partners, now numbering more than 90 nations. Coalition contributions have been significant, ranging from combat forces, to intelligence, logistics, and medical units. They have complemented our existing capabilities and eased the requirement for current U.S. forces in Iraq and Afghanistan. Coordinating the efforts of our coalition partners is critical to combating the remaining terrorist threat.

The al Qaeda network, though damaged, remains resilient, adaptable and capable of planning and executing more terrorist acts, such as the attacks in Saudi Arabia and Turkey toward the end of 2003. Al Qaeda continues to receive support and recruit operatives from sympathizers around the world. Al Qaeda will increasingly focus on Iraq as today's jihad. As the network consolidates its efforts in Iraq, the threats of attacks will grow. In fact, four al Qaeda audiotapes released in 2003 prominently mentioned Iraq, demonstrating Osama bin Laden's emphasis on staging

attacks there. Ansar al-Islam also remains a formidable threat in Iraq, despite damage inflicted by coalition forces during Operation Iraqi Freedom (OIF). Its key leadership remains at large and continues to plot attacks against U.S. and coalition interests.

Other terrorist groups also pose significant threats to U.S. interests, and we believe that some of these terrorist groups have developed contingency plans for terrorist attacks against U.S. interests abroad. The Revolutionary Armed Forces of Colombia continue to conduct terrorist attacks throughout Colombia. They currently hold three U.S. hostages captured in early 2003, and directly threaten efforts to bring peace, stability and an end to the drug trade in Colombia. Jemaah Islamiyah in Southeast Asia is another terrorist group that shares al Qaeda's goals and methods, adding to the transnational terrorist threat. The intelligence that led to recent heightened alert levels in the U.S. show that the threat of a major terrorist attack against the U.S. homeland remains very real.

Disturbingly, terrorist groups continue to show interest in developing and using chemical, biological, radiological, and nuclear (CBRN) weapons in terrorist attacks. Terrorists have attempted to acquire military-grade materials, and interest in CBRN weapons and materials by several groups is well documented.

The coalition's efforts in the war on terror represent the significant first step in curtailing WMD proliferation. Our strategy for combating WMD calls for the combatant commanders to detect, deter, deny, counter, and if necessary, interdict WMD and its means of delivery. Combating WMD relies on a continuum of interrelated activities, employing both defensive and offensive measures, and confronting the threat through mutually reinforcing approaches of nonproliferation, counterproliferation, and consequence management. This multi-tiered and integrated effort will greatly reduce the threat of WMD falling into the hands of terrorists. Following the liberation of Iraq and the collapse of Saddam Hussein's brutal regime, the countries of Iran, and most recently, Libya have been more forthcoming about their illegal WMD programs to the international community. This should also help to apply international pressure on North Korea and its nuclear declarations.

To counter the potential threat of the proliferation of WMD, the President's Proliferation Security Initiative (PSI) is the most far-reaching attempt to expand our efforts to impede and interdict the flow of weapons of mass destruction, their means of delivery, and related materials, between state and non-state actors of proliferation concern. It is part of a larger effort to counter proliferation of weapons of mass destruction and missile-related technology by interdicting shipments of these materials by air, land, and sea. To date, there are 11 partner nations actively participating in PSI operations and exercises. Our goal is to expand PSI participation in order to be postured to respond quickly to assist in the interdiction of the proliferation trade.

OIF AND OEF OPERATIONS

U.S. Central Command (CENTCOM) is still center-stage in the war on terrorism, and doing a magnificent job under difficult circumstances. Iraq is well on its way to becoming a sovereign country. Our coalition is strong, with 34 countries directly supporting stability and security in Iraq. As part of the 15 November 2003 agreement, the U.S., our coalition partners, and the Iraqi Governing Council are forging plans and agreements to allow for the transfer of sovereignty to Iraq this June. Since the end of major combat operations, we have made steady progress towards meeting our objectives. Essential services are being restored, and a political transformation is already underway in Iraq. Security in Iraq is steadily improving, and we are transitioning to a time when the face of security in Iraq is an Iraqi face, and coalition forces are in the background.

Today, coalition forces continue to rout out remnants of the former regime attempting a desperate last stand. Using intelligence provided by Iraqi citizens, we are conducting thousands of raids and patrols per week alongside Iraqi security forces. We have seized massive amounts of ammunition, and captured or killed 45 of the 55 most wanted former Iraqi leaders, as well as thousands of other Saddam loyalists, terrorists and criminals. We have captured or killed all of the top five, most notably Saddam Hussein and his sons, Uday and Qusay.

The Iraq Survey Group is continuing its examination of Saddam's WMD programs by interviewing Iraqi citizens, examining physical evidence, and analyzing records of the old regime. We know that this process will take time and patience, and must be able to stand up to world scrutiny.

Our soldiers, sailors, airmen, marines, and guardsmen in Iraq are now supporting over 203,000 Iraqi security forces. The Iraqi police continue to expand their training pipelines in Jordan and Iraq, producing hundreds of trained officers each month. We

are well on track to meet our goal of 71,000 Iraqi police by August 2004. The Facilities Protective Service has fewer training requirements and has already reached its goal of 50,000 members. They have taken over security from coalition forces at most fixed site locations, such as power lines and parts of the oil infrastructure—key targets for sabotage. Our goal for the Border Enforcement Force is to have 25,700 members by December 2004. They will relieve coalition forces guarding checkpoints along Iraq's border. U.S. military forces continue to vet former members of the Iraqi military and other security services for employment in the new Iraqi security services, but Iraqis are formally in charge of de-Baathification efforts and have established guidelines for that process. The Emergency Supplemental Appropriations Act for Defense and for the Reconstruction of Iraq and Afghanistan 2004 that Congress approved last year was instrumental in enabling our planned accelerated development of these security forces, and we are grateful for that support.

The New Iraqi Army continues to train additional battalions. Iraq's Army needs more than just military skills. They must have a deep-rooted sense of professionalism, focused on protecting all Iraqis while operating firmly under civilian control. The new army will reflect Iraq's religious, regional, and ethnic mix, will be apolitical, and indoctrinated in their role of defense and security. We will spend the time and resources necessary to ensure the Iraqi Army is a well-trained and highly capable force.

The linchpin of our security efforts during this transition period is the Iraqi Civil Defense Corps (ICDC), which is currently planned for a force of 40,000 by the summer of 2004. The ICDC is a light military force, created to deal with the current stability issues in Iraq. As we have done from the beginning, we continue to reassess the security environment in Iraq. These security assessments could change force goals for the various components of Iraqi security forces. With the resources allocated from the supplemental, we have made great headway in providing them with vehicles, uniforms and other gear, including communications systems that will enable them to succeed in their critical tasks. Military commanders in Iraq tell me that the Iraqi Civil Defense Corps has been highly effective, and as such, we increased the goal from 18 to 36 Battalions and provided $124 million extra funding to reinforce the success of this Iraqi Security Force.

These supplemental funds also provided commanders with one of the most successful tools in winning the hearts and minds of the Iraqi and Afghan people, the Commander's Emergency Response Program (CERP). These funds provide commanders and the resourceful young troops they lead with the means to respond to urgent humanitarian and stabilization and reconstruction needs such as water and sanitation projects, irrigation and small-scale agriculture assistance, school house repairs, and civic cleanup projects. This program is an invaluable tool for establishing relationships with the Iraqi and Afghan people, assisting in economic development, and creating a safer environment.

The United Nations and the international community are also playing vital roles in the political and economic transformation of Iraq. Over 70 countries and international organizations including the U.S., pledged $33 billion at the Madrid Donors Conference. U.N. Security Council Resolution 1511 called upon Iraqis, initially through the Iraqi Governing Council, to determine the course and speed of their political reformation. In response, the Iraqi Governing Council has submitted its plan and timetable for selecting a transitional National Assembly and interim government, drafting a constitution and holding elections. It is an ambitious schedule, but one that they can accomplish with our help.

In addition to security and political progress, we continue to help Iraq rebuild the infrastructure required for economic progress and a stable democracy. The Coalition Provisional Authority (CPA) and Task Force Restore Iraqi Electricity are managing a comprehensive maintenance and upgrade program designed to improve power generation, transmission, efficiency and capacity to meet the future needs of the Iraqi people. Through the coordinated efforts of the Army Corps of Engineers and the Iraqi Ministry of Electricity, we met the initial October 2003 goal of 4,400 megawatts (MW) of peak power generation. The next goal is 6,000 MW of power by 1 June 2004. In order to meet this goal the CPA developed the Power Increase Plan to offset recent system failures from severe weather and continuing sabotage and looting. This plan increases electrical power generation through an increase of generator rehabilitation and maintenance projects, the increase of new power generators to the national power grid, increasing electrical power imports from other nations, and improving system-wide power transmission and distribution. Other progress continues throughout Iraq in potable drinking water projects, supplying hospitals with medical supplies, providing school supplies for Iraqi school children and rebuilding classrooms. Living conditions are improving everyday in Iraq, as many of you have seen for yourselves on recent trips to Iraq.

In Afghanistan, our military strategy combines both combat and stability operations. U.S. and coalition forces are conducting combat operations to rid Afghanistan of al Qaeda and Taliban remnants, and stability operations to assist in building Afghan security institutions, governing bodies, and economic prosperity. A few weeks ago the interim Afghan government held their first Constitutional Loya Jirga, approving a new constitution for Afghanistan.

Security and stability operations are being conducted by 11 Provincial Reconstruction Teams (PRTs) operating throughout Afghanistan, with 1 more PRT planned for this year. PRT representatives are making great strides improving the quality of life for the Afghan people by building schools, clinics, wells, roads, and other community infrastructure projects. Reopening the Kabul-to-Kandahar road was a major success. Our efforts have increased security and stability in Afghanistan.

In August 2003, NATO assumed responsibility for the International Security Assistance Force (ISAF) in Afghanistan. In October 2003 the United Nations Security Council passed a resolution extending ISAF's mission in Afghanistan for 1 year, and authorizing ISAF to operate outside Kabul and its environs. In February 2004, a Canadian officer will assume command of the NATO ISAF headquarters from the German commander. NATO's role in Afghanistan is expanding. The first phase of NATO expansion included transfer of responsibility for the U.S. PRT at Konduz to NATO, with Germany as lead nation, and temporary NATO deployments outside Kabul. NATO is planning future ISAF expansion throughout Afghanistan.

The Afghan National Army (ANA), now numbering 5,785 trained personnel, is at the forefront of efforts to improve security and stability and establish a strong national identity among the Afghan people. They are well on their way to reaching the annual throughput goal of 10,800 personnel by June 2004. To date the ANA has performed well, fighting side-by-side with U.S. and coalition forces during recent successful combat operations to capture or kill Taliban, Hezb-I-Islami-Gulbiddin, and al Qaeda elements. Most of the funding provided in the Afghanistan portion of the Fiscal Year 2004 Emergency Supplemental is being targeted to efforts that strengthen the ANA, such as new infrastructure and equipment that will also improve recruitment and retention efforts. These efforts include increased pay, plans to field 15 new regional recruiting centers by this spring, and establishing military benefit packages.

Congress has demonstrated its commitment to the future of Afghanistan, but there is still much more the international community could and should contribute to the reconstruction of Afghanistan. The Afghan government, with the help of the U.S. Government, is seeking more donations for several infrastructure projects such as a new Ministry of Defense headquarters, a hospital in Kabul, and a military academy, as well as donations of certain equipment, weapons and ammunition.

In neighboring Pakistan, working closely with President Musharraf, we have been able to increase coordination among U.S., Coalition, Afghan, and Pakistani Forces along the Pakistan-Afghanistan border. The Pakistani government has taken some initiatives to increase their military presence on the border, such as manned outposts, regular patrols and security barriers, including areas of the Pakistan federally Administered Tribal Areas, an area historically avoided by Pakistan's military forces. The Tripartite Commission consisting of U.S., Afghan, and Pakistan representatives concluded its fifth session in December, and among its accomplishments was the establishment of a subcommittee to investigate means to prevent cross-border conflict. U.S./Pakistani military cooperation continues to improve, and we are helping Pakistan identify equipment requirements for their counterterrorism efforts.

Operations in the Horn of Africa remain an essential part of the war on terrorism. The Joint Task Force Horn of Africa at Camp Lemonier, Djibouti is conducting counterterrorist and civil affairs operations in Eastern Africa. Although these operations have impacted al Qaeda's influence in the region, a continued military presence is essential to stop the movement of transnational terrorists and demonstrating to the region our resolve to wage the war on terrorism in Africa.

In support of Operation Enduring Freedom (OEF)—Philippines, U.S. Pacific Command (PACOM) used congressionally-approved funds this past year to continue counter-terrorism training for the Armed Forces of the Philippines. A small contingent of U.S. military personnel remains in the southern Philippines managing these efforts and other humanitarian assistance projects.

OTHER OVERSEAS OPERATIONS

U.S. European Command (EUCOM), in accordance with Secretary of Defense (SECDEF) guidance, has developed a concept for the reduction of U.S. forces supporting U.S. Kosovo Force in the Province of Kosovo, and U.S. Stability Forces in

Bosnia-Herzegovina. Implementation of this plan is dependent on the North Atlantic Council's Periodic Mission Review recommendation for the Balkans.

When EUCOM concludes the Georgia Train and Equip Program in May 2004, they will meet their objective of improving Georgia's ability to confront transnational terrorism operating within Georgia. Training is being provided for two staffs, four battalions, and one mechanized/armor company team. To build on this success and momentum, EUCOM is reviewing a possible follow-on Georgia Capabilities Enhancement Program to sustain and improve the Georgian military's newly acquired capabilities, and demonstrate a continued U.S. commitment to the Georgian Armed Forces' development.

Maritime Interdiction Operations took on a new global focus last year, beyond the historical CENTCOM and EUCOM missions, when the President approved Expanded Maritime Interception Operations to interdict terrorists and their resources globally. Expanded Maritime Interception Operations are now significant mission areas for every deployed battle group, especially along maritime transit lanes and choke points. Results from these maritime operations, such as in the Mediterranean Sea, have produced lower insurance premiums in the shipping industry, considerably less illegal immigration in countries such as Spain, Italy, and Greece, and a reduction in crime at sea. Maritime Interdiction Operations are a truly international effort. German and Spanish led multi-national naval forces patrol the CENTCOM area of responsibility, and this past year coalition naval forces have been responsible for boarding over 30 ships within EUCOM's area of responsibility.

U.S. Southern Command (SOUTHCOM) continues to support counternarcotics trafficking and counterterrorism efforts in the Caribbean and Central and South America. They are assisting the Colombian military in its fight against designated terrorist organizations by providing military advice, training, and equipment with an emphasis on the pursuit of narcoterrorist leadership, counternarcotics tactics, and security for major infrastructure such as the Cano Limon pipeline. SOUTHCOM supported the formation of the Colombian Army Special Operations Command and is continuing its efforts to train the Commando Battalion, and a Ranger-type unit. Training was successfully completed for the first Colombian Commando Battalion, and training has begun for the second battalion. The Colombian military has been very successful over the past year in their fight against narcoterrorism. The Tri-Border Area between Argentina, Brazil, and Paraguay is another focal point for drug and arms trafficking, money laundering, document fraud and Islamic terrorist-supported activities in South America. U.S.-sponsored multilateral exercises are promoting security, improving effective border control, and denying terrorist groups such as Hizballah, Hamas, and other Middle Eastern terrorist safe havens, restricting their ability to operate.

SOUTHCOM is also providing nearly 2000 military personnel to manage detainee operations at Guantanamo Bay, Cuba. We operate in close coordination with several U.S. agencies. We are constantly reviewing the status of each detainee, and to date have transferred 87 of the detainees who were determined to be of no intelligence or law enforcement value, or no threat to the U.S. or its interests, back to their countries of origin for release. Four detainees have been transferred back to their country of origin, under an agreement for continued detention by that country. More await similar agreements to allow for transfer or continued detention. A number of detainees have been assessed as high intelligence and or law enforcement value, or pose a significant threat to U.S. interests. These detainees will remain for further exploitation. Other cases are being considered for referral to the Military Commission, although no one has been referred to date. Information gleaned from detainees, many of whom continue to make threats against Americans, has already helped prevent further terrorist attacks against the U.S. and our allies. Furthermore, continued detention of those who pose a threat to U.S. interests prevents those enemy combatants from returning to the battlefield.

In accordance with the Unified Command Plan 2002 Change 2 implemented last year on 1 January 2004, U.S. Strategic Command (STRATCOM) reported significant progress in all of their new mission areas: global strike; missile defense; DOD information operations; and command, control, communications, computers, intelligence, surveillance, and reconnaissance missions. Further, they are on schedule to achieve full operational capability in each of the newly assigned mission areas this year. The Secretary of Defense (SECDEF) has already approved the Information Operations Roadmap, which has 57 wide-ranging recommendations that aid combatant commanders in planning and executing fully integrated information operations.

As we become more reliant upon information to conduct operations, the defense of our network is paramount. This requires properly trained people, common operating standards, and a well-stocked arsenal of information assurance tools. We are working diligently to centralize network operations and defense, and to formalize in-

formation sharing policy, guidance, and procedures. These steps, along with our cryptographic modernization plan, will safeguard our vital information.

We are formalizing the role of U.S. Special Operations Command (SOCOM) in the war on terrorism. In the near future, we will be recommending a change to the Unified Command Plan assigning SOCOM specific responsibility to coordinate DOD actions against terrorist networks. We are also drafting planning guidance that will designate SOCOM as the supported commander for planning and, when directed, executing operations against terrorist networks. These changes will provide SOCOM and all of DOD improved focus in our global effort to combat terrorism.

CURRENT HOMELAND DEFENSE OPERATIONS

Last year, U.S. Northern Command (NORTHCOM) reached full operational capability in their mission to deter, prevent and defeat threats and aggression aimed at the U.S. and its territories. Upon SECDEF approval, NORTHCOM can now deploy Quick Response Forces (company-sized units) and Rapid Response Forces (battalion-sized forces) to support time-sensitive missions such as defense of critical infrastructures or consequence management in support of the Department of Homeland Security (DHS). To improve interagency collaboration, DOD has been working with DHS to develop and implement the National Response Plan, a national-level, all-hazards plan that will integrate the current family of Federal Domestic Emergency Response Plans into a single plan.

The Joint Staff has developed a contingency plan (CONPLAN) for consequence management operations, and NORTHCOM and PACOM have developed supporting plans. NORTHCOM's Joint Task Force Civil Support maintains strong interagency relationships to integrate command and control of DOD forces with Federal agencies to manage the mitigation of chemical, biological, radiological, nuclear, and explosive (CBRNE) incidents. This past summer, DOD, Nevada National Guard and Reserve units, Federal Emergency Management Agency (FEMA), 27 other Federal agencies, and Nevada State and local agencies participated in a consequence management exercise in Nevada called Determined Promise 2003. I was thoroughly impressed by the coordination and cooperation among active and Reserve component forces, Federal, State, and local authorities. We are conducting similar exercises across the country.

In regards to antiterrorism and force protection measures, the Joint Staff is working to ensure that combatant commanders at home and abroad have the resources to mitigate threats and respond to emergent requirements through the Combating Terrorism Readiness Initiatives Fund. My staff is involved in developing and updating antiterrorism standards and policies to reflect current worldwide operations and lessons learned so that we can address any vulnerabilities. We coordinate with various agencies in the areas of training, planning, operations and intelligence sharing, all essential for developing sound antiterrorism policies.

In an effort to improve the security of U.S. military installations and personnel around the world, the Joint Staff has created the Antiterrorism Enterprise Portal, an evolving web-based portal that aggregates the resources and programs required to support the DOD Antiterrorism Program. This portal is fast becoming DOD's one-stop location for antiterrorism/force protection information.

A program that complements this portal capability is the Joint Protection Enterprise Network (JPEN). Operated by NORTHCOM, this network provides the means to share unclassified force protection information rapidly between military installations in the continental United States, increasing their situational awareness and security significantly. Although currently operating only on military installations, JPEN has the potential to be expanded to share terrorist information with Federal, State, and local agencies as well.

The war on terrorism requires collecting relevant data and turning it into knowledge that will enable us to detect and preempt the plans of an elusive, skilled enemy dispersed across the globe. Although many obstacles remain, we are making significant progress in the area of information sharing. The Joint Intelligence Task Force for Combating Terrorism (JITF–CT) at DIA is a prime example of effective intelligence cooperation in the war on terrorism. In the area of counterterrorism, we are making significant progress toward transparency and full information sharing. JITF–CT has experts from 12 intelligence and law enforcement organizations, and JITF–CT personnel are embedded in 15 other organizations, including some forward deployed personnel.

READINESS FOR FUTURE OPERATIONS

Our Nation's number one military asset remains the brave men and women serving in our Armed Forces. This past year, they demonstrated to the world their dedi-

cation, perseverance, and compassion as they liberated the Iraqi people and worked to bring peace and prosperity to the region. The administration, Congress, and DOD have made raising their standards of living a top priority. The 2004 budget provided an average military pay raise of 4.15 percent and targeted increases of up to 6.5 percent for some enlisted personnel. The 2005 budget's proposed reduction of out-of-pocket housing expenses from 3.5 percent to 0 is a sound investment, as are future pay increases based on the Employment Cost Index plus .5 percent.

DOD has a focus group that continues to look at programs to enhance the combat effectiveness and morale of service and family members associated with OIF and OEF. Areas where we have made significant progress are Rest and Recuperation Leave, danger area benefits to include incentive options for extended tours of duty in Iraq and Afghanistan, exchanges, childcare and communications initiatives.

All Services generally met or exceeded active duty and Reserve component recruiting and retention goals in both fiscal years 2002 and 2003 and entered fiscal year 2004 with healthy Delayed Entry Program levels. However, recruiting and retention of both active and Reserve personnel will continue to require attention and continued investment as we face the challenges of an improving economy and the high operations tempo associated with the war. I view all of the quality-of-life issues as inseparable from overall combat readiness, and we greatly appreciate congressional support for all of these initiatives.

The overall readiness of our Armed Forces—whether forward deployed, operating in support of contingency operations, or employed in homeland defense—remains good. Our forces are the world's best trained and, possess the requisite personnel, equipment, and resources necessary to accomplish the military objectives outlined in the Strategic Planning Guidance. Challenges do exist, especially with regard to ground forces in Iraq. We are currently in the midst of rotating our combat troops in Iraq—a feat that will rival any in history. We will continue to examine force levels and size them appropriately as security dictates.

We continue to rely heavily on our Reserve and Guard personnel, who are playing critical roles in homeland defense, and serving with distinction around the world in the war on terrorism. Some missions like the ones in Bosnia-Herzegovina and Kosovo are almost exclusively made up of Reserve and Guard units, and they are doing a magnificent job. We are well aware of the strains on members, their families, and their employers, and continuously seek better ways to support them.

There are several initiatives underway, collectively by DOD, the Services, combatant commands, and the Joint Staff to reform the mobilization process and to relieve the stress on the force. United States Joint Forces Command (USJFCOM), in conjunction with the Services, is leading the mobilization reform effort by evaluating policy changes and identifying other solutions to streamline the mobilization/demobilization process, and preliminary recommendations are expected in early 2004. Two Operational Availability sub-studies were conducted last year and identified the active component/Reserve component mix and low density/high demand assets as two areas of immediate concern to relieve stress on the Reserve component forces. As an example, the Army has already begun converting some Reserve component artillery forces into Military Police forces to meet one of the expected high demand roles of the foreseeable future. This, and other ongoing rebalancing efforts will ensure that Active and Reserve Forces continue to complement each other. The Services are actively engaged in reviewing how much of a given capability they need for this new security environment, and which capabilities belong in each component. Other key DOD areas of concern are reducing the need for involuntary mobilization of the Reserve component early on in rapid response operations, establishing a more rigorous process for reviewing joint force requirements, and ensuring efficient use of mobilized Reserve component personnel. A comprehensive Rebalancing the Force Report by Assistant Secretary of Defense (Reserve Affairs (ASD(RA)) will summarize these efforts, while a study by Assistant Secretary of Defense (Health Affairs (ASD(HD)) will define Reserve component requirements for homeland defense.

U.S. Armed Forces are capable of achieving all assigned objectives in the defense strategy. However, current stresses on the force remain considerable. The increased demands of the war on terrorism, sustaining post-conflict operations in Iraq and Afghanistan, and other global commitments are unlikely to change significantly in the near-term. Moreover, while committed globally, our Armed Forces must continue to defend the homeland, reconstitute forces returning from contingency operations, transform to meet future challenges, strengthen joint and combined warfighting capabilities, and maintain readiness. Today, given these commitments and requirements, we are carefully managing the risk in executing an additional major combat operation.

When units return home from combat operations, they must undergo a reconstitution process, which generally means a drop in their readiness. However, this does

not necessarily indicate that a unit is either unavailable for or incapable of executing part or all of their assigned wartime missions. We have initiated new measures in the current readiness reporting system to identify Service and combatant command requirements, determine the scope of required reset actions, and develop appropriate solutions to mitigate shortfalls and manage risk. Our workload remains high, but we remain prepared to accomplish those missions assigned to us.

Army units returning from OIF I/OEF require focused maintenance efforts to return them to pre-hostility readiness levels, while continuing to meet combatant commanders' maintenance requirements. The Army's goal is to return OIF I/OEF active duty units to pre-deployment readiness within 6 months and Reserves within 1 year after return to home station. However, some critical aviation systems may require additional time in order to complete depot level repairs. Funding was programmed from the 2004 supplemental for these organizational and depot level maintenance requirements. Army Materiel Command is the lead agency for developing a plan to repair major equipment items from OIF I/OEF. Approximately 1,000 aviation systems, 124,400 communications and electronics systems, 5,700 combat/tracked vehicles, 45,700 wheeled vehicles, 1,400 missile systems, 6 patriot battalions, and 232,200 various other systems are included in this repair plan. As OIF II and beyond maintenance requirements are further defined, DOD will refine estimates and update costs.

Combatant commanders and the Services identified preferred munitions as one of their risk areas of concern via periodic readiness reporting. Supplemental funding, as well as augmented annual budget requests, have allowed us to meet our requirement for Joint Direct Attack Munitions and laser-guided bomb kit demands. In the near-term, we are focused on improving how we determine our munitions requirements. Over the long-term, we plan to field improved guided munitions systems that build on our already superb precision-delivery capabilities.

Our military training areas are facing competition from population growth, environmental laws, and civilian demands for land, sea, and airspace. The Services are proud of their success in protecting the environment, endangered species and cultural resources. We are grateful to Congress for their assistance in the Fiscal Year 2004 Defense Authorization Act, which precluded designating certain DOD lands as critical habitat, and preserved valuable Navy training while ensuring protection of marine mammal species. Having the world's most sophisticated weapons systems and simulators cannot substitute for our most important military training activities, air, land, and sea maneuver and live-fire training. Some installations, ranges, and training areas are losing critical military value because encroachment is impairing their capability to provide useful readiness and operational support. Such facilities should be reviewed during the next round of Base Realignment and Closure. We will continue to seek congressional support that balances environmental concerns and readiness.

Our Nuclear Readiness continues to evolve. In December 2001, the Nuclear Posture Review established a New Triad composed of Offensive Strike capabilities (both nuclear and non-nuclear), Defenses (active and passive) and Responsive Infrastructure in order to respond to a wide range of contingencies. DOD is in the midst of a Strategic Capabilities Assessment to assess the progress in fielding the New Triad and determine the number and types of forces to meet the President's goal of 1,700 to 2,200 operationally deployed strategic nuclear warheads by 2012.

We continue our efforts to ensure we can operate effectively in a CBRN environment, since our potential adversaries, both nation states and terrorists, seek to acquire and develop weapons of mass destruction, including biological warfare agents. Vaccinations represent an important countermeasure against biological threats and provide our military personnel with the best available protective measures. To date, approximately 695,000 military personnel have been vaccinated against anthrax and more than 520,000 military personnel have received smallpox vaccinations. The anthrax and smallpox vaccination programs are very successful, and it is imperative to develop effective countermeasures against other biological threats to protect our warfighters.

While our warfighting team has always included contractors, their involvement is increasing. The Joint Staff is leading a joint group to develop overarching DOD policy for management of contractor personnel during contingency operations.

We must also reexamine our ability to get to the fight. The Mobility Requirements Study 2005, completed in 2000, is the current baseline mobility requirements document. DOD is actively engaged in conducting a new full-scale mobility study that reflects our current defense strategy and incorporates lessons learned from OEF and OIF to further clarify strategic lift requirements. The goal is to complete a new Mobility Capabilities Study by June 2005, in time to influence preparation of Program Objective Memorandum-08 (POM–08).

Sustaining our overseas presence, responding to complex emergencies, prosecuting the global war on terrorism, and conducting operations far from our shores are only possible if our ships and aircraft are able to make unencumbered use of the sea and air lines of communication. Our naval and air forces must be able to take advantage of the customary, established navigational rights that the Law of the Sea Convention codifies. We strongly support U.S. accession to the convention.

Although C–17 production is not planned to terminate until fiscal year 2008, production of several C–17 long lead items is planned to close in fiscal year 2006. The Air Force and DOD are studying the benefits and risks (including financial and war fighting) of continuing or terminating the C–17 long lead items production line, and plan to complete this assessment in time to inform the fiscal year 2006 POM and the Enhanced Planning Process.

Increasing costs, decreasing reliability and maintainability, and an increased need for air-refueling capability dictate modernization of the KC–135 fleet. Congress has authorized the Air Force to lease 20 and purchase 80 new Boeing 767 tanker aircraft. In early December 2003, DOD suspended negotiations with Boeing, pending the outcome of ongoing Inspector General investigations. Based on the results of that investigation, the Air Force will recommend a cost-effective strategy for acquiring a suitable replacement for the KC–135 fleet to meet joint warfighting requirements to support our National Security Strategy.

The F–35 Joint Strike Fighter (JSF) will be a giant leap over existing attack/fighter capabilities. JSF is in the third year of an 11-year development program, and we have seen some design challenges. The current design challenge for all three variants is weight, which impacts performance requirements, particularly for the Short Takeoff and Vertical Landing variant. Design teams are working diligently to solve this issue, and we have moved the first planned production procurement to the right 1 year, and added extra money to the development. The weight issue is within normal parameters of design fluctuation, and this issue will be worked out through the development and design process.

Protection of our troops remains a top priority. Interceptor Body Armor (IBA) was in the initial fielding phase at the start of OIF. The Army has been aggressively managing this critical item, and accelerated fielding and production rates when CENTCOM identified the need due to the threat situation. The Army has been issuing the IBA directly for use in the combat theater of operations. IBA consists of an Outer Tactical Vest (OTV) and a set of Small Arms Protective Inserts (SAPI). As of 26 January, 93 percent of the troops and DOD civilians operating in Iraq had been outfitted with IBAs with SAPI. The OTV and SAPI assets needed to equip the remainder of the force are in theater being distributed. During the upcoming force rotation, all OIF II forces will be outfitted in Kuwait prior to entering Iraq. We will continue to work diligently to provide the best protective equipment for our servicemen and women and DOD civilians.

The up armored version of the high mobility multi-purpose wheeled vehicle (HMMWV) has proven to be effective at protecting our soldiers against mines, improvised explosive devices (IED) and direct fire weapons. Currently there is a shortfall in Iraq and worldwide. To fill this shortfall, in the near term, the Joint Staff, the Services, and the combatant commanders are conducting an aggressive campaign to redistribute worldwide inventories of up armored HMMVVs to Iraq. In the longer-term, Congress' Emergency Supplemental provided funding to accelerate production of up armored HMMVVs to meet CENTCOM requirements by January 2005.

OIF reaffirmed how critical the deployment and distribution process is to joint warfare. The Joint Staff is working with DOD and the Service logistics experts to develop an integrated end-to-end deployment and distribution process that is responsive to rapid projection of forces, the delivery and handoff of joint forces, and worldwide sustainment in support of the Joint Forces Commander.

During the fiscal year 2004 budget cycle, Congress voiced concern over the Department's overseas basing plans. Since then, our global posture strategy has matured. We are now in the process of detailed consultation with our allies and Members of Congress. The overseas portion of the fiscal year 2005 military construction budget submission includes projects at enduring locations. These projects reflect our combatant commanders' most pressing base and infrastructure needs. I urge Congress to support our combatant commanders and fund the overseas military construction projects submitted in the fiscal year 2005 budget request. These projects contribute directly to our readiness and the quality of life our personnel deserve.

JOINT WARFIGHTING

Protecting the U.S., preventing future conflicts, and prevailing against adversaries require our military to sustain and extend its qualitative advantage against a very diverse set of threats and adversary capabilities. Maintaining our qualitative advantage begins with improving education programs across the Services. We must also adapt and transform organizations and functions to eliminate gaps and seams within and between combatant commands, agencies at all levels of government, and potential coalition partners. Information sharing is at the forefront of this effort.

Recent operations in Afghanistan, Iraq, the Philippines, and Africa have demonstrated the impact timely sharing of intelligence has on planning and executing military operations. Since this is a global war requiring an international effort, we must also improve coalition command and control capabilities, and consolidate the numerous networks that exist today. These disparate networks hinder our ability to plan in a collaborative environment and exercise timely and effective command and control with our multinational partners.

We must also review policies and implement technology that safeguard our vital sensitive information while ensuring critical operational information is shared with all those who fight beside us. JFCOM has been tasked to take the lead in identifying specific multinational information sharing requirements and recommending policy changes. Our goal is to establish a multinational family of systems with common standards as part of the Global Information Grid enterprise services. I view this as a top priority and ask for congressional support—information sharing with our allies is critical to winning the war on terrorism.

During OIF, our military forces benefited from unprecedented situational awareness through a common operational picture. In particular, one new system, Blue Force Tracker, was critical to the success of our forces as they sped towards Baghdad. Some of the 3rd Infantry Division, V Corps, and I Marine Expeditionary Force (MEF) vehicles were equipped with transponders that automatically reported their positions as they maneuvered across the battlefield—greatly improving situational awareness for our battlefield commanders, and reducing the potential for blue-on-blue engagements. Despite significant improvements in joint combat identification, challenges remain to reduce incidents of friendly fire, and maximize the synergy of combined arms to provide all front-line tactical units with friendly and threat information during decisive engagements. To address these challenges, JFCOM has the lead in the comprehensive effort to improve Joint Battle Management Command and Control, which includes the integration of Common Operational and Tactical Pictures, Combat Identification, and Situational Awareness across the force.

We are taking command and control lessons learned from OIF like the capability to track Blue Forces, and running them through the Joint Capabilities Integration and Development System process to help shape future systems requirements. The objective is to ensure all of the critical considerations of Doctrine, Organization, Training, Material, Leadership and Education, Personnel, and Facilities (DOTMLPF) are employed in an approach that synchronizes material and non-material solutions.

We are also improving our military war planning process. The Joint Staff has developed an adaptive planning process—whose key concepts are agility and speed—to reduce the time to develop and update war plans, while adding flexibility and adaptability to respond to the rapid changes in the global strategic security environment. The goal is to provide the President and SECDEF the best options possible. We have also been developing a collaborative campaign-planning tool for crisis action planning and execution. These tools should allow commanders the ability to assess multiple courses of action, rapidly compressing plan development time while increasing plan flexibility.

Our warfighting effectiveness is also enhanced by our Joint Exercise Program, which provides combatant commanders with the means to train battle staffs and forces in joint and combined operations, evaluate their war plans, and execute security cooperation plans with our allies and coalition partners. In order to improve joint training opportunities, JFCOM has established a Joint National Training Capability (JNTC), which will achieve Initial Operational Capability in October 2004. JNTC will combine live and virtual play at multiple locations. The goal is to provide realistic joint combat training against an adaptive and credible opposing force, with common ground truths, and high quality exercise feedback.

Strategic airlift is available to exercises only on an as-available basis, since it is prioritized for operational needs first. Providing the personnel and assets to accomplish meaningful joint training during this period of high operations tempo (OPTEMPO) has also been challenging. To balance these competing requirements, the combatant commanders are reviewing their fiscal year 2004 exercise programs

with a view to canceling, downsizing, or postponing exercises. We must continue to balance operational and exercise requirements against operations/personnel tempo (OPS/PERSTEMPO) and available lift.

Prior to combat operations in Iraq, we established a process for adapting OIF lessons learned for future operations as rapidly as possible. JFCOM has the lead role in turning identified operational level lessons learned into required capabilities through the Joint Capabilities Integration and Development System. A consolidated OIF After Action Review will be presented to Congress in July 2004. The top three OIF Strategic Lessons Learned, from the Joint Staff perspective, are the need for an improved deployment process (including Reserve component mobilization), redistributing specialties between the active and Reserve components, and improving the Phase IV planning and transition process.

Phase IV transition and Stability Operations require significant adjustments in how we plan, train, organize, and equip our forces. We can expect future adversaries to attempt to offset U.S. military strengths through asymmetric means, to include terrorist insurgency, as combat operations transition to post conflict operations. The lessons learned process continues during stability operations in Afghanistan and Iraq.

The Joint Staff, in coordination with the Services and the combatant commanders, is revising the National Military Strategy to link strategic guidance to operational warfighting and serve as a military plan to implement the National Defense Strategy and the National Security Strategy. The National Military Strategy provides the context for other military documents such as the Joint Operations Concept, Joint Strategic Capabilities Plan, and other plans. It will incorporate lessons learned from Operations Noble Eagle, Enduring Freedom, and Iraqi Freedom and establish specific military priorities, objectives, employment concepts, and capabilities for combatant commands and Services. The 2004 National Defense Authorization Act requires that the National Military Strategy include the Chairman, Joint Chiefs of Staff (CJCS) annual risk assessment, which is due 15 February 2004.

CONSIDERATIONS AND RECOMMENDATIONS FOR GOLDWATER-NICHOLS ACT

For the past 18 years, joint operations have been improving under the provisions of the Goldwater-Nichols Act. The act strengthened civilian control of the military and facilitated better military advice to the President, SECDEF, National Security Council (NSC) and Congress. Now, it is time to consider new ideas for improving the effectiveness and efficiency of the military instrument of power in today's new security environment.

The war on terrorism and other recent military operations have demonstrated the need for improved interagency cooperation, integration and execution of National Security Council decisions. We also need to improve how we coordinate the efforts of international, regional and non-governmental organizations. I fully support initiatives to formalize a mechanism that creates effective lines of authority and provides adequate resources to execute interagency operations. For example, designating the Chairman of the Joint Chiefs of Staff as the principal military advisor to the Homeland Security Council would improve homeland defense and prosecution of the war on terrorism beyond our borders.

Joint Officer Management codified in the 1986 Goldwater-Nichols legislation was based on the threats and force structure evident late in the Cold War. We are developing a strategic plan to shape joint officer management based on the type and quantity of officers needed to perform current and future joint missions, and the education, training, and experience joint officers require. This strategic approach will ensure future joint officers meet the needs of joint commanders.

We are already taking some initiatives to improve our Joint Professional Military Education system, with the goal of educating and training the right person for the right task at the right time. Historically, we waited until officers became majors and lieutenant colonels before we provided them with joint education. We are finding that the war on terrorism requires noncommissioned officers and junior officers from all Services to work in the joint environment more often than they have before. We are developing courses tailored to the needs of our younger troops that expose them to joint warfighting far earlier in their careers. To improve joint officer management and education, and prepare officers for joint duty earlier in their professional careers, I request consideration to allow the Service War Colleges to teach Joint Professional Military Education (JPME) Phase Two and the authority to determine the appropriate length of the Joint Forces Staff College's JPME Phase II course. We also have pilot programs providing joint education to Senior Noncommissioned Officers and our Reserve and Guard component members. Additionally, we are reviewing our joint general and flag officer training programs to ensure our senior officers are pre-

pared to command joint task forces and work effectively with interagency and coalition partners.

Today, the chairman remains well positioned to assist in providing strategic direction to the Armed Forces, assess impacts on the long-term readiness of the force, and evaluate current and potential levels of risk associated with global military activities. Already, we are in the process of transforming our internal processes make them more responsive in the current dynamic environment. In a similar vein, I request we also reevaluate and streamline our current reporting requirements to Congress, many of which seem of questionable utility. I propose the formulation of a working group composed of members from the House Armed Services Committee (HASC), Senate Armed Services Committee (SASC), House Appropriations Committee (HAC), Senate Appropriations Committee (SAC), Office of the Secretary of Defense (OSD), Office of Management and Budget (OMB), and Joint Staff to identify the best means and frequency of communications to meet congressional oversight needs.

TRANSFORMATION OF THE U.S. ARMED FORCES

We cannot focus solely on the threats we face today and assume there are not other, perhaps even more challenging threats on the horizon. Maintaining our unchallenged military superiority requires investment to ensure the current readiness of deployed forces while continuing to transform military capabilities for the future. Our adversaries will learn new lessons, adapt their capabilities, and seek to exploit perceived vulnerabilities. Therefore our military must transform, and must remain ready, even while we are engaged in war.

Before the events of September 11, transforming the force was viewed as DOD's greatest near-term challenge. Since then, we have had to fight battles in the mountains of Afghanistan, in the cities of Iraq, and around the world for the security of America. Putting transformation on the back burner and focusing solely on the fight at hand is simply not an option. We are fighting a war unlike any we have fought before—it demands new ways of thinking about military force, new processes to improve strategic agility, and new technologies to take the fight to the enemy. DOD continues to invest heavily in transformation, both intellectually and materially. Given that transformation begins with innovative thought, we have developed a suite of concepts that will define how the joint commander will fight in 2015 and beyond.

We recently published an overarching concept document titled Joint Operations Concepts to provide a framework for developing capabilities and defining concepts. Using this document as a foundation, the Joint Staff completed development of five joint functional concepts to define how joint warfighting will be conducted across the range of military operations. These functions include force application, protection, command and control, battlespace awareness, and logistics. Meanwhile, the combatant commands have been working on four high-level operating concepts that include strategic deterrence, stability operations, homeland defense, and major combat operations.

Collectively, functional and operating concepts define how we want to fight in the future, and will help us transform from the threat-based force of the Cold War to a capabilities-based force postured to respond to a wide variety of threats, some of which we cannot confidently predict today. To aid the Joint Requirements Oversight Council in determining warfighting needs with a capabilities-based approach, we are developing joint integrating concepts. These concepts are far more focused than functional and operating concepts, and define specific tasks to be conducted. They are designed to bridge the gap between how we want to fight and the capabilities we need. Examples include urban operations, global strike operations, and forcible entry operations. The functional, operating, and integrating concepts will continue to evolve over time. The first round of this very important concept work should be done within the year.

For each functional concept area we have established a Functional Capability Board to integrate the views of the combatant commands, Services, defense agencies, Joint Staff, and OSD. These boards comprise functional experts from across DOD who will provide the best advice possible for our planning, programming, and acquisition processes. Functional Capability Boards also support a new process called the Joint Capabilities Integration and Development System, which replaces the previous Cold War-era Requirements Generation System. The new system recognizes that less expensive programs can have a significant impact on joint operations. Virtually all programs are reviewed through the JROC process for potential joint impact before they get a green light, ensuring all Service future systems are born joint.

Based on the recommendations of the Joint Defense Capabilities Study—the Aldridge Study—we established the Strategic Planning Council chaired by SECDEF, and composed of the Service Secretaries, the Joint Chiefs, principal under secretaries, and the combatant commanders. The first meeting was held 28 January 2004. To capture and disseminate this top-down strategic direction, we will produce a new Strategic Planning Guidance document as the mechanism to provide subordinates with this strategic guidance. The first Strategic Planning Guidance document should be complete by February 2004.

We are also developing an Enhanced Planning Process that integrates DOD-wide lessons learned, experimentation, concept development, study results, capability gap analysis, and technology development into a collaborative capabilities planning function. The goal is to offer distinct and viable alternatives to senior leadership rather than a consensus driven, single point solution, and implement their decisions into the Joint Programming Guidance document, the first of which will be issued in May 2004.

These three transformational process initiatives—Functional Capability Boards, Joint Capabilities Integration and Development System, and the Enhanced Planning Process—work together improving our planning and programming agility for future joint capabilities. JFCOM is working with the Functional Capability Boards to incorporate lessons learned from OEF and OIF into a list of materiel and nonmateriel recommendations to the Joint Requirements Oversight Council to turn lessons learned into identified capabilities needs as quickly as possible.

JFCOM is also coordinating with the Services, combatant commands, other U.S. agencies, and coalition partners to ensure experimentation efforts support the warfighter. One of JFCOM's key experimentation initiatives is the Standing Joint Force Headquarters, which will provide combatant commanders a rapidly deployable command and control team, along with supporting information systems and reachback capabilities, that will enable us to respond to regional conflicts with smaller and more effective joint operational headquarters. JFCOM is establishing the prototype Standing Joint Force Headquarters this year, and in fiscal year 2005 we will field the communications portion known as the Deployable Joint Command and Control System to CENTCOM and PACOM. EUCOM and SOUTHCOM receive follow on systems in fiscal year 2006 and fiscal year 2007. The Deployable Joint Command and Control System will use state-of-the-art information technology to enhance Joint Force command and control.

Communications systems are a prime target for transformational ideas. The Joint Tactical Radio System is a software programmable radio that will provide seamless, real-time, voice, data and video networked communications for joint forces. It will be scalable allowing additional capacity (bandwidth and channels) to be added, backwards-compatible to communicate with legacy systems, able to communicate with multiple networks, and able to accommodate airborne, maritime and land based systems. It provides the tactical warfighter with netcentric capabilities and connectivity to the Global Information Grid, and is essential to meeting our 21st century joint communications warfighting requirements.

Transformation also means developing multiple, persistent surveillance capabilities that will let us "watch" situations and targets by looking, smelling, feeling, and hearing with a variety of long-dwell sensors from space, air, ground, sea and underwater and integrating these capabilities into a "system of systems." The exploitation of Measurement and Signature Intelligence (MASINT), holds great promise. MASINT collects information from many diverse sources to detect, characterize and track a target or activity by its distinctive properties, or "signatures" that are very difficult to conceal or suppress. Last year, DIA created its Directorate for MASINT and Technical Collection to develop new forms of technical collection and integrate MASINT into collection strategies and operations.

Another example of the transformational technologies we have just fielded is the Army's Stryker Brigade, which is centered on a new, fast, and quiet vehicle that can deliver 11 troops to the fight. This effort is far more than simply fielding a new vehicle; it is also a new way to organize a brigade, and link that brigade to a networked command and control system that shares intelligence, surveillance, and reconnaissance information. Our Stryker Brigade Combat Teams (BCTs) are organized and trained to take advantage of this new technology. The first Stryker BCT is already proving its worth in Iraq.

To reduce our vulnerability to weapons of mass destruction, we have made progress on providing missile defenses for our homeland, our deployed forces, and our friends and allies. In the coming year, we plan to deploy six ground-based interceptors in Alaska and four in California to provide an initial capability to defend the U.S. from ballistic missile attack. The Patriot missile defense system and the emerging AEGIS-based SM–3 system will provide short and medium range missile

defenses, as well as critical surveillance and tracking essential to our Ballistic Missile Defense System. Coupled with an upgraded launch detection capability provided by the Space-Based Infrared System, our ballistic missile defenses will continue to improve significantly over the next few years.

The Global Positioning System (GPS) offers an excellent example of a system that transformed modern warfare. GPS delivers worldwide positioning, navigation and timing data that provide U.S. and allied forces an all-weather, precision engagement capability. Over the last decade, the success of combat operations was largely due to GPS-aided precision-guided munitions. We must continue to modernize GPS, improve capabilities, protect U.S. and allied access to reliable military positioning, navigation and timing information, and deny this information to our adversaries, while minimizing impacts to peaceful civil users. We are engaged with NATO and the European Union to resolve our concerns with the proposed Galileo system, a civil satellite system that puts at risk our programmed military enhancements to GPS. A U.S. interagency team has made significant headway with some tough technical issues over the past year, but continued negotiations are essential to address the remaining technical, and more importantly, the political issues. Once these issues are resolved, we can confidently move forward with our vision of space superiority to support future joint and coalition operations.

As recent military operations have demonstrated, space is a critical dimension of the battlespace. Lessons learned from OEF and OIF highlight our increasing reliance on space communication assets and our demand for bandwidth. Our challenge is meeting future warfighter requirements in the face of an aging satellite constellation. Despite a planned 10-fold increase in capability through Advanced Extremely High Frequency (EHF) and Wideband Gapfiller Systems, projected capacity may not meet the growing demand. This shortfall will potentially impact our ability to maintain a technological advantage over our adversaries. Work on Transformational Satellite Communications continues, which is designed to improve communications for mobile systems, particularly those that provide intelligence, surveillance, and reconnaissance. Our unmanned aerial vehicles and the Army's Future Combat System place heavy demands on bandwidth, particularly when real-time video feeds are required. The frequency spectrum is critical not only to joint warfighting, but to all Federal, State, and local agencies to ensure national security and public safety. Military and civilian technology is rapidly moving to a wireless medium. As pressures from commercial sources to free up more Federal spectrum mount, we must ensure our long-term spectrum accessibility for our military forces.

These are just a few examples of our ongoing transformation efforts. We are working hard to integrate old systems with new, in innovative ways. Interoperating between our own legacy and transformational systems is a challenge for us, but it is an even greater challenge to our coalition partners, who must participate in key decisions on how transformation will enhance combined operations in the future.

Over the past year, NATO has achieved great success in progressing toward a transformed military organization. The alliance has developed, approved, and begun implementing a new, more streamlined command structure, which will make it viable in the 21st century global security environment. The catalyst for modernization will be the new Allied Command Transformation, which will maintain a close partnership with JFCOM. Also, on the forefront of transformation, NATO has created the NATO Response Force, a key enabler of NATO's new operational concept. It is designed to be a combined, deployable, sustainable, and lethal force intended to be NATO's first responders, able to respond quickly to a crisis anywhere in the world. In a display of NATO's new focus, on August 11, 2003, NATO assumed command of International Security Assistance Force (ISAF) in Afghanistan, the first out of area mission in the history of the Alliance. To be an effective joint force in the future, we must ensure that our allies keep pace with our transformation efforts.

CONCLUSION

Responding to today's dynamic threat environment requires our Armed Forces to be innovative, agile, and flexible. With Congress' strong support, our military has made significant progress combating terrorism, improving our joint warfighting capabilities, and transforming our military into a 21st century fighting force. We appreciate your efforts to help us be responsive to a changing world, and make that world a safer and better place.

Chairman WARNER. Thank you very much, General.

Members of the committee, we have a quorum present, and it is the desire of the chair and the ranking member to address to the committee promotions of three flag officers and general officers who

are in combat commands today. I propose that we briefly go into executive session to consider and act upon several important nominations.

[Whereupon, at 10:27 a.m., the hearing was recessed, the committee proceeded to other business in executive session, then reconvened the hearing at 10:29 a.m.]

Chairman WARNER. Colleagues, the Secretary will be addressing the House in the posture statement beginning at 1 o'clock. We will therefore have to conclude our work by the hour of 12:00, so we will hold to 5-minute rounds for each member. I will proceed at this point in time.

Mr. Secretary, I thought your comprehensive statement on transformation is one that this committee will try and support in every way. Do you know of any special legislation that you will further require for the implementation of this package? The legislative package is in the normal sequence of events to come to the committee here in a week or so, but perhaps you could tell us at this time. An example is the important institution of reform in the civil service that you proposed last year and which I think in large measure was adopted. Any other legislative proposals you could alert us to at this time?

Secretary RUMSFELD. Mr. Chairman, there is nothing of the magnitude of the new national security personnel system that we will be proposing. But there will be a number of smaller items, lesser items, that we will be recommending for approval, consideration of the committee.

Chairman WARNER. Do you feel that the budget provides the needed dollars to implement the transformation that you have undertaken and continue to undertake?

Secretary RUMSFELD. I do.

Chairman WARNER. That involves not only pay and benefits for the military, but also the acquisition of new equipment?

Secretary RUMSFELD. I do.

Chairman WARNER. The plan of the United States Army under the direction of a very able Chief of Staff and a very able Acting Secretary requires sort of fracturing the existing force into another series of units. Are they going to be fully equipped?

Secretary RUMSFELD. They will be. Pete Schoomaker and I briefed the President on the Army's proposal. The President approved it. General Schoomaker will be presenting it to this committee at a time of your choosing. It is important that it be considered carefully.

It has multiple dimensions. Not only does he intend to go from 33 to 48 brigades over a period of 4 or 5 years—5?

General PACE. Four years to 43, sir, and then an additional 4 to the 48.

Secretary RUMSFELD. So it is 4 years to the 43 brigades and then an additional period for the remaining 5 brigades, with an off ramp in the event they are not needed.

But, in addition, he intends to more fully equip these brigades with division capabilities that currently are only at the division level and to make them more modular, so that they can be mixed and matched and deployed. There is no doubt in my mind but that

if this plan is completed in the time frame indicated then we will have a much improved tooth-to-tail ratio.

Chairman WARNER. Thank you.

Returning to the question of the WMD, the ISG, the military force augmented by a number of civilians from the Agency and other departments of the government, is one that is under the command of General Dayton, and now Mr. Duelfer will join. Is the funding adequate for them to continue and fulfil their mission? Because you and I both stressed that this mission must be completed.

You described in your statement a number of, as you call it, "theories" of things that could have happened. Now, we wish to develop all the facts that we can possibly find to determine the answers to the various theories that you have represented.

Secretary RUMSFELD. The ISG has somewhere between 1,200 and 1,300 people currently assigned.

Chairman WARNER. That is correct.

Secretary RUMSFELD. General Dayton is the individual who is responsible for those people. He had reported to Dr. Kay, and Dr. Kay had the responsibility for the judgment calls as to the pace at which people should be interviewed and interrogated, the pace at which various documentation should be translated, and all of those judgment things that are more appropriate to the CIA than the DOD.

General Dayton has done a superb job of managing that task. There is a natural tension. You never have enough Arabic speakers or enough people to go over all the documentation that exists. They do not exist in our country or even through contractors. On the other hand, they have a good cadre of these folks. As you said, they come from all departments and agencies. It is fully budgeted for in this budget, and they are doing a terrific job under very difficult circumstances.

The tension that exists is our people are not currently being killed by WMD; they are being killed by terrorists. The same individual that one might interrogate or the same document that one might translate could produce information, for example, on the location of Saddam Hussein; it could produce information on counterterrorism, and it could produce information on the location of WMD. You do not know that as you go through that process.

So we are continuing to focus on WMD, but we are also focusing on counterterrorism.

Chairman WARNER. The mission basically remains the same?

Secretary RUMSFELD. It does.

Chairman WARNER. The structure of leadership remains the same?

Secretary RUMSFELD. It is identical.

Chairman WARNER. You will keep this committee informed if at any time you feel those resources of a significant amount have to be diverted away from that mission?

Secretary RUMSFELD. Dr. Cambone, am I correct when I said that the mission has not been altered?

Dr. CAMBONE. Yes, sir.

Secretary RUMSFELD. It has not.

Chairman WARNER. Fine. Thank you very much.

I was pleased that you directly answered my question with regard to the WMD. You also added your personal dimension to it, which is important because you have served under a number of presidents for a very long time in many challenging tasks, and you understand government service and the importance of being honest and forthright, as you are.

General Pace, on the question of the transfer of sovereignty, you have looked at the various steps that have to be performed. One of them General Abizaid addressed, and in our preliminary discussions in preparation for this hearing you felt that he might have been misquoted with regard to the appropriate protections of the coalition forces and the ability of them to continue their work, not only the ISG, but the hunting down of the insurgents and the terrorists.

Are you satisfied, one, that the schedule can be kept; and, two, that the basic military missions of the coalition forces can continue after June 30?

General PACE. Sir, your Armed Forces right now are currently protected by the provisions of U.N. Resolution 1511, which gives us the protections of an agreement like the Status of Forces Agreement (SOFA) as we do what we do right now in Iraq. Our State Department, working with the U.N., working with the Iraqi Governing Council, knows exactly the kinds of protections that our Armed Forces will continue to need after the turnover of sovereignty, and they are working that.

General Abizaid has had his input to that. We are watching that very carefully. We will ensure that our soldiers, sailors, airmen, marines, and coast guardsmen continue to have the requisite protection of their own individual rights as they do the mission that we have asked them to do.

Chairman WARNER. Lastly, Mr. Secretary, the forces under your supervision in the military are dependent on intelligence daily, I mean today, tomorrow, and in the future. While there are six and possibly seven investigations of the questions associated with WMD, we cannot wait until the final outcome to make some corrective measures. Are you personally looking at the DIA, the NSA, and other organizations, and contributing also your views to the greater Intelligence Community, about such corrections that have to be made today to see that the men and women of the Armed Forces and indeed others engaged in intelligence work that are on the front lines are receiving accurate, to the best we can, intelligence?

Secretary RUMSFELD. Yes, sir. The things that are under way with respect to the DOD: number one, we are participating with the Director of Central Intelligence's (DCI), review of lessons learned that is led by Mr. Kerr. The DIA has its own lessons learned activity under way, as do the Services.

In addition, we, needless to say, have been cooperating with the 9/11 Commission. We have been cooperating and will be cooperating with the commission to be appointed.

I should add, however, that the intensive lessons learned activity that took place looking from the U.S. perspective after the Iraq war and also from the Iraqi perspective, interrogating Iraqi military people, has provided information as well with respect to intel-

ligence. So there have been a whole series of things that the people have been proceeding on in an orderly way.

Chairman WARNER. Corrective measures are taken as you and others deem they are appropriate?

Secretary RUMSFELD. Absolutely.

Chairman WARNER. In a timely way to protect our people?

Secretary RUMSFELD. As the lessons are learned, they are implemented and have been. That process has been under way and ongoing.

Chairman WARNER. Thank you.

Senator Levin.

Senator LEVIN. Thank you, Mr. Chairman.

There was an article about a week ago in the press that said that in two rounds of talks at the U.N. and Washington the United States told U.N. representatives that everything is on the table except the June 30 deadline for handing over power to a new Iraqi Government. Is that an accurate description of the President's position, that there will be no extension of that deadline regardless of the situation on the ground or regardless of whether or not that deadline has the support of the U.N.?

Secretary RUMSFELD. First, let me come right back to that, but let me clarify some confusion. I have been reading things where critics and people have been saying that the Iraqi security situation is not sufficiently good that we could turn over sovereignty and then leave on June 30. There was never any intention to do that.

Senator LEVIN. I just wonder, though, if you could answer my question——

Secretary RUMSFELD. I will.

Senator LEVIN.—because of the time problem.

Secretary RUMSFELD. Okay.

Senator LEVIN. Is that the position of the administration, that there will be no extension despite whatever happens on the ground and even if the U.N. does not support the turnover of sovereignty on that date?

Secretary RUMSFELD. A decision on changing the date or changing whatever are really decisions for the President and not for me. These issues involving the governance pass-over are things that are basically in the hands of the President and the NSC, not the DOD.

Senator LEVIN. Thank you.

On the WMD issue, in September 2002, DIA produced a classified study called "Iraq—Key WMD Facilities: An Operational Support Study." Part of that study has now been declassified. It included the following statement: "There is no reliable information on whether Iraq is producing and stockpiling chemical weapons or where Iraq has or will establish its chemical warfare agent production facilities." That is from a September DIA study, which was classified until recently.

[The information referred to follows:]

Defense Intelligence Agency

- A Defense Intelligence Agency product completed in September 2002 entitled *Iraq – Key WMD Facilities – An Operational Support Study* was a planning document produced in support of United States Central Command.

- This study was not a DIA assessment of Iraq's weapons of mass destruction program or capability. It addressed issues related to Iraq's chemical, biological, and nuclear program infrastructure.

- DIA stands solidly behind the Intelligence Community's assessment that Iraq had an on-going chemical weapons program that was in violation of United Nations sanctions.

- The following is the declassified section on Iraq's chemical warfare program from the classified DIA study:

Chemical Warfare (CW) Program

A substantial amount of Iraq's chemical warfare agents, precursors, munitions, and production equipment were destroyed between 1991 and 1998 as a result of Operation DESERT STORM and UNSCOM actions. Nevertheless, we believe Iraq retained production equipment, expertise and chemical precursors and can reconstitute a chemical warfare program in the absence of an international inspection regime. Iraq's successful use of chemical weapons in the past against Iranian troops and Kurdish civilians increases the likelihood of a chemical warfare reconstitution. Iraq has not signed the Chemical Weapons Convention (CWC).

There is no reliable information on whether Iraq is producing and stockpiling chemical weapons, or where Iraq has —or will —establish its chemical warfare agent production facilities. Unusual munitions transfer activity in mid-2002 suggests that Iraq is distributing CW munitions in preparation for an anticipated US attack. Iraq retains all the chemicals and equipment to produce the blister agent mustard but its ability for sustained production of G-series nerve agents and VX is constrained by its stockpile of key chemical precursors and by the destruction of all known CW production facilities during Operation Desert Storm and during subsequent UNSCOM inspections. In the absence of external aid, Iraq will likely experience difficulties in producing nerve agents at the rate executed before Operation Desert Storm.

Iraq is steadily establishing a dual use industrial chemical infrastructure that provides some of the building blocks necessary for production of chemical agents. In addition, Iraq has renovated and added production lines at two facilities formerly associated with Baghdad's chemical warfare program — Habbaniyah I and Habbaniyah II. Activities include building reconstruction, salvage operations, and equipment movement and deliveries in the months that followed the 1998 expulsion of United Nations inspectors. Baghdad is rebuilding portions of its chemical production infrastructure under the guise

of a civilian need for pesticides, chlorine, and other legitimate chemical products, giving Iraq the potential for a small "breakout" production capability.

Although we lack any direct information, Iraq probably possesses CW agent in chemical munitions, possibly including artillery rockets, artillery shells, aerial bombs, and ballistic missile warheads. Baghdad also probably possesses bulk chemical stockpiles, primarily containing precursors, but that also could consist of some mustard agent or stabilized VX.

Iraqi doctrine for the use of chemical weapons evolved during the Iran-Iraq war, and was fully incorporated into Iraqi offensive operations by the end of the war in 1988. Iraq demonstrated its ability to use chemical weapons during that conflict in the following roles: in a defensive role to disrupt or halt an overwhelming enemy offensive; as a preemptive weapon to disrupt staging areas before an offensive attack; and as an offensive weapon during well-staged attacks to regain territory. Authority for use of chemical weapons during that war eventually became delegated to corps commanders. The Iraqis delivered chemical agents with artillery, multiple rocket launchers, mortars, and aerial bombs dropped by fixed wing aircraft and helicopters. Iraq also used chemical agents against Kurdish civilians in 1988. Historical precedent suggests Saddam already may have deployed chemical weapons to western Iraq, as he did during Operation DESERT STORM, to be used against Israel in the event of coalition military action that threatens the regime.

Iraq will develop various elements of its chemical industry to achieve self-sufficiency in producing the chemical precursors required for CW agent production. Iraq might construct a new dedicated CW facility or facilities at remote sites to avoid detection or, alternatively, upgrade the production capabilities at its Habbaniyah I and II facilities to produce the agent mustard and binary components necessary for the production of nerve agents.

Now, on September 19, 2002, the same month of that classified DIA assessment, you publicly stated that Saddam has, "amassed large clandestine stockpiles of chemical weapons" and "we know he continues to hide biological and chemical weapons, moving them to different locations as often as every 12 to 24 hours and placing them in residential neighborhoods."

How do you explain the contrast between the DIA-reported intelligence that said there was no reliable information about production or stockpiling of chemical weapons and your public statements that you knew that Saddam has such weapons? What explains the discrepancy there?

Secretary RUMSFELD. First, let me say that, on your prior question, I would never say never on the deadline myself. Clearly the goal is to pass sovereignty as soon as possible, but what judgments the President might or might not make depend on the way the world evolves.

Needless to say, I am sure I never saw that piece of intelligence and whether or not it was the DIA's view overall or an analyst's view I cannot tell from the way you have presented it. I have relied not on any one single intelligence entity, like the DIA or the CIA. I have relied on the Intelligence Community's assessments, and the Intelligence Community's assessments were what they were, and they were as I stated them.

Senator LEVIN. Do you see a difference between saying with certainty that we know something and saying that there is some evidence of something?

Secretary RUMSFELD. I do.

Senator LEVIN. That was not the way in which the public statements of the administration were made. It was not that there is evidence or that there is belief. It was the statements of great certainty, that we know that there are amassed stockpiles of weapons, we know where they are. Everything was stated with certainty. What is not part of any of those investigations, those six that you have mentioned, is a review of the policymakers' certainty in their statements and what was the basis in intelligence for those statements of certainty.

That is one of the issues here, as to whether or not those statements, made with certainty by many members of the administration, should be reviewed in terms of what the intelligence was that did or did not back up such certain statements. I am not asking the question. I just want to let you know that that is not being looked at by any of the investigations that you refer to. The investigation or inquiry that I am attempting to make at the Armed Services Committee with my staff is to look at that issue as well as all the other issues.

But here is my question for you. It relates to the operation of Under Secretary of Defense for Policy Doug Feith. He made an analysis of the links between al Qaeda and Iraq and apparently presented a briefing to you on that analysis of the intelligence. Apparently the briefing that he made to you was then made to the DCI, the Intelligence Community staff, the NSC, and then to the Office of the Vice President.

Was the Feith operation supposed to look at intelligence through a different prism from the rest of the Intelligence Community? Why was it formed other than for that? Why did it bypass the usual channels with the product of his analysis? It is kind of a two-part question.

Secretary RUMSFELD. There was something that the press has characterized as an intelligence cell in the Office of Policy, Mr. Feith's office. It had two people in it at any given time. The people changed, and there may be two more. Maybe there were four or five at some point.

All they did was to try to, as I understand it—and I talked to Mr. Feith about this. Their task was simply to read the intelligence, not to gather intelligence, but to read the intelligence that existed and to assist him in developing policy recommendations in his role as Under Secretary for Policy.

At one moment, you are quite right, two people who had been looking at this thought they had an interesting approach to it. He asked me to be briefed. I sat there and listened to them. I said, "Gee, that is interesting; why do you not brief the people at CIA?" They did.

Senator LEVIN. And the Vice President.

Secretary RUMSFELD. I did not say that. I said exactly what I said. I asked them to brief the people at the CIA, and they did that. I do not know if they briefed anyone else besides that, but they did do what I asked.

The implication that this two-person activity, or four or five over time, was gathering intelligence or doing something unusual is just not correct, as I understand it.

Senator LEVIN. My question, though, was it intended that they look at intelligence through a different prism?

Secretary RUMSFELD. No. As I understand it, just what I said. Their task was to take the intelligence that existed, look at it and see what they could figure out about it, just as I do when I read it and you do when you read it. In this case, Doug Feith asked a couple of people—there are mountains of this stuff and it is a big task to integrate it in your mind. He had this small group doing that, and they looked at terrorist networks, which seems to me to be a perfectly logical thing to do after September 11.

Senator LEVIN. Thank you. My time is up.

Chairman WARNER. Senator McCain.

Senator MCCAIN. Thank you.

Mr. Secretary, I am certainly glad to hear of the increase of 30,000 members in the United States Army, although it was done in a rather bizarre fashion by the Chief of Staff of the Army, as I understand. It is usually an announcement made by the Secretary of Defense, but it is not important.

But a year and a half ago a number of us on this committee recognized the need for additional Marine Corps and Army troops, and I am sorry it took you so long to reach that conclusion. The reason I say that is because 40 percent of the troops in Iraq now will be Guard, National Guard, and Reserves and, despite your testimony, from my conversations with Guard and reservists around the country, you are going to see a very large exodus of members of the Guard and Reserve because of the incredible deployment burden that has been laid upon them. I hope that I am wrong, but that is what I am hearing from National Guardsmen and reservists throughout the Nation.

Mr. Secretary, is it your intention still not to provide this committee with the communications concerning the Boeing decision, despite the fact that there is an Inspector General (IG) investigation and a Department of Justice investigation, and this is an issue of very serious consequence? I only have 5 minutes, Mr. Secretary.

Secretary RUMSFELD. Let me comment. First of all, it seems to me that your suggestion that it took us a long time to increase the size of the Army is not correct. The Army has been being increased over a 2-year period, under the emergency authorities authorized by Congress. General Schoomaker has only been in for a short period of months and he has fashioned a plan, presented it, and it seems to me a perfectly proper approach for the Chief of Staff of the Army to be the one discussing the way the Army is going to be organized and arranged. I do not consider it strange or unusual.

In terms of the exodus issue from the Army, we certainly hope not. Pete Pace, do you want to comment on the retention and recruiting in the Army?

General PACE. Sir, I can, sir. It is a snapshot in time, and we all need to be attentive to how we use our folks and what the downstream effects are. But, currently, all our retention goals, all of our recruiting goals, are being met. In fact, those Army and Guard units that are notified of going overseas, they have had an

increase in those whose window was coming up for retention or getting out. They have increased that number by about 130 percent across the board.

So the immediate snapshot is one of heroes—not victims—stepping forward to support their country. But you are correct, Senator, we do need to keep an eye on it that we have them doing missions that are viable, missions that they should be conducting, that we treat them with respect, that they know ahead of time when they can be called up, that they know how long they are going to be called up for, and that they know when they are going to be demobilized—all things we need to do better.

Senator MCCAIN. We will see. I hope I am wrong. That is not what I am hearing from the people that actually are being deployed and are returning, including in my own State.

But please answer the question about whether you intend to turn over the documents to this committee or not, particularly in light of actual criminal investigations that are going on.

Secretary RUMSFELD. The first thing I would say is that you have not received a definitive answer in a long period and for that, I regret that. The complexity of it, as I understand it, is that it is not a DOD issue in total. It is a matter of a longstanding practice of the DOD and other executive branch departments of not turning over internal documents that reflect advice and opinions of employees as they advise senior decisionmakers. You are aware of this. E-mails are considered that type.

With respect to the tanker issue, because of the concerns that a great many people have raised and the criminal investigation—the investigation, I should say, that you mentioned——

Senator MCCAIN. You answered my question, Mr. Secretary. I would like your long answer to be made part of the record, okay?

Secretary RUMSFELD. Fair enough.

[The information referred to follows:]

There is a longstanding practice in the Department of not turning over internal documents that reflect the opinions of our employees as they advise senior decisionmakers. Electronic mail, like any other document, is subject to this principle. Generally, electronic mail messages that have been disclosed outside the executive branch or that do not reflect communications of Federal employees in advising on decisions will be turned over. Those internal electronic mail messages that do reflect advice to decisionmakers will not be turned over. It is important that officials of this Department receive open and candid advice and assessments from its employees. Turning over documents containing the frank opinions and candid advice of employees at many levels in the Department could discourage them from providing the crucial communications that our officials need to make the important decisions they are charged to make. On the proposed tanker program, we have provided, in addition to documents, comprehensive explanations of this program in testimony, briefings, and interviews. We stand willing to provide briefings and interviews on this and other important issues as we have in the past.

Senator MCCAIN. Does it bother you when there are e-mails that have already been disclosed that say things, for example from Boeing, "Boeing doing good stuff, Rudy and Andy met with Bill Schneider, Bill Schneider very supportive, will work issue in OSD"? Understand, Mr. Schneider is Chairman of the Defense Science Board (DSB), which will be, according to what you are about to tell me, reexamining the requirement. So you have the fox guarding the henhouse.

Does it bother you, "We have ghostwritten several op-eds, including former Commander in Chief of the Pacific Fleet (CINCPAC) Archie Clemins, we will have one in Navy Times and maybe in Air Force Times, and get an early bird when published"?

Does it bother you when the Secretary of the Air Force calls in the Boeing lobbyist—these are according to the e-mails that we got from Boeing and why we need your e-mails, Mr. Secretary—and says, "You have to put pressure on Mike Wynne." He chastises the Boeing lobbyist for not putting pressure on Mike Wynne?

Does it bother you when, even after you had put a pause on the Boeing tanker deal, that Mr. Sambur sends out an e-mail that says the "lease should be published today because all concerns concerning Ms. Druyun have been resolved"?

Does it bother you when there are many members of the Defense Policy and Science Board who were lobbying DOD and Air Force officials to approve the lease of 100 Boeing 767s? Some of them are mentioned in the Boeing e-mails: Richard Perle, Bill Schneider, General Fogleman, Admiral Jeremiah, and Admiral Clemins.

Does not all of this bother you, Mr. Secretary, that this incestuous relationship went on between Boeing, the United States Air Force, the Secretary of the Air Force in particular, and Mr. Sambur, and none of these people have been called to account for this kind of behavior?

Secretary RUMSFELD. Senator McCain, I personally and we the Department take seriously any and every allegation of wrongdoing.

Senator MCCAIN. These are facts, Mr. Secretary. These are facts on paper, of e-mails that were sent within the DOD and by Boeing.

Secretary RUMSFELD. As you are well aware, there is a DOD Inspector General's investigation of the entire aspect of this, and we are proceeding in an orderly and systematic way to try to come to the truth as to what took place. I assure you that if there has been wrongdoing, as there appears to have been, we will take appropriate action.

I would say one other thing. When I left the DOD in 1977, I made it a point not to be connected with anything related to the Defense Department that was for profit. I did it so that I could always feel I could say whatever I wanted on a defense issue and not have someone do what you just did and suggest that, simply because I was connected to a defense company, therefore what I said——

Senator MCCAIN. I am not suggesting——

Secretary RUMSFELD. Just a minute.

Senator MCCAIN. I am not suggesting, Mr. Secretary. I am telling you that Admiral Clemins, who is on your board, had ghostwritten by Boeing an article praising the tanker lease.

Secretary RUMSFELD. I understand what you said, and I say we are looking into those things. But I do not think that simply reading off all of those names of people who happen to serve the government in a nonprofit way, on the Defense Science Board or the Defense Policy Board or some other advisory board of the DOD, that they are suddenly supposed to be in a cellophane package and not have any other thoughts or any other role in life. We understand——

Senator MCCAIN. I am talking about their actions. I am talking about their actions, not their position, Mr. Secretary.

Secretary RUMSFELD. Well, we are looking into it. If we find any wrongdoing, I can assure you we will take appropriate action, as we have in the past.

Senator MCCAIN. Well, the Senate Armed Services Committee has the responsibility of oversight of the activities of your Department, and I do not see how we are going to be informed as to exactly what happened unless we see the communications and what went on in this decisionmaking process.

I thank you, Mr. Chairman.

Chairman WARNER. I listened to you in your response to Senator McCain and you acknowledged that your Department was tardy in the response to some of the material which can be forthcoming, because, as the Senator said, this committee has oversight responsibilities, and we must continue to perform those and not just await IG reports and the like.

I thank you.

Secretary RUMSFELD. The IG reports, well, I will not get into the details, but the reason for the delay is because it is not totally a DOD decision. It is a decision for the executive branch, and we have to coordinate with the White House and the Office of Management and Budget.

Chairman WARNER. Thank you, Mr. Secretary.

Senator Kennedy.

Senator KENNEDY. Thank you very much, Mr. Chairman, Mr. Secretary, General Pace. Thank you for representing the servicemen and speaking about their continued service to the country, which all of us are grateful for.

Mr. Secretary, the U.S. Iraqi weapons inspector David Kay made it clear in recent days that his exhaustive postwar inspections leave little doubt that Saddam Hussein had no WMD at the time the war began. His conclusion is a devastating refutation of the Bush administration's case for war in Iraq and seriously undermines our credibility in the world.

Until now, the administration has resisted the independent investigation of the issue, but now it is proposing investigation by a committee handpicked by the administration, with findings to be made only after the 2004 election. The White House agenda is clear—to blame the failure, the administration's case for war, on the Intelligence Community rather than the administration's manipulations and misrepresentations on the available intelligence.

The debacle cannot all be blamed on the Intelligence Community. Key policymakers made crystal-clear the results they wanted from the Intelligence Community. Mr. Kay said, "We were all wrong." He is wrong. Many in the Intelligence Community were right. There were clear warnings from the Intelligence Community. The dissents within the Intelligence Community to many of the positions taken by the administration were not noted or glossed over.

As Senator Levin pointed out, your own DIA in September 2002 said: "There is no reliable information"—"no reliable information," Mr. Secretary—"whether Iraq is producing, stockpiling, chemical weapons or where Iraq has or will establish its chemical warfare agent production facilities."

The State Department Bureau of Intelligence and Research (INR) concluded: "The activities we have detected do not add up to a compelling case that Iraq is currently pursuing what INR would consider to be an integrated, comprehensive approach to acquire nuclear weapons. INR considers the available evidence inadequate to support such a judgment."

Department of Energy intelligence disagreed that the famous tubes were a nuclear weapons program. The INR also concluded that the tubes were not intended for use in Iraq's nuclear weapons.

Greg Thielmann, a retired career State Department official who had served as Director of the Office of Strategic Proliferation and Military Affairs at the INR, said it all last July: "Some of the fault lies with the performance of the Intelligence Community. Most of it lies with the way senior officials misused the information they were provided." He said: "They surveyed the data, picked out what they liked. The whole thing was bizarre. The Secretary of Defense had this huge Defense Intelligence Agency and he went around it."

Lieutenant Colonel Karen Kwiatkowski, a recently retired Air Force intelligence officer who served in the Pentagon during the buildup to the war, said: "It was not intelligence; it was propaganda. They take a little bit of intelligence, cherry-pick it, make it sound much more exciting, usually by taking it out of context, usually by juxtaposition of two pieces of information that do not belong together."

We have seen in the examples that were mentioned this morning, for example just on the issues of stockpiling on chemical weapons, as mentioned by Senator Levin, in 2002 DIA said no reliable information on whether producing and stockpiling. You said in 2002 before this committee, "We do know that." "We do know that." I understand the Intelligence Community never says "We know." But you said in September, "We do know that."

In October the National Intelligence Estimate (NIE) said we have 100 metric tons, 500 metric tons of chemical weapons. We found that out in the last year. Secretary Powell says in February, "That is a conservative estimate." The stockpile of 100 tons to 500 tons—"That is a conservative estimate."

Then you say in March 2003, "We know where they are." "We know where they are." That is an extraordinary leap, and that extraordinary leap was wrong.

Do you not think that that independent commission ought to be really reflective of men and women that can look hard and fast, at not just what the intelligence was, but how it was manipulated, and interrogate career individuals in the Intelligence Community that believe that to be the case?

Secretary RUMSFELD. Senator Kennedy, you might not have been here for my opening statement on the intelligence piece, but there was not a single thing in there that blamed the Intelligence Community or put any cast on it even slightly like you suggested.

Second, I never have gone around the Intelligence Community. The Intelligence Community does not always agree. You have hundreds of people, and they have footnotes and they have different opinions. You develop a consensus. I have stuck with the consensus——

Senator KENNEDY. Are we not entitled to hear what the dissent was as well?

Secretary RUMSFELD. Absolutely.

Senator KENNEDY. Did we ever? Was that provided——

Secretary RUMSFELD. Absolutely.

Senator KENNEDY. Will you provide where these dissent positions were provided us prior to the time that we voted?

Secretary RUMSFELD. I am not in the Intelligence Community. I do not deal with the Intelligence Community committees in Congress. I am saying that within the executive branch, when intelligence is circulated it includes footnotes, it includes differing opinions, as it always has for the last 30 years to my certain knowledge.

Next, you have twice or thrice mentioned manipulation. I have not heard of it. I have not seen any of it, except in the comments you have made.

Third, I am told by Dr. Cambone sitting behind me that the document you read from and possibly the same document that Senator Levin read from also has a paragraph in it that says the following: "Although we lack any direct information, Iraq probably possesses chemical warfare agent in chemical munitions, possibly including artillery rockets, artillery shells, aerial bombs and ballistic missile warheads. Baghdad also probably possesses bulk chemical stockpiles primarily containing precursors, but that also could consist of some mustard agent and stabilized VX." That is in the same document, I am told.

Last——

Senator KENNEDY. You said "probable" and "possible," "probable" and "possible" rather than "we know." It is a big difference.

Secretary RUMSFELD. I am coming to "we know."

I could be wrong. I am asked a lot of questions. I use a lot of words, and I am sure from time to time I say something that in retrospect I wish I had not. However, I remember the moment I said "we know" something, and it was this: The forces had gone in, out of Kuwait into Iraq, and they were moving up and they had gotten in a day or two possibly, and they were a long way from Baghdad.

As everyone on this committee will remember, the suspect sites, which is what they generally call them, for WMD that the Intelligence Community produced, the suspect sites tended to be north. They tended to be in the Baghdad and north area. Our troops were a long way from even Baghdad. I was asked, "Where are the WMD?" I think I said: "We know where they are. They are up north; they are not down here." I was referring to the suspect sites.

You are quite right. Shorthand "we know where they are" probably turned out not to be exactly what one would have preferred in retrospect.

But let me say one other thing. General Pace, would you please describe what the United States Armed Forces did every day by putting on chemical gear? They believed, we believed, everyone believed, they had chemical weapons. These people did not get into these——

General PACE. Yes, sir. What we did, sir, was, as you would expect, prepare for the potential capabilities of the enemy. Even if

you disregard all of the intelligence that was current at that time, if you simply looked at the fact that he had used chemicals against his own people, had used chemicals against Iran, it was prudent for military planners to believe that he might use chemicals against us when we attacked.

So as we went across the line of departure, as we crossed from Kuwait into Iraq, all of our troops were in mission protective chemical gear, and they stayed in that, either just the suits themselves, sometimes the boots and the gloves, and on occasion the mask as well, as the tactical intelligence changed. They put that gear on and stayed in that well past the line at which we thought, which was about 60 miles south of Baghdad—well north of that line, they stayed in chemical protective gear.

It was reinforced by discoveries on the battlefield, like 3,000 brand new sets of chemical protective suits and atropine injectors that were found on the Iraqi side when they uncovered them in a school. Those kinds of discoveries led us to believe that if the Iraqis themselves had that kind of equipment and we knew we did not have chemical weapons, that they were preparing to use it.

That is the kind of environment inside of which we wore the chemical protective gear. It was not only for the troops who were on the ground, but everyone in theater. The Navy guys at sea, the Air Force folks where they were, all had the chemical equipment right there with them and practiced daily getting into it in case they were attacked.

Senator KENNEDY. Thank you, Mr. Secretary.

I just say that in your September 19, 2002, testimony to the committee you said five times that Iraq has or we know they have WMD.

Thank you, Mr. Chairman.

Secretary RUMSFELD. I am not going to go back and quote the comments from the previous administration and President Clinton and Vice President Gore and Secretary Cohen and all of that the way you have. I can just say that the stream of intelligence over a period of a long time in both administrations led the same people in similar jobs to the same conclusions.

Chairman WARNER. Mr. Secretary, that is an important point. You must recognize, we are slightly handicapped, that our offices are locked. We cannot get to a lot of the information we had intended to bring with us this morning. I will see that our record will remain open for an indefinite period of time until our offices are once again opened and material is available to members to put in the record and ask such further questions as may be appropriate.

But you are quite correct on that, Mr. Secretary, and there is a continuity between the manner in which these facts were brought to the attention of the American public by the succession of the Clinton and the Bush administrations. I think in time we will get the answers to it.

But I would like to note one thing. In the mystery of where these weapons may be, perhaps it will be solved, but we should thank God that they were not there to be used against our troops, bottom line.

Yes, Senator.

Senator LEVIN. Mr. Chairman, I just want to make it clear that the record will be kept open and not just for whatever submission you referred to, but for other submissions and for additional questions, given the short period of time that we have to question the Secretary.

I wonder, just how long would that record be kept open? A couple of days?

Chairman WARNER. You and I will consult. We have to know when our offices are opened, and that is an undetermined period of time.

We will now proceed to Senator Roberts.

Senator ROBERTS. Thank you, Mr. Chairman.

Senator Kennedy has indicated that we need somebody to take a hard look at the intelligence that is hard and fast. Senator Kennedy, if I could have your attention.

Senator KENNEDY. Excuse me.

Senator ROBERTS. I am hard; I am fast; I am from Dodge City; and I am chairman of the Select Committee on Intelligence. We have under Senate Resolution 400 marching orders to investigate or to make an inquiry in regards to the timeliness and the credibility of the prewar intelligence in reference to WMD and any terrorist activity, the atrocities that were committed in Iraq, which are obvious, and also regional stability.

I want people to know that in this committee, with this hard and fast and tough chairman from Dodge City, we have had a 7-month, 24–7, 10 staff members, work just tremendous overtime effort. We have a working draft over 300 pages long that will be presented to the members of the Intelligence Committee as of tomorrow.

We have interviewed over 200 analysts, including critics, including people mentioned by Senator Kennedy. I must say that, after repeated interviews by our staff, to date we still have yet to find any coercion or intimidation on the part of any analyst to change their analytical product. It is the most comprehensive inquiry in intelligence in at least a decade.

After this Thursday, we will meet again after a week, after members of the Intelligence Committee are able to digest and educate themselves to what is in this report. We hope to agree on a report. That may be a little tough, but we are going to get that job done. We will be making some recommendations, as opposed to simply pointing fingers of blame.

We will redact the classified material. We will work with the Agency to get that done. We will have deadlines. We will make a public report. I hope we can do it in March.

If there are any egregious policy decisions that we find in this report, we will look into it. Under Secretary Feith will again appear before the Intelligence Committee, along with his subordinates. CIA Director Tenet will also appear, and I cannot emphasize enough how aggressive, how strongly I feel that we will let the chips simply fall where they may.

Over the course of the inquiry that we hope to complete soon in the Intelligence Committee, we have found a large and consistent body of analysis, as you have indicated, Mr. Secretary, over 10 years in regards to Saddam Hussein in reference to his WMD capability. This intelligence was used, the famous word "used," by the

executive, by President Clinton, by President Bush, and also by those of us in Congress. It was used on the no-fly zones, on the sanctions, on the targeted bombing attacks, and, finally, in regards to military action.

I would just like to quote the President when he indicated that "We simply cannot allow our adversaries to build arsenals of nuclear, chemical, and biological weapons and missiles to deliver them. There is no more clear example of this threat than Saddam Hussein. The UNSCOM inspectors believe that Iraq still has stockpiles of chemical and biological munitions, a small force of Scud-type missiles, and the capacity to restart quickly its production program and build many more weapons. Let me be clear: A military operation cannot destroy all the weapons of mass destruction, but it can and will leave him significantly worse off than he is now in terms of the ability to threaten the world with these weapons or to attack his neighbors. He will know that the international community continues to have the will to act when he threatens again."

That statement was made by President Clinton, and I am not trying to point out President Clinton or President Bush. The key question is, did you find this intelligence to be true and consistent prior to the military action? I think your answer is going to be "yes." I think that is going to be stressed all the way through this hearing and your answer. So I will leave that to you to answer that question, after I have answered it for you.

Secretary RUMSFELD. I agree. It has become developed and adjusted as one goes along, but the threads have been consistent.

Senator ROBERTS. All right. Now, as everybody knows, there has been a global Intelligence Community failure, on the other hand, in regard to whether or not they had WMD stockpiles and a challenge really to recommend systemic reform. You have gone over some action steps that the military is taking. If I can find my list, you said the DCI is having a review with the Kerr report. The DIA is conducting their review. All the Services are conducting their reviews. You are working with the 9/11 Commission.

We have the House Intelligence Committee investigation, the Senate Intelligence Committee investigation, and now this outside Warren Commission type of investigation. There are at least six or seven panels now doing investigation on the systemic reform that must take place because of the mistake in regard to the stockpiles. I hope the hell there is somebody left down at the CIA to actually conduct the global war on terrorism, with all of these activities.

But I guess my question to you is, we will have Mr. Tenet up again. We will have Secretary Feith up again. We will get our work done. I trust that you are committed to really trying to find out how we can do this better because, as the Senator has indicated—I am talking about Senator Kennedy now—many strong statements were made. I believed that we would find the WMD. Dr. Kay believed that. Dr. Duelfer even still believes that. Still there was a failure in regard to intelligence.

Would you have any comment?

Secretary RUMSFELD. Well, Dr. Kay is probably correct when he said that we are not completed; we are 85 percent down the road, and there is more to be looked at. We will know ground truth be-

fore it is over, and the ISG and Dr. Duelfer have a big task to finish it up.

I agree completely; the country, the President of the United States, is determined to get to the bottom of this question. Your committee is determined; Congress is determined; and I am sure we will as a country get the answers as to what took place. I personally believe that the independent commission that the President has proposed is a good thing to do. I agree with you that there are a great many people looking at this, but it is a big subject. It is an important subject.

As we go into the 21st century and look at the challenges and threats we face, we have to have a high degree of confidence that we understand them and we understand what we know about them and what we do not know about them.

Chairman WARNER. Thank you, Senator Roberts.

Senator ROBERTS. As we say as individual Senators, I know my time has expired, but I do want to quote Dr. Kay in regards to: The world is far safer with the disappearance and removal of Saddam Hussein. When we have the complete record, you are going to discover that after 1998 it became a regime that was totally corrupt. Individuals were out for their own protection. In a world where we know others were seeking the WMD, the likelihood at some point in the future of a seller and a buyer meeting up would have made that a far more dangerous country than even we anticipated with what may turn out to be not fully accurate estimating.

I thank the chairman for his leniency.

Chairman WARNER. Thank you very much.

Senator Reed.

Senator REED. Thank you very much, Mr. Chairman, Mr. Secretary.

I do not think I am the only one who is alarmed at the significant costs associated with Afghanistan and Iraq that are not included in this budget, and alarmed that these off-book transactions are potentially dangerous and misleading.

Secretary RUMSFELD. Pardon me, I am having trouble. What was misleading?

Senator REED. Well, I think there is a number of costs that we assume——

Secretary RUMSFELD. A number of what?

Senator REED. Costs.

Secretary RUMSFELD. Costs?

Senator REED. Costs associated with Iraq and Afghanistan: the ongoing commitment of over 100,000 troops, the recapitalization of equipment, the bonuses that we will have to use to maintain troop strength. All these costs do not seem to be properly included within the budget going forward. There seems to be a prospective reliance upon a supplemental sometime down the road.

Secretary RUMSFELD. Well, Senator——

Senator REED. May I complete?

Secretary RUMSFELD. Sure.

Senator REED. It seems that the operative logic here is that if it cannot be properly or accurately estimated, then it is assumed to be zero or it is excluded from the budget. In fact, what I find alarming is that seemed to be the logic that applied to post-combat

operations in Iraq last year, when many people on this committee asked for estimates about the cost of ongoing operations, the costs of occupation, and we were told essentially, "Well, we cannot estimate them, so we will not include them in our specific budget request."

That led to a $79 billion—a huge supplemental last year. I feel we could be on the same track.

I just want your view, Mr. Secretary.

Secretary RUMSFELD. Well, Senator, I am confused by your comment. Last year we came before Congress and had a plug number to propose—or 2 years ago, I guess it was—for Afghanistan. We were told by Congress: "Do not do that. Supplementals are for wartime operations; we will not consider any proposals for the wartime operation in Afghanistan or Iraq."

The reason the budget is cast the way it is cast is because Congress insisted that it be cast the way it is currently cast.

Senator REED. Well, Mr. Secretary, I do not believe I insisted on that; did I?

Secretary RUMSFELD. You are a Member of Congress.

Senator REED. I know, but I am not going to accept an argument saying that we forced you to disregard costs, not to include proper estimates, not to include in your proposal to Congress what you think you need.

Secretary RUMSFELD. Senator, we were zeroed out. We proposed it, and it was zeroed out. We were told, "Do not do it this way."

Senator REED. Do you think that is the right approach, Mr. Secretary?

Secretary RUMSFELD. No. Obviously, we wanted——

Senator REED. Then why do you not propose a budget that reflects accurately all the costs that you anticipate over the next year for Afghanistan and Iraq?

Secretary RUMSFELD. The decision was made, after Congress rejected that approach, that the executive branch would try to use supplementals for the purpose of wartime operations, but not for various things that just were not included in the budget.

Senator REED. Mr. Secretary, as I recall the debate about the $10 billion, it was not the fact that we were telling you do not put the money in. We wanted to know what you were going to spend it for. You wanted $10 billion unconditional, to be spent anyway you wanted. That is a usurpation of our responsibility to appropriate money for specific items.

You have the obligation to come before us with a detailed estimate of the cost and what you propose to do in the way of covering those costs. I cannot understand how you can argue that we are forcing you to disregard costs.

Secretary RUMSFELD. I did not suggest that at all. That was your statement, not mine, Senator. What we are doing is we will come before Congress with the proposal for what should be spent in a supplemental. There will be the details; there will be the justification, just as there would have been in the budget.

Senator REED. Why can you not include those costs today in your budget, so that we can make appropriate decisions about offsets, about priorities? This is to me extraordinarily ineffective and misleading budgeting, and it is not because Congress has ordered you.

I would suspect that the law requires you to send up a budget here that covers all your anticipated costs.

Secretary RUMSFELD. Well, Senator, if you go back over the years you will find that every war has been funded by supplementals. That is what has been done throughout my adult lifetime. I do not know a single situation where there has been a war that has been funded by a budget——

Senator REED. Mr. Secretary——

Secretary RUMSFELD.—that is developed a year and a half before and then submitted to Congress for a war that is ongoing.

Senator REED. Mr. Secretary, we both understand that supplementals are used to cover unanticipated costs that arise after the budget documents are presented and because of other exigencies that take place. You know fully well, as we all do, that we will be committing over 100,000 troops to Iraq, other troops to Afghanistan. These troops have costs. Their costs are numerous, myriad costs. Yet you are telling us now that, because we have told you you have to operate with a supplemental, you are not putting those costs in the budget?

Chairman WARNER. Senator, your time is up.

I would like to observe that the Appropriations Committee has a lot to do with the supplementals and the policy governing those supplementals. I believe if you will consult with Senator Inouye and Senator Stevens that this is their domain and they made that decision. If I am incorrect, Mr. Secretary——

Senator REED. Mr. Chairman, the Secretary basically said that he has not included all the costs that he anticipates this year for operations in Afghanistan and Iraq in this budget, and, therefore, we are not getting a full picture in the budget of the anticipated, the known, the most likely military operations of this Government for the next year.

Secretary RUMSFELD. I would phrase it quite close to that, but not exactly—that it is not possible to predict costs a year in advance in a war. Wars are uncertain things. It is possible to say, you are correct, Senator, that the funds for the ongoing conflict in the global war on terror and Afghanistan and Iraq are not in the budget. That was specified in the budget when it was presented. That is the pattern that has developed during the 3 years I have been back in this post, as I understand it, as a result of an interaction between the executive and the legislative branches at a level far above me.

Chairman WARNER. Senator Chambliss.

Senator CHAMBLISS. Thank you, Mr. Chairman.

Mr. Secretary and General Pace, let me make sure that we remind you, as you do every opportunity you have and every opportunity we have, to convey to our men and women in uniform how much we appreciate the great job they are doing. As we go through this budget process, we want to make sure that we pass a budget that is reflective of the great work that they are doing and the great appreciation that all Americans have for that terrific work that all of our men and women are doing.

I want to talk about a couple of specific issues, Mr. Secretary, relative to the budget. The two issues are first of all tactical air (TACAIR) and second air mobility. I know this is probably General

Myers' specialty, but again you and I have talked about each of these in enough detail that I know you are prepared on this.

First of all with respect to TACAIR, we have been talking about this train wreck that may be forthcoming down the road relative to Joint Strike Fighter, F/A–18, F–15, and the F–22. I note with very much approval that you have 24 F–22s funded in this authorization proposal. Last year during the Senate deliberations on the budget we had an issue relative to the F–22 and we worked through it. I am assuming because of your proposal that you are satisfied that procurement of F–22 is on time, on schedule, and continues to be on budget.

Second, with respect to the TACAIR issue, I note that we are having some problems with the Joint Strike Fighter. It is the same kind of problems we always have with every aircraft—I do not care what it is. We experienced it with the F–22, and our critics were quick to jump on us with respect to the F–22. But I want to make sure that you are satisfied that this weight issue on the Joint Strike Fighter is not something that is going to delay that, that both of these programs are on schedule, and that this train wreck that we have all feared may be forthcoming is going to be able to be avoided.

Secretary RUMSFELD. Well, I certainly hope you are right. The F–22 has a cost cap on it. It had some troubles with the software, and the costs have gone up. The Joint Strike Fighter has a weight problem, and that is being worked on. As you properly indicate, that is not unusual in programs of this type. It is in its very early stages.

If one talks to the experts in the Air Force, they seem reasonably confident that they have noted the problems, have addressed them, and have people proceeding on them in an orderly way.

Do you want to add anything to that, Dov?

Dr. ZAKHEIM. Yes. Senator, as you well know, this is not a problem that is unique to the United States. This is an issue that always arises when you go from computer-aided design to actual engineering. It affects every country that builds an airplane.

The decision that was taken, which was very prudent, was to deal with the issue now and to have cost control and essentially to get our arms around the problem now instead of taking some systems out and then having to reintegrate them later on at a much higher cost to the taxpayer. Of course, the Joint Strike Fighter is an international program and all our partners have agreed to this approach.

Senator CHAMBLISS. I am taking the response from both of you that you are very comfortable with the schedule of both of those programs at this point?

Secretary RUMSFELD. I am never comfortable. They are always complicated; they are always difficult; they always seem to take a little longer than you wish; and they always seem to cost a little more than you would hope. But the folks that are working on them believe they have their arms around the problems, and they are working on them hard.

Senator CHAMBLISS. Mr. Chairman, I note my time has expired.

Senator SESSIONS [presiding]. I believe Senator Warner asked that Senator Akaka be recognized. Senator Akaka, you are next.

Senator AKAKA. Thank you very much, Mr. Chairman.

I would like to begin by permitting Senator Levin 30 seconds.

Senator LEVIN. Thank you very much, Senator Akaka.

The issue of whether or not an intelligence investigation by an outside commission should be a truly outside commission or one just appointed by the President we can save for another place. If it is going to be independent, it has to be independent of the President, and that means Congress has to be involved in the selection of that commission and the rules. That is number one.

Another issue, which we are not going to resolve here, is we believe on the Democratic side that the Intelligence Committee should look at the use of intelligence by the policymakers, not just at the production and creation by the Intelligence Committee. That is another issue for another place and another day.

I want to put in the record something relative to the alleged continuity of intelligence between the Clinton administration and the Bush administration. I am going to put in the record three tables that were produced by the Carnegie Endowment. Table 3 compares pre–2002 intelligence assessments with October NIE assessment in 2002. So I am going to go down the list and put these tables in the record comparing pre-October intelligence with post-October 2002 intelligence.

> "Iraq reconstituted its nuclear program after 1998": pre-2002, probably not; October 2002, yes.
>
> "Iraq attempted to enrich uranium for use in nuclear weapons": pre-2002, maybe; October 2002, yes.
>
> "Iraq attempted to purchase uranium from abroad": pre-2002, no; October 2002 NIE assessment, yes.

Now, on the chemical weapons programs: "Iraq had large stockpiles of chemical weapons:" pre-2002, maybe; October 2002 NIE, yes.

> "Iraq had covert chemical weapon production facilities": before 2002, not sure; October 2002, yes.

On and on, the significant differences in the intelligence between before and after October 2002, laid out in this Carnegie Endowment study. I would ask that these be made part of the record.

[The information referred to follows:]

TABLE 3. SUMMARY OF IRAQ'S NUCLEAR WEAPON PROGRAM

PREWAR CONCERNS	PRE-2002 INTELLIGENCE ASSESSMENTS	OCTOBER 2002 NIE ASSESSMENT	UN FINDINGS 2002–2003	ADMINISTRATION STATEMENTS	EVIDENCE SINCE MARCH 2003
Iraq reconstituted its nuclear program after 1998.	**PROBABLY NOT.** Consensus was that Iraq "probably continued low-level theoretical R&D."	**YES.** Iraq restarted its nuclear program after UNSCOM left in 1998: "probably will have a nuclear weapon during this decade." Department of State disagreed.	**PROBABLY NOT.** No evidence that Iraq had restarted a nuclear program. The IAEA dismantled all known aspects of the program in the 1990s. ElBaradei: majority of Iraqi nuclear sites "deteriorated substantially" over decade.	**YES.** Saddam restarted Iraq's nuclear program and would acquire nuclear weapons fairly soon. Bush: "We don't know whether or not he has a nuclear weapon."	**NO.** No signs of any active program. Kay: "to date we have not uncovered evidence that Iraq undertook significant post-1998 steps to actually build nuclear weapons or produce fissile material."
Iraq attempted to enrich uranium for use in nuclear weapons.	**MAYBE.** Concern that "Baghdad may be attempting to acquire materials that could aid in reconstituting its nuclear weapons program."	**YES.** Iraq imported aluminum tubes and high-strength magnets for uranium enrichment—but the Department of Energy and Department of State disagreed.	**NO.** IAEA: Unlikely the tubes or magnets could be used for a centrifuge program.	**YES.** Vice President Cheney: Iraq was procuring equipment to enrich uranium. Iraq purchased high-strength tubes and magnets for uranium enrichment.	**NO.** No evidence that the tubes or magnets were meant for uranium enrichment. Iraqi scientists maintain the tubes were for rockets. Kay: "the evidence does not tie any activity directly to centrifuge research or development."
Iraq attempted to purchase uranium from abroad.	**NO.** None of the pre-2002 reports mention any attempts to purchase uranium, although most noted that "a sufficient source of fissile material remains Iraq's most significant obstacle to being able to produce a nuclear weapon."	**YES.** "Iraq also began vigorously trying to procure uranium ore and yellowcake." Department of State rejected reports that Iraq sought to buy uranium in Africa.	**NO.** IAEA: The documents supporting the African uranium claim were forgeries.	**YES.** President Bush: "The British government has learned that Saddam Hussein recently sought significant quantities of uranium from Africa."	**NO.** In July 2003, various reports revealed that U.S. officials were aware that the evidence for the African uranium claim was unfounded. The administration acknowledged that the remark should not have appeared in the president's State of the Union address.

TABLE 4. SUMMARY OF IRAQ'S CHEMICAL WEAPON PROGRAM

PREWAR CONCERNS	PRE-2002 INTELLIGENCE ASSESSMENTS	OCTOBER 2002 NIE ASSESSMENT	UN FINDINGS 2002–2003	ADMINISTRATION STATEMENTS	EVIDENCE SINCE MARCH 2003
Iraq had large stockpiles of chemical weapons.	**MAYBE.** Pre-2002 reports did not report the existence of chemical weapon stockpiles. Discrepancies in Iraqi accounting suggested that "Iraq may have hidden an additional 6,000 CW munitions."	**YES.** "High confidence" that Iraq had chemical weapons, probably between 100 and 500 metric tons.	**NOT SURE.** UNMOVIC uncovered several chemical warheads, but no significant stockpile. Iraq failed to provide evidence that it destroyed significant quantities of chemical munitions and precursor materials.	**YES.** Certain that Iraq had vast chemical weapon stockpiles including mustard gas, sarin nerve gas, and VX, and was hiding them from inspectors.	**NO.** No chemical weapons found. Appears none were produced after 1991. Kay: "Iraq did not have a large, ongoing, centrally controlled CW program after 1991."
Iraq had covert chemical weapon production facilities.	**NOT SURE.** Iraq "rebuilt key portions of its chemical production infrastructure for industrial and commercial use" in addition to purchasing dual-use equipment.	**YES.** Iraq "has begun renewed production" of chemical agents, including mustard, sarin, cyclosarin, and VX.	**PROBABLY NOT.** UNMOVIC inspections did not find any active production facilities or evidence of hidden chemical weapon production capability.	**YES.** Iraq hid its chemical program. Secretary Powell: "We know that Iraq has embedded key portions of its illicit chemical weapons infrastructure within its legitimate civilian industry."	**NO.** No open or covert chemical munitions or production facilities found. Some low-level research activity and dual-use programs possible.

TABLE 5. SUMMARY OF IRAQ'S BIOLOGICAL WEAPON PROGRAM

PREWAR CONCERNS	PRE-2002 INTELLIGENCE ASSESSMENTS	OCTOBER 2002 NIE ASSESSMENT	UN FINDINGS 2002–2003	ADMINISTRATION STATEMENTS	EVIDENCE SINCE MARCH 2003
Iraq had current biological weapon stockpiles.	**NOT SURE.** "We are concerned that Iraq may again be producing BW agents."	**YES.** "High confidence" that Iraq had biological weapons.	**NOT SURE.** UNMOVIC inspectors could not find evidence of any BW agents or biological weapons.	**YES.** Iraq had a stockpile of biological weapons. President Bush: Iraq had "a massive stockpile of biological weapons that has never been accounted for, and capable of killing millions."	**NO.** No weaponized biological agents found.
Iraq had reconstituted its biological weapon program.	**YES.** December 2001 report: "Baghdad continued to pursue a BW program," and Iraq had a "knowledge base and industrial infrastructure that could be used to produce quickly a large amount of BW agents at any time."	**YES.** Iraq had an active bioweapon program that was larger than before 1991.	**NOT SURE.** UNMOVIC inspections did not reveal evidence of a continued biological weapon program. However, Iraq did not provide evidence that it had destroyed BW agents.	**YES.** Iraq was producing and developing several different types of biological agents and the means to disperse them. President Bush: "Right now, Iraq is expanding and improving facilities that were used for the production of biological weapons."	**NO.** No evidence of an active biological weapon program. ISG found some evidence of intent to restart program at future date, and some possible dual-use research.
Iraq possessed at least seven mobile biological weapon laboratories.	**NO COMMENT.** No pre-2002 report mentions mobile biological laboratories.	**YES.** Iraq had an unspecified number of mobile biological agent laboratories.	**NOT SURE.** UNMOVIC did not uncover evidence of mobile biological weapon facilities.	**YES.** Secretary Powell: "We know that Iraq has at least seven of these mobile biological agents factories."	**PROBABLY NOT.** Two vans found, but neither tested positive for biological agents. DIA: the labs are most likely for producing hydrogen artillery weather balloons.

Chairman WARNER. Without objection. The Secretary should be given the opportunity to put in the record a rebuttal.

Senator LEVIN. That was on Senator Akaka's time, so I appreciate it——

Chairman WARNER. I understand that.

Secretary RUMSFELD. I would be happy to. I will say this; George Tenet was the DCI in the last administration and this administration, and he has indicated repeatedly that there are, as I said, threads of the intelligence that are consistent and provide continuity over a sustained period of time. He is the DCI.

[The information referred to follows:]

Defense Authorization Request for FY 2005 and the Future Years Defense Program

Background: Rebuttal to three charts taken from the *Carnegie Endowment for International Peace Report: WMD in Iraq, Evidence and Implications* inserted into the hearing record. Specifically:
Table 3: Summary of Iraq's Nuclear Weapon Program
Table 4: Summary of Iraq's Chemical Weapon Program
Table 5: Summary of Iraq's Biological Weapon Program

Insert: On page 14 of the report, the authors state:

> Although the complete story cannot yet be told, a massive amount of information is available from ***declassified*** U.S. intelligence...This study sorts through this mass of material, disentangles many of its complexities, and lays out a much clearer ***if still incomplete***, picture of what was known, uncertain, and unknown at each stage. From this ***we offer partial answers*** to these questions and point to issues that need fuller attention by *bodies with access to* ***the full classified record*** and to others that need further analysis and public debate. (Emphasis added)

By the authors' own admission this report is incomplete due to the exclusion of all classified U.S. intelligence. This exclusion limits the thoroughness of their report and impacts the validity of many of their assessments. The October 2002 NIE Assessment of the Iraqi WMD Programs was the result of the hard work and dedication of all branches of the Intelligence Community working together to provide their best judgment of the situation. As true professionals, they operated with due diligence and care throughout the process.

Senator LEVIN. Thank you, Senator Akaka.

Chairman WARNER. Thank you very much.

Senator Cornyn.

Senator LEVIN. No, no. Senator Akaka still has the rest of his time.

Senator AKAKA. General Pace, various lessons learned reports have highlighted the problems associated with theater logistics during Operation Iraqi Freedom. My understanding of the problem is that there were two major drivers: first, shipments. Shipments were not well-configured for in-theater distribution when they left the United States, which shifted a major burden onto the deployed units there. Second, this problem was exacerbated by the lack of timely deployment of distribution units and equipment.

My first question to you is, what is your assessment of these problems. Has DOD taken steps to ensure that these problems will not arise again as new units are deployed into Iraq?

General PACE. Thank you, Senator. As I think you know, Senator, we had, as part of our prewar workup with the team that was going to be leading it in Central Command, folks who were focused on lessons learned. They went down to Tampa. They worked with the leadership in Tampa. They went with the forces overseas and they have worked with the forces since they have come back to collect just the kind of data you are talking about.

When we looked at deploying the force, we knew that we did not need to repeat what we did last time, to move so much gear to theater. Literally last time, I am told, although I do not know the exact figures, about 90 percent of the logistics that were taken to the theater and Operations Desert Shield-Desert Storm had to be

put back aboard ships and brought home. We wanted to avoid that problem.

We wanted to make sure that we had the tooth forward and the tail sufficient, but coming up behind to support. In the process of doing that, the number of ships that were available, the numbers of planes that were available, were allocated by the Transportation Command commander in support of the troops on the ground.

In doing so, there were certainly lessons about how to load ships and the kinds of things that, had they been there a little sooner, would have helped. But we have absorbed those lessons and we are taking those and redesigning our logistics system to make a joint logistics system. What we were able to do in this last one was coordinate and de-conflict each Service's logistics push forward. What we need, as we had with the joint fighting force, we need a joint logistics system that allows us to better coordinate and get the right gear to the battle at the right time.

Were there problems? Certainly, sir. We have identified the problems and we are working on them.

Chairman WARNER. Thank you very much, General.

Senator Cornyn.

Senator CORNYN. Mr. Secretary, the London Financial Times reports February 4, 2004, that the "U.S. is preparing to cut its troop levels in Europe by up to a third."

[The information referred to follows:]

London Financial Times
February 4, 2004

Pentagon Preparing To Slash Number Of US Troops In Europe By A Third

By Judy Dempsey

The US is preparing to cut its troop levels in Europe by up to a third, diplomats said yesterday. The reduction would be one of the biggest redeployments since the second world war.

Contrary to some earlier expectations, Washington does not now intend to open large, permanent bases in eastern Europe - allaying fears in some western European capitals that the Pentagon was planning to punish "Old Europe" for its opposition to the war against Iraq.

"If anything, the troops taken out of (western) Europe will be sent home," said a Nato diplomat.

"From there, they will be sent on exercises or training missions to small bases established on a temporary basis in Poland, Romania or Bulgaria. The old days of the giant US barracks with the shops, the schools and ice-cream parlours are over."

Romania and Bulgaria will be particularly disappointed that the US will not make bigger redeployments in their countries, although east European diplomats played down their concerns.

The Pentagon said no final decision had been taken on troop reduction levels.

The US has 119,000 troops in Europe, 80,000 of whom are stationed in Germany. Washington had more than 300,000 troops plus dependants in western Europe at the height of the cold war.

Russia has warned against moves by Nato or the US to shift forces eastwards. Colin Powell, US secretary of state, told Vladimir Putin, Russia's president, last week that Washington had no intention of encircling Russia.

"We are not looking to move bases, of the kind we used to have during the cold war, closer to Russia just to put a base closer to Russia," Mr Powell said in Moscow. "What we're interested in are, perhaps, forward operating locations that we could train at temporarily, or we can have access agreements at particular airfields that make it easier for us to deploy to particular areas of potential crisis. That's what this is about."

Diplomats said the Pentagon was aiming to create flexible, small units that could be moved quickly to temporary bases. General Jim Jones, the US commander in Europe and Nato's military chief, wants to create these structures for Nato as well.

The US is not preparing to cut the number of troops in Europe in one big sweep. The redeployment could take a couple of years.

"Much is at stake," said a German diplomat. "Entire villages have built their future around the bases, particularly in Germany. You just can't destroy those 60-year-old relationships."

My question is, with the ongoing Global Defense Posture Review and the likely decision to bring home troops from overseas bases, whatever that number may be—and perhaps you could comment on that—not to mention the decision to temporarily increase Army end strength levels, how will these be factored into the BRAC process?

Secretary RUMSFELD. The BRAC process is just getting under way, and, of course, one would hope that the answer to your question would be that the BRAC Commission would do it skillfully. But at the moment we do not have a good solid number as to the number of forces that would be coming out of Europe, although

there certainly will be forces coming out of Europe and also some out of Asia as well as elsewhere.

The BRAC process task will be to look at that and see that, if the theory is right that there is something like 20 percent base capacity, facility capacity, excess at the present time. If that is true and then one brings forces home from overseas, one would think that the excess capacity here at home would be somewhat less than that and the BRAC Commission would have to take those things into account.

Senator CORNYN. My next question has to do with the fiscal year 2003 creation of the Assistant Secretary of Defense for Homeland Defense, the purpose of which was to better coordinate and provide policy oversight for DOD homeland defense activities. Could you please explain how you see DOD's role in homeland defense evolving and how that will be factored into the BRAC process as well?

Secretary RUMSFELD. Well, I do not know that it will have a relationship with the BRAC process. The forces we have, of course, around the world are available for homeland defense. The ones that are here are closest. The ones that are elsewhere are available. The principal responsibility for homeland defense, as we know, is the first responders, depending on the nature of the problem.

But very quickly the DOD gets engaged. For example, at the Olympics last year in Salt Lake City we had a lot of forces there. In fact, we had a lot more forces there than we did in Afghanistan at that time. When there is a difficulty like at the Senate Office Building today, we have a chem-bio unit that is coming up to assist in that.

But the Assistant Secretary for Homeland Defense task is to keep us in the Department sensitive to the responsibilities of the Department with respect to supporting the first responders here in the United States and to working closely with the Homeland Security Department and in the interagency process to see that there are the kinds of exercises and testing of systems to see that we are prepared and able to respond and coordinate properly with the people who have the principal responsibility.

Senator CORNYN. Well, I know, for example, in my State the military bases frequently have memoranda of understanding with local communities so that if there is an emergency of some nature on base that the fire department, the first responders, off base can augment the resources available on base and vice versa. That is the thrust of my question.

But to that extent, do you deem that relevant to the process? I mean, is that going to be factored in somehow or another?

Secretary RUMSFELD. Well, certainly the statute lists a whole series of things that need to be taken into consideration, and I would think that those kinds of considerations would be included.

Senator CORNYN. Thank you.

Chairman WARNER. In the instance of the last question and other questions, you might amplify for the record your responses, so that we can move along here expeditiously. I thank the witnesses and the questioners.

[The information referred to follows:]

Homeland defense mission requirements will be factored into the military value evaluation of DOD's installations within the Base Realignment and Closure process 2005 analytical effort.

The criterion to be used in the Base Realignment and Closure process is as follows (as published in the Federal Register on February 12, 004):

Military Value

1. The current and future mission capabilities and the impact on operational readiness of the Department of Defense's total force, including the impact on joint warfighting, training, and readiness.
2. The availability and condition of land, facilities and associated airspace (including training areas suitable for maneuver by ground, naval, or air forces throughout a diversity of climate and terrain areas and staging areas for the use of the Armed Forces in homeland defense missions) at both existing and potential receiving locations.
3. The ability to accommodate contingency, mobilization, surge, and future total force requirements at both existing and potential receiving locations to support operations and training.
4. The cost of operations and the manpower implications.

Other Considerations

5. The extent and timing of potential costs and savings, including the number of years, beginning with the date of completion of the closure or realignment, for the savings to exceed the costs.
6. The economic impact on existing communities in the vicinity of military installations.
7. The ability of both the existing and potential receiving communities' infrastructure to support forces, missions, and personnel.
8. The environmental impact, including the impact of costs related to potential environmental restoration, waste management, and environmental compliance activities.

Homeland defense mission requirements will be factored into the military value evaluation of DOD's installations within the BRAC 2005 analytical effort.

The security of our Nation, whether expressed as homeland defense, domestic preparedness, or the global war on terrorism, is the primary DOD mission. Both the Base Realignment and Closure legislation and DOD's implementation of it ensures that homeland defense and security are considered in the BRAC process. Specifically, criterion two requires DOD components to consider "the availability and condition of land, facilities, and associated airspace . . . as staging areas for the use of the Armed Forces in homeland defense missions." Additionally, as a mission of DOD, all of these issues (homeland defense, domestic preparedness, and the global war on terrorism) are captured by the requirements of criteria one and three.

Senator Ben Nelson.

Senator BEN NELSON. Thank you, Mr. Chairman.

Mr. Secretary, General, it is a pleasure to be able to recognize the men and women in the military and the wonderful job that they do. It is also a sobering experience for my colleagues and I to call the parents, the spouses of those who have been lost in Iraq or anywhere around the world.

My question today is going to be a basic question. General Pace, last November I asked Acting Secretary of the Army Les Brownlee when every soldier in Iraq would be equipped with the most advanced body armor. I asked this question after a constituent called my office to complain that his son was conducting house to house searches in Iraq and still wearing kevlar. Secretary Brownlee said that all troops in Iraq would have the advanced body armor by December.

My question, of course, is, do you know if this is now the case?

General PACE. Sir, it is the case. In fact, it was January, last month, that 100 percent of DOD military and civilians in Iraq had been issued to them individually the advanced body armor. As we rotate the force, before they go into Iraq the new troops will have issued to them the new body armor. Thanks to the funding of Con-

gress, we have been able to take the initial capacity of industry—when this war began, it was still in the technology environment. We were able to take that 1,600 set per month capacity, and we have built it up now, thanks to your funding, to 25,000 sets per month. We have met the objective and we will be able to ensure that everyone continues to have it as they enter the country.

Senator BEN NELSON. I now hear that the 1057th Transportation Company, part of the 37th Theater Supply Command, is not outfitted with advanced body armor. They have some newer vests, but not the insert of the body armor. Their mission, as you may know, is the transportation of supplies and personnel into southern Iraq, which then also takes them into harm's way on a very regular basis.

Do you know whether they have or can you look into that if you do not know whether they have it by now?

General PACE. Sir, I will find out specifically whether or not every soldier in that unit currently has that. I can tell you for a fact that there are sufficient sets in Kuwait and in Iraq to have every single service member and DOD civilian with their own personal set. It is the plan as they rotate to ensure that each gets a set before they go in. But I will find out on that unit.

Senator BEN NELSON. Thank you. I know that all of you are committed to the best protection for our men and women in uniform. You can appreciate the fact that when a call comes in from a parent concerned about the safety of his son or daughter, that is a matter of critical interest, as well it should be. I will communicate that information back to that very concerned parent.

General PACE. Thank you, sir.

Senator BEN NELSON. Thank you very much.

Thank you.

Chairman WARNER. Thank you, Senator. That is a very important series of questions.

Senator BEN NELSON. And my time is up.

Chairman WARNER. Thank you very much.

Senator Collins——

Secretary RUMSFELD. Mr. Chairman, could I just make a quick comment?

Chairman WARNER. Yes, sir.

Secretary RUMSFELD. On reflection, Senator Levin mentioned a Carnegie report. I do not know. I have never seen it, but I suspect it is unclassified. If it came from open sources, one ought not to be surprised that there might be a difference between an open source document and what the DCI told me.

Chairman WARNER. We note that for the record. Thank you.

Senator Collins.

Senator COLLINS. Thank you, Mr. Chairman.

Mr. Secretary, in your testimony today you have a whole section entitled "Mass Versus Capability," and you state, "Critical to success in military conflict in the 21st century is not necessarily mass as much as it is capability." But the fact is, whether we are talking about troops or weapons systems or body armor or ships, numbers still matter.

For that reason, I want to talk to you about the shipbuilding budget. Our naval fleet now consists of only 294 ships, and there

are some projections that say that as cruisers and destroyers are decommissioned, the number may drop to as low as 180 ships. The Chief of Naval Operations has testified many times that a more appropriate fleet size would be approximately 375 ships. I realize that these ships of the future are going to be far more capable ships, but nevertheless the Chief of Naval Operations is still saying that our fleet size is considerably too small.

There are also reports that the Navy is slipping construction of a second DDX destroyer by 1 year, from fiscal year 2006 to 2007. If that occurs, it will be the first year in more than 20 years that our military will not be procuring a major surface combatant. That threatens to exacerbate what is already a shortfall in the number of ships that would ideally be maintained in our fleet. But it also raises serious questions about the impact on our industrial base.

I would like you to discuss the shipbuilding budget in light of the Chief of Naval Operations' belief that we are significantly underfunding shipbuilding and also with regard to the possibility of the DDX destroyer construction slipping.

Secretary RUMSFELD. Yes, Senator Collins. This is the Chief of Naval Operations and the Secretary of the Navy's proposed budget for shipbuilding. This is their recommended budget. You are right: the ships at the end of fiscal year 2003 have dropped below 300 to 296. You are also correct that in the case of ships, capability is important, to be sure, but numbers do also matter because of presence. I agree completely with that.

The DDX situation as I understand it, they provided a gap year, a delay of a year, to allow lessons learned from the first ship to be applied to the following ships. That was the judgment that was made in the Department of the Navy.

With respect to the total shipbuilding program over the forward year defense plan, the numbers go from 7 to 9 to 6 to 8 to 8 to 17, the 17 being because the ships nature, the littoral ships, and that you can do more of them.

But we agree that, with the program that the Department of the Navy has put forward, it is a less manpower-intensive Navy. It is important that what they have arranged is a surge capability so that they are going to be able to provide greater seapower in more places, at more times, than had been the case in the past.

General Pace, do you want to comment on it?

General PACE. I can. Let me just take for example, ma'am, aircraft carriers, which in the past have been one-third on deployment—about four on deployment, one-third coming back and reconstituting and changing out ship's crews, and one-third getting ready for the next deployment. You have had generically about four that you could get to a battle right away.

What Admiral Clark has done in his transformation of the Navy has made it so that he is going to be able to provide to any combatant commander anywhere in the world six of these carrier battle groups on demand. He is doing that by things like integrating Marine Corps and Navy aviation, so he has the wings that fly off the carriers working together as a unit and trained up.

I will not take more of your time.

Senator COLLINS. We are going to have to have further discussions on that.

In closing, let me just say very quickly that I am also very concerned about reports that I am hearing from Federal employees' representatives and from the Office of Personnel Management (OPM) on the progress with the new personnel system. I will be following up in writing with some of those concerns.

Chairman WARNER. Senator, you keep a very watchful eye on this man's Navy. Thank you very much.

Senator Pryor.

Senator PRYOR. Thank you, Mr. Chairman.

Mr. Secretary, thank you again for being here and doing what you do. Let me commend you on one thing in your budget, if I may, and that is your treatment of housing for our men and women in uniform. Basically the way you have it structured now the housing is now a tax-free benefit that they receive, and that is a very positive thing. It is good for morale and good for the quality of life.

There is one thing that I would love to work with you on this year, though, Mr. Secretary, and that is that, given the structure of the earned income tax credit and also the child tax credit, our men and women in uniform, even in a combat zone, could be penalized under the Federal tax system for serving in the military, and they could lose up to $4,000 a year.

I do want to work with you on that this year. I was not aware if you were aware of that problem and if it is something that you perceive as a problem that we can solve in your budget.

Secretary RUMSFELD. I am not aware of what you are referring to, but we would be happy to look into it and work with you.

Senator PRYOR. I look forward to working with you on that.

I also want to look at Halliburton. I know there has been a recent spate of news stories about Halliburton. One said it overbilled about $28 million for food service over in the region in and around Iraq. I believe that was five different facilities if I have my facts straight. Then there was the story that we have all read and seen about overbilling for gasoline.

There is another story about $6.3 million in overbilling for sort of unspecified services. I am not quite sure what that is, but I was reading some of the press clips on that.

As I see these stories, I am sensing a pattern with Halliburton's billing practices. Mr. Secretary, I was wondering if you had that same concern that I do about Halliburton's billing practices?

Secretary RUMSFELD. I will just make a brief comment and then Dov can comment on it, Dr. Zakheim.

A prime contractor ends up with subcontractors. The subcontractor ends up then billing the prime, and the prime bills the person letting the contract. We have hundreds and thousands—not hundreds of thousands, but hundreds and probably thousands—of auditors. They are constantly looking at all of these things.

In these things, they frequently come up with differences of opinion. They are all making the press, and that is fair enough. Those are all also things that we are concerned about, and the auditors are crawling all over them.

Dov?

Dr. ZAKHEIM. Yes, Mr. Secretary.

Senator, let me first tell you that in April of this year, with the Secretary's approval, I sent a team of auditors to Iraq. With the ex-

ception of the one press report about the $6.3 million, and I will get back to that, every single report, in fact every single revelation, came from our auditors in our Department. Those auditors are also working with our inspector general and with the General Accounting Office (GAO), because they are on top of not just the issues you just raised, but of every single contract in Iraq, are every single contractor.

You are right about the $28 million. That reflects what our auditors found relative to 5 of 58 facilities, and they are still working their way through the other 53. Kellogg Brown and Root (KBR) has agreed that there will be a withhold on that charge simply because there is a disagreement over how to estimate the number of people being served.

With respect to the gasoline, again $61 million was identified. That has gone to the Inspector General, so I really cannot say very much more about that.

With respect to the $6.3 million, that was something that KBR found themselves and they reported it. That gives you an indication, and it goes back to what the Secretary said: The prime contractor is doing its best to do the right thing when it has literally billions of dollars in contracts not that such funds have necessarily already been received and spent, but in terms of the size of the undertaking. A good part of that, the logistics, or "logcap" as it is called, was something they were awarded several years before the Iraq war and was for worldwide support.

The basic issue that our auditors are finding is that of relationships with subcontractors, and we are working our way through that.

Chairman WARNER. Thank you very much.

Senator PRYOR. Mr. Chairman, I am out of time. Thank you.

Chairman WARNER. Thank you.

Senator Ensign.

Senator ENSIGN. Thank you, Mr. Chairman.

Mr. Secretary, I want to try to protect you from something you said today that hopefully nobody will hold against you in the future. You said that we will know before it is over. In other words, "we will know"—and I just want to make sure that you had a chance to correct that.

Secretary RUMSFELD. Thank you. I'll correct it right now. We will know what we know, but we may not know all we would like to know when it is over. I thank you very much for that. You have saved me a tough question from Senator Levin a year from now. [Laughter.]

Senator LEVIN. No, he has not. [Laughter.]

Senator ENSIGN. I actually do want to go along that line of questioning, though, simply because I want to point out something that everybody is saying. That is that we basically know we have an intelligence failure, we think we know we have an intelligence failure, but yet members of the panel are saying it like it is fact.

The reason that I am bringing that out is because to their best guess, they are saying it like it is fact, just like when you were before this committee, just like you said today, we know because in all probability we should know whether or not there were WMD and things like that.

We should be a little more careful, but it certainly was not the intent of anybody on this committee to mislead the American public, hopefully it was not, just like I do not believe it was your intent on the "we know" comments.

Secretary RUMSFELD. No indeed.

Senator ENSIGN. So that is really important.

But when we are doing these intelligence investigations—the most important part for all of us to keep in mind is that this should not be a witch hunt to find somebody, to find a scapegoat. It is important, if people did something wrong or if they purposely did something and misled people, then they should be held accountable. But the purpose it seems to me for the investigation, just like we did an intelligence investigation after the missiles of October, was so that we could improve our intelligence-gathering capabilities.

We know right now that we have some problems. We have known that, actually, maybe for quite some time, and some people have been arguing that we need to improve the human intelligence instead of relying so much on our high-tech stuff.

I guess I would just like maybe your comment on the focus, where the focus should be into the future. You have put up that satellite photo of North Korea. Okay, we identify, but how do we get into the future? How do we really improve our intelligence capabilities into the future?

Secretary RUMSFELD. Well, my impression is that Director Tenet has done a lot to improve intelligence over these past years. The funding has been increased. Improving human intelligence—there has been a good deal of effort on that. It takes a long time, years, 4, 5, 6, 7 years, to actually strengthen that aspect of it.

I am hopeful that the Senate Intelligence and the House Intelligence Committees, when they complete their report, will have thoughts on this subject, and certainly the commission will have thoughts on this subject.

Senator ENSIGN. I guess one of the other comments that I want to make of us leaning forward, because of the media attention that has been focused on intelligence and possible intelligence failures, is that it will stop us from doing the right thing in the future. Some people might use this as we cannot trust our Intelligence Community.

What Dr. Kay said has to be emphasized more than we can possibly emphasize it, in that, yes, there were probably some intelligence failures, but it does not take away from the fact that it may have been a more dangerous world than we thought. I am hoping that it does not change the administration's policy on forward-leaning, the idea of preemption, the idea of, "If we could have prevented September 11, would we not have done everything we possibly could?"

What we did in Iraq was prevent more September 11s, and I am hoping that this recent revelation does not change administration policy.

Secretary RUMSFELD. Senator, you are on a very important point. We have to know that there are always going to be intelligence failures, and there also are going to be intelligence successes and they have saved people's lives.

Second, there is a risk that policymakers would hesitate to make decisions or that analysts would hesitate to explain what they thought. One thing that is important that worries me about the discussion here this morning: it is critically important that there be interaction between users of intelligence and suppliers of intelligence. Each informs the other.

The implication that if there is an interaction between a policymaker and a supplier of intelligence that somehow or other that is pressure or that is manipulation or that is not right or fair to them is wrong, because we each learn from each other. Inattentive users of intelligence have a responsibility to interact with suppliers, and the suppliers learn from that—of intelligence—and the user of intelligence learns, because they end up talking to each other in a very open way. That is a healthy thing, not a worrisome thing.

Senator ENSIGN. Mr. Chairman, my time has expired and for the record I would like to ask the Secretary and your people to give us an idea of when you will have a plan on transforming the Guard and the Reserve, the idea of that spigot, when, approximate timetable you will have a plan for us.

Secretary RUMSFELD. We have the plan, and we can brief you at your desire, whenever, particularly the Army. General Schoomaker is well along in it, and the Navy and the Air Force have some Reserve Forces, and they have some plans also.

Senator ENSIGN. Thank you.

Chairman WARNER. Thank you, Senator.

Senator Dayton.

Senator DAYTON. Thank you, Mr. Chairman.

Mr. Secretary, I share the concern of Senator Reed about the fact that there is no money in the budget you submitted for fighting the ongoing wars in Afghanistan and Iraq. In your testimony you refer to the unknown costs of fighting wars. I guess I am incredulous that that is not something that DOD and the service branches can quantify fairly accurately. That is what you do. With all your experience and success in the private sector as well as the public sector, I just cannot believe that that is an unknowable figure for fiscal year 2005.

Can we just, given that it is not in there, try to identify what we, for the purposes of our discussion and our decisionmaking, or it is already a factor in the transportation bill that we are considering now? I have seen numbers that said $4 billion a month is the cost of the current operation in Iraq—these are published reports—and $800 million in Afghanistan. Is it for estimation purposes reasonable to extrapolate that for fiscal year 2005?

Secretary RUMSFELD. Senator, fiscal year 2005 starts October 1, 2004. It is what, 10 months from now? The budget for 2005 that was submitted by the President this week was prepared starting in January 2003 and completed in November 2003, and given to the OMB, sent up to Congress in January 2004 for the year that starts in October 2005 and goes to September 2006.

Now, if one thinks about it, that is anywhere from at the minimum 12 and at the maximum 24 months in advance. We do not know, we cannot know, how many troops we are going to want in Iraq in the period——

Senator DAYTON. Mr. Secretary, you must for planning purposes be making some assumptions. I am just asking you, can we reasonably assume on an estimated basis that the numbers I just read—$4 billion a month for the current operation in Iraq, $800 million a month for the current operation in Afghanistan, multiplied by 12 are an approximation for what it, under a best guess, will cost?

Secretary RUMSFELD. You get into best guesses and you misinform people.

Senator DAYTON. I consulted last night an oracle. I said, who is best qualified to shed some light on this, and I went looking for Rumsfeld's Rules. I discovered it is not that easy to find them now. You are off the Web site. You are probably one of the few in the administration who practices them, especially as it relates to budget matters.

But a couple of them that come to mind are: "Be precise. Lack of precision is dangerous when the margin of error is small." This is Stephen Friedman. I do not know if he is quoting you precisely. He references a couple of them. "If you cannot measure it, you cannot manage it. That which require to be reported on you will improve if you are selective."

It seems to me if we are going to manage—our role is to manage and we are making decisions first now in the next couple weeks about overall Federal budget and then as an authorizing committee about levels for the—this is the lineup we have and the timetable we are on. If you will not give us numbers, how can we manage and fulfil our responsibilities?

Secretary RUMSFELD. My first choice would have been to do it. I tried to do it 2 years ago, and I was told by Congress, "Do not do it." Now, that is a fact.

Senator DAYTON. But "Congress" covers a multitude of sins. I am only one.

Secretary RUMSFELD. You said that. I did not.

Senator DAYTON. I did not have a role in that. I do not agree with Congress all the time, but I guess I am trying just to go back again because we are going to have to deal with this. Is this a state secret, what this estimate is for 2005?

Secretary RUMSFELD. Of course not. What one can do and what we tried to do—in fact, what we proposed and were rejected on 2 years ago—was to say: "Look, you have alternative futures. You could end up with 115,000 troops in Iraq, or it could go up because the security situation could deteriorate and you might have to do something else, or it could go down because the Iraqi security forces exceed 200,000 and are capable of taking over a number of those responsibilities. It could be any one of those."

We came in with a budget that said that and said here is a midpoint; we do not know whether it will have to go up or stay the same or go down. We were told: "Listen, wars are funded with supplementals; do it that way."

Senator DAYTON. My time is up.

Chairman WARNER. Senator Sessions.

Senator DAYTON. Thank you, Mr. Chairman.

Chairman WARNER. Thank you.

Senator SESSIONS. It may be in terms of spending money and Congress, "Congress" means Senator Ted Stevens. I do not know,

but if I recall it was his belief that we should do it by supplemental. It certainly gives those few in Congress who oppose the war a readily available number to claim how much we are spending as justification for their opposition from the beginning.

The intelligence issue will roll along. I do know that the truth always generally comes out. It was interesting that Dr. Kay, in his testimony the other day before us, indicated that the Republican Guard commanders in Iraq thought they had WMD. Only they would say: "No, I did not have it, but my fellow commander had it. They would interview him and he would say: I do not have it, but commander such-and-such has it." They all thought they had it, but apparently it has not been found yet.

Mr. Secretary, I commend you on continuing a steady train of transformation of the defense of America. I remember one of the first hearings I asked Mr. Wolfowitz that he had not broken enough glass, not enough people were hollering about the changes; maybe you were not making enough changes. He said: "We have a plan and a thought to move steadily forward to make our Defense Department more relevant to the threats facing America, and I think you will see us accomplish that."

Do you feel that, even with this war that fell upon us, you are on track to make us, as Coach Eddie Robinson said, "more hostile, agile, and mobile."

Secretary RUMSFELD. Indeed I do. There was a lot of discussion after September 11 as to whether the global war on terror should take precedence and we should try to forget transforming and not try to do two things at once. But, in reality, the transformation supports the global war on terror, and it is critically important.

It not only supports it, but it informs it. It gives us the impetus to achieve the kinds of transformation and changes that are so necessary.

Senator SESSIONS. Well, I thank you for having a historical vision of where we are today and where we need to go and moving steadily and effectively in that direction.

I am so proud of our Guard and Reserve. I have visited a number of their ceremonies where they were activated and left their home communities, like Foley, Alabama, and Mobile, and the crowds were enthusiastic. They feel a sense of service. They do not feel, General Pace, they are victims. They feel like they are serving America. They want to be used well. They want to be used wisely.

I have had personal interviews, Mr. Secretary, with the head of Guard and Reserve Forces, the commanders, and they tell me you are pushing them; you not only support them, but you are encouraging them to study how we activate people, to make it less burdensome on families. Would you share your personal view of how we can do better about handling Guard and Reserve?

Secretary RUMSFELD. I will indeed. We have all three Services working to rebalance the active and Reserve components so that we do not have to overuse those Guard and Reserve units that have special skills that are in short supply in the Active Force. That rebalance is going forward, and it is going forward apace.

Second, we have looked at the deployment and redeployment process, and we recognize the importance of certainty on the part of people. We are taking steps to improve the tools, the planning

tools that will enable us to do a vastly more nuanced job. I am impressed with the effort that Transportation Command is engaged in. I am impressed with the effort the Joint Forces and the Joint Staff are engaged in. We have simply got to do a better job to make sure it is respectful of them and their families and their employers.

Chairman WARNER. Thank you, Senator, for discussing that Guard issue.

Secretary RUMSFELD. Mr. Chairman, could I make one comment?

Chairman WARNER. One other thing. When you and I talked you told me a very important fact about the quantum of the Guard and Reserve which you felt, although they would serve and serve willingly, simply their skills did not match to the needs. Do you remember that discussion we had?

Secretary RUMSFELD. Exactly, and that is what General Schoomaker particularly in the Army is in the process of working very hard to do. He knows what to do; he has it calculated; he knows the units—I believe he knows the units—and he is well along in that task.

Could I make a quick comment?

Chairman WARNER. Yes.

Secretary RUMSFELD. I hate to have the meeting end without making a statement that should have been made at the time Senator McCain was asking questions. I am advised that in selecting the DSB for the tanker recapitalization evaluation, the DOD took significant measures to ensure that individuals on the task force leading the evaluation—Admiral Don Pilling, USN retired, and Dr. Ted Gold as co-chairmen—had no relationship with Boeing or the tanker lease program, and the committee can be assured that no member of the task force will have any association with Boeing or the tanker lease program.

I can further assure the committee that the chairman of the DSB, Dr. Bill Schneider, will recuse himself from any association with the evaluation or the task force efforts. Furthermore, the process and results will be entirely open since the evaluation task force will be operated in accordance with the provisions of P.L. 92–463, the Federal Advisory Committee Act, and DOD Directive 5105.4, the DOD Federal Advisory Committee Management Program.

Chairman WARNER. Thank you, Mr. Secretary. Could we get a copy of that document such that we can give it to Senator McCain?

[The information referred to follows:]

Department of Defense

DIRECTIVE

NUMBER 5105.4
February 10, 2003
Certified Current as of November 21, 2003

DA&M

SUBJECT: Department of Defense Federal Advisory Committee Management Program

References: (a) Appendix 2 of title 5, United States Code Annotated
(b) DoD Directive 5105.4, "Department of Defense Federal Advisory Committee Management Program," September 5, 1989 (hereby canceled)
(c) Title 41, Code of Federal Regulations, Subpart 102-3, "Federal Advisory Committee Management," current edition
(d) DoD Directive 5105.18, "DoD Committee Management Program," February 8, 1999
(e) through (j), see enclosure 1

1. PURPOSE

Pursuant to reference (a), this Directive reissues reference (b) to update policies and responsibilities for the administration of the Federal Advisory Committee Act (FACA) within the Department of Defense.

2. APPLICABILITY

This Directive applies to the Office of the Secretary of Defense (OSD), the Military Departments, the Chairman of the Joint Chiefs of Staff, the Combatant Commands, the Office of the Inspector General of the Department of Defense, the Defense Agencies, the DoD Field Activities, and all other organizational entities within the Department of Defense (hereafter referred to collectively as "the DoD Components").

3. DEFINITIONS

3.1. Federal Advisory Committee. A committee, board, commission, council, conference, panel, task force, or other similar group that is not composed wholly of full-time or permanent part-time employees of the Federal Government and:

3.1.1. Is established by statute, or established by the President or an Agency official, and is utilized by the President or an Agency official for obtaining advice or recommendations on issues or policies that are within the scope of their official responsibilities; or

3.1.2. Is not established either by statute or by the President or an Agency official, but is under the actual management control of the President or an Agency official or employee and is utilized by them for obtaining advice or recommendations on issues or policies that are within the scope of their official responsibilities.

3.2. Special Government Employee. An individual who is retained by the Federal Government to perform temporary duties, with or without compensation, for a period not to exceed 130 days during any period of 365 consecutive days.

4. POLICY

4.1. DoD Federal Advisory Committees shall be established and administered consistent with the FACA (reference (a)), Subpart 102-3 of title 41, Code of Federal Regulations (reference (c)), and this Directive. Their number shall be kept to the absolute minimum required. They shall be established only when they are determined to be essential and terminated when they are no longer carrying out the purpose for which they were intended.

4.2. The following are excluded from coverage under reference (c) and the provisions of this Directive:

4.2.1. Advisory committees specifically exempted from the Act by law.

4.2.2. Advisory committees created by a non-Federal entity (such as a contractor or private organization), if such committees are not actually managed or controlled by an officer or employee of the Executive Branch.

4.2.3. Meetings initiated by one or more Federal officials with more than one individual for obtaining the advice of individual attendees and not for the purpose of utilizing the group to obtain consensus advice or recommendations.

4.2.4. Groups assembled to meet with one or more Federal officials for the purpose of exchanging facts or information.

4.2.5. Meetings of two or more DoD Federal Advisory Committee or subcommittee members convened solely to gather information or conduct research for a DoD Federal Advisory Committee, to analyze relevant issues and facts, or to draft proposed position papers for deliberation by the DoD Federal Advisory Committee.

4.2.6. Inter-Governmental and Intra-Governmental committees composed wholly of full-time or permanent part-time officers or employees of the Federal Government.

4.2.7. Local civic groups whose primary function is that of rendering a public service with respect to a Federal program, or any State or local committees, councils, boards, commissions, or similar groups established to advise or make recommendations to State or local officials.

4.2.8. Committees established to perform primarily operational, as opposed to advisory functions.

4.2.9. Meetings initiated by the President or one or more Federal officials for obtaining advice or recommendations from a single individual.

4.3. The DoD Committees that are not DoD Federal Advisory Committees shall be established and administered consistent with the provisions of DoD Directive 5105.18 (reference (d)).

4.4. The DoD Federal Advisory Committees shall not be established to make decisions, conduct Agency operations, or perform functions that are capable of being carried out by existing Agency staffs.

4.5. Membership of each DoD Federal Advisory Committee shall be balanced in terms of the points of view represented and functions to be performed. The DoD Federal Advisory Committees requiring technical expertise shall include members with demonstrated professional or personal qualifications relevant to the committee's work. The DoD officials sponsoring a DoD Federal Advisory Committee shall develop criteria for membership consistent with these requirements and document the reasons for membership selections.

4.6. Except when otherwise specified by the President or the Congress, the Secretary of Defense, the Deputy Secretary, or their designee shall approve the

appointment of members to DoD Federal Advisory Committees. Appointees may not serve longer than 4 years, unless an extension is approved by one of these officials.

4.7. Members of DoD Federal Advisory Committees who are not full-time or permanent part-time employees of the Federal Government shall be appointed as Special Government Employees. Such appointments shall be made annually and consistent with authoritative guidance, such as administrative instructions or manuals, published by the cognizant DoD Component.

4.8. Members of DoD Federal Advisory Committee who are appointed as Special Government Employees shall be encouraged to serve without compensation. A member may not be compensated unless the Head of the DoD Component to which the committee reports, or his or her designee, certifies that appointment of the member is essential to obtain the necessary balance or expertise and that, without compensation, the member would not be available to serve.

4.9. Members of DoD Federal Advisory Committee serving as Special Government Employees, who are being compensated at a basic rate of pay fixed at or above 120 percent of the minimum rate of basic pay for a GS-15 (including any applicable locality pay authorized by the President's Pay Agent under 5 U.S.C. 5304(h) (reference (e)), and expected to serve more than 60 calendar days during a calendar year, shall file a Standard Form 278, "Executive Branch Personnel Public Financial Disclosure Report." All other members serving as Special Government Employees (including those serving without compensation) must file an Office of Government Ethics (OGE) Form 450, "Confidential Financial Disclosure Report," prior to appointment as a Special Government Employee, and annually thereafter, prior to reappointment. Policies and procedures for filing financial disclosure reports are contained in DoD Directive 5500.7 and DoD 5500.7-R (references (f) and (g)).

4.10. Special Government Employees compensated at a rate of ES-5 or above are subject to a 1-year ban on post-employment representation in accordance with 18 U.S.C. 207(c) (reference (h)).

4.11. For each DoD Federal Advisory Committee, there shall be a Federal officer or employee appointed in writing as the Designated Federal Official, who shall have the authority to approve or call each meeting, approve the meeting agenda, attend each meeting, and adjourn meetings when he or she determines such action to be in the public interest.

4.12. Notification of each DoD Federal Advisory Committee meeting shall be published in the Federal Register at least 15-calendar days in advance of the date of the meeting.

4.13. Meetings of DoD Federal Advisory Committees shall be open to the public unless the Head of the sponsoring DoD Component, or his or her designee, in coordination with that Component's General Counsel, makes a written determination to close all or part of a meeting. In such instances:

4.13.1. The determination shall cite those provisions of 5 U.S.C. 552b(c)(1)(1988) (reference (i)) that justify closure.

4.13.2. A summary of meeting activities shall be prepared and maintained as part of the Committees files.

4.14. Reports, records, and minutes of DoD Federal Advisory Committee meetings and other activities shall be prepared within 90 days after a meeting and maintained and/or submitted consistent with references (a) and reference (c).

5. RESPONSIBILITIES

5.1. The Director of Administration and Management (DA&M), Office of the Secretary of Defense, shall:

5.1.1. Provide guidance on policies and procedures for the establishment and administration of DoD Federal Advisory Committees.

5.1.2. Ensure that DoD Federal Advisory Committees are established and administered consistent with references (a) and (c), and this Directive.

5.1.3. Designate a DoD Committee Management Officer who shall carry out the policies contained in references (a) and (c), and this Directive.

5.1.4. Represent the Department of Defense and maintain liaison with the General Services Administration and other Government Agencies on matters involving DoD Federal Advisory Committees.

5.1.5. Review periodically the operations and records of DoD Federal Advisory Committees for compliance with applicable laws, policies, and regulations; provide results of these reviews to the Committee's Designated Federal Official and

other appropriate officials; and ensure that actions are taken to correct deficiencies, when required.

5.1.6. Review annually the need to continue each existing DoD Federal Advisory Committee, consistent with Section 14 of the FACA (reference (a)), the public interest, and the intended purpose of the committee, and ensure that committees no longer needed are terminated in a timely manner.

5.1.7. Obtain electronic or hard copy reports and information on DoD Federal Advisory Committees, as required by and consistent with references (a), (c), this Directive, and DoD Directive 8910.1 (reference (j)).

5.1.8. Carry out, for OSD, the functions and responsibilities assigned to the Heads of DoD Components by this Directive.

5.2. The Heads of DoD Components or their Designees shall:

5.2.1. Ensure that DoD Federal Advisory Committees under their cognizance are established and administered consistent with references (a) and (c), and this Directive.

5.2.2. Submit to the DA&M requests for establishment or revision and notifications of termination of DoD Federal Advisory Committees under their cognizance.

5.2.3. Designate a Committee Management Officer to carry out assigned advisory committee responsibilities for their respective DoD Component.

5.2.4. Maintain information about the membership and activities of DoD Federal Advisory Committees under their cognizance, consistent with references (a) and (c), and this Directive.

5.2.5. Submit the electronic or hard copy reports required by references (a), (c), and (d) to the appropriate offices.

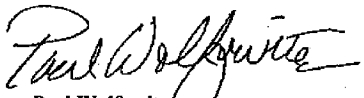
5.2.6. Approve compensation for non-Federal Government DoD Federal Advisory Committee members, except that the DA&M shall serve as the approving authority for committees sponsored by OSD officials.

5.2.7. In coordination with the cognizant General Counsel, make a determination, in writing, whenever all or part of a DoD Federal Advisory Committee meeting is to be closed to the public.

5.3. The OSD Officials who sponsor DoD Federal Advisory Committees shall carry out, for the committees under their cognizance, the responsibilities in subparagraphs 5.2.1. through 5.2.5., above.

6. EFFECTIVE DATE

This Directive is effective immediately.



Paul Wolfowitz
Deputy Secretary of Defense

Enclosures - 1
E1. References, continued

E1. ENCLOSURE 1

REFERENCES, continued

(e) Section 5304(h) of title 5, United States Code
(f) DoD Directive 5500.7, "Standards of Conduct," August 30, 1993
(g) DoD 5500.7-R, "Joint Ethics Regulation," August 1993, as amended
(h) Section 207(c) of title 18, United States Code
(i) Section 552b(c)(1)(1988) of title 5, United States Code, "Government in the Sunshine Act"
(j) DoD Directive 8910.1, "Management and Control of Information Requirements," June 11, 1993

Chairman WARNER. Now we will turn to Senator Clinton.

Senator CLINTON. Thank you, Mr. Chairman.

Mr. Secretary, when Senator Reed and I were in Afghanistan over Thanksgiving we learned that the North Atlantic Treaty Organization (NATO) had not yet met its obligations or its commitment to provide additional troops for the provisional reconstruction teams (PRTs) and other purposes. So far as I am aware, they still have not done so. Could you please advise us as to what, if any,

progress is being made to persuade NATO countries to contribute additional troops, as they had obligated to do so?

Secretary RUMSFELD. I know that Lord Robertson, before he left at the end of December, had worked very hard on it, and the U.S. had been involved in assisting. The new Secretary General has been working on it as well. The last time I looked, there were still, out of the totality of the requirements, a few pieces that had not been filled.

I suspect that what is happening is that the U.S., which has been under a memorandum of understanding first with the International Security Assistance Force (ISAF) and now with NATO ISAF, has worked together with them to fill in gaps as they occur from time to time. But to my knowledge, they have not fully completed everything, although they must be in the high 90 percent. Do you know?

Dr. ZAKHEIM. There is that. Also, with respect to the PRTs that you mentioned, the British are in fact in Mazar-e-Sharif. The Germans have one up and running as well. One of the issues has been where they go. We have eight of those now up and running, and the idea is to have new ones stood up. We are talking, to my knowledge, to at least five different NATO countries that have given preliminary indications that they do want to go in and set up PRTs. The question is, how do you do that in an organized fashion?

Senator CLINTON. You will keep this committee informed as it goes forward?

Dr. ZAKHEIM. Absolutely, Senator.

Senator CLINTON. Is Turkey one of those five countries?

Dr. ZAKHEIM. They are one of them, but there are several others, as I say.

Senator CLINTON. With respect to the budget, it is my understanding that, at least during the Vietnam War, the costs of the war were in the budget. Supplementals were used for additional costs. In September of this past year, I asked Ambassador Bremer when he appeared before our committee whether the administration would request an additional supplemental for Iraq and Afghanistan. He replied, "If there is any further need, I would anticipate any further request will be done through the normal appropriations process. In other words, it will come forward as part of the regular appropriations process, the 2005 budget, presumably early next year."

With respect to the comments that Congress instructed——

Secretary RUMSFELD. Excuse me. Were you referring to Iraq or Afghanistan in that last comment?

Senator CLINTON. Iraq and Afghanistan.

Secretary RUMSFELD. Both?

Senator CLINTON. Both.

With respect to the comments that you have made, Mr. Secretary, that Congress essentially told you not to do it a certain way, would you provide this committee with the names of those Members of Congress or the staff and with whom they communicated that demand in the Secretary's office at some very early date, please?

Secretary RUMSFELD. Well, it was Congress overall. They just simply took it all out. They zeroed out the $10 billion we had requested.

Senator CLINTON. But Mr. Secretary, that was for a discretionary pool of $10 billion to be used as presumably you saw fit. We are talking about a budget that connects costs to missions and functions. As late as September 2003, Ambassador Bremer, who I believe reports to you, assured this committee that there would be requests done through the normal appropriations process. Now, if there is someone in Congress—not just Congress as a large undifferentiated mass—that is saying, "Do not do that," we would like to know it.

What the response from Congress was: We are not about to give you a blank check of $10 billion to be used with no oversight. We need to clarify that, because it goes right to the heart of the authority of this body and the kind of oversight that we are expected to provide.

Indeed, it raises some questions because at least the press reports that there will be a supplemental after the election, which seems to me to be inappropriate. I would hope that we could get to a meeting of the minds as to exactly what is expected from the budget to these ongoing expenses in both Iraq and Afghanistan.

Secretary RUMSFELD. Senator Clinton, I am told that you are right, that there have been some portions of wars that have been funded through the normal process. It appears that from 1967 to 1970 in the Vietnam War they included some estimates. After 1970, I am told, they stopped putting cost estimates in because they did not prove to be very accurate and thereafter the Vietnam War was not, nor have, I believe, subsequent wars.

Second, I suppose you could say $10 billion; it would not be fair to say what you said, "Ten billion dollars to be spent any way you want, without any oversight." No department of Government does that. They always report; they always say what they are doing. They have to get it cleared, if it is major changes at all, from eight different committees. So there is plenty of oversight.

The answer to your question about what Bremer said is also correct, and that is that if you take the supplemental, a portion of it was for the Coalition Provisional Authority (CPA), $18.6 billion as I recall. He said, and I believe Mitch Daniels and later Josh Bolten said, that that was for that period and that funds for non-military purposes, the $18.6 billion, would, in fact, be put into normal appropriation process, and that is what is planned to be done.

Senator CLINTON. Planned to be done. It is not in the 2005 budget?

Secretary RUMSFELD. Anything—as I understand it—maybe you ought to say it in the Office of Management and Budget (OMB) language, Dov.

Dr. ZAKHEIM. Essentially the money was for reconstruction, and, as you recall, Senator, when that money was asked for, it was meant to extend beyond just 1 year. Then the idea was, and I believe Director Bolten has reiterated that, that once we get past that amount of money laid out, everything that is requested will become part of the normal budget and such requests are normally outside

the Defense Department budget. So I do not think there is an inconsistency there.

Senator CLINTON. Thank you, Mr. Chairman.

Chairman WARNER. Thank you very much, Senator.

Senator Graham.

Senator GRAHAM. Thank you, Mr. Chairman.

Mr. Secretary, I appreciate your generosity of time. I am just going to throw out some concepts to follow up with you later. Number one, my big fear after listening to this debate and discussion is that we are going to rush to get out of Iraq before the job is done. I know you will not do that. I want to let you understand that some of us up here know that predicting the future is a very hard thing to do. What it costs is what it costs, and what good have we done if we leave before the job is done?

I am very hopeful that in the long term Iraq will become more stable. There is one less dictator to give money to suicide bombers in the Mideast. I think we are better off, and if we want to have that discussion politically, as Senator Kerry says, bring it on.

But, bottom line, that is my political statement. Here is something that a lot of us agree on, and it may be I find myself on the outs with the Pentagon, the Guard, and the Reserve. You have tunnel vision about the role of the Guard and Reserve. The Guard and Reserve do not just answer the Nation's call; it also answers its State's call. There are 500,000 people you say that are being underutilized. I would like some information about how many times those citizen soldiers are called up to deal with disasters in Alabama, South Carolina, Virginia, California, wherever.

Second, I believe our homeland security needs are not being adequately met, that the Guard and Reserve has an additional role there that could supplement our homeland security needs. When you look at restructuring your force to meet the needs of the 21st-century war model, Iraq and other places like Iraq, let us not forget that the Guard has more missions than just that one mission.

I want to leave with you a couple thoughts. Number one, I believe that 40 percent of the force in Iraq will be Guard and Reserve in the immediate future. I believe that it is going to get worse before it gets better, and it is time to start upgrading the benefits of those who are doing a good job for this country.

Specifically, would you support reducing the retirement age from 60 to 55 for those who serve 30 years as a member of the Guard and Reserves?

[The information referred to follows:]

I do not support retirement reform that is solely for the purpose of reducing the age of eligibility. Simply reducing the eligibility age would provide an immediate benefit only to individuals who are already retired or eligible for retirement, and provides no immediate benefit to the vast majority of members who are bearing the burden of activation and deployment today. I view the Reserve retirement system as part of a total Reserve compensation package that should enable the Department to shape the force and achieve strategic human resource management objectives. It should enhance retention, particularly among members bearing increased burdens of mobilization; attract members to the force, both prior service and non-prior service personnel; and enhance personnel management flexibility. We need to make a careful examination of this issue in the context of total compensation. I will be forming an advisory committee to look at the total compensation program, including Reserve retirement.

Secretary RUMSFELD. First, Senator, I agree completely. The President has said that we should stay in Iraq as long as is necessary and not a day longer. There is no suggestion of a premature departure.

Second, I am not sure I agree completely with what you said about the Guard and Reserve. The implication of what you said was that they necessarily were the only forces available for U.S. needs, home needs, and domestic needs, and I do not agree with that. The Active Force also does a lot with respect to fighting fires or hurricanes or various other things that may happen. We look at it as a total force concept.

Senator GRAHAM. Right. But the primary mission of the Guard in its day-to-day training is title 32, not title 10.

Secretary RUMSFELD. I understand, but I would not want to leave the impression that the Active Force is disinterested in homeland defense or in the domestic needs that they get called up to assist on.

Senator GRAHAM. No, sir, and I do not want to give you the impression that the Active-Duty Forces are somehow not doing everything. They are doing everything and then some. So I have some problems with you on end strength, too.

But I do not want to get tunnel vision about the role of the Guard. Unlike the Active-Duty Forces, which have done a marvelous job, that are stretched too thin, are being asked to do too much in my opinion. You cannot rearrange the pie until you grow the pie. That is just my opinion about this. The Guard has a specific function, unlike the Active Forces, under title 32.

Chairman WARNER. Ladies and gentlemen, we have to move right along.

Senator GRAHAM. Thank you.

Chairman WARNER. That is an important question, and I would hope you would provide your response for the record, because this distinguished member of our committee is an active member of the National Guard.

Senator GRAHAM. I am not part of the solution. I am probably part of the problem. I am not up here tooting my horn.

Chairman WARNER. If we do not stop, he is going to call you to active duty and send you overseas.

Senator GRAHAM. If that happens, you know we are really in trouble.

But I do want to work with you, Mr. Secretary, to address the Guard and Reserve role in its entirety, to look at end strength, not just from an army like Iraq but maybe an army like North Korea, and see if this makes sense. But stay the course. The investigation will be done by an independent group. You have done a great job. You helped bring people out that were hurt during September 11. You are the right guy at the right time. So hang in there, and any differences I have with you will be honest differences, openly displayed. I am proud of what you have done for our country, so hang in there.

Secretary RUMSFELD. Thank you very much.

Chairman WARNER. Well stated. Thank you very much.

Now, gentlemen, the two of you will wrap up.

Senator Bayh, you lead off.

Senator BAYH. Thank you, Mr. Chairman.

Chairman WARNER. We are obligated to yield these chambers back to the other body here.

Senator BAYH. I will move quickly. Thank you, Mr. Chairman.

I would like to touch upon just a couple of things I hear frequently from the public, the first dealing with the adequacy and the quality of the intelligence we receive. I am interested in your opinion as a consumer of intelligence. I agree with all the things you said at the beginning. It is a tough and thankless assignment. We have a lot of good men and women trying to deal with circumstantial evidence, gaps in the evidence, contradictory evidence, denial and deception, etcetera, etcetera, etcetera. It is possible that good people get a lot of things right but occasionally make some mistakes.

With that as a preface, many Americans would be interested in your opinion as a consumer of intelligence. On a scale of 1 to 100, 100 being omniscience, 1 being clueless, how would you characterize the quality and the adequacy of the intelligence?

Secretary RUMSFELD. In between. [Laughter.]

Senator BAYH. Can you try and quantify it a little better? Many Americans right now look at perhaps the failure that we have experienced in Iraq, they look at the fact that we maybe underassessed Libya and Iran, and they wonder: "Gee, just we are having to make decisions of great import. Just how adequate and reliable is this information?"

Secretary RUMSFELD. You want to put that chart back up?

See previously inserted chart.

This is the problem. We are dealing with closed societies, dictatorial regimes. There is North Korea, not a light there. It is enormously difficult. The reality is we have had some wonderful successes, and some of them are not public. I hope George Tenet will make some of them public this week or next week because I think he ought to. The failures are very visible, and that is always the case.

I cannot give it a grade. It would vary depending on the collection source. It would vary depending on the target. One has to live with that in this world of ours. You end up making the best policy judgments you can off of that.

Senator BAYH. Perhaps this is a job for this commission, because when we make decisions about going to war or other things based upon understandably imperfect information, many people wonder just how imperfect is it. Is this an aberration or is this more the normal course of events?

My second question just very briefly has to do with priorities, Mr. Secretary. I hear from a number of people, not a man or woman on the street, but from people more who follow these things more regularly. They look at the situation in North Korea, with their capabilities, their experimentations with longer range missiles, and the belligerent and erratic nature of that regime. They look at Iran with their well-known connections to terrorists and the fact that their program is further advanced than we thought. They now look at what we do know about Iraq, and they say that perhaps Iran and North Korea constitute even greater threats, yet we

are spending over $100 billion to address Iraq. We obviously have used force to liberate that country and trying to introduce democracy in that part of the world, and they wonder, "Is this an appropriate ordering of priorities? Should we not be devoting more to trying to address the problems of Iran and North Korea, given now what we know?"

Secretary RUMSFELD. Well, they are each being addressed in a different way. North Korea is being addressed in a diplomatic way in the relatively early stages since they made the announcements of their capabilities. Iraq had been addressed in a diplomatic manner through 17 resolutions of the U.N. over a period of a decade and a half. Iran has just been revealed to have more advanced nuclear activities than they had indicated.

On the other hand, if you look at North Korea, they have lowered the height requirement to go into the Army to under 5 feet, to 4 feet 10, because so many people were starved. There is abuse of the food distribution system at the present time. It is hard to know what is actually going on in there. We do know there are concentration camps. We do know that there are a lot of people that are trying to flee the country.

We have imperfect knowledge in this world of ours. We do today and we will into the future. I personally believe that the President made the right decision with respect to Iraq. He is making the right decision to try diplomacy with respect to North Korea and to work those problems with the neighbors in China, Russia, and South Korea and Japan.

With respect to Iran, there is obviously ferment and turmoil going on with the young people and the women and the people who want reform in that country, going on as we meet today. Each is going to play out in a way that I suppose is different.

Chairman WARNER. Thank you, Mr. Secretary. They are very clear responses to an important question.

Senator Bill Nelson.

Senator BILL NELSON. Good afternoon, Mr. Secretary.

Secretary RUMSFELD. It is suddenly afternoon.

Senator BILL NELSON. Mr. Secretary, I spoke to you about my meeting with President Asad in Syria. When I confronted him with why he did not stop the jihadists from going from Syria into Iraq, where they are killing our men and women, he answered without an answer, saying, "Well, I cannot control my borders; you cannot control your borders."

Then he talked of the historical smuggling that goes on across that border, but then said, "I would like to cooperate with the Americans."

I have reported that conversation to many people in our government, including you, and you seemed to dismiss that that was worth following up. Can you tell me why?

Secretary RUMSFELD. Senator, my portfolio is not Syria and foreign policy. I do not believe I dismissed it, and I try not to be dismissive of anything. On the other hand, we know he has been notably unhelpful on his border. We know that he is working with Iran in funding Hezbollah and bringing them down through Damascus into Lebanon, into Israel.

Senator BILL NELSON. I confronted him with all of those, and he was not cooperative.

Secretary RUMSFELD. We know he is testing chemical weapons.

Senator BILL NELSON. I confronted him with that.

Secretary RUMSFELD. We know he has taken the Iraqi funds that are in Syria and refused to give us access to those funds, and they belong to the Iraqi people. That is a regime that has been almost consistently unhelpful.

Senator BILL NELSON. I confronted him about the withholding of those funds. But if he were sincere, I do not see that there is any down side for us to explore that——

Secretary RUMSFELD. I do not either.

Senator BILL NELSON.—because it would lessen the people going in trying to harm Americans.

Secretary RUMSFELD. Senator, we explored it with Libya, and Libya said, "Here it is, let us come in and take it out." We sent airplanes in and took it out, and it is in the United States being examined—the documentation and the materials. He is opening up his country to inspectors. That is a very good thing. There is a model there.

Saddam Hussein did not follow it. Qaddafi is following it. Asad is not.

Senator BILL NELSON. Well, General Myers was interested in that, but General Myers works for you. It might be something worth exploring, and I would respectfully suggest that that is in the interests of the United States.

Secretary RUMSFELD. I agree.

Chairman WARNER. Senator——

Senator BILL NELSON. Mr. Chairman, I have been waiting this whole time. I have one more thing.

Chairman WARNER. I was not going to cut you off. Go ahead, take 1 more minute.

Senator BILL NELSON. Good, thank you.

Chairman WARNER. I just commented I thought your question was well taken.

Senator BILL NELSON. Oh, well, you are very kind. I thought you were asking me to stop.

I have reported to you and Senator Levin on this very same thing.

Now, the other thing that——

Secretary RUMSFELD. I am going to have to ask it to end quite soon. I have the House hearing at 1:00.

Chairman WARNER. We are going to end in about a minute.

Secretary RUMSFELD. I have to make a phone call in between and get prepared for that.

Chairman WARNER. Right.

Senator BILL NELSON. Respectfully, Mr. Secretary, I was told not only about the WMD prior to the vote in the Senate, but I was specifically told what has now been made public by the President and the Secretary of State: that there were unmanned aerial vehicles (UAVs) that could be put on ships off the eastern seaboard and flown over eastern seaboard cities with the WMD. You can understand that I thought that was an imminent threat to the interests of the United States.

However, what I was not told was that there was a dispute in the Intelligence Community over the veracity of that information, specifically, as reported by The Washington Post, that it was Air Force intelligence that specifically discounted that, that it was not true.

My question to you is, why was I not told that there was this disagreement in the Intelligence Community, instead of being told that it was gospel truth that those UAVs could be flown over eastern seaboard cities?

Secretary RUMSFELD. I do not know who told you that, and I would not use the word "veracity." I would use the word "accuracy." There was a discussion in the internals, in the Intelligence Community, and I have forgotten exactly how it worked. But one agency believed that the—I am trying to—is this unclassified or classified now?

Chairman WARNER. Mr. Secretary, I suggest you answer that for the record. It is an important question, and it will give you adequate time.

Secretary RUMSFELD. It is, and there is a classified answer and an unclassified answer. I can give you an unclassified answer here and we would be happy to—Dr. Cambone can give you a classified answer in 1 minute.

Senator BILL NELSON. Mr. Secretary, everything that I have said has been unclassified.

Secretary RUMSFELD. Right. I am talking about my answer, not your question. Your question clearly is unclassified.

My understanding is there was a discussion and some people, as is usual in intelligence, believed that the equipment associated with the Iraqi UAVs—which we saw and watched tested, they flew considerable distances, they were not big, but they did have the ability to carry something, and they had some vehicles in close proximity to them during some tests. There was a debate as to whether those vehicles had a role in connection with the UAVs or whether the vehicles had a role in connection with hydrogen balloons or weather balloons or something else.

Dr. CAMBONE. Well, that is two different things.

Secretary RUMSFELD. Is that two different things? Steve Cambone, come up and answer it for me.

Senator BILL NELSON. Mr. Chairman, if you want to receive a classified answer I would be happy.

Chairman WARNER. Fine. At this point, Mr. Secretary, time has expired for everybody. You have been most patient.

I thank you, Senator, and thank you, General. We have had an excellent hearing——

Secretary RUMSFELD. Steve can give a 2-minute unclassified answer.

Chairman WARNER. All right, if you wish. Then we will proceed as you desire.

Dr. CAMBONE. Yes, sir. There was, Senator, a dispute on the role of the UAVs. The Air Force had a different view than others in the community, and I think that you have two parts of the story combined that I would like to separate for you, if I may, in a closed session.

But there was a dispute by the Air Force. It was resolved as part of the ordinary process of doing the NIEs and the estimates that are done. The Air Force maintained its dissent. What you are reporting on is an after-the-fact report of the Air Force's dissent.

But let me clean up the parts for you in a different setting.

[The information referred to follows:]

UNDER SECRETARY OF DEFENSE
5000 DEFENSE PENTAGON
WASHINGTON, DC 20301-5000

INTELLIGENCE

MAR 30 2004

The Honorable Bill Nelson
United States Senate
Washington, DC 20510

Dear Senator Nelson:

During a hearing before the Senate Armed Services Committee on 4 February 2004, you expressed concern with the Intelligence Community's assessment of Iraqi Unmanned Aerial Vehicles (UAVs) capable of carrying weapons of mass destruction. In advance of a formal response to questions for the record from the Committee, I'd like to provide the following information.

Specifically, you asked the Secretary why the Air Force's dissenting conclusion, that these UAVs could be flown over eastern seaboard cities, had not been brought to your attention.

Developing a National Intelligence Estimate (NIE) is an intense interagency process that fully involves all members of the Intelligence Community. The National Intelligence Council does footnote any agency or Services disagreements with any of the conclusions within a NIE. In this way the NIE process enables the Intelligence Community to develop a consensus, while still allowing the expression of divergent views.

The Air Force's dissent, related to the Iraqi UAV program, was included in the NIE delivered to the House and Senate Armed Services, Intelligence Committees and the Appropriations Committees' Defense Subcommittees on the 2nd and 3rd of October 2002, after it was approved by the National Foreign

Intelligence Board on October 1, 2002. Air Force's conclusions about Iraqi UAVs can be found in several sections, particularly in the Key Judgments on page 7, but also on pages 49 and 52.

Sincerely,

Stephen A. Cambone

Senator LEVIN. His question is why he was not informed of the dissent.

Dr. CAMBONE. That I cannot answer, sir.

Chairman WARNER. Okay, gentlemen——

Senator BILL NELSON. That is the question.

Chairman WARNER. We thank you very much, Mr. Secretary, General. We have had an excellent hearing.

[Questions for the record with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR JOHN MCCAIN

END STRENGTH

1. Senator MCCAIN. Secretary Rumsfeld, there seems to be some confusion relating to increasing Army end strength. The press has recently reported that you will increase Army end strength by 30,000 over 4 years. Last week, my staff was briefed by the DOD Comptroller Dr. Zakheim that those reports were false and you still oppose increasing end strength. Where do you stand on increasing Army end strength?

Secretary RUMSFELD. While I oppose a permanent increase in the Army's end strength, I strongly support a temporary increase of 30,000 that allows the necessary flexibility for the Army, while fighting the global war on terrorism, to increase the number of Active Force brigade combat teams (BCT) from 33 to 43 between now and fiscal year 2007. A determination for an additional 5 BCTs (for a total of 48) will be made at a later date. This temporary measure will enable the Army to field standardized unit designs and transition to a unit-based personnel management system. Our intent is to make the Army more ready and relevant for the unpredictable nature of the emerging strategic environment. Once this restructuring is complete, the Army will return to their authorized strength by fiscal year 2009.

2. Senator MCCAIN. Secretary Rumsfeld, paying for the 30,000 increase in troops is not included in the budget. Do you plan on relying on supplemental spending bills for the next 4 years to pay for this increase?

Secretary RUMSFELD. No decision has been made on how to pay for this increase. Since the increase is not reflected in the fiscal year 2005 request, we likely would need to fund it as part of a fiscal year 2005 supplemental.

3. Senator MCCAIN. Secretary Rumsfeld, supplemental bills are submitted by the administration for emergency spending requests. Why is future end strength considered an emergency spending request? These are the same accounting gimmicks we accused the previous administration of committing.

Secretary RUMSFELD. For fiscal year 2005, including this end strength increase in a fiscal year 2005 supplemental would be consistent with the administration position because it is directly related to the global war on terrorism, whose incremental costs are being funded in supplementals. Beyond fiscal year 2005, no decision has been made on how to fund the end strength increase.

4. Senator MCCAIN. Secretary Rumsfeld, every independent expert has called for increasing Army end strength. The demands of the global war on terror have

stretched our military thin. Will the administration continue to oppose legislative efforts by Congress to increase end strength?

Secretary RUMSFELD. While reducing stress on the Active and Reserve Forces continues to be a top priority within the Department, the addition of permanent end strength is not the most effective or efficient means to relieve stress on our forces. The Department is already using existing legislation that allows for temporary increases in end strength to meet mission requirements. Furthermore, the Army is aggressively reworking its division structure to create additional combat brigades from within existing end strength.

In addition to the Army initiatives, there are several dozen other initiatives across the Department that will reduce stress on the force while increasing our capabilities. For example, actions are underway to realign units and specialties within the active and Reserve components to reduce mobilization and deployment imbalances. Also, the Services are taking actions over the next 2 years to convert as many as 20,000 military positions that are civilian in nature to civilian status, so that more military billets will be available to support current operations.

NATIONAL CALL TO SERVICE

5. Senator MCCAIN. Secretary Rumsfeld, you are pursuing a temporary increase in manpower levels for the Army which will need to be phased out in a short time and could well reside in the Reserves. Does it not make sense to employ the Call to Service Act's 18–18–18 plan to augment the required end strength you are pursuing?

Secretary RUMSFELD. The Army has implemented the National Call to Service Plan (NCSP) and established a 1-year test to quantify the impacts of this program. We want to allow NCSP to mature and to complete the 1-year test to help us make better decisions on the program and its place in the Army. Currently, our force stabilization and modularity efforts are key elements of our transformation. Some of the increase will be covered with the 15-month variable enlistment (VEL), although it does not mesh with the Army's stabilization plan. Furthermore, the structure the Army is creating during the increase is primarily infantry and armor. If we were to fill the ranks of the new Units of Action (UAs) with 15-month VEL soldiers, we would not have a sufficient population of infantry and armor noncommissioned officers to fill the ranks of these UAs later. Considering the historical loss rates of 3-year and 4-year term soldiers, and the propensity of the 15-month VEL soldiers to not reenlist, relying on the 15-month VEL to create temporary strength would create a critical shortage of junior leaders in our future UAs.

6. Senator MCCAIN. Secretary Rumsfeld, I would like you to discuss the implementation of the 18–18–18 plan that Senator Bayh and I included in the Fiscal Year 2003 National Defense Authorization Act. If the Army is envisioning only a temporary increase in end strength, it may be well-suited for the Call to Service Act's 18–18–18 plan. What percentage of your total force will be made up of personnel under this type of contract?

Secretary RUMSFELD. The Army has implemented the NCSP and established a 1-year test to quantify the impacts of this program. We want to allow NCSP to mature and to complete the 1-year test to help us make better decisions on the program and its place in the Army. Currently, our force stabilization and modularity efforts are key elements of our transformation. The 15-month VEL cannot realistically be used, except on a marginal basis, as it does not mesh with the Army's stabilization plan. The temporary strength increase of the Army will need to occur across all parts of the military structure, not just the initial entry soldier. Our solution is focused on long-term results for shaping the Army as a whole. The Army is keeping the number of 15-month VEL accessions at approximately 2 percent of the annual accession mission. Assuming minimal reenlistment rates for these soldiers, less than half a percentage of the total force will be made up of personnel under this type of contract at any one time.

7. Senator MCCAIN. Secretary Rumsfeld, do you envision expansion of this program?

Secretary RUMSFELD. The DOD initiated the National Call to Service (NCS) enlistment option on October 1, 2003, with all four Services participating. Although the program is new, we are pleased with its start and are enthusiastic about the future of the program. We are currently evaluating the program.

8. Senator MCCAIN. Secretary Rumsfeld, what is the role of the 18–18–18 plan playing in each of the Services?

Secretary RUMSFELD. The NCS program plays a role in each of the Services as they implement the program in accordance with overall departmental guidance.

- The Air Force goal for fiscal year 2004 is 370 NCS participants. They started the program on October 1, 2003, with the first NCS enlistee on that day. To date, the Air Force has enlisted 295 NCS participants.
- The Army's goal for fiscal year 2004 is 2 percent of non-prior Service accessions, or about 1,450 participants. Unique among the Services, the Army is offering NCS program participation in 10 of its 41 recruiting battalions. The RAND Corporation will analyze the NCS program to determine its effects on other enlistment options and the degree to which NCS is a market expander in the high quality recruit market. Through February 20, the Army has enlisted 213 participants.
- The Marine Corps' goal for fiscal year 2004 is 175 NCS participants. The Marine Corps has enlisted 39 NCS participants to date, but expects no difficulty meeting the 175 participant goal.
- The Navy's goal for fiscal year 2004 is 1,000 NCS participants. Due to initial challenges with their recruit reservation system, the Navy did not start enlistments under NCS until January 2004. To date, they have enlisted 55 participants, but see no problem in meeting the 1,000 participant goal.

BASES

9. Senator MCCAIN. Secretary Rumsfeld, I applaud your leadership in reassessing our force structure in Europe and around the globe. Bases in the Central Asian nations of Uzbekistan and Kyrgystan have been invaluable in the Afghan theater. Reports indicate Romania, Poland, and Bulgaria as sites for future bases. Can you comment on this? What other countries are being considered?

Secretary RUMSFELD.

- Global posture is really more than bases and facilities. It encompasses several factors—facilities, activities, relationships, usability of forces, surge and personnel management.
- As part of our process each combatant commander provided proposals for realigning the posture in their respective Area of Responsibility (AOR). A key theme in the realignment effort has been to strengthen and transform existing alliances, as well as build new partnerships.
- We are currently compiling a report on the overall Global Posture effort. It will contain a classified annex that will enumerate countries, by region, where we intend to position forces and capabilities.

10. Senator MCCAIN. Secretary Rumsfeld, I applaud your leadership in determining our future force structure, global basing strategy, and efforts to more fully integrate Active and Reserve Forces. What deadlines have you established to ensure these initiatives are folded into the upcoming BRAC process?

Secretary RUMSFELD.

- We will use the Global Posture Review to inform the BRAC process. The review enables us to provide specific input on overseas changes for the BRAC 2005 process.
- This input will allow domestic implications of the review—with forces and personnel either returning to or moving forward within U.S. territory—to be effectively accounted for within the BRAC decisionmaking process.
- BRAC decisions in will be critical in preparing appropriate domestic infrastructure for those U.S. forces that will be returning to the U.S. and its territories.
- Rather than sub-optimizing through individual moves, BRAC looks at the whole picture, thus yielding more efficient and effective placement of forces.
    - BRAC is the best way to determine the placement of forces relocating to the U.S. Both efforts are necessary for a true capabilities-based infrastructure prioritization.

GUANTANAMO

11. Senator MCCAIN. Secretary Rumsfeld, we commend our service members for treating the detainees at Guantanamo humanely and in a manner consistent with

the principles of the Third World Geneva Convention of 1949. That said, many of the detainees in Guantanamo have been in captivity for 2 years. As you are aware, as time elapses, the quality of intelligence you can gather decreases. In December, Senator Lindsey Graham, Senator Cantwell, and I wrote you to inquire about your plans for the detainees in Guantanamo. Since I have not heard a response, can you please update me on your plans for prosecuting the detainees?

Secretary RUMSFELD. I am likewise proud of our service members and the tremendous job they have been doing and continue to do in the operations at Guantanamo.

It is important to note that the intelligence-gathering mission at Guantanamo continues to provide vital intelligence in the current conflict. The individuals being held at Guantanamo are providing us with important information that continues to help us in our efforts to undermine the al Qaeda network and defend the Nation against that network. For example, intelligence gained from Guantanamo has provided U.S. and coalition forces with information for use in planning and executing counterterrorism missions. It has enhanced and continues to expand our understanding of jihadist motivation, selection, and training process.

As I mentioned in my February 18 letter, the President has designated six detainees as eligible for military commissions, and we are working through each case systematically. In February, Guantanamo detainees Ali Hamza Ahmed Sulayman al Bahlul of Yemen and Ibrahim Ahmed Mahmoud al Qosi of Sudan were charged with conspiracy to commit war crimes. Prior to being charged, these detainees were assigned military defense counsel. Their trial dates and commission panel members will be selected at a later time. In addition to the assignment of counsel to and the charging of al Bahlul and al Qosi, military defense counsel have been assigned to Salim Ahmed Hamdan of Yemen and David Hicks of Australia.

In addition to the above progress in the cases of those currently designated as eligible for commissions, we have also finalized a number of decisions that we believe are essential to moving forward and ensuring that the proceedings are full and fair. On December 30, the Department of Defense announced the selection of John D. Altenburg, Jr. to serve as the Appointing Authority. On March 17, 2004, I issued Military Commission Order No. 5 officially delegating the appointing authority responsibility to Mr. Altenburg. Mr. Altenburg brings with him a wealth of legal and military experience that will serve our Nation well in his performance of the Appointing Authority's duties. The progress made in the military commission process requires day-to-day management by an individual, like Mr. Altenburg, who can devote his entire attention to the process.

The Department also announced the selection of Air Force Brigadier General Thomas L. Hemingway as legal advisor to the appointing authority. As legal advisor, Brigadier General Hemingway will aid Mr. Altenburg in the day-to-day management of the process by overseeing Appointing Authority personnel and advising him on legal matters concerning the military commissions.

The Department of Defense also announced four individuals who will be designated to serve on the Military Commission Review Panel established by Military Commission Order No. 1 (Mar. 21, 2002). Those individuals are: Griffin B. Bell, who served as Attorney General under President Carter and as a judge on the U.S. Court of Appeals for the Fifth Circuit; Edward G. Biester, a Pennsylvania state court judge, former Pennsylvania Attorney General and former member of the U.S. House of Representatives; William T. Coleman, an attorney currently in private practice who has served as Secretary of Transportation and as an adviser to several administrations; and Frank Williams, chief justice of the Rhode Island Supreme Court. As you may know, the Review Panel is responsible for hearing appeals from the decisions of the military commission. In that capacity, the panel plays an integral part in ensuring the fullness and fairness of the military commission process.

The General Counsel of the Department of Defense also issued a military commission instruction that provides specific details on the Review Panel's responsibilities and operation. Among other things, this instruction establishes term limits and permits removal of review panel members only for good cause and protects them against undue influence.

As we continue to move forward with the military commission process, it is important to bear in mind that in past conflicts we generally prosecuted war criminals after we had been victorious. In so doing, we greatly diminished the need to protect information. In today's war on terrorism, we are prosecuting our enemies even while the war clearly remains ongoing. In this current conflict, perhaps more so than any other conflict before it, information is the critical weapon for defeating our enemies and the need for the protection of vital information continues.

12. Senator MCCAIN. Secretary Rumsfeld, on December 12, 2003, following a visit to the facilities in Guantanamo, Senator Graham, Senator Cantwell, and I ex-

pressed our serious concern over issues regarding the disposition of the detainees—some of which have been detained for over 2 years. Since we are waiting for your written reply to this matter, when will you make a determination on the final disposition of the detainees' status?

Secretary RUMSFELD. I very much appreciate the time that you and Senators Graham and Cantwell took to see for yourselves the operations at Guantanamo as well as your thoughtful concerns and questions about the detention of enemy combatants at Guantanamo.

As I noted in my February 18, 2004 response, at the time of capture and based on available information, the detaining combatant commanders determined that those detained were part of, or otherwise supporting, forces hostile to the United States. Under the law of war, enemy combatants such as those detained at Guantanamo may be detained until the end of hostilities. Our Nation continues to be in an armed conflict. As with any armed conflict, no one can predict when its end will occur. Regarding detainee disposition and status, there is an interagency process in place to review the status of detainees regularly, to asses their intelligence value, if any, and evaluate whether they remain potential threats. Although a stark departure from U.S. Government practice in past conflicts, we have already released some detainees and are currently engaged with a number of countries to seek arrangements to return detainees to their home countries.

13. Senator MCCAIN. Secretary Rumsfeld, when and how will you begin the process outlined in the Order of the Military Commissions that the President signed in November 2001, and will you have outside observers?

Secretary RUMSFELD. That process is already well underway. In July 2003, the President determined that six individuals were subject to his November 13, 2001 Military Order. In February 2004, Guantanamo detainees Ali Hamza Ahmed Sulayman al Bahlul of Yemen and Ibrahim Ahmed Mahmoud al Qosi of Sudan were charged with conspiracy to commit war crimes. Prior to being charged, al Qosi and al Bahlul were assigned military defense counsel. Their trial dates and commission panel members will be selected at a later time. In addition to the assignment of counsel to and the charging of al Bahlul and al Qosi, military defense counsel have assigned to Salim Ahmed Hamdan of Yemen and David Hicks of Australia.

Approximately 80 members of the media will be permitted to attend and an offer has been extended to the International Committee of the Red Cross to have a representative observe military commission proceedings. We are currently examining whether it is logistically possible for additional groups or individuals to attend.

BUDGET

14. Senator MCCAIN. Secretary Rumsfeld, I notice in the new budget there are large increases in funding for already existing programs. How does this year's budget proposal figure into your long-term transformation plans?

Secretary RUMSFELD. The fiscal year 2005 budget sustains our ongoing transformation plans. Transformation is a large undertaking, but it does not consume the entire acquisition budget. Many ongoing programs remain vital to the short-term and long-term superiority of our military—for example new ships, transport aircraft, trucks, communications gear. These ongoing programs will continue to consume large portions of our acquisition budget.

15. Senator MCCAIN. Secretary Rumsfeld, during your first appearance in front of this committee you questioned the need for three tactical aviation programs. Can we still afford three new tactical aviation programs: F/A–18E/F, F/A–22, and Joint Strike Fighter (JSF)?

Secretary RUMSFELD. The fiscal year 2005 budget continues the multiyear plan we formulated in preparing the fiscal year 2004 request. This plan made adjustments in our tactical aviation programs to ensure that they were realistically funded and executable, i.e. affordable. These and all other major programs will again be subject to new scrutiny as we prepare our fiscal year 2006–fiscal year 2011 multiyear plan.

MISSILE DEFENSE

16. Senator MCCAIN. Secretary Rumsfeld, under the fiscal year 2005 DOD budget, top-line funding for missile defense is going up to $9.2 billion, an increase of $1.5 billion over the previous year. In fiscal year 2005, the Missile Defense Agency (MDA) will start to "initiate technology development and testing of advanced, lightweight space-based interceptor components" with the goal of incorporating them into

its Block 2012 capability. Arguably, these space-based interceptors cross the line from militarizing space to weaponizing space. Yet, this move is being done without any real debate on U.S. security needs. Is the U.S. space policy being updated to include the option to weaponize space?

Secretary RUMSFELD. The MDA continues to study space-based interceptors along with many other technology programs and future capabilities. Building on prior technology assessment studies of space-based missile defenses, MDA will conduct an analytical effort in 2004 to assess the potential benefits of these capabilities to support a layered missile defense system. MDA's current five year budget calls for continuing research and development in this area, with the option of developing a space-based test bed in Block 2012. Ultimately, any future decision to deploy interceptors in space would require additional Department and congressional decisions and funding.

17. Senator MCCAIN. Secretary Rumsfeld, MDA states that the Initial Defensive Operations system will not be considered to have achieved Initial Defensive Capability until after an assessment from the Director of Operational Test and Evaluation (DOT&E). Will this be DOT&E's report on the missile defense system that is expected in summer 2004?

Secretary RUMSFELD. Initial Defensive Capability will be achieved when a militarily useful increment of missile defense capability is available to place on alert. DOT&E will include appropriate comments on the Ballistic Missile Defense System (BMDS) the February 2005 report to Congress.

18. Senator MCCAIN. Secretary Rumsfeld, as you likely know, the DOT&E, Mr. Christie, has publicly expressed serious concern about the lack of operational test data for his office to evaluate. Given these concerns, how much can DOT&E really analyze this system?

Secretary RUMSFELD. DOT&E will have access to all the testing data available on the BMDS deployable test bed. I expect that DOT&E will use the available data to provide the Department its fair and objective assessment of the defensive capabilities of the system.

19. Senator MCCAIN. Secretary Rumsfeld, the designation of a program as undergoing spiral development is crucial because, according to section 803 of the National Defense Authorization Act for Fiscal Year 2003, once a program is designated to be undergoing spiral development, it must show its development strategy, test plans, performance parameters, exit criteria, and operational assessment. Furthermore, from 2003 to 2008, the Secretary of Defense must give an annual report to Congress by September 30 on the status of each program undergoing spiral development.

In the MDA budget request, this phrase is used to explain its development process ("Spiral development enables the execution of an iterative process for developing the BMDS. . . ." p. 2), yet according to the GAO, there are no programs that are officially undergoing spiral development. Is the BMDS ever going to be officially designated a program undergoing spiral development?

Secretary RUMSFELD. The BMDS was identified as undergoing spiral development after September 30, 2003 and, therefore, will be included in the Department status report due by September 30, 2004.

20. Senator MCCAIN. Secretary Rumsfeld, is it still reasonable to believe that the BMDS will be capability operational by the end of 2004? Will the missiles be fully operationally tested by then?

Secretary RUMSFELD. We still expect the BMDS to have operational capability by the end of 2004. As we have stated previously, this will be a limited capability with improvements to follow.

The Ground-based Interceptors (GBIs) that are a part of the Ground-based Midcourse (GMD) element will not be fully operationally tested by the end of 2004; however, they will be proven in developmental tests against threat-representative targets. Operational testing of this initial and evolving capability will proceed as the test bed is complete and continue as part of the development program and as part of our validation and verification effort.

JOINT REQUIREMENTS OVERSIGHT COUNCIL DECISION ON JOINT STANDOFF WEAPON

21. Senator MCCAIN. General Pace, in General Myer's posture statement he states that you are "establishing a more rigorous process for reviewing joint requirements." He also affirms that "in the near term, [you] are focused on improving how [you]

determine our munitions requirements. Over the long-term, [you] plan to field improved munitions systems that build on our already superb precision-delivery capabilities."

It appears to me that the cancellation of the United States Air Force's (USAF) joint participation in the Joint Standoff Weapon (JSOW) program in favor of the USAF's Wind Corrected Munitions Dispenser Extended Range (WCMD–ER) is totally counter to the direction Secretary Rumsfeld is setting for the department.

With respect to requirements, WCMD–ER has half the range, increases the signature for the delivery platform, and offers no plan to accommodate for the unexploded hazard of aging explosives.

With respect to the business case, the decision ignores the sunk costs that have already been spent on integrating the JSOW into five USAF aircraft in favor of future integration of the WCMD–ER into two USAF platforms at the time when the USAF is about to realize their return on investment. How do you explain this decision?

General PACE. The Joint Staff has absolutely increased its rigor in reviewing service as well as joint munitions requirements. We are currently coordinating between combatant commanders (COCOM), individual Services, and the Joint Staff to accurately depict warfighter needs through the Munitions Requirement Process. This effort will enable Services to better define the capability and funding requirements needed to support the combatant commander's operations plan (OPLAN) requirements and threat assessment.

Addressing the USAF decision to terminate the JSOW program in fiscal year 2005, Director, J–8 directed a review of several munitions programs. Over a 3-month period, the Force Application Functional Capabilities Board (FCB) conducted an assessment of standoff weapons capabilities and the impact of the USAF termination initiative on the overall JSOW program. The Joint Staff assessment did not focus on a pure comparison between JSOW–A and WCMD–ER. The tasking sought to identify gaps, seams, and redundancies in comparing JSOW with other joint and Service munitions. The unique attributes of JSOW were recognized and these capabilities weighed against their cost/benefits to the warfighter. JSOW is a standoff outside point defense weapon (SOPD). WCMD–ER is also a SOPD weapon. While it does not have the same range as JSOW, WCMD–ER does have the ability to be launched outside the range of most tactical threat systems. We recognize the issue with the unexploded ordnance hazard, but this is a challenge for our entire inventory of area target munitions. A final theme in the assessment included Strategic Planning Guidance direction to accept risk when existing capabilities sustain our advantage.

The USAF based its decision to end JSOW–A procurement on requirements analysis that concluded JSOW–A provided a capability that would be served by other weapons. The USAF, even considering the funding for JSOW to date, projected a cost savings of $398 million in the FYDP.

The Joint Staff recommended canceling the JSOW program, stating that advancements in precision capability of other current and funded munitions could effectively serve the JSOW target set. Current standoff munitions, together with direct attack munitions delivered by stealthy platforms, provide the necessary capabilities to meet COCOM requirements. The Joint Staff concluded that cancellation of the JSOW program would present limited risk in joint warfighting capabilities and offer substantial offsets for other critical requirements.

The Joint Staff concluded that DOD should accept limited risk and capture substantial offsets for future programs.

AIR FORCE TANKERS

22. Senator MCCAIN. General Pace, regarding tanker aircraft, the National Defense Authorization Act for Fiscal Year 2004 calls for an "Analysis of Alternatives," a long-term maintenance and training requirements study, and a corrosion study to be completed by March, April, and May 2004, respectively. Where are we with regard to each project? Specifically, who is conducting them? When will each be completed?

General PACE. Independent Analysis of Alternatives (AoA) Public Law 108–136 Section 134 directs the Secretary of the Air Force to submit an AoA by a federally-funded research and development center or another independent agency no later than March 1, 2004. The AoA Guidance was approved by the Under Secretary of Defense for Acquisition, Technology, and Logistics (USD(AT&L)) outlining the conduct of an AoA using a federally-funded research and development center or other

entity independent of the DOD. This effort is expected to take 18 months to complete.

Maintenance and Training Public Law 108–136 Section 135 requires the Secretary of Defense to submit a report, no later than April 1, 2004, regarding long-term tanker aircraft maintenance and training requirements. The Air Force, more specifically the KC–767 and Trainer System Program Offices, are preparing the report, with Logistics and Materiel Readiness as the Office of the Secretary of Defense (OSD) lead. The report is expected to be submitted to Congress by USD(AT&L) no later than April 1, 2004.

Aircraft Material Condition Public Law 108–136 Section 345 requires the Secretary of Defense to submit a report, no later than May 1, 2004, on the material condition of the KC–135 fleet. The statement of work has been prepared and the Center for Naval Analysis (CNA) is under contract. CNA is reviewing the available data and beginning their assessment.

23. Senator MCCAIN. General Pace, on December 1, 2003, the Deputy Secretary ordered a "pause" in the execution of the tanker contracts until the Office of the Inspector General (OIG) completes an independent assessment of allegations related to the tanker proposal. As you likely know, the Justice Department is also investigating matters related to the tanker program. It seems to me that the need for a "pause" prompted by the OIG's assessment applies with equal if not greater force to the Justice Department's investigation. In other words, the tanker contracts should not be executed until the Justice Department has completed its investigation. Do you agree? If not, why not?

General PACE. I'm not in a position to comment about ongoing investigations. The Joint Requirements Oversight Council (JROC) approved the Air Refueling Aircraft Program Operational Requirements Document, thus validating the need for air refueling capability. This capability is essential to COCOMs, and we should take every appropriate action to satisfy it as soon as possible.

QUESTIONS SUBMITTED BY SENATOR SAXBY CHAMBLISS

TARGETED PAY INCREASES

24. Senator CHAMBLISS. Secretary Rumsfeld, I am concerned as I know you are about retention and morale among our troops, particularly those who continue to be deployed overseas for long periods of time. Apparently as DOD was putting together its fiscal year 2005 budget recommendation, the OMB took out DOD's proposals for targeted pay raises, primarily for career enlisted members. I realize that resources are tight and that we can't always fund every pay and benefit program on the table. Having said that, I would appreciate your thoughts on how we can continue to retain high quality personnel, most of whom have other options outside the military, and what you believe is the proper mix of pay increases and quality of life enhancements that will ensure we create an environment that will retain the necessary amount of soldiers, sailors, airmen, and marines in our Armed Forces.

Secretary RUMSFELD. We've made great strides in reaching our goal of improving military compensation so that it is equal to or greater than the 70th percentile of private sector incomes for military members with comparable education and years of service. We've closed the gap for officers and will have closed nearly 80 percent of the gap for mid-grade non-commissioned officers (NCOs) with this year's 3.5 percent (Employment Cost Index (ECI) plus ½ percent) across-the-board pay raise. We remain committed to achieving this goal. Our service members have seen this commitment over the past few years in increases to pay and housing allowances. This year's budget provides the resources to eliminate the remaining 3.5 percent out-of-pocket housing expenses for the average member on the first of January.

Further, I am appointing a Defense Advisory Committee on Military Compensation to conduct a comprehensive review of military compensation for Active and Reserve Forces with a view toward simplifying and improving our compensation program to ensure we retain the right mix of soldiers, sailors, airmen, and marines in our Armed Forces.

TEMPORARY INCREASE IN END STRENGTH/GUARD-RESERVE MISSIONS

25. Senator CHAMBLISS. Secretary Rumsfeld, I applaud your recent decision to float up the Army end strength over the next several years in order to better meet the demands being placed on our Armed Forces. As I interact with my constituents who are military members it continues to become clear to me that they are, over-

whelmingly, proud to serve their country and willing to do so when called. At the same time, they want predictability in their lifestyle and a sustainable deployment schedule. The temporary increase you are instituting will help spread mobilizations and deployments over more people, and I believe that will help relieve some of the strain on our military members. Part of your plan for creating a more operational, deployable Army is to move people into skill sets that have high demand from those that are not in high demand. Regarding how this rebalancing may affect the Reserve components, can you explain in more detail which skill sets you are talking about and how this shift in skill sets will affect the way the Guard and Reserve look and how they are used in the future?

Secretary RUMSFELD. Specialties such as Civil Affairs, Security/Police Forces, Intelligence, and Special Operations Forces are examples of the most highly stressed career fields that need rebalancing. Converting skills from lower demand areas such as Field Artillery, Air Defense Artillery, and Combat Heavy Engineers to these higher stressed career fields increases the number of these units. Expanding the rotational base allows the Services to achieve mobilization rates that are both reasonable and sustainable.

GUARD/RESERVE RETENTION

26. Senator CHAMBLISS. Secretary Rumsfeld, our Guard and Reserve members have done a great job over the last several years and have played a major role in military operations overseas and at home. Based on the planned ratio of Reserve to Active Forces in Iraq during OIF 2, they will be playing an even larger role in the future. Indications I get from Guard and Reserve personnel I've talked to are that we have a possible retention crisis brewing. People I've talked to who have been deployed or are currently deployed claim that as many as 70 percent of the people in their units plan to get out when they are demobilized. It's unclear if they actually will, however the fact they say they are going to is troubling. The additional feedback I get that I think is important to mention is that predictability in lifestyle is more important to retaining these people than any kind of pay and benefit. I know you and your staff are working right now to revamp the mobilization process and develop new standards for how Guard and Reserve personnel will be used. But I want you to know that this issue is in the forefront of my concern as well and I look forward to seeing how DOD will address this issue which I believe is absolutely central to the future of our Armed Forces. On that note, I would appreciate any preliminary thoughts you have on the standards the Department intends to put in place for using and retaining our Guard and Reserve Forces.

Secretary RUMSFELD. We are acutely aware that the Reserve components are being called upon now more than they have in the past, and we are concerned about the impact of this increased use on our ability to meet our future human resource requirements. It is unclear at this point what current and long-term effects this increased use may have. While we are currently achieving our strength objectives, we remain vigilant about future enlistment and reenlistment behavior and trends. In our efforts to strengthen Reserve recruiting and retention, the Department is examining proposals for enhanced bonus programs and exploring opportunities to improve the quality of life for our members. We have stepped up our family and employer support programs, and we monitor employer- and family-related issues and concerns for potential serious problems. In addition, we are considering a number of initiatives that are focused on limiting the personal turbulence for our Reserve component members.

To promote judicious and prudent use of the Reserve components and to reduce the strain on Reserve component members, we are focusing much of our effort on developing new standards for their use. We are exploring policies that will provide more predictable periods of mobilization and more advanced planning time for overseas tours. For example, a member could plan for not more than 1 year of mobilization in every 6 years of Reserve service and arrange his personal and family affairs accordingly. We are examining ways to enhance our use of volunteers in an effort to minimize the need for involuntary activation orders. Additionally, our efforts to prepare proposed legislation and revise our policies to support the continuum of service are ongoing. These efforts are focused on removing barriers to optimal use of Reserve component members across the spectrum of military operations in both peacetime and in times of national emergency.

Although there are no immediate indications that the current mobilization has negatively impacted recruiting and retention, we are working to identify early warning indicators that will assist us in targeting enlistment and reenlistment incentives before problems become serious.

The Secretaries of the military departments are individually responsible for determining their strength requirements and skill mix and applying available resources to ensure manning requirements are achieved. We will continue to work with them to ensure that our programs are sufficient to provide a strong force with the requisite numbers and skills.

STRATEGIC AIRLIFT

27. Senator CHAMBLISS. General Pace, strategic airlift has been absolutely central to our success in Afghanistan and Iraq over the past 3 years, and central to the success of the Expeditionary Air Force for much longer than that. You are currently in the process of revising the Mobility Requirements Study to incorporate lessons learned from Operation Enduring Freedom (OEF) and OIF, and I understand that this study will be complete by June 2005. However, I don't think it takes a complex, time-consuming study to determine that we simply don't have enough airlift. We can't build C–17s fast enough and we can't modify C–5s fast enough to produce the amount of airlift capability that we need. One illustration of this which I find a little troubling is that over the last few years DOD has contracted with the Russians to use AN–124 aircraft for strategic airlift because we simply don't have enough of our own. At the same time, DOD and the Air Force in particular are dragging their feet in funding C–5 modernization programs which could help alleviate our need to contract with the Russians. I would appreciate your comments on this situation as well as your comments on how you will fund the C–5 modernization effort in order to increase the United States' strategic airlift capacity.

General PACE. The AN–124 is only used on a limited basis as the last option for airlifting outsized cargo. Our preferred method of cargo shipment is sealift. Only when the material is needed at destination before sealift can get it there, do we resort to airlift. Certain large shipments, known as outsized cargo, can only fit on a C–5 or C–17. The Fly America Act mandates that when the appropriate aircraft are not available, we must first offer a contract to U.S./Civil Reserve Fleet carriers. However, no U.S. carriers have the capability to move outsized cargo. In the past 5 years we have contracted the AN–124 125 times, with the vast majority of those instances being in fiscal year 2002–2003 as we were building up and executing OIF. In fiscal year 2003, the AN–124 flew less than one-half of 1 percent of the total strategic airlift missions flown (79 out of 180,000).

As part of the C–5 modernization effort, we have funded the Avionics Modernization Program (AMP) for 55 aircraft. In fiscal year 2005, $103 million is included in the President's budget request, including funds for procurement of kits for 18 additional aircraft. We have also requested $322 million in the fiscal year 2005 budget for the Reliability Enhancement and Re-Engining Program (RERP). Three test kits (two C–5Bs and one C–5A) were procured in fiscal year 2004 with operational test and evaluation scheduled to be complete in fiscal year 2008. The Air Force has programmed funds for procurement of 12 additional kits through fiscal year 2009, scheduled to begin as the Operational Test and Evaluation ends. Although budgetary constraints have delayed this program, we plan to AMP all remaining C–5s in the fleet and RERP the required amount to meet mobility requirements.

QUESTIONS SUBMITTED BY SENATOR LINDSEY O. GRAHAM

TRICARE FUNDING

28. Senator GRAHAM. Secretary Rumsfeld, last year, Congress appropriated $400 million to the Defense Health Program for an expanded TRICARE benefit for reservists and their families. Recognizing your reluctance to rely on unnamed sources, I have received information that a significant amount of these funds have been expended without program implementation. How much of that $400 million remains, and for what purpose has the money been used?

Secretary RUMSFELD. Thank you for your support of our reservists. I share your respect and appreciation for their contribution to our Nation. Implementing the enhanced access to TRICARE provided to reservists by the Fiscal Year 2004 National Defense Authorization Act (NDAA) presents the Department with both fiscal and administrative challenges.

As no additional funds were appropriated to support the new requirement, a prior approval reprogramming from within the Department's current appropriated funds is required. That reprogramming action is currently being staffed within the Department and should be forwarded to Congress shortly. As an interim measure, costs associated with the benefit are being absorbed within funds appropriated to the De-

fense Health Program appropriation as part of the Fiscal Year 2004 Appropriations Act. Given that the ability to absorb these costs is limited, I request your support expediting congressional approval of the reprogramming request.

The enhanced benefit also introduces a number of administrative challenges. As sections 703 and 704 of the NDAA for Fiscal Year 2004 represent the extension of current periods of eligibility, the benefit became active and the Department began to incur costs on November 6, 2003. At that time, the system capability to capture and report actual program expenditures did not exist. The Department is aggressively pursuing the necessary systems changes and contract modifications to properly administer these benefits, but those efforts are not yet finalized. As such, actual benefit expenditures are currently not available. However, current analysis indicates expenditures through March 2004 will be approximately $244 million. This estimate includes the provision of health care benefits under section 703 and 704, as well as associated system changes and contract modifications.

Section 702 requires regulatory action which is currently under development within the Department. The Department is developing the program to ensure administrative and health care costs do not exceed the $400 million limit specified by Congress in fiscal year 2004.

29. Senator GRAHAM. Secretary Rumsfeld, could you please comment on the status of the implementation of this vital readiness and retention program?

Secretary RUMSFELD. The Emergency Supplemental Appropriations Act and the NDAA for Fiscal Year 2004 temporarily revise statutes governing healthcare services for Reserve component (RC) sponsors and their family members. We are committed to making these changes as quickly as possible to ensure eligible members have access to TRICARE health benefits.

- The Department has begun a series of steps to implement these new temporary benefits such as changing systems and contracts, and developing marketing and educational materials to get information out to the RC members and their families.
- The law limits the fiscal year 2004 outlays to $400 million for authorized benefits. The Department is setting up systems to accurately track and account for all administrative and healthcare costs to stay within this limit.
- Looking to the future, we need to proceed cautiously in considering costly new entitlements for reservists who have not been activated. A key issue would be the effect of a new entitlement on recruitment and retention of both active duty and Reserve component members.

AIR NATIONAL GUARD

30. Senator GRAHAM. Secretary Rumsfeld, since the 1950s, the Air National Guard has followed a policy of maintaining at least one flying mission in every state. This policy is no doubt due to the invaluable contributions that the Guard provides not only to the national defense but also in recognition of the positive role Guard members play in their communities offering most individuals their only exposure to the military. Do you intend to continue that longstanding policy?

Secretary RUMSFELD. I appreciate your long-standing support for our Nation's men and women in uniform as well as your concern for the continued relevance of our citizen airmen of the Air National Guard. The support of Congress will be critical as we transform the DOD to meet the national security requirements of the 21st century.

The Department anticipates an overall reduction in the number of manned aircraft as we transform. This is due not only to constrained resources, but also the capabilities the Nation will require from the Department in the future. Information age warfare requires a different portfolio of capabilities than industrial age warfare, and we are transforming the joint force to meet that challenge. Also, the aircraft the Department is planning on procuring will be vastly more capable than our current legacy systems, which will result in a lower number of aircraft being procured. The Department is also very interested in the potential of unmanned systems.

The USAF is committed to ensuring the Air National Guard is a full and equal partner in the Air Force of the future. I strongly support their efforts to ensure the future relevancy of the Air National Guard in their transformation plans. Our shift to capabilities based planning and the resulting shift in focus away from legacy systems require a commensurate change of focus by the Air National Guard. Lieutenant General James has developed a strong transformation vision, and I am confident that his approach will help to ensure a relevant Air National Guard.

The Air Force and Air National Guard assure me their intent is to maintain a Guard flying unit in every state; however, first and foremost, they are committed to providing a relevant and more capable Air National Guard presence in every state, to provide required capabilities to the joint force. While it has always been a goal, there is no stated policy to keep a flying unit in each State. The Department believes such a policy would not be in the best interests of the Nation. The Air Force and Air National Guard leadership require the flexibility to transform the Air National Guard to ensure it has the required capabilities needed for the future.

REBALANCING FORCES

31. Senator GRAHAM. Secretary Rumsfeld, you mention in your brief prepared for Congress the need to manage/reduce the need for Reserve mobilization but at the same time you want to "restructure" the Reserves to serve in more "high demand" units such as military police. Please comment on your plan to achieve both of these goals.

Secretary RUMSFELD. The rebalancing strategy has as its objectives: to enhance early responsiveness by structuring forces to reduce the need for involuntary mobilization during the early stages of a rapid response operation; to resolve stressed career fields by structuring forces to limit involuntary mobilization to reasonable and sustainable rates; and to employ innovative management practices such as the continuum of service, reachback, enhanced volunteerism, mobilization process improvements, and predictable rotational overseas presence. Through this comprehensive rebalancing strategy the Department will gain added efficiencies from its existing force structure that may preclude any necessity to increase force end strength. For example, the Army's rebalancing plans will convert lower priority, less stressed field artillery force structure to higher priority and higher demand military police. This will increase the number of both active and Reserve component military police units. Expanding the rotational base allows the Services to achieve mobilization rates that are both reasonable and sustainable.

32. Senator GRAHAM. Secretary Rumsfeld, it was mentioned in the budget brief that, contrary to what has been reported, Army end strength numbers are not going to be temporarily increased; instead, active duty personnel are going to be "restructured." Who will replace those active duty positions that are being restructured?

Secretary RUMSFELD. The President has authorized the Army to temporarily increase active component strength by 30,000, using emergency powers provided in statute, for the purpose of resetting the force and creating 10 additional brigade UAs to address demands on the force based on current global war on terrorism emergency operations. The Army will increase its strength by up to 30,000 over the next 4 years and then return to statutory limits provided in the NDAA. It will employ a number of methods to return to the prescribed statutory limits. These methods include restructuring of "Cold War" capabilities deemed unnecessary or excessive for the emerging strategic environment, converting selected military spaces to civilian spaces in the institutional force, and headquarters delayering to provide more soldiers in deployable units. The exact number of spaces to be restructured is still under review. The spaces for "Cold War" capabilities that are no longer needed are being reinvested to create brigade UAs and associated support elements. Spaces in the institutional force that can be converted to civilian positions will be filled through the hiring of general schedule civilians or contractors.

MILITARY RETENTION/RECRUITING

33. Senator GRAHAM. Secretary Rumsfeld, in your opinion, what effect will the lack of targeted pay raises have on military retention in light of an improving economy and the current strain on military forces?

Secretary RUMSFELD. In my opinion, the lack of targeted pay raises will not adversely affect retention. The proposed 3.5 percent pay raise is one-half percent greater than the average pay raise in the private sector. When we also consider that the Basic Allowance for Housing, for some members about one-third of their regular military compensation, increased 6.9 percent and the Basic Allowance for Subsistence rose 4.8 percent, military compensation growth was significantly higher than for the average civilian.

34. Senator GRAHAM. Secretary Rumsfeld, what effect do you believe the current stop losses will have for long term recruiting and retention goals?

Secretary RUMSFELD. I believe the current Stop Loss program will have minimal effect on long-term recruiting goals. The current Stop Loss program is small in scale, impacting approximately 45,000 (as of the end of January 2004) out of the 2,000,000 active and Reserve Service members. As of today, the Army is the only Service currently executing stop loss. Army Stop Loss programs are expected to remain in effect until their unit stabilization system and increased manning initiatives are fully realized in 3 to 4 years. We are closely monitoring retention rates. When we ask the force about their intentions to stay in uniform, the signals remain positive.

STOCKPILE REPORT

35. Senator GRAHAM. Secretary Rumsfeld, over the last several years, the Senate has supported a number of Department of Energy (DOE) programs essential to the Nation's nuclear deterrent force. Many of those programs support DOD as the end "customer." When do you intend to finalize the Stockpile Report?

Secretary RUMSFELD. We are currently conducting a periodic review of our plans for implementing the Nuclear Posture Review. The updated plans will serve, among other things, as the means to change the projection of our specific stockpile requirements. We will make a two-thirds reduction in number of our operationally deployed nuclear weapons that President Bush has announced. The plan must also protect against a number of unknowns in the 2012 timeframe and beyond, including the international environment, the limited progress we have made toward restoring our nuclear infrastructure, and the condition of the aging stockpile. Infrastructure is of particular concern, since the U.S. cannot build complete replacement warheads or build new ones from scratch if it were required to do so. Because of this and other infrastructure shortfalls, we must rely on those warheads we have in secure storage to respond to new threats by incorporating new technology into these existing warheads when required.

Nearly all of the weapons in the stockpile were designed and built during the Cold War. For now, our plan is to retain some, explore modifications of others to give them improved capabilities, and to prudently reduce the overall inventory of warheads. Predicting specific stockpile requirements that will meet our deterrence needs for the next decade and beyond, is a very complex problem. This initial stockpile plan for 2012, now in development, will involve significant reductions. We will continue to refine our requirements in the future taking into account progress made in restoring the nuclear infrastructure and the condition of the stockpile.

QUESTIONS SUBMITTED BY SENATOR ELIZABETH DOLE

TRANSFORMATION

36. Senator DOLE. General Pace, in a recent article in the National Journal, the operational linking of individual Service training ranges at Nellis, the National Training Center, Twentynine Palms, and San Diego was hailed as one of the greatest transformation achievements stemming from operations in Iraq. Where do you see further "transformational" opportunities emerging in joint training and operations?

General PACE. While the Joint National Training Capability (JNTC) has demonstrated initial success in providing a capability to conduct joint training at a collective level, we are also making strides to develop an enhanced capability to provide distance learning and training at an individual level. This capability is referred to as the Joint Knowledge Development and Distribution Capability (JKDDC).

JKDDC will transform the way our joint military forces receive joint individual training. Through this capability we will develop and distribute joint knowledge via a dynamic, global-knowledge network that provides immediate access to joint education and training resources. This capability facilitates a transformed culture by preparing future decisionmakers and leaders (officers, enlisted, and DOD civilians across the joint community) to employ joint operational art, understand joint doctrine, and respond innovatively to adversaries.

REBALANCING THE FORCES

37. Senator DOLE. General Pace, while end strength is certainly an area of concern, I am more concerned about force mix particularly, the total force of active, Reserve and Guard. How are you addressing the short-term issue of manning high demand career fields?

General PACE. The Services are taking a number of actions to reduce stress on high demand career fields beginning in fiscal year 2004–2005. Generally, they will move force structure from high-density, low-demand capabilities (air defense and artillery) into high-demand capabilities (military police and civil affairs).

The Army will begin the restructuring of 40,000 billets in fiscal year 2004–fiscal year 2005. This includes beginning realignment of 30,000 billets in fiscal year 2004—affected career fields include Civil Affairs, Psychological Operations, Chemical Defense, Special Operations Forces, Intelligence, and Military Police. Realignment of the remaining 10,000 billets will begin in fiscal year 2005 affected career fields include Military Police, Transportation, and Quartermaster.

The Navy will complete realignment of over 14,600 billets by fiscal year 2005 in its Antiterrorism/Force Protection, Intelligence, and Medical career fields. Additionally, the predominantly RC Naval Coastal I Warfare capability will gain active component structure: (1) four active component Maritime Security Force Squadrons will be commissioned by end fiscal year 2004; and (2) two of eight RC Naval Coastal Warfare Squadrons transfer to AC in fiscal year 2005.

The Air Force will realign 3,800 billets in fiscal year 2004–fiscal year 2005. This includes 2,700 billets in the highly stressed Special Operations career field and 1,100 across 16 other stressed AC career fields.

The U.S. Marine Corps will realign billets in Air/Naval Gunfire Liaison Companies and examine further rebalancing efforts for Law Enforcement, Civil Affairs, and Intelligence. In fact, three Air/Naval Gunfire Liaison Companies will be established resulting in a 54/46 AC/RC mix of forces in a capability that was previously 100 percent in the RC.

38. Senator DOLE. General Pace, in your proposal to reassign some units (namely air defense and artillery) to units such as military police and civil affairs, are we sacrificing a capability of a core mission in order to meet a short-term requirement?

General PACE. We are not sacrificing a capability of a core mission in order to meet short-term requirements. The rebalancing efforts by the Services are the result of detailed analysis. In general, the Services will move force structure from high-density, low-demand capabilities (air defense and artillery) into high-demand capabilities (military police and civil affairs).

39. Senator DOLE. General Pace, could you discuss in further detail how you plan to rebalance the forces between the active, Guard, and Reserve components?

General PACE. The Services are taking a number of actions, in addition to those already mentioned for the near-term, to rebalance forces between the AC and RC to better match the force structure to the Defense Strategy.

The Army will realign up to an additional 85,000 billets beginning in fiscal year 2006 upon the completion of the Total Army Analysis 06–11. This is in addition to the 40,000 billets that will begin realignment in fiscal year 2004. The primary capabilities affected will be: (1) significant decreases in Field Artillery, Air Defense, Engineers, and Armor; and (2) significant increases in Military Police, Transportation, Petroleum, Oils, and Lubricants/Water Distribution, Civil Affairs, Psychological Operation, and Chemical Defense.

Other actions by the Services that will affect the AC/RC include:

— All Services will increase the use of "reach-back" capabilities, particularly in the Medical and Intelligence career fields, in order to reduce the deployment requirements for high-stressed RC career fields;

— The U.S. Navy (USN) and USMC will integrate AC/RC F/A–18 units to improve overall carrier air wing availability and reduce reliance on one component or the other, exclusively;

— The Air Force will reduce reliance on the RC by 24 percent over the FYDP through AC/RC realignment in the highly stressed career fields of Combat Search and Rescue (CSAR) helicopters and the C–130s that refuel the CSAR helicopters.

MOBILIZATION OF THE NATIONAL GUARD

40. Senator DOLE. General Pace, with this month's deployment of North Carolina's 30th Heavy Enhanced Separate Brigade, I have been made painfully aware of some of the problems faced by our National Guard (NG) units as they mobilize. What are you doing to guarantee that these service members are expediently transitioned to active duty payrolls and that their lodging and subsistence are of the same quality as the active units training on the same bases?

General PACE. For pay and lodging and subsistence, we are doing the following:

Pay. Since the mid-1990s, mobilized Army National Guard (ARNG) soldiers remain on the Defense Joint Military Pay System (DJMPS) and are not rolled over to the active component (AC) pay system. When an ARNG soldier is mobilized, the NG United States Property and Fiscal Officer (USPFO) issues a pay order which establishes entitlements using an AC accounting classification; thereby, transitioning the soldier to active duty.

Problems arise when an ARNG soldier reports to an AC Finance-Office with a pay concern, as the AC is not familiar with the DJMPS–RC system. However, the U.S. Army Finance Command in conjunction with the Defense Finance and Accounting System established RC training teams to conduct training at various AC installations on the DJMPS–RC. In addition, the ARNG has implemented a toll-free number and set up an email address for ARNG soldiers to use when they have questions or concerns regarding their pay. Also, three ARNG Mobilization Pay Teams (MPTs) are being organized to identify and make necessary pay adjustments and corrections. The toll-free number and email address were operational March 1, 2004, and the MPTs should be operational April 1, 2004.

Lodging and Subsistence. The Army has experienced significant challenges in billeting mobilized soldiers. In response, the Installation Management Agency (IMA) has created a standard policy for all installations to use when accommodating mobilized soldiers regardless of component affiliation. This standard is based on the fundamental principle that AC and RC soldiers are on one team and are to be treated equally within the installation's capabilities.

41. Senator DOLE. General Pace, the budget request news release sent out by your office proposes the use of innovative management to improve the mobilization process. Could you go into some specifics about that objective?

General PACE. In order to relieve stress to the RC force, we are evaluating several innovative management practices to improve the flexibility of the total force. We also want to reduce the impact on critical career fields in the RC and the need for involuntary mobilization. Our four approaches include: establish the paradigm of the continuum of service, increase use of reachback, improve predictability of rotational overseas presence, and improve the mobilization process.

The paradigm of the continuum of service is a new practice that provides individual service members greater opportunities to serve in support of the Department's mission. Currently, the RC force is made up of either full-time or traditional reservists. With the new approach, RC individuals will be able to perform military service in a variety of ways, at varying levels of service, moving between full-time and part-time status, as circumstances in their lives and needs of the Department evolve.

Increased use of reachback refers to the ability to connect electronically to information sources and resources at home base or other locations around the world to accomplish essential tasks and missions. By employing reachback, the in-theater force can be smaller and more agile, with corresponding reductions in combat support and physical security requirements. Additionally, by using computer connectivity, RC units and individuals can provide mission support during drill periods as well as short-rotation active duty tours, thus, further lessening the requirements for RC mobilizations.

Improving the predictability of rotational overseas presence allows longer lead-time to plan for overseas deployment. RC members benefit from additional time to prepare their families, employers, and train with their units. Incorporating RC forces into a more predictable rotational overseas presence plan also allows the Department to free up active component units to support rapid-response requirements that may arise, and the Services are able to better manage the operational tempo of the total force.

Improvements to the mobilization process include: establishing standards to ensure judicious and prudent use of the RC, gaining better access to the Individual Ready Reserve pool (for greater source of military manpower and depth of capabilities), and continuing Service refinements to automation systems, thus, enhancing visibility of activated RC members and improving the ability to meet mobilization requirements.

42. Senator DOLE. Secretary Rumsfeld, since September 11, 2001, 21 North Carolina NG units have been mobilized. Of those, only one unit was given anywhere close to a 30-day notice. With the announcement of the OIF 2 rotation, the 30th Heavy Enhanced Separate Brigade received their orders 4 days prior to their mobilization date. While I understand the urgent requirements immediately following September 11, this holding of notice orders for an anticipated rotation is unacceptable,

especially given the additional preparations required for our citizen soldiers. What is being done to address this ongoing problem?

Secretary RUMSFELD. The 30th Enhanced Separate Brigade alert order was released by Headquarters, Department of the Army on July 25, 2003. The 30th Enhanced Separate Brigade mobilization order was released by Headquarters, Department of the Army, on September 27, 2003, with a mobilization date of October 1, 2003. While it is the Army's policy to issue mobilization orders 30 days prior, operational requirements sometime dictate otherwise. While it was unfortunate that it was only 4 days from mobilization order receipt to report for duty, it did allow for the soldiers families to become eligible for the benefits and entitlements that come with activation, such as medical care, dental care, and lower interest rates for loans. It is the Department's policy to ensure the predictable use of Reserve Forces shall be extended to the maximum amount possible by notifying Reserve members early that they are being considered for activation and by issuing orders as soon as it is operationally feasible to do so with the goal of providing them to the activating member at least 30 days prior to the report date.

BRAC/GUARD AND RESERVE TRAINING

43. Senator DOLE. Secretary Rumsfeld, with the proposed 25 percent reduction in domestic facilities with BRAC and movement away from large, forward-operating bases, how are you planning to accommodate Guard and Reserve training, basing, and quality-of-life needs when worldwide operations require a manpower "spike"?

Secretary RUMSFELD. The Department of Defense is committed to meeting the quality-of-life needs of our service members and their families as we transform our military for the 21st century. Just as our forces are dealing with the global war on terrorism, so too, are our military families. We have the honor and the obligation to assist them in meeting the stresses and challenges of military life. Because of the unique challenges of our times, we formed a Joint Family Readiness Working Group in October 2002. The working group is critical in the Department's efforts to monitor deployment and family readiness and serves as an advisor to DOD leadership on emerging policy and operations issues.

Each of the military services has comprehensive deployment support programs. These programs educate families and help them cope with the demands of military life and separations. Outreach efforts include personal contact with families on a regular basis. Through technology (toll-free numbers, Military OneSource, and Web sites), families can access information or link to services virtually around the clock. Personal services include emergency assistance, respite care for children, financial assistance, and help in navigating military systems.

The military family lives with a high level of stress not only because of frequent deployments that place the service member/parent/spouse in harm's way, but also because of frequent moves, disruptions in the military spouse's employment, and the challenges created by children changing schools. The OneSource program is a primary means of support to families dealing with these challenges, especially the two-thirds who live off-base and the 60 percent with family responsibilities. Through the Military OneSource programs, service members and their families can also access prepaid nonmedical family assistance counseling to help them deal with deployment separations, parent-child communication, financial issues, and reunion/reintegration issues.

Our service members have strong family values and high aspirations and expectations for their quality of life. To that end, the Department, in its new social compact, has entered into a written commitment to improve life in the military, underwrite family support programs, and work in partnership with families to accomplish the military mission. Family support is a continuous effort, and there is no finish line for readiness.

As we continue to support our Active and Reserve Forces and their families, we are closely monitoring our programs so that resources are available and accessible to all affected by mobilization and deployment. We are being particularly vigilant and supportive of our family readiness volunteers. They do a superb job and are an incredible group of dedicated and effective volunteers.

44. Senator DOLE. Secretary Rumsfeld, while I understand the temporary nature of many of the facilities now housing our Guard and Reserves units training for deployment, the deplorable state of those facilities is not understandable. How will remedying this situation be factored into the considerations for the 2005 BRAC round?

Secretary RUMSFELD. As the Department rationalizes its base infrastructure with defense strategy through the BRAC process, excess base capacity can be eliminated. This will release scarce resources that would otherwise not be available for other higher-priority requirements, such as modernizing weapons, improving quality of life for military members, and improving the readiness of our forces by upgrading the facilities that support them. To the extent funding can be diverted from unnecessary facilities through BRAC, the facilities you mention could be improved.

TRANSFORMATION AND POSTWAR STABILITY

45. Senator DOLE. Secretary Rumsfeld, while our latest military innovations have been significant in "winning the war," we seem to have a ways to go in "keeping the peace." How does your transformation vision address the need to maintain a postwar stability operation or peacekeeping capability?

Secretary RUMSFELD. Our vision of transformation encompasses developing new concepts for the employment of military force across the range of military operations, from major force-on-force combat to stability operations. To support this vision, the Joint Staff, combatant commands, and the military services are developing future joint concepts that will support our operational goals as laid out in the 2001 Quadrennial Defense Review. For example, the April 2003 Transformation Planning Guidance included specific guidance on developing a joint operating concept (JOC) for stability operations, with particular emphasis on peace enforcement. That JOC is now under development and is expected to be completed soon. To make the concept a reality, the military will conduct experiments and wargames to ensure the force adopts the new concept. Such transformational capabilities are critical to adapting our forces' combat capabilities into useful tools for resolving crisis situations. In addition, we continue to work with our friends and Allies to increase global capacity to conduct stability operations and to develop policies, concepts, and doctrines that ensure we can operate together effectively during stability operations.

WELFARE OF THE MILITARY FAMILY

46. Senator DOLE. Secretary Rumsfeld, the welfare of the military family is undoubtedly a key to the success of our All-Volunteer Force. I would like to take this opportunity to thank the countless volunteers and military family advocacy employees for their dedicated work during OEF and OIF. How is DOD formalizing the family advocacy mission, and how is this mission included in you transformation vision?

Secretary RUMSFELD. The Department of Defense is committed to meeting the quality of life needs of our service members and their families as we transform our military for the 21st century. Just as our forces are dealing with the global war on terror, so too, are our military families. We have the honor and the obligation to assist them in meeting the stresses and challenges of military life. Because of the unique challenges of our times, we formed a Joint Family Readiness Working Group in October 2002. The working group is critical in the Department's efforts to monitor deployment and family readiness and serves as an advisor to DOD leadership on emerging policy and operations issues.

Each of the military services has comprehensive deployment support programs. These programs educate families and help them cope with the demands of military life and separations. Outreach efforts include personal contact with families on a regular basis. Through technology (toll-free numbers, Military OneSource and Web sites), families can access information or link to services virtually around the clock. Personal services include emergency assistance, respite care for children, financial assistance, and help in navigating military systems.

The military family lives with a high level of stress not only because of frequent deployments that place the service member/parent/spouse in harm's way, but also because of frequent moves, disruptions in the military spouse's employment, and the challenges created by children changing schools. The OneSource program is a primary means of support to families dealing with these challenges, especially the two-thirds who live off-base and the 60 percent with family responsibilities. Through the Military OneSource programs, service members and their families can also access pre-paid non-medical family assistance counseling to help them deal with deployment separations, parent-child communication, financial issues and reunion/reintegration issues.

Our service members have strong family values and high aspirations and expectations for their quality of life. To that end, the Department, in its new social compact, has entered into a written commitment to improve life in the military, underwrite family support programs, and work in partnership with families to accomplish the

military mission. Family support is a continuous effort and there is no finish line for readiness.

As we continue to support our Active and Reserve Forces and their families, we are closely monitoring our programs so that resources are available and accessible to all affected by mobilization and deployment. We are being particularly vigilant and supportive of our family readiness volunteers. They do a superb job and are an incredible group of dedicated and effective volunteers.

47. Senator DOLE. Secretary Rumsfeld, given that our current deployments are drawing heavily on Guard and Reserve Forces, what is the Department doing to ensure necessary and appropriate support for all families, especially those from rural communities who live long distances from military installations?

Secretary RUMSFELD. We have been working with the Services and the RCs to create more of a joint service, total force family readiness and support perspective, so that any member or family can go to any installation or family support group and receive the assistance they need, regardless of the Service or component affiliation of the member.

Family readiness is a command function that must start at the battalion/squadron level. The unit commander is in the best possible position to determine what is needed to support his or her unit members and their families. Thanks to the National Guard Bureau, over 400 family assistance centers have been brought online to augment the family support system in America's hometowns in support of mission readiness. These joint centers provide an outreach capability not only to Guard and Reserve families that are not located near an installation, but they also support the large number of active service and family members who reside off the installation. Combined with the active duty family centers, there are over 700 family assistance centers around the world.

Through technology (toll-free numbers, Military OneSource, and Web sites), families can access information or link to services around the clock. We have been extremely pleased with the success of the OneSource program. This program offers service members and their families, from any location in the world, 24 hours a day, 7 days a week, access to a professional counselor via a toll-free telephone line, the Internet, and e-mail. The program offers the service in more than 130 languages. Personal services include emergency assistance, respite care for children, counseling, financial assistance, or help in navigating military systems. In addition, military members and their families can access prepaid family assistance counseling services on issues ranging from parent-child communications to reunion/reintegration of the family following deployments. A licensed provider provides this counseling within 30 minutes of the military family's home.

The military family lives with a high level of stress not only because of frequent deployments that place the service member/parent/spouse in harm's way, but also because of frequent moves, disruptions in the military spouse's employment, and the challenges created by children changing schools. The OneSource program is a primary means of support to families dealing with these challenges, especially the two-thirds who live off-base and the 60 percent with family responsibilities.

Our service members have strong family values and high aspirations and expectations for their quality of life. To that end, the Department, in its new social compact, has entered into a written commitment to improve life in the military, underwrite family support programs, and work in partnership with families to accomplish the military mission. The OneSource program leverages the power of public-private partnerships and technology to deliver services.

48. Senator DOLE. Secretary Rumsfeld, what is the Department doing to facilitate coordinated, targeted support for these troops and their families from local community resources, like schools, churches, and public agencies?

Secretary RUMSFELD. The National Guard Family Assistance Centers, located at over 400 sites in communities throughout the country, work with local agencies to ensure support is made available to military families. Moreover, the Family Centers at the installation have always worked with the local public agencies to ensure military families receive the appropriate support for which they are eligible. A number of veteran service organizations have also stepped up to the plate and are assisting families whose loved ones are deployed with home repairs, cars, lawn mowing, and other tasks that the deployed service member did while at home. The community response to our military families has been and continues to be very inspiring.

The family support systems at the installation level work with the schools to ensure that their staffs are aware of the unique needs of military children and, in particular, students with a parent deployed. Family Center staff and School Liaison Of-

ficers work regularly with the local schools providing training and other resources to help them assist military children.

Military OneSource, our recently implemented toll-free telephonic information and referral service links military families directly to local civilian community services. Military OneSource verifies referrals and frequently conducts a three-way call to introduce the military family to community service providers. In addition, families can access prepaid nonmedical family assistance counseling, provided by local civilian counselors, through the Military OneSource program.

I am pleased to recount a number of initiatives: for example, DOD sponsors www.MilitaryStudent.org, a Web site designed for children and parents of military families on deployment, their teachers, military installation leaders and families of special needs. The Web site is an extensive collection of information, skills, and strategies to help students and their families address deployment challenges as well as information and suggestions for those in support roles.

We help educators become aware of the challenges of the military child. To foster national awareness and highlight best practices for public school and military leaders, the DOD and the Military Impacted Schools Association (MISA) sponsored the National Conference for the Military Child. An outgrowth of the conference was the Promising Practices Program, which promotes worldwide replication of school programs and policies that schools can emulate for the benefit of military children and is located on the DOD Web site, www.MilitaryStudent.org.

The Department has initiated several partnerships. A partnership with the Department of Education's Safe and Drug Free Schools has expanded to include work with the National Child Traumatic Stress Network (sponsored by the University of California, Los Angeles, Duke University, and the Department of Health and Human Services) and world-renowned trauma experts to develop publications such as: "Educator's Guide to the Military Child During Deployment" and "Educator's Guide to the Military Child During Post Deployment: Challenges of Family Reunion." In addition, Parent's Guide to the Military Child in Deployment has been written in collaboration with the same agencies. A partnership with child psychologists and the Child Study Center of New York University School of Medicine has made their outstanding guidebook, Caring for Kids After Trauma and Death: A Guide for Parents and Professionals, available on our www.MilitaryStudent.org Web site where the DOD publications mentioned above also reside.

A partnership with Generations United is allowing the DOD to work with a nonprofit organization to develop a literacy tutoring program for children of deployed military families by training retired military members to offer educational and emotional support on a one-to-one basis. It will be piloted in six heavily impacted public school districts. In addition, the National Child Traumatic Stress Network and DOD are working with Walter Reed Army Medical Center and the Veterans Administration to develop a program to work with children of severely wounded military members returning from Iraq and Afghanistan to help children comprehend the life-altering changes of the military member and the impact on the family.

To give national prominence to military child education issues and to encourage states to work together to solve many of the challenges of military children in transition and deployment, DOD is sponsoring the National Education Consortium of Highly-Impacted States. It will be held in Washington, DC, in 2004 and attended by Chief State Schools Officers of the most heavily impacted military states. The agenda includes discussion regarding reciprocity and legislative initiatives, establishment of partnerships, and future consortium plans.

49. Senator DOLE. Secretary Rumsfeld, does the Department play a direct role in helping these types of organizations help our troops and families, or are we merely assuming that they are all doing their part to support military families? What type of feedback are you receiving?

Secretary RUMSFELD. In October 2002, we established a Joint Service Family Readiness Working Group. This working group has family program representatives from all active and Reserve components, nonprofit organizations such as the Red Cross, the National Military Family Association, and relevant Federal agencies such as, the Department of Veterans Affairs. This group casts a wide net of information gathering from their field programs and offices. Through this we get a great deal of feedback. I am pleased that the feedback indicates a great deal of community support for our military families.

Family support leaders conduct site visits to highly impacted areas. The visits are intended to get a pulse of family and community support operations. During these visits, they meet with families, family readiness group leaders, and family support staff. Leaders come back from these trips impressed with the strength of our family

support infrastructure but also with the incredible amount of community support for our troops and their families.

We work closely with the President's USA Freedom Corps to provide a means of channeling public service to military communities and individuals in need. Industries, not-for-profit organizations, schools, and individuals have rallied to support our troops and their families in countless ways from repairing cars to providing respite care.

The DOD plays an active role in partnerships with many organizations. We are not only the beneficiaries of the efforts of not-for-profit organizations, we are also active participants. With the MISA, for example, we contribute publications, Web site information, and programs that can benefit schools highly impacted by our children of military families. We have hired outstanding educators, researchers and child psychologists to develop an on-line course that educators anywhere in the world can access for free. The course contains cutting edge strategies, research, and teaching and counseling techniques that will help to support our military children.

Military OneSource is a success story for us. We constantly receive feedback from our service members that our 24/7/365 information and referral service for our military families is providing a much needed support function, everything from locating a dentist for their autistic child to providing school district information for family relocation. In addition, military members and their families can access prepaid family assistance counseling services on issues ranging from parent-child communications to reunion/reintegration of the family following deployments. A licensed provider provides this counseling within 30 minutes of the military family's home. Military OneSource tracks the requests from military members and gives us constant feedback regarding concerns and needs of our families. This invaluable information is used to guide our decisions regarding new programs, policies, and procedures necessary to improve military family quality of life.

GUARD AND RESERVE ACTIVATIONS/SEPARATION FROM BUSINESSES

50. Senator DOLE. Secretary Rumsfeld, many of our Guard and Reserve personnel either work for a small business or actually run their own small business. Given the historic magnitude of current Guard and Reserve activations and the substantial economic implications associated with these activations, could you outline for the committee how the Department is preparing these business owners and employees for separations that could last 12 to 18 months, both before they leave and after they return?

Secretary RUMSFELD. Employer support is an important part of an individual's decision to remain in the Reserves under normal conditions and is even more important in a time of mobilization when employees are absent from their employers for more extended periods. Absences by reservist-employees may create work problems and increased costs for civilian employers and may significantly affect the operations of a self-employed reservist's business. Employers of America's NG and Reserve members have become inextricably linked to a strong national defense.

The Department chartered the National Committee for Employer Support of the Guard and Reserve (ESGR), an agency within the Office of the Assistant Secretary of Defense for Reserve Affairs, in 1972 to promote cooperation and understanding between Reserve component members and their civilian employers and to assist in the resolution of conflicts arising from an employee's military commitment. Today, ESGR operates through a network of more than 4,500 volunteers throughout 55 committees located in each State, the District of Columbia, Guam, Puerto Rico, the Virgin Islands, and Europe. The Department tasks ESGR to ". . . promote both public and private understanding of the National Guard and Reserve in order to gain U.S. employer and community support through programs and personnel policies and practices that shall encourage employee and citizen participation in National Guard and Reserve programs."

ESGR uses the military chain of command to promote better understanding of the importance of maintaining positive working relations between employers and their RC employees, in order to sustain NG and Reserve participation. ESGR also solicits the assistance of military agencies, military training schools, and military and civilian associations in educating the Reserve Forces about their rights and responsibilities regarding terms and conditions of civilian employment, as stipulated in the Uniformed Services Employment and Reemployment Rights Act (USERRA).

Congress also provided clear protection for all members of the uniformed services (including noncareer NG and Reserve members, as well as active duty personnel) in October 1994, with passage of the USERRA chapter 43 of title 38, U.S. Code. The Department of Labor is the enforcement authority for USERRA, and it processes all

formal complaints of violations of the law. The Act seeks to ensure that members of the uniformed Services are entitled to return to their civilian employment upon completion of their service. They should be reinstated with the seniority, status, and rate of pay they would have obtained had they remained continuously employed by their civilian employer. The law also protects individuals from discrimination in hiring, promotion, and retention on the basis of present and future membership in the armed services.

There is a difference between the reservist who is self-employed and chooses to also pursue a military career in the Guard or Reserve, and the small business owner who employs a reservist who is called up for an extended period of time. About 15 percent of employed reservists are either small business owners, manage or work in a family owned business, or have their own professional practice. About 18 percent are employed by small businesses (firms with fewer than 100 employees). The Small Business Administration (SBA) advises small business owners, and small businesses with essential employees who are members of the Reserve or NG to have a plan in place to work through any potential disruption that may result from a broad call-up to active duty. The SBA Office of Veterans Business Development has created a new Web site where small business owners or small businesses with key employees who are members of the Reserve or NG can find relevant information. The Web site is part of a comprehensive plan to provide members of the NG and Reserve who own or are an essential employee of a small business with timely information on all SBA programs and services available to them if and when they are called to active duty.

Through a vast array of programs and services, the U.S. SBA provides tools to assemble and enact a plan designed to prevent or reduce the potential disruption caused a business by the sudden absence of a key player. The SBA and its resource partners offer managerial, technical, and financial assistance, counseling, and training to assist small businesses with any conceivable business-related issue, from how to market their products and services, to financial assistance, to what to do if called to active duty.

Additionally, the SBA has implemented the Military Reservist Economic Injury Disaster Loans (MREIDL) program. Small Businesses may qualify for MREIDL, the purpose of which is to provide funds to eligible small businesses to meet its ordinary and necessary operating expenses that it could have met, but are unable to meet, because an essential employee was "called-up" to active duty in their role as a military reservist. These loans are intended only to provide the amount of working capital needed by a small business to pay its necessary obligations as they mature until operations return to normal after the essential employee is released from active military duty. Interest rates are determined by formulas set by law and recalculated quarterly but the maximum interest rate for this program is 4 percent. Loan terms up to a maximum of 30 years are available, and SBA determines the term of each loan in accordance with the borrower's ability to repay. The actual amount of each loan is limited to the actual economic injury as calculated by SBA, not compensated by business interruption insurance or otherwise, and beyond the ability of the business and/or its owners to provide. If a business is a major source of employment, SBA has authority to waive the $1,500,000 statutory loan limit.

Little data is available on the actual or specific employer costs associated with Reserve employees. To address this lack of information, the Department is conducting a study to determine if and when significant problems with employer support of the Guard and Reserve arise due to RC call-ups or other reasons. The Department is also collecting information about the costs that mobilizations impose on employers of RC personnel and to evaluate various approaches of offsetting those costs. Also, last July the Secretaries of Defense and Labor signed a Memorandum of Understanding that provides the framework for a broad range of continuing and new partnership efforts between the two departments to ease reentry into the civilian workforce and ensure military skills are translated into civilian employment.

MILITARY INTELLIGENCE

51. Senator DOLE. Secretary Rumsfeld, in recent interviews, Dr. David Kay, the former head of the ISG, stated that the CIA became far too dependent on spy satellites and intercepted communications. This statement concerns me, especially as we move to "transform" the military aspects of the intelligence community. I was, however, encouraged to see the DOD's initiative to improve human intelligence collection mentioned as part of the budget request. Could you discuss in more detail how you plan on balancing technology-based intelligence data with the necessary elements of human intelligence and data analysis?

Secretary RUMSFELD. Our efforts to balance technology-based intelligence data with human intelligence (HUMINT) reform began in 2003 with a broad-based, 4-month study entitled "Taking Stock of Defense Intelligence" and a simultaneous initiative to reform HUMINT. Based on on-site research and discussion with every COCOM, Service, and Combat Support Agency, the "Taking Stock" study yielded a comprehensive account of intelligence issues and shortfalls, including the need for more and better HUMINT. Concurrently, as we strove to reform our HUMINT activities, we also uncovered numerous unaddressed problems in other areas: analysis, horizontal integration, dissemination, training, and professional development—to name a few. Thus, it became clear to us that broad-based changes are needed in the way we conduct defense intelligence activities. We are now engaged in a comprehensive remodeling effort for all of defense intelligence, which will address many, if not most of these problems, balance HUMINT and technical collection, provide robust support to the warfighter, and serve the greater needs of the DCI and the National Intelligence Community.

RESERVE MOBILIZATION

52. Senator DOLE. Secretary Rumsfeld, one of your proposals to manage demand placed on our military forces is rebalancing the forces to reduce the need for Reserve mobilization. Within the context of today's extended rotations, this appears to be a prudent measure; however, there may be a long-term implication to address. Having a military less reliant on Reserve mobilization places less of a requirement on the executive branch to seek congressional approval when deploying the United States Military. Could you elaborate on how you envision the end state of the military after restructuring the Active and Reserve Forces?

Secretary RUMSFELD. Use of RCs is an integral part of the Department's total force policy in support of our Nation's challenges and interests, and will continue to be so as we meet the emerging challenges of the 21st century and the myriad of requirements associated with the global war on terrorism. Our focus is to have a force with the right amount of capabilities in the right place, able to use them at the right time. Access to the RC without reliance on mobilization, especially in the early phases of rapid response operations, is both prudent and necessary. In the end, our goal is to rebalance the RC to ensure reasonable and sustainable mobilization rates.

53. Senator DOLE. Secretary Rumsfeld, more specifically, will the transformed military still depend on mobilizing the Reserve Forces to execute significant military operations?

Secretary RUMSFELD. The transformed military will still depend on mobilizing the Reserve Forces to execute significant military operations. The forces that will be most readily available in the early stages of a rapid response operation will be those in the AC. At the same time, unique capabilities resident within the RC can still be used through enhanced volunteerism without the need for early mobilization. The Reserves remain a critical part of our total force, and as such will always be essential to major combat operations.

54. Senator DOLE. Secretary Rumsfeld, partial mobilization, by law, authorizes the mobilization of Ready Reserve members, without their consent, for a period not to exceed 24 consecutive months. Yet a policy has been instituted within the Department that requires our Ready Reserve Forces, who have been previously mobilized (but still have not met the 24 month cap), to sign statements declaring that they volunteer to be mobilized for a second tour. In most cases, if the service member refuses to volunteer for a second tour, they will not be mobilized with the rest of their unit. In one specific case in my State, service members were reluctant to volunteer, not for lack of motivation or an unwillingness to deploy, but because they feared long-term consequences, both financially and socially. Service members are concerned that by volunteering (via a signed document retrievable through the Freedom of Information Act (FOIA)) for active duty they may give up protections afforded them under the Servicemembers Civil Relief Act. They fear employers will be less likely to hold their jobs because their return to active duty was voluntary. Additionally, some service members fear societal repercussions; their spouse, for example, may not share the service member's enthusiasm as they consider another year apart. In this situation the service members fear that a signed volunteer form, if made public, may come back to haunt them. Thus, the requirement for a signed volunteer statement has the unintended consequence of forcing mobilized units to

find individual replacements for soldiers electing not to volunteer. I fear this policy may also contribute to more force turbulence in the long run.

Can you explain why a policy has been instituted that seems contrary to the edicts of an executive order directing the partial mobilization of the Ready Reserve? Why does the Department feel this documentation is necessary?

Secretary RUMSFELD. There is no Department-wide policy to that effect. The Department's policy is to encourage and maximize the use of volunteers to reduce the need for involuntary mobilizations. Volunteerism is a cornerstone of the current mobilization, and it has served the Nation well.

It is important to note that whether service is voluntary or involuntary, the service member enjoys and retains the same rights, benefits, and protections under both the service members Civil Relief Act and the Uniformed Services Employment and Reemployment Rights Act.

However, to best employ its total force, the Department of Army established a set of guidelines or priorities regarding how they select units and individuals for deployment, both active duty and Reserve component members. These involve readiness, time at home station, and length and number of times mobilized. One of these guidelines with respect to Guard and Reserve units and individuals is that they will only be mobilized for a second time as a last resort. However, if there are soldiers who wish to volunteer for a second mobilization, the Army has informally asked them to acknowledge that they are volunteering for a second mobilization to insure the guidelines are being followed.

Though the intent of this practice is valid, it may, as you pointed out, be counterproductive. Accordingly, I have initiated a Department-wide review of individual call up documentation to ensure that volunteerism is not hampered, that unintended consequences are not generated, and that we properly account for our service members.

55. Senator DOLE. Secretary Rumsfeld, on a related issue, please provide me the actual numbers of Guard and Reserve members who have been mobilized since 1991, the number mobilized more than once, more than twice, and the number mobilized more than three times. Of those mobilized multiple times, how many signed volunteer statements?

Secretary RUMSFELD. The best available data reflects the number of Reserve component (RC) members mobilized (fiscal year 1991 (1 October 1990)—first quarter fiscal year 2004 (31 December 2003)):

Total Mobilized from fiscal year 1991 (1 October 1990) first quarter fiscal year 2004 (31 December 2003): 575,057 (Desert Shield/Desert Storm; Haiti; Bosnia; SouthWest Asia; Kosovo, Noble Eagle/Enduring Freedom/lraqi Freedom)

Mobilized once (for one contingency only): 517,942

Total mobilized two times: 53,060

(Mobilized two times—for current contingency only): (15,982)

(Mobilized two times—for two contingencies only): (37,078)

Mobilized three times (for three contingencies only): 3,520

Mobilized more than three times (for more than three contingencies): 535

Data includes all members who served in the Reserve components over this time period, including those who are no longer in the force.

The total number of individuals who have served in the Selected Reserve during this time period is about 2,549,855.

Most of the members mobilized were Selected Reserve members.

About 45,000 of those mobilized were Individual Ready Reserve members.

Some of the Army RC members mobilized did volunteer for mobilization under involuntary orders. Army information reveals that the policy of having volunteers sign forms, indicating that they are true volunteers, began in late 2003.

From January 1, 2004 through March 31, 2004, 1,883 Army RC members signed such forms. This is 6.9 percent of the total Army RC members mobilized (27,428) in the first quarter of 2004.

It is important to note that a member's military obligation to serve in the Ready Reserve as part of the All-Volunteer Force is with the understanding that the member is liable for active duty in times of war or national emergency. Therefore, if these members did not volunteer for duty, others, or possibly even these members themselves, would have been called-up.

QUESTIONS SUBMITTED BY SENATOR CARL LEVIN

IRAQ AND WMD

56. Senator LEVIN. Secretary Rumsfeld, on September 26, 2002, you stated "We know they have weapons of mass destruction. We know they have active programs. There isn't any debate about it." On January 7, 2003, you said: "There is no doubt in my mind but that they currently have chemical and biological weapon." What was the basis for your statements that you knew that Iraq possessed WMD, and that there "isn't any debate about it"?

Secretary RUMSFELD. [Deleted.]

57. Senator LEVIN. Secretary Rumsfeld, on March 11, 2003, you said that Saddam Hussein "claims to have no chemical or biological weapons, yet we know he continues to hide biological and chemical weapons, moving them to different locations as often as every 12 to 24 hours, and placing them in residential neighborhoods." What was the basis for your statement that you knew that Iraq continued to hide biological and chemical weapons and move them every 12 to 24 hours?

Secretary RUMSFELD. [Deleted.]

INTELLIGENCE/AL QAEDA AND IRAQ

58. Senator LEVIN. Secretary Rumsfeld, in the summer of 2002, the staff of the Under Secretary of Defense for Policy, Doug Feith, presented a briefing to you on analysis of the intelligence concerning the links between Iraq and al Qaeda. That same briefing was later provided, reportedly at your suggestion, to the DCI, then to Intelligence Community staff, then to the National Security Council (NSC), and then to the Office of the Vice President. What was the purpose of this intelligence analysis product that was prepared outside of the Intelligence Community?

Secretary RUMSFELD. There is no "intelligence analysis product that was prepared outside the intelligence community" as you state. A briefing was prepared, as you note, to point out information obtained from a CIA report published during the Clinton administration. The information in this CIA product led to information contained in several other CIA publications, and this data was immediately brought to the attention of the DIA, the Joint Staff J–2, and the Defense Intelligence Officer (DIO) for the Middle East in April 2002—the Intelligence Community, in other words. This information was subsequently briefed, as you noted, to the DCI, to Intelligence Community staff, and to the NSC—hardly the hallmark of preparing an intelligence product "outside the Intelligence Community."

The purpose of the briefing was to help to clarify the various kinds of support and relationships that existed between terrorist groups and various state sponsors based on existing intelligence.

POSTWAR PLANNING

59. Senator LEVIN. Secretary Rumsfeld, in the current edition of the Atlantic Monthly magazine, James Fallows has an article describing problems with the postwar planning effort for Iraq. One of his recurring points is that the Defense Department, specifically your office, told military personnel they could not participate in the various planning studies and exercises that were being conducted by the CIA, the State Department, the Army War College, and the U.S. Agency for International Development (USAID). Did you or your office ever tell any military personnel not to participate in any such planning effort and, if so, why?

Secretary RUMSFELD. Mr. Fallows' article says Pentagon personnel "were forbidden by OSD to attend" numerous interagency meetings, including a January 2003 National Intelligence Council exercise. This is not the case. As just one example, Dr. Joseph J. Collins, Deputy Assistant Secretary of Defense for Special Operations and Low-Intensity Conflict, certainly an important part of OSD, participated not only in this particular National Intelligence Council meeting, but from early fall of 2002 and through March 2003, also participated in countless interagency meetings and conferences, working hand in glove with our colleagues at the Department of State, USAID, the CIA, and the NSC, acting as the Pentagon's "point man" for postwar planning.

60. Senator LEVIN. Secretary Rumsfeld, according to James Fallows' article in this month's Atlantic Monthly, you called retired General Jay Garner and told him to fire Tom Warrick, the head of the State Department's "Future of Iraq" study team, from General Garner's reconstruction planning staff. According to Fallows, your di-

rection to fire Warrick came from higher authority, believed to be Vice President Cheney. Did you tell General Garner to fire Tom Warrick, and did Vice President Cheney have any involvement in this issue?

Secretary RUMSFELD. This is not true. I did not direct Jay Garner on matters related to junior staff. As I did not call him, questions regarding the Vice President's "direction" in this matter are moot.

61. Senator LEVIN. Secretary Rumsfeld, why did the administration not want Tom Warrick to serve on General Garner's staff, especially given that General Garner reportedly indicated that Tom Warrick was a highly valued member of his team?

Secretary RUMSFELD. State Department officials, including Mr. Warrick, participated in daily interagency planning meetings on post-Saddam Iraq from their beginning in the summer of 2002. When it came time to staff the Office of Reconstruction and Humanitarian Assistance (January 2003), State Department experts were a significant percentage of the interagency team assigned.

IRAQ AND BIOLOGICAL WEAPONS

62. Senator LEVIN. Secretary Rumsfeld, on September 19, 2002, you told this committee of the "need to focus on the immediate threat from biological weapons. . . . Iraq has these weapons. They are much simpler to deliver than nuclear weapons and even more readily transferred to terrorist networks who could allow Iraq to deliver them without Iraq's fingerprints on the attack."

Dr. David Kay testified last Wednesday that the ISG had found no evidence that Iraq had any stockpiles of biological weapons before the war. What was the basis for your comment that Iraq's biological weapons posed an "immediate threat"?

Secretary RUMSFELD. The last NIE of the previous administration had this to say in December 2000:

[Deleted.]

In October 2002, the CIA stated that, "there are compelling reasons to be concerned about BW activity at other sites and in mobile production units and laboratories. Baghdad has pursued a mobile BW research and production capability to better conceal its program." (Emphasis in original: (U) CIA, "Iraq's Weapons of Mass Destruction Programs," p. 17.)

The basis for my comment, then, was (a) intelligence from the experts at the UN, operating in Iraq from 1991 through 1998; (b) contemporary intelligence from the CIA; and (c) the intelligence presented during the previous administration.

63. Senator LEVIN. Secretary Rumsfeld, on September 19, 2002, in testimony to this committee about Saddam Hussein's WMD programs, you said "Many of his WMD capabilities are mobile and can be hidden to evade inspectors."

The administration has said that the two trailers found in Iraq were intended to produce biological warfare (BW) agents. Last week Dr. Kay told this committee "I think the consensus opinion is that when you look at those two trailers . . . their actual intended use was not for the production of biological weapons."

Were you referring to mobile biological trailers in your testimony? If so, what is your current view on whether those trailers were intended to produce biological agents? If not, what were you referring to?

Secretary RUMSFELD. The consensus opinion of the entire Intelligence Community in October 2002, was that there were compelling reasons to be concerned about BW activity in mobile production units and laboratories. "Iraq has now established large-scale, redundant, and concealed BW agent production capabilities based on mobile BW facilities." (U) CIA, "Iraq's Weapons of Mass Destruction Programs," p. 17.

64. Senator LEVIN. General Pace, in the current edition of the Atlantic Monthly magazine, James Fallows wrote a long article about the problems with the planning for the postwar situation in Iraq. He described numerous studies and planning efforts conducted outside of the Defense Department and military, including by the CIA, USAID, State Department, Army War College, and others. His article says that the military and the Defense Department ignored these studies. Is that true? If so, why were they ignored?

General PACE. DOD Deputy Assistant Secretary of Defense (DASD) Joseph J. Collins has already formally provided a rebuttal to that article. The rebuttal was printed in the April 2004 issue of the Atlantic (copy included). I concur with DASD Collins' assessment, that Mr. Fallows' article overemphasized bureaucratic conflict in the executive branch and distorted the nature of the contingency planning.

LETTERS TO THE EDITOR

Blind Into Baghdad

As one of the Department of Defense officials involved in the initial planning for relief and reconstruction in Iraq, I would like to comment on James Fallows's article "Blind Into Baghdad" (January/February *Atlantic*). At every turn in his description of planning for Iraq, the author overemphasized bureaucratic conflict in the executive branch and distorted the nature of contingency planning.

As the Pentagon's "point man" (his term) for postwar plans, I worked continuously and harmoniously with my colleagues at State, USAID, the CIA, and the NSC. I also participated in numerous interagency meetings and conferences, including the January 2003 National Intelligence Council exercise that Fallows says Pentagon personnel were "forbidden by OSD to attend."

The author states that rather than holding a meeting with the Secretary of Defense or the deputy secretary, the nongovernmental organizations were given an audience only with me. In fact I had been meeting with the NGOs frequently on many topics since the start of operations in Afghanistan. I was not a consolation prize for the NGOs but a frequent interlocutor, and I remain so to this day. Our conversations are substantive and have often resulted in policy changes, even though we forgo the photo ops and the press releases that often encumber one-time meetings with the most senior officials.

Missing from Fallows's narrative was any mention of the official interagency planning effort that went on from early fall of 2002 to March of 2003. The planning group met weekly in the Eisenhower Executive Office Building, next to the White House. Chaired by NSC and OMB officials, this group included senior representatives from State, USAID, the CIA, Treasury, and many other agencies. Tom Warrick, the head of State's Future of Iraq Project, was a back-bencher at some of the sessions. The senior interagency planners were all familiar with the interesting work of his eclectic group.

The interagency group formulated first a strategy and then a detailed plan for relief and reconstruction. Representatives from the group coordinated these plans with international organizations and with General Tommy Franks, the combat commander. Secretaries Colin Powell and Donald Rumsfeld were briefed on the final plan, as was the President. The group even briefed the press on its work on February 24.

Although none of this planning was as juicy as the bureaucratic infighting that Fallows dwells on, it is an essential part of the story. Jay Garner—appointed in late January of 2003 to lead the field effort in Iraq—did face a daunting task, but not a blank sheet of paper. Indeed, the basic reconstruction plans discussed at the two-day conference that Garner held in February at the National Defense University were in the main developed—and harmoniously so—by the very interagency group that Fallows overlooked.

Finally, Fallows's judgment that when the past eighteen months are assessed "the Administration will be found wanting for its carelessness" does not pass muster. The four conflicts that I have helped to plan in the Pentagon suggest clearly that war, as Clausewitz told us, remains the province of chance. Military campaigns and their aftermath defy prediction. Intelligence accepted for a decade can be wrong. The same experts who incorrectly predict huge refugee flows may accurately predict civil disturbances. Staffs will fixate on things that do not come to pass and assume away the importance of things that do. No plan—political or military—survives contact with reality. Planners will always make more mistakes than journalists who have the benefit of 20/20 hindsight.

We have not "squandered American prestige, fortune, and lives" in Iraq. Despite high costs and many casualties, the United States and its thirty-four coalition partners have destroyed one of the most heinous and dangerous regimes in the world, captured 80 percent of its criminal senior leadership, liberated the Iraqi people, and started the political and economic reconstruction of a nation that may well bring democracy to that part of the Middle East. Mr. Fallows should resist the temptation to call the game in the third inning.

Joseph J. Collins
Deputy Assistant Secretary of Defense
Alexandria, Va.

James Fallows's lengthy list of expert warnings on Iraq that were ignored by the Bush Administration would have benefited from some reference to the strikingly parallel "splendid little war" that provided the other bookend to the twentieth century. (And both of those conflicts boasted a British troubadour, although Tony Blair's flack Alistair Campbell never quite matched the eloquence that Rudyard Kipling showed in his paean to American benevolence, "The White Man's Burden.") In the Philippines a century ago a walkover victory in the capital was followed by prolonged hostilities in the countryside. A foray by General Frederick Funston and his special forces into hostile territory led to the capture of the enemy leader, General Emilio Aguinaldo. (The two Napoleonic figures—both about five feet four—actually got along quite well after that episode.) Mark Twain suggested a redesign of Old Glory, with "the white stripes painted

All components of the executive branch involved in national security, Defense, State (to include USAID), the CIA, and the NSC, were involved in the contingency planning for postwar Iraq. The fact that different agencies did not completely agree during the planning process is well-known and requires no further explanation, but when the time came for national-level decisions in an NSC meeting, all points of view were vetted and resolved.

Planning by interagency representatives occurred for OIF and its possible contingencies every single day. The level of coordination for the planning for Iraq was unprecedented. Our planners did not work in a vacuum; they participated in the "Fu-

ture of Iraq" project; they went to the war colleges for seminars, and they interacted through the policy and academic communities at periodic events.

Planners do not have a perfect crystal ball. Some of our assumptions were correct; some were incorrect. Regardless, we have adjusted for current circumstances, modified our path where required, and continued to move forward. Not surprisingly, there are disputes. In our open system of government, combined with a free media, these disputes sometimes play themselves out in our newspapers and magazines and television. But that does not mean we are blind about the realities of the situation in Iraq or lacking in energy and thought about crafting a way forward.

The positive results are often overlooked. One of the most heinous dictators of the 20th century is permanently vanquished, and over 25 million people liberated from his tyrannical regime of oppression and death. Over 80 percent of Saddam's senior leadership have been killed or captured, while rebuilding in Iraq proceeds at a pace unknown in other examples of postwar contingencies. Furthermore, Iraq was liberated while protecting most of its infrastructure and natural resources, providing key enablers to allow Iraq to rapidly return to the world's family of peaceful nations, and soon the family of democratic nations as well. The Iraqi Governing Council signed into being Iraq's first ever—in a society many millenniums old—interim constitution establishing the elements of a democratic government with guarantees of basic human rights—another first for the Middle East. This would never have happened under Saddam or his sons.

MISSILE DEFENSE

65. Senator LEVIN. Secretary Rumsfeld, the Department has announced plans to "field" a national missile defense in September, despite the fact that the system has not yet been operationally tested. Your budget request also asks for hundreds of millions of dollars to continue production of missiles for this system, which have yet to be realistically tested.

DOD officials testified last year that the Department had no intent to waive operational testing for missile defense. For example, then-Under Secretary of Defense for Acquisition Pete Aldridge testified that: "the reason we have the [national missile defense] test bed. . . is to enable operational testing." However, in a recent article the Pentagon's chief tester, Tom Christie, said: "I don't know when we're going to run operational tests, to be brutally frank. That's off in the future."

When do you plan to have the Pentagon's chief tester conduct formal operational testing for the National missile defense system, in accordance with the law, so that we will all know whether the system will actually work against a real threat?

Secretary RUMSFELD. At Initial Defensive Operations (IDO) the BMDS will provide a modest operational capability to defend the Nation against a limited ballistic missile attack. The test bed will enable testing to improve system maturity and, through the next year, incorporation of operational testing objectives for developmental testing. These tests will incorporate increasing levels of operational realism using alert-configured hardware and software, operational tactics, techniques and procedures, threat-representative targets, and trained warfighters. They will facilitate assessment by the tri-Service Operational Test Agency team in support of the DOT&E's annual reporting requirements. Title 10 operational testing of the integrated system will be planned and executed as appropriate.

66. Senator LEVIN. General Pace, General Myers' written testimony says that we will achieve "full operational capability" for missile defense this year. According to Defense Department documents, full operational capability means, "the full attainment of the capability to employ effectively a weapon, item of equipment, or system."

Yet, according to a report recently sent to Congress by the Pentagon's chief tester, the national missile defense the Department intends to deploy in September of this year has not yet had end-to-end operational testing. This report also says that "at this point in time, it is not clear what mission capability will be demonstrated prior to [deployment]." Furthermore, Secretary Rumsfeld has said that the missile defense to be deployed this year will only be "rudimentary," and that any "capability" will be with a small "c."

How can you assert that missile defense will be "fully operational", when the Pentagon's chief tester says we have no idea how well the system will work, because we haven't realistically tested it yet?

General PACE. The missile defense capability to be delivered this year is an initial capability intended to provide a rudimentary means to defend against a limited,

long-range ballistic missile attack against the United States. The chairman and I are confident that we are on track to field and operate this capability.

Admiral Ellis at U.S. Strategic Command (USSTRATCOM) is conducting a Military Utility Assessment (MUA) providing the COCOMs assessment of the missile defense operational capabilities and limitations. His initial increment of the assessment is based on data available in the September–December 2003 timeframe. The additional test events, exercises, and war games to be executed in 2004 will allow for a more in-depth assessment, and confidence in the assessed capabilities will grow as more system performance data is collected.

The MUA and the assessment by the DOT&E are closely related. They share a common database of observations derived from testing and simulation at the system, element, component and subcomponent level. The warfighter and Operational Test Agencies are working collaboratively to develop test objectives, quantify system performance, and assess mission execution.

Unlike a traditional operational test and evaluation, the MUA is not assessing performance against a fixed performance level; instead it is determining the extent to which a developmental system contributes to mission accomplishment. The missile defense system to be fielded this year will make us safer than we are now and serve as the foundation for increasingly effective capabilities in the future.

JSF PROGRAM

67. Senator LEVIN. Secretary Rumsfeld, the DOD press release on the budget states that the development cost for the JSF program has increased more than $7 billion from $33.0 billion to $40.5 billion in the last year, and that "schedule delays on this very complex aircraft are prudent and necessary." Is this 22 percent cost growth in the JSF program a reflection of unrealistic cost estimates or poor program management?

Secretary RUMSFELD. The Acting USD(AT&L) directed a restructuring of the program to improve the performance of the aircraft through additional design work. The focus is on reducing the weight of each variant, since weight control is always a challenge for aircraft, and is particularly critical for the short-takeoff-and-vertical-landing (STOVL) variant. This additional work and schedule extension contribute to the increased cost of the System Development and Demonstration (SDD) phase of the JSF program. Developing three JSF variants for the Services is an aggressive undertaking. I view these budget changes as cost and schedule realism, inherent in a program unmatched in scope, complexity, and importance, rather than as the product of unrealistic estimates or poor management.

We are replanning JSF SDD to make sure that we succeed. Specifically, our SDD plan recognizes that: (1) STOVL performance is absolutely vital; (2) we must focus on STOVL performance upfront to ensure the viability of that variant for our warfighters; (3) we must aggressively pursue trade studies to improve performance by reducing weight; (4) we must aggressively pursue propulsion enhancements to improve performance; and (5) fiscal year 2007 is the right time to begin low-rate initial production. We also are reviewing the program, with the assistance of an independent team, to establish that we are doing all we can to succeed.

I want to point out that the development of propulsion, subsystems, avionics, and autonomic logistics has gone well. The extensions in the schedule and increases in cost will allow us to improve the design of the airframe, but do not reflect difficulties in all aspects of development.

68. Senator LEVIN. Secretary Rumsfeld, in your view, is a 1-year, 22 percent cost growth in a major program like this acceptable?

Secretary RUMSFELD. Cost growth in any program is a reason for concern and should be examined to identify its causes. The 22-percent cost increase spans fiscal year 2005 through fiscal year 2013. In the President's budget for 2005, the Department extended the design phase and reprogrammed procurement funds to account for the additional work. The increase in cost also reflects the development of anti-tamper capability, technical risks, and adjustments to the cost estimate to reflect those risks with a greater degree of confidence. The increase in cost, over the full course of development, is reasonable for a program of this magnitude and complexity.

NONPROLIFERATION

69. Senator LEVIN. Secretary Rumsfeld, the President's budget request would reduce funding for the Nunn-Lugar Cooperative Threat Reduction (CTR) program by

$40 million—from $449 million to $409 million. At a time when we are all deeply concerned about the danger that WMD—and especially nuclear weapons—could end up in the wrong hands, why would we want to cut back on the one program that has proven most successful in preventing the proliferation of such weapons?

Secretary RUMSFELD. The decrease you are questioning is largely due to the Chemical Weapons Destruction Facility having completed the capital-intense phase of construction. The question implies that the annual budget request is the single measure of progress and the single indicator of commitment. It is an important metric. But there are three others: actual threat reduction, value for US investments, and increasing recipients' stake in the success of specific projects. Measured against the aggregate of all four metrics, the CTR program continues to be a vital component of the U.S. Government's national security strategy. The President and his administration remain firmly committed to his 2002 pledge of $10 billion over 10 years for nonproliferation and threat reduction programs in the former Soviet Union, including—but not limited to—CTR. Yearly programmatic requirements mean that some annual requests, as for fiscal year 2005, will slightly below the $1 billion average; others will be slightly above.

It is important to acknowledge that, of the 62 CTR program areas Congress has funded since the program's inception, 51 of those areas are now complete. This reflects the large amount of former Soviet nuclear weapons inventory and infrastructure that CTR has helped eliminate or secure. Many of CTR's original array of projects is reaching completion. These include projects that were capital-intense in their early construction phases. CTR's fiscal year 2005 program plan includes only two "infrastructure-heavy" projects: the Shchuch'ye chemical weapons destruction project already under way, and infrastructure supporting Nuclear Weapons Site Security enhancement projects. Newer areas of CTR focus—Biological Weapons Proliferation Prevention and Weapons of Mass Destruction-Proliferation Prevention Initiative—do not require capital-intense construction projects to achieve their threat reduction goals.

DEVELOPMENT OF NUCLEAR WEAPONS

70. Senator LEVIN. Secretary Rumsfeld, the President's budget request would increase the funding for new or modified nuclear weapons and include funds intended to cut in half the time needed to resume nuclear weapons testing. What is the military requirement for new nuclear weapons?

Secretary RUMSFELD. Military requirements stem from a lack of capability to perform a mission. If existing nuclear weapons cannot perform a mission or meet only a portion of our deterrence objectives, we are obligated to pursue ways to correct these deficiencies in order to maintain the U.S. deterrent. Our current situation is that our forces are equipped with nuclear systems whose average age is 20 years and that were designed for a Cold War deterrence posture. We have requested a few programs to examine the potential to adapt existing weapons to give them improved capabilities. We also need to explore new technologies and processes that will keep our scientists and engineers at the forefront of nuclear weapon science.

The main thrust of test readiness is aimed at reducing the amount of time we required in order to address a potentially serious problem in the stockpile using an underground nuclear test. We believe that 36 months is too long; the U.S. needs a more responsive test readiness posture, which is reflected in the President's fiscal year 2005 request.

71. Senator LEVIN. Secretary Rumsfeld, what are the target types for these new nuclear weapons?

Secretary RUMSFELD. First, there are no current programs to produce any new nuclear weapons. We made that point clear in the Nuclear Posture Review, which was submitted to Congress in December 2001. However, the Nuclear Posture Review did identify limitations in capabilities of the existing nuclear arsenal. We are examining both nuclear and non-nuclear options that could correct the existing limitations. For example, hard and deeply-buried targets, which are often associated with adversary weapons of mass destruction facilities, are one area where it would be very useful to improve our current capabilities. We are studying an option to repackage an existing weapon to do so.

72. Senator LEVIN. Secretary Rumsfeld, are these new nuclear weapons intended to be used in a preemptive fashion?

Secretary RUMSFELD. The United States is not developing any new nuclear weapons for any purpose. The President of the United States is the sole authority for

employing nuclear weapons to protect U.S. territory, troops, allies, or friends against aggression. Today, the United States and our friends and allies are threatened by rogue states that possess weapons of mass destruction. As a matter of policy, no President forecloses options that can be used to deter and defeat aggression. It is my job to ensure the President has the flexibility and the options to address the variety of risks that our Nation may face today and in the foreseeable future.

73. Senator LEVIN. Secretary Rumsfeld, will we have to resume nuclear weapons testing to support new and modified nuclear weapons?

Secretary RUMSFELD. The administration is currently observing as matter of policy a test moratorium, although we continue to oppose ratification of the Comprehensive Test Ban Treaty (CTBT). Annually, the Secretary of Energy and I review an assessment of the safety and reliability of the stockpile. At this time, the Secretary of Energy and I have not recommended that the U.S. resume nuclear testing to resolve technical issues affecting the safety and reliability of the nuclear stockpile.

DETAINEES AT GUANTANAMO BAY

74. Senator LEVIN. Secretary Rumsfeld, the President has determined that six detainees being held in Guantanamo are eligible to be tried by military commissions, though the actual decision whether to charge someone will be made by the Appointing Authority, Major General John D. Altenburg, Jr. My understanding is that no date has been set yet to start commission proceedings. In the meantime, five detainees have been assigned defense counsel, and these military attorneys have filed a friend-of-the-court brief to the U.S. Supreme Court. They argue that prisoners convicted by military commissions should have the right to appeal to civilian courts. This is an issue that I raised when we held a hearing in December 2001 on military commissions. In addition, my staff has been told that even if a detainee is tried and acquitted of all charges, the DOD may continue to detain that individual indefinitely. When will you begin military commission proceedings, and how long do you expect it to take for the government to either release or charge and try all 650 or so detainees?

Secretary RUMSFELD. In February, Guantanamo detainees Ali Hamza Ahmed Sulayman al Bahlul of Yemen and Ibrahim Ahmed Mahmoud al Qosi of Sudan were charged with conspiracy to commit war crimes. Prior to being charged, these detainees were assigned military defense counsel. Their trial dates and commission panel members will be selected at a later time. In addition to the assignment of counsel to and the charging of al Bahlul and al Qosi, military defense counsel have been assigned to Salim Ahmed Hamdan of Yemen and David Hicks of Australia.

As you point out, military defense counsel have filed a friend-of-the-court brief to the U.S. Supreme Court. I have no doubt that military defense counsel will mount a vigorous defense for any individual they are assigned to represent and that the efforts of the prosecution will be no less vigorous. Those involved in the military commission proceedings must take the time to do things properly so that every accused receives a full and fair trial. It would be inappropriate and impossible for me to predict a date certain for a conclusion to all of the cases in which charges will be brought.

Moreover, it is important to bear in mind that the war with al Qaeda is real and ongoing. Since the massive attacks of September 11, al Qaeda has continued to launch attacks as well as to attempt attacks. In December 2001, Richard Reid, who has been linked to al Qaeda attempted to bomb a transatlantic commercial flight. In April 2002, al Qaeda firebombed a synagogue in Djera, Tunisia. Last spring, al Qaeda suicide bombers attacked three residential compounds for foreign workers in Riyadh, Saudi Arabia, killing 34 people including 10 U.S. citizens. In August 2003, Jemaah Islamiyah, an al Qaeda affiliated group, set off a car bomb outside the J.W. Marriott Hotel in Jakarta, Indonesia, killing 12 and wounding 150. This past fall, the Taliban stepped up its insurgency in Afghanistan. U.S. troops and coalition forces remain on the ground in Afghanistan. Between August 2003 and January 2004, 11 U.S. soldiers have been killed in Afghanistan. Just recently, several Army Rangers were killed in an ambush in Afghanistan. It is clear that the war is far from over.

Those detained at Guantanamo have been captured in a real war. They include not only rank and file soldiers who took up arms against the coalition in Afghanistan but also senior al Qaeda and Taliban operatives, some who have been linked to potential attacks against the United States, and others who continue to express their commitment to kill Americans if released.

We detain them to prevent them from returning to the conflict—to prevent them from hijacking a plane and using it as a weapon of mass destruction, returning to the battlefields of Afghanistan, or rejoining the armed conflict against the United States elsewhere. We detain these individuals for the security of our citizens and our soldiers. When we believe that these individuals can be either transferred to the control of another government or released without impairing the security of our service men and women as well as our citizens we have done so. To date, 146 detainees have been released or transferred from Guantanamo. We have done so despite the fact that the law of war does not require it. Moreover, we have done so through a multi-layered and interagency process that likewise is not required by the law of war.

We are not limited to either charging or releasing these detainees. The law of war does not require the release of enemy combatants prior to the cessation of hostilities. It does not require it because to do so would be to undermine the very purpose of the law of war itself: minimizing the loss of life and damage inflicted by war. Releasing individuals who would return to the fight could only serve to inflict more damage on U.S. citizens and their sons and daughters who bravely serve this country. This reasoning would also lead to the unacceptable conclusion that the only means to remove the enemy from the battlefield is to kill him. Nor does the law of war require that we charge the detainees held at Guantanamo. Enemy combatants are held at Guantanamo not as punishment but to prevent them from continuing the fight.

During the course of any war, the end of the war remains uncertain. It could have very easily been said during the middle of World War II or Vietnam that prisoners of war captured during those wars were going to be held indefinitely. No one could predict with certainty the end to either of those conflicts. Nor can we predict today with certainty the conclusion of al Qaeda's war against the United States.

In a very real sense, the release of detainees not suspected of violations of the law of war lies in the hands of al Qaeda and its affiliates and supporters. Only al Qaeda and its affiliates and supporters can stop waging war against the United States. Until they stop, we will not rest and we will not increase their strength by permitting their fighters to return to the battlefield anywhere in the world. This war will not last forever. It is a war that I am confident we will win.

NORTH KOREA'S NUCLEAR CAPABILITIES

75. Senator LEVIN. Secretary Rumsfeld, North Korea has taken some alarming actions and made some alarming announcements over the last 2 years. Last October, Pyongyang declared that they had reprocessed all 8,000 plutonium fuel rods that had been canned and frozen for 7 years under the Agreed Framework—from 1994 to 2003. This came after North Korea had expelled the International Atomic Energy Agency (IAEA) inspectors, withdrawn from the Non-Proliferation Treaty (NPT), and stated that it had restarted its five-megawatt nuclear reactor. According to a new report, North Korea may already have as many as seven nuclear weapons. How solid is our intelligence regarding North Korea's nuclear capabilities and intentions, and specifically regarding the reprocessing of the spent plutonium?

Secretary RUMSFELD. As you are aware, North Korea presents an extremely difficult intelligence target. Its extreme isolation and Stalinist society present daunting obstacles to fully understanding and ascertaining events within its borders. Nevertheless, we have concluded, as have North Korea's neighbors (China, Japan, South Korea and Russia), that North Korea does have an ongoing and active nuclear weapons program. We have all come to this conclusion independently, and are actively engaged in the Six Party Talks with North Korea aimed at ending this program and its threat to regional peace and stability.

As reported in the press, a recent, non-official U.S. delegation to North Korea, containing former nuclear weapons experts, was allowed to tour North Korea's primary nuclear facility at Yongbyon. They were shown an empty area where the 8,000 spent fuel rods containing plutonium had been stored and material they adjudged to be reprocessed plutonium from this fuel. It is possible that North Korea has fabricated several nuclear weapons from this plutonium, but we cannot confirm this.

Dr. David Kay states unequivocally in his "Interim Progress Report on the activities of the Iraq Survey Group (ISG)" that there were prohibited weapons programs in Iraq and that Saddam was in violation of the U.N. Security Council resolutions regarding weapons of mass destruction. In addition, by expelling UNSCOM he clearly showed his contempt for the U.N. and international norms. It is also a fact that Saddam's regime sheltered and met with terrorists over the course of the 1990s and into the new century.

As the President has said, he "will not wait on events while dangers gather." The Saddam regime was dangerous, in clear violation of U.N. Security Council Resolutions regarding WMD, and was a state sponsor of terrorism. In light of these facts, there does not seem to be a need to reexamine the decisions that led to the liberation of the people of Iraq.

76. Senator LEVIN. Secretary Rumsfeld, how willing is the rest of the world likely to rely upon this intelligence, in light of concerns that have been raised about the intelligence that we relied upon in Iraq?

Secretary RUMSFELD. China, Japan, South Korea, and Russia, have all independently concluded that North Korea has an ongoing and active nuclear weapons program. In light of the number of disparate intelligence agencies that have all independently come to this conclusion, including three of the most powerful countries on Earth—Russian, China, and Japan—I think it very likely the rest of the world will consider this intelligence to be reliable.

PREEMPTION DOCTRINE

77. Senator LEVIN. Secretary Rumsfeld, press reports have quoted David Kay as saying "If you cannot rely on good, accurate intelligence that is credible to the American people and others abroad, you certainly can't have a policy of preemption." In light of the intelligence failures which clearly undercut the prime rationale for the war in Iraq, do you continue to espouse a doctrine of preemption for the future?

Secretary RUMSFELD. America's future depends on our willingness to lead in the world. One of the important lessons from September 11 is that we must take threats seriously before they fully materialize. The United States has long maintained the option of preemptive actions to counter a sufficient threat to our national security. The greater the threat, the greater is the risk of inaction—and the more compelling the case for taking anticipatory action to defend ourselves, even if uncertainty remains as to the time and place of the enemy's attack. To forestall or prevent such hostile acts by our adversaries, the United States will, if necessary, act preemptively.

QUESTIONS SUBMITTED BY SENATOR EDWARD M. KENNEDY

OFFICE OF SPECIAL PLANS

78. Senator KENNEDY. Secretary Rumsfeld, it has been suggested that the Pentagon established the Office of Special Plans (OSP) to sift for yourself the information on Iraq. Many believe that by establishing OSP you were signaling your lack of confidence in the Intelligence Community and its assessment of the threat posed by Iraq. What was your goal in establishing OSP? Was it to develop intelligence to contradict that produced by the CIA, as some have suggested?

Secretary RUMSFELD. The Directorate of Special Plans (often referred to as the OSP) was an expansion of that part of the Bureau of Near East and South Asian Affairs (NESA) that dealt with Iraq and Iran. It was renamed "Special Plans" because we did not want to undercut the President's diplomatic efforts in the United Nations and elsewhere with respect to Iraq by attracting attention to the fact that the part of NESA that dealt with Iraq was being expanded.

This directorate was an expansion of the Northern Gulf Directorate within NESA in September 2002. It was established due to the increased workload related to the war on terrorism and to what was then a possible Iraq contingency. It was a policy planning group and was a consumer, rather than a producer, of intelligence. It helped develop policy with respect to subjects such as deployment planning, coalition building, media in a putative postwar Iraq, potential war crimes investigations, possible oil issues in a postwar Iraq, and implementation of the 1998 Iraq Liberation Act (Public Law 105–338, passed unanimously by the Senate).

79. Senator KENNEDY. Secretary Rumsfeld, did it, indeed, reflect a lack of confidence in the analysis you were receiving from the Intelligence Community? If so, what was your principal complaint with the community's analysis?

Secretary RUMSFELD. As stated earlier, the organization that was then known as the Directorate of Special Plans (often referred to as the OSP) did not provide "competitive analysis" of intelligence.

80. Senator KENNEDY. Secretary Rumsfeld, did OSP ever go beyond analysis and collect any intelligence of its own, at any time?

Secretary RUMSFELD. No. It was a policy planning group and was a consumer, rather than a producer, of intelligence.

81. Senator KENNEDY. Secretary Rumsfeld, did OSP ever task the Iraqi National Congress (INC) to collect intelligence? If so, how were tasking priorities established?
Secretary RUMSFELD. No.

82. Senator KENNEDY. Secretary Rumsfeld, what was your assessment of the intelligence the INC collected?
Secretary RUMSFELD. Any assessment of the intelligence the INC collected was provided to me by the professionals of the Intelligence Community, having been processed in accordance with long-established vetting procedures used throughout the Intelligence Community.

83. Senator KENNEDY. Secretary Rumsfeld, was this intelligence subsequently vetted for accuracy?
Secretary RUMSFELD. The professionals of the DIA treated the data obtained in exactly the same way it treated any other intelligence source information, processing it in accordance with long-established vetting procedures used throughout the Intelligence Community.

84. Senator KENNEDY. Secretary Rumsfeld, how accurate was it determined to be at the time? How accurate is it now determined to be?
Secretary RUMSFELD. The professionals of the DIA treated the data obtained in exactly the same way it treated any other intelligence source information, processing it in accordance with long-established vetting procedures used throughout the Intelligence Community.
There are many examples of excellent information provided by the INC Information Collection Program. Here are a few categories:
[Deleted.]

85. Senator KENNEDY. Secretary Rumsfeld, was this information sent directly to the White House, circumventing regular Intelligence Community channels?
Secretary RUMSFELD. No.

86. Senator KENNEDY. Secretary Rumsfeld, was it used in White House speeches and statements?
Secretary RUMSFELD. You'll have to ask the White House how speeches and statements were researched.

QUESTIONABLE SOURCES

87. Senator KENNEDY. Secretary Rumsfeld, according to critics like Ken Pollack, a former analyst and supporter of the war in Iraq, OSP chose to believe reports that trained intelligence officers considered unreliable or downright false. Pollack further states that OSP gave great credence to reports from INC and its administration-backed leader, Ahmed Chalabi, because the INC was telling the administration what it wanted to hear. Do you agree with that assessment? As a long-time and practiced intelligence consumer, isn't one of the cardinal rules of the business to abstain from wishful thinking?
Secretary RUMSFELD. I do not agree with that assessment. The DIA considered the INC's Information Collection Program a reliable source of intelligence. That intelligence went through the normal Intelligence Community review. Another cardinal rule of intelligence is to never rely on a single source of analysis.

88. Senator KENNEDY. Secretary Rumsfeld, did OSP pass raw intelligence to the White House, and, specifically to the Vice President's office, or did OSP pass only finished all-source evaluated intelligence that contained an assessment of the reliability of the sources upon which it was based?
Secretary RUMSFELD. No, to neither. OSP was a consumer, not a provider of intelligence.

89. Senator KENNEDY. Secretary Rumsfeld, did DCI George Tenet, who oversees the Intelligence Community, ever express concern to you, or that you became aware of, regarding OSP's role? If so, what were his concerns?
Secretary RUMSFELD. No.

90. Senator KENNEDY. Secretary Rumsfeld, why did you close OSP last summer?
Secretary RUMSFELD. The office is not closed. It has simply returned to its original name.

The Directorate of Special Plans (often referred to as the OSP) was an expansion of that part of the NESA that dealt with Iraq and Iran. It was called "Special Plans" because we did not want to undercut the President's diplomatic efforts in the United Nations and elsewhere with respect to Iraq by attracting attention to the fact that the part of NESA that dealt with Iraq was being expanded.

This Directorate was an expansion of the Northern Gulf Directorate within NESA in September 2002. It was established due to the increased workload related to the war on terrorism and to what was then a possible Iraq contingency. Once the administration decided to proceed with the liberation of Iraq, it was decided to change the designation of this Directorate back to its previous name of the NESA Northern Gulf Affairs Directorate.

91. Senator KENNEDY. Secretary Rumsfeld, you're a great fan of lessons learned exercises. Given the OSP's controversial role, have you asked that the OSP concept be the subject of a lessons learned exercise? If so, what have you learned? If not, why not?
Secretary RUMSFELD. I do not consider controversy (or the lack thereof) as an indicator of the effectiveness of an office. Such controversies seldom have anything to do with the facts involved in a matter and are not a sufficient reason for in-depth reexamination of every decision.

IRAQI NATIONAL CONGRESS

92. Senator KENNEDY. Secretary Rumsfeld, did the Pentagon oversee the INC's own intelligence collection program?
Secretary RUMSFELD. [Deleted.]

93. Senator KENNEDY. Secretary Rumsfeld, did the U.S. fund INC's collection effort?
Secretary RUMSFELD. [Deleted.]

94. Senator KENNEDY. Secretary Rumsfeld, what did the Pentagon's oversight consist of, and what was the purpose of the INC's collection program?
Secretary RUMSFELD. [Deleted.]

95. Senator KENNEDY. Secretary Rumsfeld, how many Iraqi defectors did the INC produce?
Secretary RUMSFELD. [Deleted.]

96. Senator KENNEDY. Secretary Rumsfeld, who at the Pentagon was in charge of the defectors program and responsible for vetting each defector for reliability?
Secretary RUMSFELD. [Deleted.]

97. Senator KENNEDY. Secretary Rumsfeld, how many INC-produced defectors did you judge to be reliable?
Secretary RUMSFELD. The DIA Defense HUMINT Service made those judgments—as they do with all foreign intelligence programs.

98. Senator KENNEDY. Secretary Rumsfeld, how was reliability determined? For example, did you polygraph them? If so, how many of those polygraphed showed deception?
Secretary RUMSFELD. The reliability of any intelligence data presented to me or to other policy makers is determined by the professionals of Intelligence Community. The DIA treated the data obtained from the INC Information Collection Program in exactly the same way it treated any other intelligence source information, processing it in accordance with long-established vetting procedures used throughout the Intelligence Community.

99. Senator KENNEDY. Secretary Rumsfeld, did the Intelligence Community share your views on INC defector reliability? If not, why not?
Secretary RUMSFELD. Assessing defector reliability is something which the Intelligence Community has decades of extensive experience. The reliability of any intelligence data, of the reliability of what a putative defector's information might be, is presented to me after having been determined by the professionals of the Intel-

ligence Community. The DIA treated the data obtained from the INC Information Collection Program in exactly the same way it treated any other intelligence source information, processing it in accordance with long-established vetting procedures used throughout the Intelligence Community.

[Deleted.]

100. Senator KENNEDY. Secretary Rumsfeld, given the apparent inaccuracy of much of the information the INC-produced defectors provided, have you initiated a lessons learned exercise to determine how this inaccurate intelligence was not detected and how, in some cases, it found its way to policymakers?

Secretary RUMSFELD. Your premise that "much of the information the INC-produced defectors provided" is inaccurate, is itself not correct. [Deleted.]

There are many other examples of good information that the INC Information Collection Program has provided. Here are a few categories:

[Deleted.]

QUESTIONS SUBMITTED BY SENATOR DANIEL K. AKAKA

SERVICE READINESS

101. Senator AKAKA. General Pace, the Army is planning to go to a unit manning system, which will result in a cycle of very ready units for a period of time and will then "stand down" for a period of time before reconstituting themselves with new personnel. The Navy has begun to implement the Fleet Response Plan (FRP) that attempts to raise the average level of readiness over time, but will minimize the readiness "peaks and valleys" of the previous inter deployment training cycle. It seems that the Navy is moving to a system that will produce Army-like readiness cycles at the same time that the Army is moving to a readiness cycle that is more like the Navy's. Also, these proposals seem to be "bottom up" and have come from Service initiatives designed for various purposes. Has the Joint Staff looked at the impact of these changes and whether it is sound to have the Services heading in opposite directions on this issue?

General PACE. Although seemingly divergent, both Services are actually converging on concepts to transform from Cold War paradigms to more continental U.S. (CONUS)-based, highly mobile and rapidly deloyable constructs. This would support anticipated continued high tempo of operations (OPTEMPO), while increasing overall force readiness and reducing unit stress. Already a core capability of the Marine Corps, the Air Force's Air Expeditionary Force concept supports this as well.

Navy forces currently deploy under the Global Naval Force Presence (GNFPP), which is a Secretary of Defense-approved rotational schedule. The Navy's FRP would provided sustained rotational forward deployed forces "on demand," while affording a significant surge response for contingencies (six Carrier Strike Groups within 30 days, plus two additional as follow-on forces). This would enable the Navy to maintain more forces at a higher level of readiness.

The Army has traditionally worked from a "steady-state" concept where it deployed forces when needed for emerging crises/missions, while maintaining a large forward-based presence. The Army concept, still very early in development, would use scheduled unit rotations into and out of forward-based locations, so it would be similar to GNFPP in that regard. The intent of the Army's concept would be to provide a predictable deployment schedule, preserve a ready surge-capability for contingencies, and reduce the overall footprint of permanently forward-based forces.

102. Senator AKAKA. General Pace, what will the impact be on the Services' ability to provide ready units to combatant commanders?

General PACE. Both initiatives are being developed in close coordination with the Joint Staff and Joint Forces Command (JFCOM) with readiness, sustainment, Global Force Management, and, most importantly, warfighting effectiveness issues in the forefront.

103. Senator AKAKA. General Pace, your statement says, "When units return home from combat operations, they must undergo a reconstitution process, which generally means a drop in their readiness. However, this does not necessarily indicate that a unit is either unavailable for, or incapable of, executing part or all of their assigned wartime missions." My understanding of the term "readiness" is that it is generally used as shorthand for "readiness to execute wartime missions." Are you using the term in some other way? If not, how does a drop in readiness not equate to a reduced ability to execute assigned missions, either in whole or in part?

General PACE. A reduction in readiness does mean a unit has a reduced ability to execute its wartime mission, as was stated. But that does not mean the unit is necessarily unavailable for tasking, or that a unit is not capable of executing all or portions of its wartime mission. A unit could be tasked to execute only the portions of its wartime mission for which it is ready. Or it could be augmented with equipment and/or manning, termed "cross-leveling," to quickly increase its readiness status for deployment/employment. Or a unit could simply be tasked to execute its wartime mission at a reduced readiness level, but with a commensurate higher risk to mission accomplishment.

104. Senator AKAKA. General Pace, if drops in readiness do not necessarily mean that units can't perform their missions, what system are you using to evaluate what their true capabilities are?

General PACE. Chairman, Joint Chiefs of Staff Instruction (CJCSI) 3401.02, Global Status of Resources and Training System (GSORTS), governs the readiness system used by DOD. GSORTS provides a monthly assessment of selected unit status indicators (personnel, equipment/supplies, equipment condition, training) and includes a commander's subjective assessment on the unit's ability to execute the mission(s) for which it was organized or designed.

Unit readiness status is reported as C–1 through C–5:

C–1—Unit possesses required resources and is trained to undertake its wartime mission(s).

C–2—Unit can undertake portions of its wartime mission(s), but may have reduced flexibility and could require some compensation for deficiencies.

C–3—Unit can undertake many, but not all, portions of its wartime mission(s), with significantly reduced flexibility and required compensation.

C–4—Unit requires additional resources/training to undertake its wartime mission(s), but may be directed to undertake portions of its wartime mission(s).

C–5—Unit is undergoing Service-directed resource action and is prepared to undertake wartime mission(s).

IMPROVING OVERSEAS TRAINING RANGES

105. Senator AKAKA. Secretary Rumsfeld, I know that the budget request assumes that most of the changes in overseas presence will occur in concert with BRAC, and, therefore, that most of the associated funding will not be required until fiscal year 2006. However, it appears that a decision has been made to make greater use of overseas training ranges, and I understand that many of these ranges are fairly primitive and undeveloped. How much do you anticipate will be required to expand and improve overseas ranges to support the new presence policy?

Secretary RUMSFELD. There have been no decisions yet on any aspect of the proposed global posture changes, so it is premature to speculate where we may use overseas training ranges in the future. We will indeed seek the use of overseas ranges where such use provides us unique training opportunities, supports our security cooperation priorities, and helps with the transformation process of our allies and partners. However, we are still analyzing the advantages and cost implications of combatant commander proposals and therefore cannot speculate on exact requirements for such ranges.

106. Senator AKAKA. Secretary Rumsfeld, are any funds for this purpose included in the fiscal year 2005 budget request, and, if not, when do you expect they will be required?

Secretary RUMSFELD. Any fiscal year 2005 budget proposals related to overseas training ranges are connected to ongoing service initiatives, and separate from the broader Global Posture Review. An example is the Army's Efficient Basing Graffenwoer initiative. Because we are still conducting our posture review, we cannot speculate on when any new funding requests related to future use of overseas training ranges will be forthcoming.

QUESTIONS SUBMITTED BY SENATOR MARK PRYOR

TAX-FREE TREATMENT OF MILITARY PERSONNEL IN COMBAT ZONES

107. Senator PRYOR. Secretary Rumsfeld, I would like to again commend you for addressing family housing in the DOD's fiscal year 2005 budget. This is an issue which I believe is close to the hearts of our military personnel. I want to work with

you to ensure that our military is fairly compensated. I understand that under the tax code, military pay is given tax-free treatment while the soldier, sailor, airman, or marine is serving our Nation in a combat zone. Congress provided this tax-free treatment because of the sacrifice these men and women are making to their country. However, the exclusion of combat pay has penalized some military personnel with families by limiting the benefits of the earned income and child tax credits. In some cases, our military personnel with families lose as much as $4,000 in these tax credits because they are serving our Nation. Do you see this as a problem, and is this something that should be addressed this year?

Secretary RUMSFELD. Yes, the DOD agrees that this is a problem. In the summer of 2003, my staff began working with representatives from the Treasury Department and the Internal Revenue Service on a solution that will prevent service in a combat zone from interfering with a service member's eligibility for tax credits. The solution requires legislation. The DOD would like to see this issue addressed this year and is working with the Treasury Department to alleviate this unintended tax consequence to the Service members serving in combat zones.

HALLIBURTON

108. Senator PRYOR. Secretary Rumsfeld, I have heard from many constituents concerned about defense contracts to Halliburton. Three recent news stories indicate that Halliburton over-billed $28 million for food services at five different food service facilities, that Halliburton overbilled for gasoline, and that Halliburton overbilled $6.3 million for unspecific services. Which, if any, of these contracts were competitively bid?

Secretary RUMSFELD. Two prime contracts are represented here. The first contract is known as the Logistics Civil Augmentation Program (LOGCAP III) contract. It covers the referenced "food services" and "unspecific services." This contract was awarded on the basis of competitive procedures. The second contract is a sole source contract for fuel. It covers the referenced "gasoline." This contract has since been replaced with contracts awarded using competitive procedures. The $6.3 million represents a voluntary disclosure and refund from a subsidiary of Halliburton: Kellogg, Brown, and Root on the original fuel contract. This apparent overbilling and the others are presently being investigated.

109. Senator PRYOR. Secretary Rumsfeld, how many noncompetitive DOD contracts have been awarded to Halliburton in the last 3 years?

Secretary RUMSFELD. In the last 3 years, DOD awarded Halliburton 80 contract actions on a noncompetitive basis and 1,732 contract actions on the basis of competitive procedures.

110. Senator PRYOR. Secretary Rumsfeld, what penalty does Halliburton face for overbilling the DOD?

Secretary RUMSFELD. When an overbilling is identified, the government auditor immediately notifies the contractor, the government's disbursing officer, and the government's contracting officer. The overbilled amount is deducted from subsequent contract payments. Other possible remedies (criminal, civil, contractual, or other) for overbilling will depend upon the reasons for the overbilling, as determined by various investigations.

BUSINESS MANAGEMENT MODERNIZATION PROGRAM

111. Senator PRYOR. Secretary Rumsfeld, you have proposed in your budget an effort to implement the Business Management Modernization Program (BMMP). I understand that the program would overhaul the DOD management processes, consolidate and integrate information systems, and facilitate auditable financial statements. Will BMMP help to prevent the billing problems we have seen with Halliburton in the future?

Secretary RUMSFELD. The BMMP is transforming business processes to implement common processes, data, and controls. BMMP will improve the business of the Department as a whole.

112. Senator PRYOR. Secretary Rumsfeld, do we have to wait for the passage of the fiscal year 2005 bills to implement the BMMP?

Secretary RUMSFELD. The answer to your question is no. We don't have to wait for the fiscal year 2005 bill to implement BMMP.

IRAQI WMD/RECOMMENDATION TO GO TO WAR

113. Senator PRYOR. Secretary Rumsfeld, Secretary of State Colin Powell stated in an interview with The Washington Post that he might have made a different recommendation on war with Iraq, if he had known that Iraq had no prohibited weapons. If you knew Iraq had no, or little, WMD, would you still have recommended military action? If yes, please articulate the threat. If no, please elaborate.

Secretary RUMSFELD. Dr. David Kay states unequivocally in his "Interim Progress Report on the activities of the Iraq Survey Group (ISG)" that there were prohibited weapons programs in Iraq and that Saddam was in violation of the U.N. Security Council resolutions regarding weapons of mass destruction. In addition, by expelling UNSCOM he clearly showed his contempt for the U.N. and international norms. It is also a fact that Saddam's regime sheltered and met with terrorists over the course of the 1990s and into the new century.

As the President has said, he "will not wait on events while dangers gather." The Saddam regime was dangerous, in clear violation of U.N. Security Council Resolutions regarding WMD, and was a state sponsor of terrorism. In light of these facts, there does not seem to be a need to reexamine the decisions that led to the liberation of the people of Iraq.

[Whereupon, at 12:40 p.m., the committee adjourned.]

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2005

TUESDAY, FEBRUARY 10, 2004

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

SERVICE CHIEFS

The committee met, pursuant to notice, at 9:31 a.m. in room SR–325, Russell Senate Office Building, Senator John Warner (chairman) presiding.

Committee members present: Senators Warner, McCain, Allard, Sessions, Collins, Talent, Chambliss, Dole, Levin, Kennedy, Lieberman, Reed, Akaka, Bill Nelson, E. Benjamin Nelson, Clinton, and Pryor.

Committee staff members present: Judith A. Ansley, staff director; and Leah C. Brewer, nominations and hearings clerk.

Majority staff members present: Charles W. Alsup, professional staff member; L. David Cherington, counsel; Regina A. Dubey, research assistant; Brian R. Green, professional staff member; William C. Greenwalt, professional staff member; Ambrose R. Hock, professional staff member; Gregory T. Kiley, professional staff member; Thomas L. MacKenzie, professional staff member; Elaine A. McCusker, professional staff member; Lucian L. Niemeyer, professional staff member; Lynn F. Rusten, professional staff member; Joseph T. Sixeas, professional staff member; Scott W. Stucky, general counsel; Diana G. Tabler, professional staff member; and Richard F. Walsh, counsel.

Minority staff members present: Richard D. DeBobes, Democratic staff director; Daniel J. Cox, Jr., professional staff member; Madelyn R. Creedon, minority counsel; Richard W. Fieldhouse, professional staff member; Creighton Greene, professional staff member; Maren R. Leed, professional staff member; Gerald J. Leeling, minority counsel; and William G.P. Monahan, minority counsel.

Staff assistants present: Sara R. Mareno, Nicholas W. West, and Pendred K. Wilson.

Committee members' assistants present: Cord Sterling, assistant to Senator Warner; Christopher J. Paul and Dan Twining, assistants to Senator McCain; Jayson Roehl, assistant to Senator Allard; Arch Galloway II, assistant to Senator Sessions; Derek J. Maurer, assistant to Senator Collins; Lindsey R. Neas, assistant to Senator Talent; Clyde A. Taylor IV, assistant to Senator Chambliss; Mere-

dith Moseley, assistant to Senator Graham; Christine O. Hill, assistant to Senator Dole; Mieke Y. Eoyang and Jarret A. Wright, assistants to Senator Kennedy; Terrence E. Sauvain, assistant to Senator Byrd; Frederick M. Downey, assistant to Senator Lieberman; Elizabeth King, assistant to Senator Reed; William K. Sutey, assistant to Senator Bill Nelson; Eric Pierce, assistant to Senator Ben Nelson; Andrew Shapiro, assistant to Senator Clinton; and Terri Glaze, assistant to Senator Pryor.

OPENING STATEMENT OF SENATOR JOHN WARNER, CHAIRMAN

Chairman WARNER. Good morning, everyone.

We start today's hearing by first welcoming back one of the members who has been absent without leave (AWOL), the distinguished Senator from Connecticut. If you would like to take a moment to explain your absence, we would be glad to have your views.

Senator LIEBERMAN. Well, Mr. Chairman, thanks for welcoming me back. It was quite a journey. I feel as if I was actively deployed and now I am returning to my home base. I appreciate very much the opportunity to return.

I do want to say very briefly that along the way in this journey I met a number of families who have service members on active duty in Iraq, and I met some of the service members themselves who had returned. The level of pride and morale is extremely high. Cutting through all the natural debate that goes on about the war, it was very reassuring.

If you will allow me, I carry this around with me because we lost Anthony De Agostino from Waterbury, Connecticut, and I was in touch with his folks and they sent me a mass card after the funeral. The father sent me this note: "Dear Senator Lieberman: Please continue to support all our men and women in uniform. Please keep America the true leader of peace in the world. Tony was our only son, our only legacy. Although this was a great loss to our family, we wish you godspeed in making the world a safer place."

I had the honor to go on my own journey across America, but these are the real heroes. I wanted to say this in front of you and the Service Chiefs, with great honor and admiration. I return to work with you and Senator Levin with a sense of purpose to work on the critically important work of this committee, to make sure that we complete the mission we started with success, and to return our service men and women home as soon as possible in peace, and in what I would describe as victory.

I thank you for your welcome. I promise not to give extended remarks any other time you call on me.

Chairman WARNER. No, that is all right. We are very appreciative of your sentiments. I recall vividly when you first joined this committee and you were one of the principal co-sponsors of the resolution in 1991 to authorize the use of force against Iraq. You were a member of the four of us who were co-sponsors in the recent resolution. You have always been a very strong voice on behalf of the men and women of the Armed Forces, and I appreciate your sentiments that we should complete this mission with a measure of unquestioned success.

Your statement is so powerful that I am thinking about waiving mine, but I think I will go ahead.

We meet today to receive the annual testimony of the Service Chiefs on the posture of each of our military services and on their respective portions of President Bush's defense budget request for fiscal year 2005 and the Future Years Defense Program (FYDP). We have a great team before us today, military men of great distinction and humility, men who have served this Nation well during previous conflicts, in most instances combat conflicts. Equally important, if not of greater importance, today in this global war on terrorism you bring to bear that vast experience that each of you have.

Thank you for what you do every day for our men and women in uniform and their families. It has been a challenging year for our military. You have provided the leadership they need to successfully accomplish their mission and to understand just how important their service is to the security of the United States and indeed to the whole free world.

I start by recognizing the extraordinary professionalism and courage of the men and women of our Armed Forces. In this past year, together with a coalition of nations, they freed Iraq from the tyrannical rule of Saddam Hussein. They are valiantly fighting today in Afghanistan and other far-flung points on the globe.

In Iraq they did this mission quickly, with precision, and with casualties well below the estimates. This is proof of the training, equipment, readiness, and inspiration that you individually and collectively have provided your forces. Their sacrifices and the sacrifices of their families are deeply appreciated by every citizen in this Nation, most particularly the sacrifices of those families who lost their loved ones, and those families who welcomed home those who bear the wounds of war. I ask you to communicate one message to the uniformed service members and their families that you represent: America is proud of you.

We need not let the critics of the moment diminish the importance of what our military has accomplished. In my opinion, there is no doubt that a very dangerous threat has been removed. The United States and indeed the world is a safer place because of the efforts of our military and coalition partners in Iraq.

The Nation will continue, as it should, the debate over whether or not Saddam Hussein had large stockpiles of weapons of mass destruction (WMD), and the debate on other issues relative to the WMD program. However, not all the facts are in on the specific issue of stockpiles and on the other issues. We cannot reach final judgments and conclusions. We have upwards of 1,300 men and women in uniform together with many other civilians still as a part of the Iraq Survey Group (ISG) who are continuing that mission.

What we do know at this point is as follows: We know that Saddam Hussein was indeed a threat. He has used WMD on his neighbors and on his own people, and he was maintaining his capability to quickly produce these weapons. Clearly he had breakout capability on a range of weapons, some of mass destruction.

We know that Dr. Kay testified that Saddam Hussein had restarted Iraq's nuclear weapons program. Although there are no estimates, it was a matter of time until he acquired some measure

of capability with those awesome, ultimate weapons of mass destruction.

We know that Iraq was continuing research and development (R&D) on chemical and biological weapons, and had an active program to use the deadly chemical ricin as a weapon. We know that Iraq was developing and producing ballistic missiles that clearly violated United Nations (U.N.) Security Council mandates that were imposed following the first Gulf War.

As Dr. Kay told this committee 2 weeks ago, and I quote him: "It was reasonable to conclude that Iraq posed an imminent threat. What we learned during the inspection made Iraq a more dangerous place potentially than in fact we thought it was even before the war." Our military men and women in uniform under your leadership, have removed this threat.

There have been allegations that the President and his senior advisers manipulated and exaggerated the prewar intelligence on Iraq. I personally have seen no clear and convincing evidence of this. In fact, many of the basic conclusions reached by President Bush, Vice President Cheney, and others, are entirely consistent with the basic conclusions of officials in the previous administration. I have with me today a whole series of those quotes.

An examination of United States intelligence, intelligence of other nations, and reports in the U.N., combined with Iraq's past history, led 77 members of this body, the United States Senate, to basically reach the same conclusions that two administrations' senior officials had reached: Saddam Hussein represented a great threat that had to be confronted with military force.

Diplomatic efforts were tried repeatedly and failed. The last of 18 U.N. Security Council Resolutions, 1441, passed unanimously by 15 members of the Security Council on November 8, 2002, found Iraq to be "in material breach of its obligations" that the U.N. Security Council had set down. The council then specifically said "the final opportunity to comply with its disarmament obligations is before Iraq" and warned of serious consequences if Saddam Hussein failed to comply. He did not comply.

Before us today are the leaders of our four military Services, three of whom were at their current positions at the start of Operation Iraqi Freedom (OIF). Now, the Goldwater-Nichols Act, which I brought with me today, fundamentally reshaped the duties and responsibilities of the Chiefs and then the body of the Joint Chiefs, including special provisions to ensure that any dissenting opinions from the members of the Joint Chiefs of Staff could reach the President. I direct you to section 151, title 10, subsection D, "Advice and Opinions of Members Other than Chairman."

I think it is appropriate, since this is your first appearance as a group before this committee since the commencement of hostilities, that each of you in your opening statements, with your exception, General Schoomaker, specifically advise this committee. There is a presumption raised by Goldwater-Nichols that you had the opportunity to approach the President and indeed the Chairman of the Joint Chiefs and others if you had any doubts concerning the advisability of the use of force at the time it was used against Iraq, and this is that opportunity today.

I think it is very important for America to understand how their professional military leaders felt about the decision to go to war before the use of force, and also how they feel today in light of revelations about certain portions of our intelligence. This is that opportunity.

Operations continue in Iraq, Afghanistan, and elsewhere in the global war on terrorism. The circumstances of our times demand, however, that we not rest on the laurels of our recent successes. We must prepare now for the future, a future fraught with new challenges and new dangers.

The President's budget request anticipates this uncertain future. The fiscal year 2005 budget request for the Department of Defense (DOD) of $401.7 billion represents a 5-percent increase over the fiscal year 2004 authorized level and the fourth consecutive year of growth in the defense budget.

Much is being asked of each military Service. You have all been looking for better and more efficient ways to use each taxpayer dollar, from developing new capabilities to changing concepts of operations to better integrating the very valuable National Guard and Reserve Forces that we have in this Nation. We look forward to hearing about your initiatives and welcome your insights on the challenges that you face.

Senator Levin.

STATEMENT OF SENATOR CARL LEVIN

Senator LEVIN. Thank you, Mr. Chairman.

First let me join you in welcoming back our friend Joe Lieberman. He in his own way has been serving the Nation, both in the campaign that he just waged and also in his extraordinarily fine service here in the United States Senate, the civility, the thoughtfulness which he brings to his every task that he undertakes. I just want to join you, Mr. Chairman, I know speaking for every member of this committee, in welcoming Joe home.

As we meet today, America's Armed Forces are heavily engaged in trying to bring stability to Iraq. Additionally, almost 40,000 more stand on the front lines in Korea, within range of North Korean artillery and rockets. Thousands of American troops are risking their lives every day in continued operations in the global war on terrorism in Afghanistan and other hot spots around the world. Of course, many more continue to work to keep the peace and to build a more stable future in the Balkans and elsewhere.

To support these efforts, the President has already called up nearly 190,000 members of the Reserve components to active duty. Given the presence of all of our Service Chiefs, we all want to extend to those men and women serving us and through our Service Chiefs our thanks to both active duty and Reserve Forces for the work that they are doing with bravery and dedication on behalf of all Americans.

I also want to note that they and their families are making sacrifices for all of us and that there are stresses and strains on all of them, and that the military is stretched thin.

Mr. Chairman, you have made reference to the inquiry into intelligence failures prior to the war. It is essential that there be an inquiry into massive intelligence failures relative to the presence of

WMD in Iraq. It was the presence of those weapons which was given as the reason for urgency in proceeding to attacking Iraq. It is essential that there be an inquiry made into the way in which our intelligence was projected and represented by our policymakers, and it is essential that there be an inquiry made into the planning which either existed or did not exist relative to the post-Saddam period as to what we could expect in that period and how we would address it.

Whatever we determine about those issues, let nobody doubt that those who ask those questions, all of us, stand four-square behind our men and women who serve our Nation around the world. We will provide our men and women in uniform with everything that they need to ensure that they succeed in their mission. People who are asking the questions about intelligence so that our future intelligence and decisions are better are just as determined to help us succeed in our mission and to give our men and women in uniform everything they need to achieve that success as persons who are taking different positions relative to those inquiries.

The budget before us represents a peacetime budget. It fails to include funding to pay for the incremental costs of operations in Iraq and Afghanistan. So while the exact costs of those operations in fiscal year 2005 are not presently known, many of the costs can be readily estimated.

I want to just emphasize this so that everyone understands what I have said. The budget before us does not include items that we know have to be paid for, and should be paid for and will be paid for, in terms of supporting our men and women and giving them all the resources that they need. Now, some of those costs, although they are not included in this budget, can be readily estimated and should be estimated at this time.

For instance, we know that forces are going to be rotating into and out of Iraq in the October time frame, just after the beginning of fiscal year 2005. It is my understanding again that these costs are not in the budget. But this, coupled with the announced policy of the administration of not asking for a supplemental appropriation for the DOD this calendar year, is going to result in forcing the Services to plan on supporting deployed operations from within the normal budget, at least for several months.

That puts the Services, it seems to me, in a very difficult position. I would be interested in hearing from our witnesses this morning about the measures that they may have to take if they are to live within these constraints until a supplemental appropriation is requested next January.

The U.S. military is by far the best trained, best equipped, most capable fighting force in the world today. Its readiness can be attributed in large measure to the hard work that the Service Chiefs and their staffs have put forward in support of their responsibilities mandated by title 10, U.S. Code, to organize, train, and equip their respective Services. We are going to do everything we can to ensure that our military remains the best, and it is to that end that we are going to be exploring some critical issues with the witnesses before us today and other witnesses who will be called before this committee.

So, Mr. Chairman, I want to join you in welcoming our witnesses today. I want to thank them for their service, for their leadership. It has made a critical difference during these very difficult times. I want to give a special welcome to General Schoomaker, who is making his first appearance as our Army Chief of Staff before the committee at a posture hearing. Welcome, all of you.

Chairman WARNER. Thank you very much, Senator Levin.

General Schoomaker, as the senior Service, the Army, you may lead off.

STATEMENT OF GEN PETER J. SCHOOMAKER, USA, CHIEF OF STAFF, UNITED STATES ARMY; ACCOMPANIED BY LTG STEVEN BLUM, USA, CHIEF, NATIONAL GUARD BUREAU

General SCHOOMAKER. Thank you very much, Mr. Chairman. Good morning. Mr. Chairman, distinguished members of the committee. It is a pleasure to appear before you today. With your permission, I would like to submit the 2004 Army Posture Statement for the record.

Chairman WARNER. Without objection, it will be admitted to today's record in its entirety, together with the statements of the other members of the panel.

General SCHOOMAKER. Thank you, sir.

I would like to begin by thanking each of you for the tremendous support you continue to show for our men and women in uniform, as witnessed by your statements this morning already.

The fiscal year 2004 defense legislation and supplemental appropriation have provided our soldiers the tools they need to carry on their important, often dangerous work. The fiscal year 2005 President's budget request provides our Army with the resources we need to meet the noncontingency requirements of the national security strategy. It fully funds our statutory end strength of 482,400 soldiers. It supports training requirements in accordance with our joint and combined arms training strategy.

The budget request funds depot maintenance for the 15 critical systems in our recapitalization program. It provides funds to upgrade barracks, family housing, and funds facilities sustainment at 95 percent.

The budget request also provides for future readiness by funding upgrades for Stryker Brigade Combat Team 5 and our continuous investment in the Future Combat System (FCS).

As with any budget, it reflects a balance. We have accepted risk in some lower priority depot maintenance, base operations, and other areas. The budget request does not fund our contingency requirements for OIF and Operation Enduring Freedom (OEF). We do not know with certainty what these requirements will be, but we will need a supplemental to fund them once they are known.

All of this has been carefully weighed and I ask for your support of the fiscal year 2005 budget request.

There is no question that the pace of our Nation at war challenges our Army. It is hard to recall a time in history, with the exception of World War II, when we have been busier, as we deploy and redeploy nearly a quarter of a million soldiers over the next 4 months. We continue to meet these challenges with the seamless commitment of active, Reserve, and National Guard soldiers who

continue to give so selflessly to our great Nation. Accompanying me today are Lieutenant General Steve Blum, the Chief of the National Guard Bureau, and Brigadier General Gary Profit from the Office of the Chief of the Army Reserve. I appreciate their presence here today.

Chairman WARNER. Gentlemen, we welcome you to the hearing. Thank you.

General SCHOOMAKER. This is not easy and we cannot approach it as if it is business as usual. This state of war requires us to challenge old paradigms, to be flexible and adaptable. Using the authority provided by Congress and the flexibility you have built into our law, the Secretary of Defense and the President of the United States supported my request to temporarily grow the Army by up to 30,000 soldiers above its statutory end strength. I asked for your support as well.

I appreciate the concern that many of you have shown over this issue. This temporary end strength increase is the right choice. A permanent increase in statutory end strength before the Army has implemented our ongoing force structure reforms would be inefficient and could jeopardize the future readiness of our Army.

I have asked to temporarily grow the force under the authorities provided in title 10, section 123[a] because the real issue we must address is improving Army capabilities, by tailoring our structure to better meet the requirements of our national security strategy. Capability is the issue, not the number of soldiers. With the flexibility I have requested, we can grow the active component from 33 to 43 combat brigades while increasing the number of National Guard combat brigades that are identical to the Active Force.

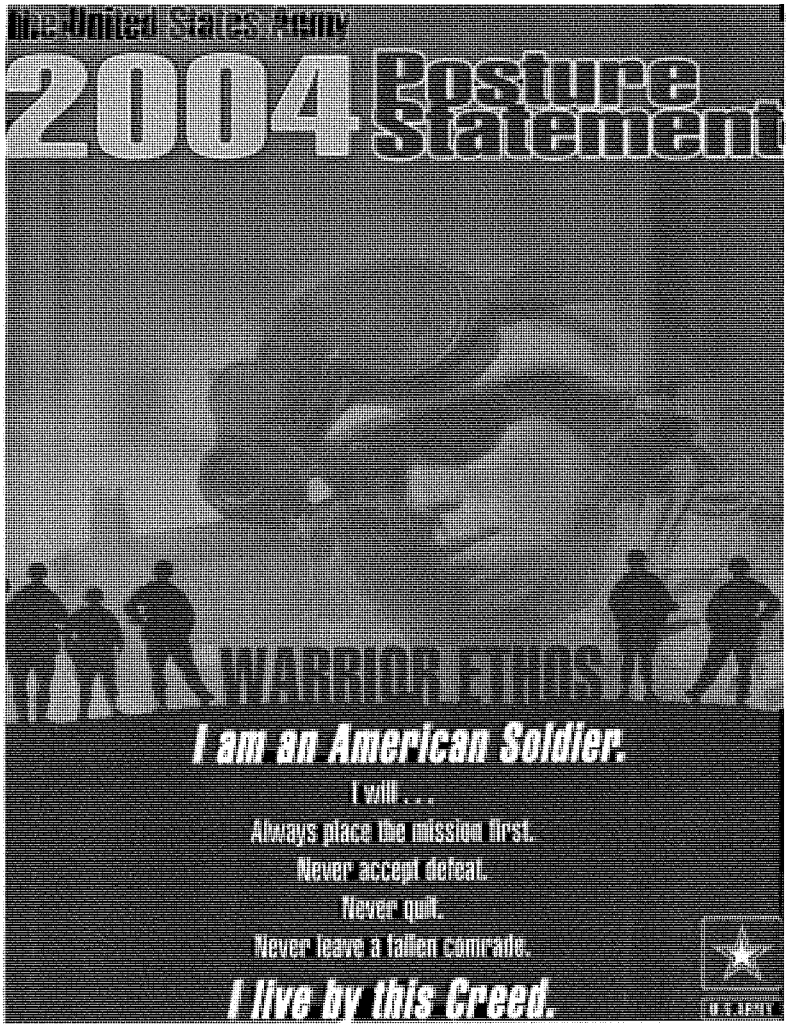
In the future we will make a decision on adding an additional five active component combat brigades to further enhance our capability. Combined with other initiatives, such as adjusting the balance between the active component and the Reserve component, increasing the pool of soldiers in high-demand specialties, and the implementation of unit modularity and stabilization, this restructure will provide the Nation and the Joint Forces Commanders with an Army better suited to meet rotational or readiness requirements such as we face today, while remaining ready to meet the challenges of the future.

We must never lose sight of the fact that it is our soldiers who put it all on the line. We will do everything in our power to prepare them for the challenges they face. I could not be more proud of them and the professionalism, courage, and competence that they demonstrate every day. I would include our family members in that who have already been recognized. They pay a tremendous price and they are with us.

In closing, I would like to thank this committee for the opportunity to appear before you today and for your continued support for the men and women in our Army, deployed in Iraq, Afghanistan, and throughout the world.

I look forward to answering your questions. Thank you, sir.

[The 2004 Army Posture Statement follows:]


The United States Army
2004 Posture Statement
WARRIOR ETHOS
I am an American Soldier.
I will . . .
Always place the mission first.
Never accept defeat.
Never quit.
Never leave a fallen comrade.
I live by this Creed.

A statement on the
Posture of the United States Army 2004

By

The Honorable R.L. Brownlee
And
General Peter J. Schoomaker

Presented to
The Committees and Subcommittees
Of the

UNITED STATES SENATE

And the

HOUSE OF REPRESENTATIVES

SECOND SESSION, 108th CONGRESS

The annual Army Posture Statement is an unclassified summary of Army roles, missions, accomplishments, plans, and programs.

Designed to reinforce the Secretary of the Army and Chief of Staff, Army posture and budget testimony before Congress, The Army Posture Statement serves a broad audience as a basic reference on the state of the Army.

This document is available on The Army Homepage at www.army.mil

It is a product of the Office of the Chief of Staff, U.S. Army, Special Actions Branch (DACS-ZDV-SAB)

Email: David.Dodd@us.army.mil

February 5, 2004

Our Nation is at war. The security of our homeland, the Global War on Terror, and sustained engagement around the world define today's complex and uncertain strategic environment. The future will be no less ambiguous.

We must prepare now to meet the challenges of tomorrow. Rather than focusing on a single, well-defined threat or a geographic region, we must develop a range of complementary and interdependent capabilities that will enable future joint force commanders to dominate any adversary or situation. A capabilities-based approach to concept and force development, as articulated in the 2001 Quadrennial Defense Review, is the major focus of defense transformation.

Over the past year our Army has met the demands of the Global War on Terror, with more than 325,000 troops deployed around the world in over 120 countries. The Army was instrumental in the defeat of Saddam Hussein and the Taliban and the subsequent liberation of more than 46 million people from oppression and despair. The Army remains a central and critical participant in Operation Iraqi Freedom and Operation Enduring Freedom. Although these and other operations have stressed the force, our Soldiers have responded magnificently.

Our Army's commitment to the Nation remains absolute. While we execute the Global War on Terror, our Army simultaneously continues its organizational and intellectual transformation to meet the challenges of the 21st Century. In support of the National Security Strategy and the National Military Strategy we are improving our warfighting readiness and ability to win decisively. We also remain dedicated to the well-being of our Soldiers, their families and our civilian workforce.

The United States Army is the most powerful land force on earth. With this power comes a great responsibility. American Soldiers show by their daily actions that they understand this, and are fully worthy of the trust the American people have placed in them.

For 228 years the Army has never failed the Nation, and it never will.

Peter J. Schoomaker
General, US Army
Chief of Staff

R. L. Brownlee
Acting Secretary of the Army

PURPOSE OF THE POSTURE STATEMENT

The Army Posture Statement provides an overview of today's Army. Focusing on the Soldier, the centerpiece of the force, it explains the current and future strategic environments that provide our mandate for transformation. Our core competencies and how we intend to meet our current demands and future challenges are outlined. It describes what we must become in order to provide more ready and relevant forces and capabilities to the Joint Team.

TABLE OF CONTENTS

2004 Army Posture Statement Executive Summary

Our Nation at War 1
Our Army's Core Compentencies 1
Strategic Environment - Our Mandate for Transformation 1
Army Focus Area 2
Adapting Resource and Acquisition Processes 2
Resetting the Force 2
Mitigating Strategic Risk through Increased Land Power Capability 3
Conclusion 3

Core Compentencies

Train and Equip Soldiers and Grow Leaders 4
The Soldier 4
Recruiting and Retaining a High-Quality Volunteer Force 5
Civilian Component Enhances Our Capabilities 5
Realistic Training - Essential to Mission Success 6
Joint and Expeditionary 6
Train and Educate Army Members of the Joint Force 7
Leader Development -- "Train for Certainty, Educate for Uncertainty" 7
Combat Training Center (CTC)/Battle Command Training Program (BCTP) 8
Provide Relevant and Ready Land Power Capabilities to the Combatant Commander and the Joint Team 8
Army Global Commitments 8
Resetting the Force 10
Transformation: Moving From the Current to the Future Force 11
Balancing Current and Future Readiness 11
Making the Resource Process More Responsive 12
Accelerated Acquisition and Fielding 13
Balancing Our Active and Reserve Component Force Structure 14
Achieving Greater Combat Capability with Modular, Capabilities-based Unit Designs 15
Force Stabilization 15

Installations as Our Flagships 16
Army Families and Well Being 16
Introducing New Capabilities into Current Force 17
Stryker Brigade Combat Team (SBCT) 17
Future Capabilities 18
The Network 18
FCS 18
Army Science and Technology 19
Joint Operational Concepts 19
Actionable Intelligence 20
Focused Logistics 20
OUR COMMITMENT TO THE NATION 21
ADDENDUM A A-1
GLOSSARY Glossary-1

The 2004 Army Posture Statement along with the following addenda can be found at http://www.army.mil

Addendum A: Data Required by NDAA 1994

Addendum B: Army Support to Combatant Commanders

Addendum C: Recruiting Initiatives

Addendum D: Well-Being Initiatives

Addendum E: Missile Defense

Addendum F: Chemical Demilitarization

Addendum G: Focused Logistics Initiatives

Addendum H: Business Practices

Addendum I: Immediate Focus Areas

Addendum J: Joint Operational Concepts

Addendum K: Glossary of Terms and Acronyms

2004 ARMY POSTURE STATEMENT EXECUTIVE SUMMARY

OUR NATION AT WAR

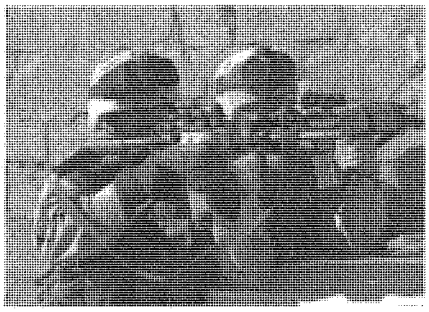
Our Nation, and our Army, are at war. It is a different kind of war, fought against a global terrorist network and not likely to end in the foreseeable future. In the days following the attacks on September 11, 2001, President Bush spoke candidly to the Nation. "These terrorists kill not merely to end lives, but to disrupt and end a way of life." He added: "The only way to defeat terrorism as a threat to our way of life is to stop it, eliminate it and destroy it where it grows."

Our Army exists to fight and win our Nation's wars. We are an integral member of the Joint Team committed to winning in fulfillment of our responsibilities to national security. We are fighting to preserve the American way of life and to safeguard the many freedoms our citizens enjoy. Our Soldiers and their families have not forgotten the events of September 11, which launched us to action in Afghanistan and Iraq. They are reminded daily of the ongoing conflict through separation, concern for forward-deployed loved ones and, most regrettably, news of casualties. Our Army continues the mission and remains committed to defeating our enemy.

OUR ARMY'S CORE COMPETENCIES

As our Army fights the current war and remains dedicated to transforming, we are focused on our two core competencies: **(1) Training and equipping Soldiers and growing leaders; (2) Providing relevant and ready land power to Combatant Commanders as part of the Joint Force.**

Our Army must be an agile and capable force with a Joint and Expeditionary Mindset. This mindset is the lens through which we view our service. We must be mobile, strategically deployable and prepared for decisive operations wherever and whenever required. We must be lethal and fully interoperable with other components and our allies, as well as flexible, informed, proactive, responsive and totally



integrated into the joint, interagency and multinational context. Our management and support processes must reflect and support these same characteristics.

STRATEGIC ENVIRONMENT – OUR MANDATE FOR TRANSFORMATION

At the end of the Cold War, the United States had no peer competitor. Our Army was much larger and was built around heavy, mechanized and armored formations. Because America stood as the lone superpower during this time of global realignment, we were able to downsize our force structure. Today, the future is uncertain and presents many challenges. The emerging challenges manifest themselves as new adaptive threats, employing a mix of new and old technologies that necessitate changes to the ways in which the elements of our national power are applied.

The 21st century security environment is marked by new actors and a noteworthy proliferation of dangerous weapons, technologies and military capabilities. While threats from

potentially hostile regional powers remain, increasingly non-state actors, operating autonomously or with state-sponsorship, also are able to endanger regional and global security. These forces — insurgents, paramilitaries, terrorists, narco-traffickers and organized crime -- are a growing concern. They often are networked and enabled by the same tools and information systems used by state actors. Our adversaries will rely more frequently on indirect and asymmetric methods, such as anti-access and area-denial strategies, unrestricted warfare and terrorism, to mitigate their relative disadvantage. The most dangerous of these threats are the development and proliferation of weapons of mass destruction (WMD) – including biological or chemical agents, or radiological "dirty bombs" -- to attack the United States. This security environment requires that the Army have the capability to dominate throughout the spectrum of conflict and to plan for multiple future contingencies.

As a result of this adaptive enemy and our worldwide commitments, current organizations, systems and facilities are and will continue to be stressed. We now rely on our Reserve Component to support our operations to a degree not seen since World War II. As of January 14, 2004, there were more than 164,000 Reserve Component Soldiers mobilized with over 139,000 of them serving overseas. The institutional Army is being asked to do more, applying lessons learned from current operations. These lessons are critical to our organizations and individual Soldiers as they prepare for worldwide missions. Therefore, the current and future strategic environments require the Army to have the capability to dominate throughout the spectrum of conflict and to plan for multiple contingencies. These new security challenges, coupled with the current war on terrorism, require a different approach.

Army Focus Areas

Last summer, Army leaders identified immediate focus areas instrumental to adapting Army organizations and processes that will help us to better meet the Nation's security requirements. All of our focus areas should be viewed in the context of our ongoing efforts to retain the campaign qualities of our Army while simultaneously developing a Joint and Expeditionary Mindset. Of these focus areas, a critical enabler is the redesign of our resource processes to be more flexible, responsive, and timely. Our goal is to be a better Army every day -- better able to execute our core competencies as members of the Joint Team.

Adapting Resource and Acquisition Processes

The resource process is at the core of our Army's mission success. Our Nation faces a cunning and adaptive enemy, predictable only in his zeal and intent. We are just as cunning and our Soldiers are constantly changing tactics and techniques in order to disrupt the enemy's plans. In the same way, our resource and acquisition processes must become more flexible, responsive and timely in order to take immediate advantage of technological improvements and to sustain the quality of the force over time.

Resetting Our Force

Quickly resetting our forces upon their redeployment from current operations is a strategic imperative. The reset program incorporates lessons learned from Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF), retrains essential tasks, adjusts pre-positioned stocks of equipment and ammunition, and brings unit equipment readiness back to standard. Units must recover quickly in order to provide the Combatant Commanders with land-power capabilities for future requirements. We will face challenges as we rotate troops from

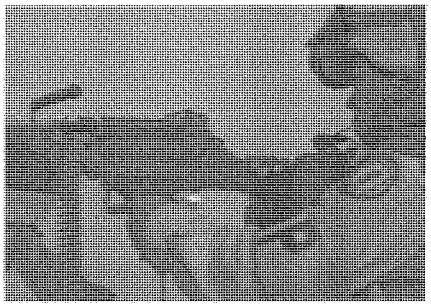
deployment to home station, while simultaneously maintaining vigilance and readiness.

Continued congressional support and adequate resources are needed to accomplish our reset tasks and to mitigate the risk we have incurred to our Current and Future Forces. The FY04 defense legislation and supplemental appropriation delivered substantial assistance toward covering the cost of current operations and initiating the reset process. We fully appreciate the exceptional support Members and their staffs have provided this year. But, the job is not complete. In fact, it has only just begun.

Mitigating Strategic Risk Through Increased Land Power Capability

Today our Army is executing operations in defense of the homeland (Operation Noble Eagle); stability and support operations in the Balkans (Stabilization Force/Kosovo Force); peacekeeping in the Sinai as part of the Multinational Force and Observers (MFO) and combat operations in Iraq and Afghanistan (Operation Enduring Freedom/ Operation Iraqi Freedom). We are also forward stationed in Korea and elsewhere. Approximately two-thirds of our active and reserve combat formations were deployed in FY03 and will be deployed in FY04.

These deployments, coupled with planned future rotation of units into OIF and OEF, the largest movement of Army troops since World War II, have highlighted already existing stress to our force. To mitigate risk, the Army is embarking on a series of initiatives. The first initiative is **resetting forces** returning from OIF and OEF to a standard higher than before their deployment. A second establishes **force stabilization** measures to reduce turbulence amongst Soldiers, units and their families. Thirdly, the Army is internally **rebalancing Active and Reserve Component forces** to better posture our existing force structure to meet global commitments. And lastly, we are beginning

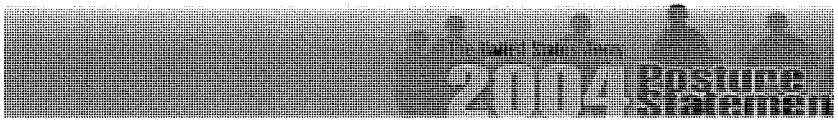


to **increase the number of available combat brigades** through improved force management and **modular reorganization**. This increase allows the Army to improve strategic flexibility, sustain a predictable rotation cycle, and permits the Reserve Component to reset.

To facilitate this end state, the Army will seek to maintain, or even to increase temporarily, its current level of manning. These measures, when resourced, will mitigate risk and ultimately provide increased capability to Combatant Commanders.

Conclusion

Our Nation is at war and our Army is at war; we remain ever relevant and ready to meet today's challenges. Yet there is much more to do. We are prioritizing wartime requirements, incorporating next-generation capabilities into current systems where appropriate, and preserving essential investments in the Future Force. We also are becoming more joint and expeditionary. We do not move forward alone, but as part of the Joint Team. We need the support of the American people and the U.S. Congress. With this backing, we will continue to carry the fight to our enemies to provide security here at home.



CORE COMPETENCIES

Our Army has two core competencies, supported by a set of essential and enduring capabilities. **These core competencies are: (1) training and equipping Soldiers and growing leaders; and (2) providing relevant and ready land-power capability to the Combatant Commanders as part of the Joint Force.** Additionally, our Army's senior leadership has established immediate focus areas and issued specific guidance for planning, preparation and execution of actions aimed at rapidly effecting necessary transformation in support of these core competencies. See Addendum I (available at www.Army.mil) for more information on the Army's focus areas.

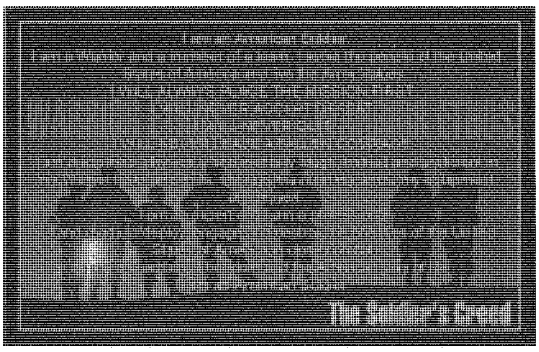
TRAIN AND EQUIP SOLDIERS AND GROW LEADERS

Our Army prepares every Soldier to be a warrior. Our training replicates the stark realities of the battlefield in order to condition Soldiers to react instinctively in combat. Such training is essential to building Soldiers' confidence in themselves, their equipment, their leaders, and their fellow Soldiers. Constant training in weaponry and field craft, and a continuous immersion in the warrior culture, give Soldiers the skills they need to succeed on the battlefield. Mental and physical toughness are paramount to the development of the warrior ethos and apply to all Soldiers from private to general. Every Soldier is called upon to be a leader.

THE SOLDIER

The American Soldier remains the centerpiece of our combat systems and formations and is indispensable to the Joint Team. Adaptive, confident and competent Soldiers, infused with the Army's values and warrior culture, fight wars and win the peace. As a warrior, every Soldier must be prepared to engage the enemy in close combat; the modern battlefield has no safe areas. Our Army trains our Soldiers to that standard, without regard to their specialty or unit. The Soldier -- fierce, disciplined, well-trained, well-led and well-equipped -- ultimately represents and enables the capabilities our Army provides to the Joint Force and the Nation.

Our Soldiers are bright, honest, dedicated and totally committed to the mission. All share common values, a creed and a warrior ethos.



Our Army defines selfless service as putting the welfare of our Nation, Army and subordi-

nates before your own. Soldiers join the Army to serve. Most Americans do not fully realize the personal sacrifices these Soldiers and their families endure. However, our Soldiers know that they have done their part to secure our Nation's freedoms and to maintain the American way of life.

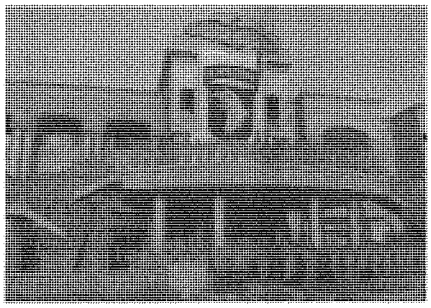
Our Soldiers' Creed captures the warrior ethos and outlines the professional attitudes and beliefs that characterize our American Soldier. The warrior ethos is about the refusal to accept failure and the conviction that military service is much more than just another job. It defines who Soldiers are and what Soldiers do. It is linked to our long-standing Army Values, and determination to do what is right and do it with pride.

Recruiting and Retaining a High-Quality Volunteer Force

All of our Soldiers are warriors whose actions have strategic impact. Because we are at war and will be for the foreseeable future, we must recruit Soldiers who have the warrior ethos already ingrained in their character, who seek to serve our Nation, and who will have the endurance and commitment to stay the course of the conflict. We must recruit and retain Soldiers who are confident, adaptive and competent to handle the full complexity of 21st century warfare.

We will continue to bring the highest quality Soldier into the force. All newly enlisted Soldiers are high school graduates (diploma or equivalent) and 24 percent have some college. These young Americans, who believe service to our Nation is paramount, make our success possible. They display a willingness to stand up and make a difference.

Our recruiting and retention efforts continue to be successful. The active Army met its recruiting and retention goals in fiscal year 2003 (FY03). The Army National Guard exceeded its retention goals for FY03 and simultaneously



met its end strength objectives. The Army Reserve met its recruiting goals and all but one retention target in FY03. Most importantly, all components sustained their end-strength requirements.

We do not know yet the effect the high operational pace of recent months will have on our recruiting and retention in FY04 and future years. We must carefully monitor recruiting and retention trends and adequately resource our successful recruiting and retention initiatives. Incentives such as the Enlistment Bonus Program, The Army College Fund and the Loan Repayment Program, have successfully enabled the Army to execute precision recruiting in FY03. Our Special Forces Candidate "Off the Street" initiative continues to attract highly motivated and qualified warriors. Significantly, Selective Reenlistment Bonuses, such as the Present Duty Assignment Bonus and the Theater Selective Reenlistment Bonus, which are intended to enhance unit stability, have helped us realize our retention successes. For more information on recruiting, see Addendum C.

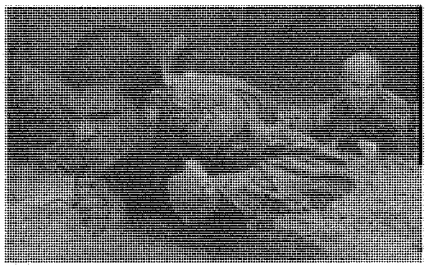
Civilian Component Enhances Our Capabilities

Army civilians are an integral and vital part of our Army team. They are essential to the readiness of our Army at war and our ability

to sustain operations. Our civilian employees share our Army values. They are smart, resourceful and totally committed to supporting our Soldiers and our Army to do whatever it takes to meet the challenges that come our way. These dedicated civilians perform critical, mission-essential duties in support of every functional facet of combat support and combat service support, both at home and abroad. Army civilians serve alongside Soldiers to provide the critical skills necessary to sustain combat systems and weaponry. They work in 54 countries in more than 550 different occupations. **In FY03, nearly 2,000 Army civilians deployed to Southwest Asia in support of Operation Iraqi Freedom, Operation Enduring Freedom, and the Global War on Terrorism (GWOT).** They have the education, skills and experience to accomplish the mission while ensuring continuity of operations for all commanders.

Realistic Training – Essential to Mission Success

Tough, realistic training ensures that our Soldiers and units maintain readiness and relevance as critical members of the Joint Force. Our

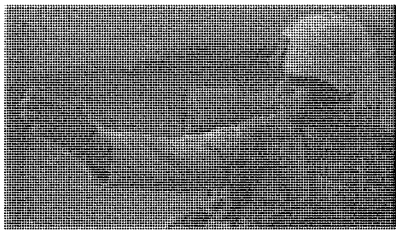


Army's combined-arms training strategy, including an appropriate mix of live, virtual, and constructive training, determines the resource requirements to maintain the combat readiness of our troops. We revised our training ammunition standards to allow Combat Support and Combat Service Support units to conduct live fire exercises under conditions similar to those they might encounter in combat.

The Army's OPTEMPO budget is among its top priorities. Our leadership is committed to fully executing the Active and Reserve Component ground and air OPTEMPO training strategies, which include actual miles driven and hours flown, as well as virtual miles associated with using simulators. The flying hour program is funded to achieve a historic execution level of live flying hours per aircrew per month. If units exceed the historic execution level, our Army will increase their funding. Thus far this year, OPTEMPO execution reports show units exceeding their programmed miles driven and hours flown. These are the units that are aggressively preparing for deployments to OIF and OEF, as well as the units who recently have returned and are preparing for future operations. Our combined arms training strategy is working and sustaining our warfighting readiness. We see the results every day in Afghanistan and Iraq.

Joint and Expeditionary

Our Army is the dominant ground component of the Joint Team and provides the Joint Force Commander a campaign quality force with unique and complementary capabilities. We are vital and indispensable members of the Joint Team first and are a Service second. We must remain aware that our Army always conducts operations — offensive, defensive, stability and support — in a joint and expeditionary context. Acting in concert with air and naval power, decisive land power creates a synergy that produces a Joint Force with abilities far exceeding the sum of the individual service components. Our Army can: support civil authorities at home and abroad; provide expeditionary forces at the right time and the right place; reassure our allies and multinational partners; deter ad-



versaries and, should deterrence fail, decisively defeat the enemy; and win the peace through post-conflict operations, in concert with interagency and multinational efforts. Our Army must continually examine the capabilities resident in and required by the Joint Force. We will concentrate our energies and resources on those attributes which our Army is best suited to provide to the Joint Force. Our Army will arrive on the battlefield as a campaign-quality force fulfilling the requirements of the Joint Force Commander — lethal, agile, mobile, strategically responsive, and fully interoperable with other components within the interagency and multinational context.

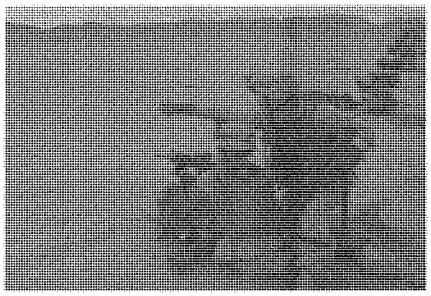
Train and Educate Army Members of the Joint Force

Our Army is taking action across a broad front to make jointness an integral part of our culture by including this concept in our education and training programs. We have always produced leaders with the right mix of unit experience, training, and education. As we look to the future, we know that, to meet our current and future leadership requirements and those of the Joint Force, we must redesign aspects of our Army's training and leader development programs to include lessons learned from current operations. Our objectives are to increase our ability to think and act jointly and to provide our Soldiers with the latest and most relevant techniques, procedures and equipment that will make them successful on the battlefield. Additionally, the changes acknowledge the current and projected pace of operations and deployments. As a result, we will be better prepared for the current and future strategic environments.

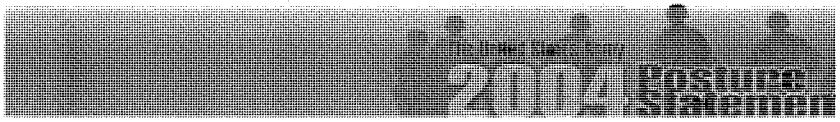
Maintaining a ready Current Force today and achieving a transformed Future Force tomorrow requires a shift in the way units train for joint operations. Our Army's Training Transformation Initiative (TTI), which supports the June 2003 Defense Department Training Transformation Implementation Plan, provides dynamic, capabilities-based training and mission rehearsal in a joint context.

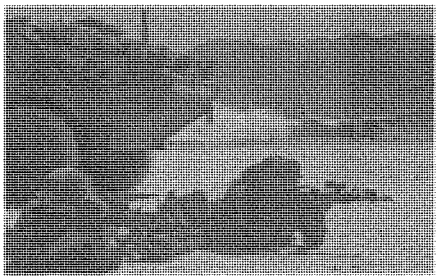
Leader Development — Train for Certainty, Educate for Uncertainty

Leader development is an essential part of our Army's core competencies and the lifeblood of our profession. It is the deliberate, progressive



and continuous process that develops our Soldiers and civilians into competent, confident, self-aware, adaptive and decisive leaders. They emerge prepared for the challenges of 21st century combined arms, joint, multinational and interagency operations.





Army leaders at all levels bear responsibility for America's Soldiers and accomplishing the mission, whatever it may be. The range of missions and their complexity continue to grow, presenting our leaders with even greater challenges than previously experienced. The evolving strategic environment, the gravity of our strategic responsibilities, and the broad range of tasks that the Army performs require us to review, and periodically to refocus, the way we educate, train and grow professional warfighters.

We have a training and leader development system that is unrivaled in the world. Our professional military education prepared our officers and noncommissioned officers to fight and win in Iraq and Afghanistan. We will continue to develop our leaders with the right mix of operational assignments and training and education opportunities that meet the current and future requirements of the Army and Joint Force. Our leader training focuses on *how to think, not what to think.* We will maintain our investment in the future by sustaining the highest quality leader training and education for our Army.

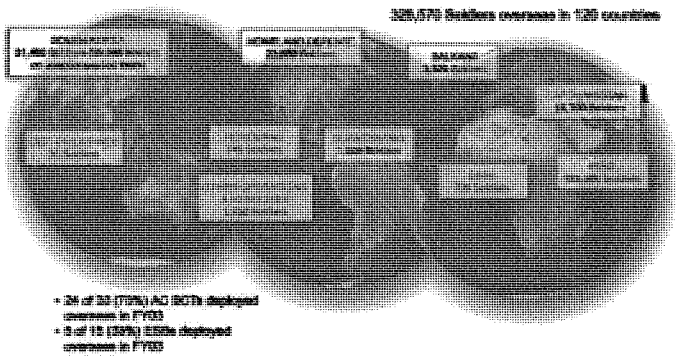
Combat Training Centers (CTC)/ Battle Command Training Program (BCTP)

The CTC program is a primary culture driver for our Army. Additionally, our CTCs are a primary enabler of, and full participant in, the Joint National Training Capability. The CTCs develop self-aware and adaptive leaders and Soldiers and ready units for full spectrum, joint, interagency and multinational operations. CTCs continuously integrate operational lessons learned into the training. Our Army enhances the training experience offered by our CTCs (National Training Center in California, Joint Readiness Training Center in Louisiana, Combat Maneuver Training Center in Germany and Battle Command Training Program based in Kansas) by increasing the focus on development of capabilities essential to joint operations. Leader training and development during CTC exercises hone the Joint and Expeditionary Mindset and promote our Army's warrior culture.

PROVIDE RELEVANT AND READY LAND POWER CAPABILITIES TO THE COMBATANT COMMANDER AND THE JOINT TEAM

To meet global commitments across the full spectrum of military operations, our Army has mobilized more than 164,000 Reserve Component Soldiers. More than 325,000 American Soldiers are serving overseas and more than 23,000 Soldiers are supporting operations within the United States. This high operating tempo is no longer an exception. Sustained operations and deployments will be the norm for our Army forces supporting multiple and simultaneous shaping and stability operations around the globe. At the same time, we will continue to contribute to Joint Force execution of major combat operations, homeland security missions and strategic deterrence.

ARMY GLOBAL COMMITMENTS



ARMY GLOBAL COMMITMENTS

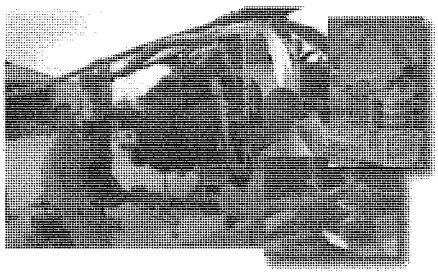
Our Army is engaged in more than 120 countries throughout the world. To highlight our Army's commitment, a review of the major warfighting formations of the Active and Reserve Component serves as a measurable benchmark. Over 24 of the Army's 33 Active Component Brigade Combat Teams (BCTs), and five of our 15 Reserve Component Enhanced Separate Brigades (ESB) were deployed in FY03. This trend will continue in FY04, with 26 of 33 Active Component BCTs and six of our 15 Reserve Component ESB brigades projected for deployment.

The majority of these combat formations are deployed in the **U.S. Central Command** area of responsibility (AOR), effectively executing stability and support operations. More than 153,000 Soldiers are supporting CENTCOM operations in Iraq, Afghanistan, Kuwait and the Horn of Africa. We are currently in the middle of the largest movement of troops since WWII, as we rotate more than eight-and-a-half divisions and two ESBs to or from the theater. The approximate ratio of Active to Reserve Component forces today is currently 63 to 37 percent, respectively. Once our current rotation is complete, the ratio will change to approximately 54 to 46 percent, Active to Reserve Component. Since September 11, we have mobilized almost half of the Reserve Component. They are trained, professional, and ready to execute any task.

Army support to other Combatant Commanders remains high. **U.S. Northern Command's** Army component, U.S. Army Forces Command, provides more than 23,000 Active and Reserve Component Soldiers for duty in the defense of our homeland. These troops are available for missions including Military Assistance to Civil Authorites (MACA), emergency preparedness, and anti-terrorist operations. The Army Reserve provides to NORTHCOM significant voice and data connectivity necessary to execute real-time operations. U.S. **European Command** provides forces, such as V U.S. Corps, to CENTCOM; and to Stability Force (SFOR) and Kosovo Force (KFOR) in the Balkans. **U.S. Pacific Command** supports ongoing operations in the Philippines, as part of the Global War on Terrorism, in addition to maintaining more

than 31,000 Soldiers on the Korean Peninsula. **U.S. Southern Command** is fully engaged as the headquarters for 1,500 Soldiers executing detainee operations at Guantanamo Bay, Cuba; has deployed 740 Soldiers to Joint Task Force – Bravo at Soto Cano Airbase, Honduras; and is assisting the government of Colombia in its war on narco-terrorism. **U.S. Special Operations Command's** Army component provides professional, dedicated, and specially trained Soldiers to each Combatant Commander. These Soldiers, working closely with conventional forces, have been instrumental to our success in the Global War on Terrorism.

In addition to federal missions, our Army National Guard (ARNG) plays an important domestic role, routinely responding to state emergencies. In FY03, there were 280 requests for emergency support, ranging from basic human needs to engineering support during natural disasters. Our ARNG has fielded 32 Weapons of Mass Destruction (WMD) Civil Support Teams (CST), which assist first responders in the event of an incident. Another 12 CSTs are due to be activated within 18 months. To date, these teams have responded to 74 different requests for support. Also, more than 8,000



ARNG Soldiers have executed critical force protection duties at 148 Air Force installations in CONUS.

Resetting the Force

The extraordinary demands major combat and stability operations in Afghanistan and Iraq are placing on our equipment and personnel require that our Army quickly reset returning units for future national security needs. The reset program will incorporate lessons learned from OIF and OEF, retrain essential tasks, adjust pre-positioned stocks of equipment and ammunition, and bring unit equipment readiness back to standard. The objective is to ensure our Army forces are ready to respond to near-term emerging threats and contingencies. However, reset cannot be viewed as a one-time event. Reset will continue to be key to our future readiness as our military executes our National Security missions.

Through reset, all returning active duty and Army Reserve units will achieve a sufficient level of combat readiness within six to eight months of their arrival at home station. The Army National Guard will take longer to achieve the desired level of readiness. The goal for these units is to reestablish pre-deployment readiness within one year. Our Army also will take advantage of reset as an opportunity to reorganize units into modular designs that are more responsive to regional Combatant Commanders' needs; that better employ joint capabilities; that reduce deployment time; and that fight as self-contained units in non-linear, non-contiguous battlespaces. This effort began with the 3rd Infantry Division and will soon be expanded to include the 101st Airborne Division (Air Assault).

In addition to investing in new equipment to replace items that were destroyed or worn out during combat and stability operations, the reset program will repair major items used in OIF and OEF. Repair requirements have been determined for all OIF1 units and the workload for this comprehensive effort is immense: about 1,000 aviation systems; 124,400 communications and electronics systems;

5,700 combat/tracked vehicles; 45,700 wheeled vehicles; 1,400 missile systems; nine Patriot battalions; and approximately 232,200 items from various other systems. This effort represents a significant expansion of normal maintenance activities, requiring the increased use of CONUS and OCONUS based depot, installation and commercial repair facilities.

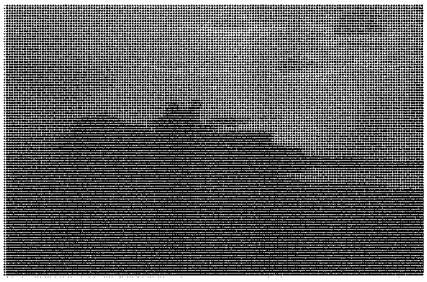
Reconfiguring existing Army pre-positioned stocks for global coverage of potential missions is a major component of the reset process. The intent is for each stock to have sufficient combat power to meet the immediate threat, as well as enough materials to render relief in other contingencies.

Congressional support, in the form of supplemental appropriations, has been invaluable in beginning the reset effort. Our readiness depends directly on the successful execution of the reset program, and it will remain an ongoing priority for the foreseeable future. Continued resourcing will be needed to ensure that our Army can fight the current war and posture itself for future missions.

Transformation: Moving From the Current to the Future Force

The goals of Army Transformation are to provide relevant and ready forces that are organized, trained and equipped for full-spectrum joint, interagency and multi-national operations and to support Future Force development. Army Transformation occurs within the larger context of changes to the entire U.S. military. To support our Army staff in the execution of transformation, the Army leadership directed the establishment of an Army Training and Doctrine Command (TRADOC) Futures Center, operational as of October 2003.

Our Current Force is organized, trained and equipped to conduct operations as part of the Joint Force. It provides the requisite decisive land power capabilities that the Joint Force commander needs across the range of military



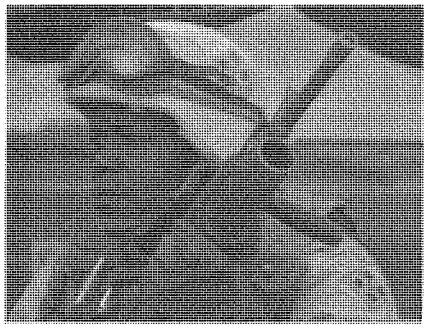
operations: support to civil authorities at home and abroad; expeditionary forces; the ability to reassure friends, allies and multinational partners; dissuading and deterring adversaries; decisively defeating adversaries should deterrence fail; and winning the peace as part of an integrated, inter-agency, post-conflict effort.

Our Future Force is the operational force the Army continuously seeks to become. Informed by National Security and Department of Defense guidance, it is a strategically responsive, networked, precision capabilities-based maneuver force that is dominant across the range of military operations envisioned for the future global security environment.

As our Army develops the Future Force, it simultaneously is accelerating select future doctrine, organization, training, materiel, leadership, personnel, and facilities (DOTMLPF) capabilities into our Current Force. This process will be fundamental to our success in enhancing the relevance and readiness of our Army and prosecuting the Global War on Terrorism. Similarly, the operational experience of our Current Force directly informs the pursuit of Future Force capabilities.

Balancing Current and Future Readiness

Balancing risk between current and future readiness remains a critical part of our Army's



transformation process and one that requires continual assessment to ensure that plans and programs are aligned with overall requirements. Without question, the issue of current operational readiness is our Army's highest priority. During the past several years, our Army made a conscious decision to accept a reasonable degree of risk to the readiness of our Current Force in order to permit investment in capabilities for our Future Force. This risk came in the form of reductions in and limitations to modernization and recapitalization programs. As part of the past four budget submissions, our Army made difficult choices to cancel and restructure programs, shifting resources to the development of transformational capabilities. Some of these investments have already produced results: for example, the new Stryker Brigade Combat Team formations now being fielded, the first of which is currently deployed on the battlefield in Iraq. Others are helping to develop emerging technologies and capabilities that will be applied to our force throughout the coming decade.

Besides the ongoing efforts related to equipping the Current Force, our Army also has begun other major initiatives that will improve our readiness and relevance in the future. These include an effort to realign Active and Reserve Component units and capabilities, in order to make our Army more readily deployable and available to Joint Force Commanders; homebasing and Unit Focused Stability, which will improve readiness and reduce personnel turbulence; and the reorganization of Army units into more modular and capability-based organizations.

While the previous decisions to accept reasonable risk in our Current Force were considered prudent at the time, the strategic and operational environment has significantly changed in light of the large-scale engagement of Army forces in Operation Iraqi Freedom and other expeditionary operations. Ever-changing demands on our force, coupled with our commitment to mitigating risk to our Soldiers, have necessitated re-examination and transformation of our Army's resource process and business practices (see Addendum H at www.Army.mil).

Making the Resource Process More Responsive

The resource process is our Army's center of gravity. Without the right people, the proper equipment, top-notch installations and adequate dollars to support all appropriately, our Army would not be able to fulfill its duty to our Nation.

In order to to maintain our premier warfighting capability, Army resource processes must be flexible, dynamic, transparent and responsive to both our requirements and those of the Joint Force. This is especially true in today's environment. We are at war against conventional and unconventional enemies, and simultaneously pursuing transformation. Our resource process must be transformed to allow us to keep pace with changes brought on by the enemy. Though we anticipate the battle against terrorism will last for years, possibly decades, we cannot program and budget in advance for that war. Our Army obviously cannot ignore our country's current security needs, yet it would be equally imprudent to deviate from the de-

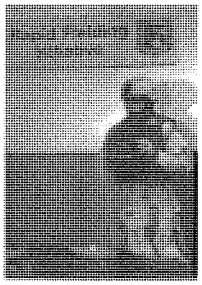
velopment and fielding of our Future Force. Balancing these requirements will be one of our toughest tasks.

The GWOT requires a host of radical paradigm shifts in the way we view the face and nature of our global operating environment, as well as in the way that we conduct operations. Responsible yet creative stewardship of our resources will remain absolutely necessary. Internal controls must be tightened and waste eliminated; outsourcing non-core functions is still an important option. Risk will continue to be a factor and our resourcing decisions must take this into account.

We must transform our resource processes and adjust our priorities to meet the challenge of the current strategic environment. Because we cannot mass-produce a volunteer Army, the retention of the right volunteer force is an imperative. This force is essential to the combat effectiveness of an increasingly complex and technologically sophisticated Army. We must refine and streamline the resource, acquisition, and fielding processes for equipment and supplies as we cannot make up for lost time in a crisis.

Accelerated Acquisition and Fielding

We have adapted and continue to improve our acquisition and fielding processes. In 2002, as Soldiers reported equipment shortages in Afghanistan and elsewhere, we implemented the Rapid Fielding Initiative (RFI) to ensure that all of our troops deploy with the latest available equipment. Equipment fielding schedules were revised to support unit rotation plans, and procurement and fielding cycles were radically compressed.



In coordination with field commanders and our Soldiers, a list of more than 40 mission-essential items, including the Advanced Combat Helmet, close-combat optics, Global Positioning System receivers, Soldier intercoms and hydration systems, was identified for rapid fielding. Laying the foundation for acquisition transformation, RFI already has equipped nine brigade combat teams (BCTs). In FY04, RFI will upgrade a minimum of 15 BCTs and eight enhanced

Separate Brigades, serving in OIF and OEF. Additionally, we are accelerating fielding of select future capabilities to our Current Force. These items include thermal weapon sights, enhanced night vision goggles, improved body armor, the Future Combat Rifle, and a new sniper rifle. Congressional support for regular budget and supplemental spending requests enables our Army to put this improved equipment in the hands of our Soldiers.

With this support, our Army also has instituted a Rapid Equipping Force (REF) that works directly with operational commanders to find solutions to operational requirements. These solutions may be off-the-shelf or near-term developmental items that can be made quickly available. For example, the REF established a coordinated effort to supply U.S. Forces with immediate solutions to counter improvised explosive device (IED) threats. Currently, IED teams are on location providing expertise and material solutions, to safeguard our Soldiers. We are acting aggressively to improve the armor protection of our armored and light-skinned vehicles. Other recent examples of REF products are the Well-Cam and PackBots. The Well-Cam is a camera, attached to an Ethernet cable and a laptop, that enabled Soldiers in Afghanistan to search wells for weapons caches. PackBots are operational robots used to clear caves, buildings, and compounds so Soldiers are not unnecessarily put in harm's way.

RFI and REF provide timely support to our relevant and ready forces and to the Combatant Commanders, and facilitate Army Transformation.

Balancing Our Active and Reserve Component Force Structure

Currently, neither our Active nor Reserve Component is optimized for today's rapid deployability requirements. We will continue ongoing efforts to restructure our forces in order to mitigate stress; to align better with the current and projected security environments; and to offer campaign-quality land power capabilities to the Combatant Commanders. By doing so, we will ensure that our Army provides the responsiveness and depth required to achieve strategic and operational objectives, while simultaneously defending our homeland.

Our Army is restructuring and rebalancing more than 100,000 positions in our Active and Reserve Component force structure. These conversions increase the Active Component capabilities available to support the first 30 days of a rapid response operation. In response to Secretary of Defense guidance, we have already completed approximately 10,000 positions. For example, the Army National Guard provisionally organized 18 additional military police (MP) companies. Between FY04 and FY09, our Army will divest approximately 19,500 positions of less frequently used Active and Reserve Component force structure to further resource critical high demand units such as military police, civil affairs, and special operations forces. We project that future rebalancing efforts will convert an additional 80,000 positions of lower-priority force structure. Despite these changes, our Army will remain strained to meet antici-

pated requirements. To ensure that our Army can fulfill its commitment to our Nation, we should have the force capability level required to facilitate rebalancing, resetting, restructuring, and transforming of the Army.

Military-to-civilian conversions are another way to improve manpower efficiency. More military personnel will fill the operational force if they are moved out of positions that can be prudently performed by civilians. To improve the Army's ability to better support worldwide commitments, it is essential to start this process now.

Our Reserve Component relies heavily on Full-Time-Support (FTS) personnel to sustain support of current contingencies while restructuring the force. FTS personnel perform the vital, day-to-day organizational, administrative, training and maintenance activities that ensure the highest level of Soldier and unit readiness. To guarantee that our Army's Reserve Component will continue to fulfill ever-increasing demands with trained and ready units, our Army plans to raise FTS authorizations by 15 percent, from the current level of 71,928 to 85,840, by FY12. In 2003, the Army Reserve began implementation of the Federal Reserve Restructuring Initiative. The goal is to better meet contingency requirements and to improve unit readiness.

Achieving Greater Combat Capability with Modular, Capabilities-based Unit Designs

Modular units are interchangeable, scalable, and tailorable formations, which provide the Joint Force Commander with a strategically responsive force that greatly increases his ability to defeat any adversary. Modularity enables us to tailor our capabilities to the requirements of the situation and delivered at the right time and the right place. Modularity permits the Combatant Commander to optimize his warfighting tool set.

Moving toward independent, echelon-above-brigade headquarters will enhance modularity. In accordance with our Unit of Employment (UE) construct, a UE will provide the command-and-control structure into which modular, capabilities-based Units of Action (UA) are organized to meet Combatant Commander requirements. These UAs will incorporate essential maintenance, intelligence, and communications functions previously provided by higher level organizations. Our UE headquarters, while able to accept joint capabilities such as a Standing Joint Force Headquarters element, will have an organic capability, depending on the contingency, to function as a Joint Task Force or Joint Force Land Component Command headquarters like we have already done in Afghanistan and Iraq.

Force Stabilization

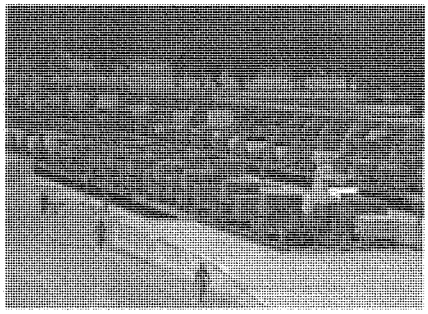
The great demands placed on our Army have forced us to re-examine many of our long-standing personnel and basing practices. As a result, our Army is transitioning to an improved manning system, designed to augment unit readiness by increasing stability and predictability for commanders, Soldiers and families. Force Stabilization will allow Reserve Component Soldiers to plan for their deployments while supporting their civilian jobs and their

community commitments. It places greater emphasis on building and sustaining cohesive, deployable, combat-ready forces for Combatant Commanders.

The home-basing initiative keeps our Soldiers in their assignments at specific installations longer, thus reducing unit turbulence and increasing unit cohesion. Unit Focused Stability synchronizes our Soldiers' assignments to their units' operational cycle, providing a more capable, deployable and prepared unit.

Installations as Our Flagships

Our installations are an essential component in maintaining the premier Army in the world. For the warfighter, installations are the platforms from which we project military power. Our installations perform the following key missions: 1) provide effective training facilities; 2) rapidly



mobilize and deploy the force; 3) provide reach-back capabilities; 4) sustain and reconstitute the force; and 5) care for our families. As power projection platforms, our installations must be equipped with a robust information infrastructure that gives the deployed commander quick and efficient reach-back capabilities. All of these missions help to maintain our Army's deployability and fighting edge.

Historically, we have accepted risk in our infrastructure and installation services in order to maintain our current readiness. The cumulative effect on our installations is that commanders rate more than 50 percent of our facilities as "adversely affecting mission and training requirements." We have adjusted our management processes to be more effective stewards of our resources. In 2002, we established the Installation Management Agency (IMA) to create a corporate-focused structure that provides efficient installation management worldwide. The IMA uses creative management programs to sustain quality installations and maintain the well-being of the entire Army family.

The Installation Information Infrastructure Modernization Program (I3MP) enhances the installation's role in power projection and provides the architecture to address the essential reach-back requirement. Additionally, our Installation Sustainability Plan addresses ways to fulfill environmental requirements without impacting current or future training. Other important progress include modernization of barracks and housing; a Residential Communities Initiative; and divestiture of redundant facilities infrastructure and non-core utility systems through privatization.

In the past few years, the administration and Congress have helped us to begin addressing our infrastructure challenges. We received 94 percent of funding required for installations in FY04. We have made progress in improving our installations by adjusting existing programs and developing new management strategies. However, there is much still left to do in order to upgrade our installations to better support the mission, Soldiers, and our families.

Army Families and Well Being

People are the heart and soul of the Army – Soldiers, civilians, family members, and retirees. Our readiness is inextricably linked to the well being of our people. The Army Family, for both the Active and Reserve Component, is a

force multiplier and provides the foundation to sustain our warrior culture. We have placed significant emphasis on our Reserve Component this year in recognition of their contributions to the Global War on Terrorism. With the help of the administration and Congress, many improvements have been made including the retention and increase of Imminent Danger Pay, Family Separation Allowance, and a sizable pay raise. Other key well-being initiatives include the Spousal Employment Partnership, new TRICARE policies for the reserve components, and improvements in barracks and family housing. For more information on other Army well-being initiatives, see Addendum D (available at www.Army.mil)

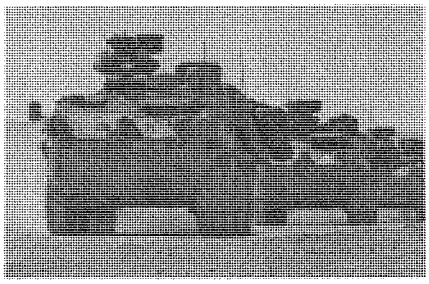
Introducing New Capabilities into Current Force

While at war, the urgency to accelerate the development and fielding of new and enhanced capabilities to our fighting forces in the field has never been greater. Our Army is making significant strides in this regard with the employment of a new brigade combat team organization, equipped with the latest available technology, to provide the Combatant Commander with enhanced warfighting capabilities. The rapid fielding of the Stryker vehicle demonstrates our Army's ability to use the acquisition and resource processes to meet a Combatant Commander's urgent needs.

Stryker Brigade Combat Team (SBCT)

In 2003, our Army deployed our first SBCT, the 3rd Brigade, 2nd Infantry Division, to Operation Iraqi Freedom, delivering its enhanced capability to the Joint Force in record time: four years from broad concept to deployment. Exceptional support from Congress and the Office of the Secretary of Defense, along with close collaboration between the Army and industry, made this achievement possible.

Stryker brigades are our Army's first truly network-centric force, filling the capability gap between light- and heavy-force units with an infantry-rich, mobile force that is strategically responsive, tactically agile, and more lethal. Improved battlespace awareness and battle-command technologies embedded in



our SBCTs enhance combat effectiveness and survivability by integrating data from manned and unmanned air and ground-based sensors and providing real-time, continuous situational understanding. Planned enhancements will incorporate still-developing technologies. Significantly, our SBCTs will improve our Army's understanding of Future Force processes, helping us to formulate an advanced warfighting doctrine that will serve as an important bridge

to the development of our Unit of Action, the structural foundation of our Future Force.

This spring, our second SBCT at Fort Lewis, Washington, will become operational. Our third SBCT, in Alaska, will be available in 2005. Continued OSD and congressional support will ensure that subsequent brigades in Hawaii, Louisiana, and Pennsylvania, are fielded between 2004 and 2008.

FUTURE CAPABILITIES

Our Army plans to field a number of systems this decade that will provide a foundation for informing the transformation of our Current Force capabilities into those needed by our Future Force. Once fielded, these systems will perform as interdependent systems of systems and will greatly enhance joint warfighting capabilities. Our future capabilities programs are designed to enhance the campaign-quality land-power capabilities that we provide to the Combatant Commanders. Our programs undergo continuous reviews to ensure they meet the capability requirements of the Joint Force. When required, we restructure programs, revise requirements and reprogram resources. The following are just a few of the key transformational systems our Army will begin to field during the next six years:

The Network. Our Future Force situational dominance will depend upon a comprehensive, ubiquitous, and joint-interoperable Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) architecture (the Network) that enables the Joint Force Commander to conduct fully interdependent and network-centric warfare. The Network will provide the backbone of our Future Force and the future Joint Force, enabling the maneuver commander to effectively coordinate battlefield effects. Some of the more important systems within our Network include:

- **Warfighter Information Network - Tactical (WIN-T).** WIN-T will be the communications network of our Future Force, optimized for

offensive and joint operations, while providing the Combatant Commander the capability to perform multiple missions simultaneously.

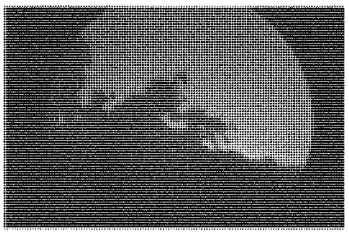
- **Joint Tactical Radio System (JTRS).** JTRS is a family of common, software-defined, programmable radios that will become our Army's primary tactical radio for mobile communications.
- **Distributed Common Ground System – Army (DCGS-A).** DCGS-A is a single, integrated, ground-based, ISR processing system composed of joint, common hardware and software components and is part of the DOD DCGS family of systems.
- **Aerial Common Sensor (ACS).** This ISR system and platform will use robust sensor-to-shooter and reach links, (such as DCGS-A ground stations), to provide commanders at every echelon the tailored, multi-sensor intelligence required for joint operations.

Future Combat Systems (FCS). By extending the network capabilities into the Unit of Action, the FCS provide a system of systems capability

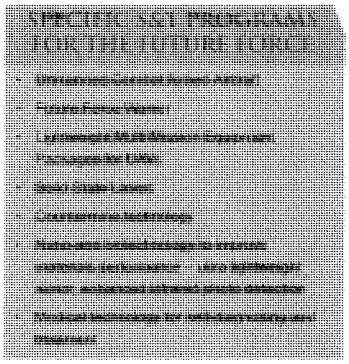
that was not previously available to Soldiers and commanders in joint operations. The core of our Future Force's maneuver Unit of Action is the Future Combat Systems, comprised of 18 manned and unmanned platforms that are centered around the Soldier and integrated within a C4ISR network. FCS will provide our Soldiers greatly enhanced situational awareness, enabling them to see first, understand first, act first and finish decisively. Our FCS platforms will offer the Joint Force networked, lethal direct fire; indirect fire; air defense; complementary non-lethal fires and effects; and troop transport capability. In May 2003, FCS moved, on schedule, into the System Development and Demonstration phase. Our Army is aggressively managing our FCS development effort and intends to achieve initial operational capability by the end of the decade.

Army Science and Technology

The Army Science and Technology (S&T) Program provides our Army superiority in both human and materiel systems arenas—preventing technological surprise. The Army S&T program retains a dynamic portfolio of investments that are responsive to warfighter needs



today and into the future. The priority for Army S&T is to pursue paradigm-shifting technologies that can alter the nature of the military competition to our advantage in the future and, where feasible, to exploit opportunities to ac-

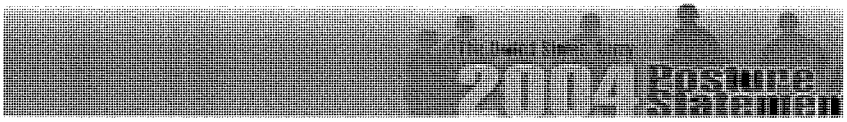


celerate the transition of proven technologies to our Current Force.

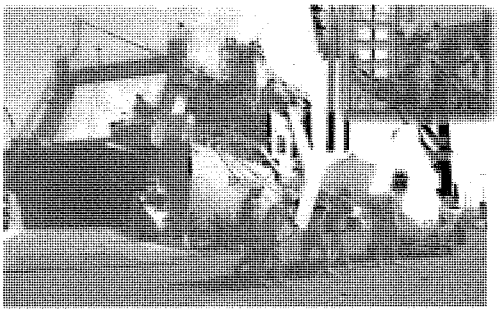
The Army S&T program exploits technology developments from the other services, defense agencies and commercial industry as well as international communities. The S&T program focuses on technology relevant to our Army and joint capabilities. It synchronizes operational concepts development and acquisition programs through transformational business practices that speed technology fielding to the Soldier. The Army's S&T program is balanced to satisfy the high payoff needs of the future force while seeking rapid transitions for critical capabilities to our Current Force.

Joint Operational Concepts (JOpsC)

The Joint Force has transitioned from independent, de-conflicted operations to sustained interoperability. It must now shift rapidly to joint interdependence. To that end, we are reviewing training requirements, traditional relationships and developmental and institutional programs. This process includes ensuring that our operational concepts are nested inside those employed by the Joint Force. The con-

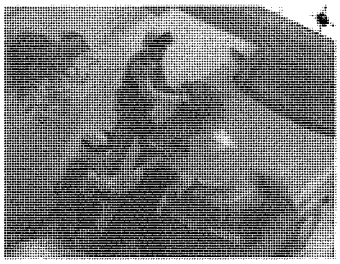


cepts and initiatives listed below discuss particular Army emphasis areas; these areas are not all-inclusive. Functional concepts and other Army initiatives that support the JOpsC are discussed in detail in Addendum K (available at www.Army.mil).



ACTIONABLE INTELLIGENCE

Our Army also is focused on attaining actionable intelligence — intelligence that provides situational understanding to commanders and Soldiers with the speed, accuracy and confidence necessary to influence favorably current and future operations. Actionable intelligence achieves its intended purpose of empowering greater individual initiative and self-synchronization among tactical units by fusing information across organizations and echelons -- accelerating the speed of decision-making and the agility of operations.



FOCUSED LOGISTICS

Our Army's current actions around the world in support of the Global War on Terrorism present a view of future military operations and provide valuable insights as we transform our logistics systems from the Current to the Future Force. The successes enjoyed during OIF were the result of the integrated logistics team of Soldiers, civilians and contractors, all of whom developed innovative solutions to a range of challenges caused by four major capability gaps in the current logistics system. To sustain combat power, our Army must have the ability to "see the requirements" on-demand through a logistics data network. We require a responsive distribution system, enabled by in-transit and total-asset visibility and managed by a single owner who has positive end-to-end control in the theater. Our Army needs a robust, modular, force-reception capability — a dedicated and trained organization able to quickly open a theater and support continuous sustainment throughout the joint operations area. Lastly, we need an integrated supply chain that has a single proponent, who can reach across the breadth and depth of resources in a joint, interagency and multinational theater. As we move from the Current Force to the Future Force, we will build confidence in the minds of the Combatant Commanders by delivering sustainment on time, every time.

A COMMITMENT TO OUR NATION

Our Nation and our Army are engaged in a Global War on Terrorism -- a war of survival against an insidious and cruel enemy that threatens our civilization and our way of life. This enemy is actively targeting the interests of America and our allies, both within our own country and abroad.

Defeating this enemy requires the continued, strong support of our Nation. The steadfastness of our Nation in this effort is readily apparent. Ordinary Americans are doing their part and will continue to do so. Congressional support for our troops has been critical to our success. The industrial base also has responded, accelerating production of items essential to our Soldiers' protection and warfighting ability.

Our Army, too, remains committed to its heritage of preserving freedom. American Soldiers display unrelenting tenacity, steadfast purpose, quiet confidence and selfless heroism. For America to survive and flourish throughout the 21st Century, our Army must defeat decisively the threats that challenge us today. To accomplish this essential task, we must recognize some important truths.

- The fight against terror will be a long one
- Our Army must simultaneously deter aggression, defeat the forces of international terrorism, and maintain our campaign capabilities
- We must continue to modernize to meet the challenges of our future
- Our operational tempo is high and will remain so
- Sustained operations and deployments will be the norm for our Soldiers -- NOT the exception
- Old rules and operational methods may no longer apply; we will not achieve victory with a business-as-usual approach

Congressional backing for reset, our continued transformation to the Future Force, our rebalancing and restructuring of the Active and Reserve Component, and improvements to our installation infrastructure is essential to continued mission readiness. We fully appreciate the exceptional support Members and their staffs provided this past year. The support of the American people and their elected representatives in the United States Congress is essential.

Our Army's commitment to the future is certain. We will continue to provide our Nation, the President, the Secretary of Defense and the Combatant Commanders a unique set of core competencies and capabilities. We remain dedicated to training and equipping our Soldiers and growing leaders. We will continue to deliver relevant and ready land power to the Combatant Commanders and the Joint Force. We will protect our country and our way of life [illegible] our privilege, our [illegible]

ADDENDUM

(DATA REQUIRED BY NDAA 1994)

Sections 517 and 521 of the National Defense Authorization Act (NDAA) for FY1994 require the information in this addendum. Section 517 requires a report relating to the implementation of the Pilot Program for Active Component Support of the Reserves, which was started under Section 414 of the NDAA for Fiscal Years 1992 and 1993. Section 521 requires a detailed presentation concerning the Army National Guard, including information relating to the implementation of the Army National Guard Combat Readiness Reform Act of 1992 (title XI of Public Law 102-484, and referred in the addendum as 'ANGCRRA'). Section 521 reporting was later amended by Section 704, FY 1996 NDAA. U.S. Army Reserve information is also presented using Section 521 reporting criteria.

Section 517 (b)(2)(A). The promotion rate for officers considered for promotion from within the promotion zone who are serving as active-component advisors to units of the Selected Reserve of the Ready Reserve (in accordance with that program); compared to the promotion rate for other officers considered for promotion from within the promotion zone in the same pay grade and the same competitive category, shown for all officers of the Army.

	AC	Army
Fiscal Year 2002 (percent)		
Major	[illegible]	[illegible]
Lieutenant Colonel	63.5	74.5
Fiscal Year 2003 (percent)		
Major	87.4	95.0
Lieutenant Colonel	[illegible]	[illegible]

*Active component officers serving in reserve component assignments at time of consideration.

**Active component officers not serving in reserve component assignments at the time of consideration.

Section 517 (b)(2)(B). The promotion rate for officers considered for promotion from below the promotion zone who are serving as active-component advisors to units of the Selected Reserve of the Ready Reserve (in accordance with that program) compared in the same manner as specified in subparagraph (A) (the paragraph above).

	AC	Army
Fiscal Year 2002 (percent)		
Major	[illegible]	[illegible]
Lieutenant Colonel	[illegible]	[illegible]
Fiscal Year 2003 (percent)		
Major	[illegible]	[illegible]
Lieutenant Colonel	[illegible]	[illegible]

*** Below-the-zone, active-component officers serving in reserve component assignments at time of consideration.

***** Below-the-zone, active-component officers not serving in reserve component assignments at the time of consideration.

Section 521(b).

1. The number and percentage of officers with at least two years of active-duty before becoming a member of the Army National

Guard or U.S. Army Reserve Selected Reserve units.

a. Army National Guard (ARNG) officers: 21,042 or 57.1 percent.

b. U.S. Army Reserve (USAR) officers: 9,986 or 24.78 percent.

2. The number and percentage of enlisted personnel with at least two years of active duty before becoming a member of the Army National Guard or U.S. Army Reserve Selected Reserve units.

   a. ARNG enlisted: 137,428 or 43.7 percent.

   b. USAR enlisted: 35,261 or 20.55 percent.

3. The number of officers who are graduates of one of the service academies and were released from active duty before completion of their active-duty service obligation. Of those officers:

   a. The number who are serving the remaining period of their active-duty service obligation as a member of the Selected Reserve pursuant to section 1112(a)(1) of ANGCRRA:

      - In FY03, no officers were released to the Selected Reserve to complete their obligation.

   b. The number for whom waivers were granted by the Secretary under section 1112(a)(2) of ANGCRRA, together with the reason for each waiver:

      - In FY03, no waivers were granted by the Secretary of the Army.

4. The number of officers who were commissioned as distinguished Reserve Officers' Training Corps graduates and were released from active duty before the completion of their active-duty service obligation:

   - In FY03, no distinguished ROTC graduates were released before completing their active-duty service obligation.

   a. The number who are serving the remaining period of their active-duty service obligation as a member of the Selected Reserve pursuant to section 1112(a)(1) of ANGCRRA:

      - In FY03, no waivers for distinguished ROTC graduates were granted.

   b. The number for whom waivers were granted by the Secretary under section 1112(a)(2) of ANGCRRA, together with the reason for each waiver:

      - In FY03, no waivers were granted by the Secretary of the Army.

5. The number of officers who are graduates of the Reserve Officers' Training Corps program and who are performing their minimum period of obligated service in accordance with section 1112(b) of ANGCRRA by a combination of (A) two years of active duty, and (B) such additional period of service as is necessary to complete the remainder of such obligation served in the National Guard and, of those officers, the number for whom permission to perform their minimum period of obligated service in accordance with that section was granted during the preceding fiscal year; (and the number of officers who are graduates of the Reserve Officers' Training Corps program and who are performing their minimum period of obligated service in accordance with section 1112(b) of ANGCRRA by a combination of (A) two years of active duty, and (B) such additional period of service as is necessary to complete the remainder of such obligation served in the U.S. Army Reserve and, of those officers, the number for whom permission to perform their minimum period of obligated service in accordance with that section was granted during the preceding fiscal year).

   - In FY03, a total of four ROTC graduates were released early from their active-duty obligation. Of this number, three are completing the remainder of their obligation through service in the Army

National Guard, and one officer through service in the U.S. Army Reserve.

6. The number of officers for whom recommendations were made during the preceding fiscal year for a unit vacancy promotion to a grade above first lieutenant and, of those recommendations, the number and percentage that were concurred in by an active duty officer under section 1113(a) of ANGCRRA, shown separately for each of the three categories of officers set forth in section 1113(b) of ANGCRRA (with U.S. Army Reserve data also reported).

   a. 96 USAR officers from units were recommended for unit vacancy promotion; 59 were favorably considered.

   b. 1,797 ARNG officers from units were recommended for unit vacancy promotion and promoted.

7. The number of waivers during the preceding fiscal year under section 1114(a) of ANGCRRA of any standard prescribed by the Secretary establishing a military education requirement for noncommissioned officers and the reason for each such waiver.

   - In FY03, no waivers were granted by the Secretary of the Army.

8. The number and distribution by grade, shown for each state, of personnel in the initial entry training and the non-deployable personnel accounting category established under section 1115 of ANGCRRA for members of the Army National Guard who have not completed the minimum training required for deployment or who are otherwise not available for deployment. (A narrative summary of information pertaining to the U.S. Army Reserve is also provided.)

   a. In FY03, the number of ARNG non-deployable personnel was: 42,276. The National Guard Bureau (NGB) maintains the detailed information.

   b. In FY03, the total number of personnel in the Initial Entry Training (IET) and non-deployable category for the Army Reserve who have not completed the minimum training required for deployment was 16,446 (15,489 enlisted and 957 officers). This number includes 957 officers who had not completed the Officer Basic Course; 11,600 enlisted personnel who had not completed Advance Individual Training (AIT); and 3,889 enlisted who had a reservation and were scheduled to ship (grade was not a category in ship database). The Army Reserve makes a substantial investment in training, time, equipment and related expenses when people enter military service. Separation before completion of an obligated period of service is wasteful because it results in loss of this investment and generates a requirement for increased accessions. Consequently, attrition is an issue of significant concern at all levels of responsibility within the Army Reserve. The Army Reserve identifies Soldiers exhibiting the propensity for early separation and provides counseling, retraining and rehabilitation in an attempt to retain a qualified and trained force. Non Prior Service (NPS) enlistees in Army Reserve units normally are ordered to Initial Active Duty Training (IADT) within 270 days of enlistment. Non Prior Service direct enlistees in the Individual Ready Reserve (IRR) must enter IADT within 180 days of their enlistment date. Non Prior Service enlistees may be authorized an additional period of delay to reporting for duty as provided in AR 601-25, paragraph 3-4. In accordance with DA Pam 611-21, Army Reserve unit commanders determine alternate MOSs for qualified enlisted Soldiers incapable of completing initial training. An enlisted soldier who cannot satisfactorily complete the MOS

training for which he was selected will be required to accept training to qualify for an alternate MOS as determined by the Army Reserve unit commander (DA Pam 611-21).

(The tracking of new Soldiers who have not completed training is done by the use of the training-pay category codes. All Soldiers who are awaiting shipment to their Initial Active Duty for Training (IADT) are listed as Pay Category P. Those Soldiers who have completed IADT, returned and are waiting to attend Advanced Individual Training are coded as Pay Category Q. Those Soldiers attending training are carried in Pay Category F while at school. Those Soldiers who are not deployable for reasons other than lack of IET are listed on the personnel databases with a code indicating the reasons for their non-deployable status.)

9. The number of members of the Army National Guard, shown for each state, that were discharged during the previous fiscal year pursuant to section 1115(c)(1) of ANGCRRA for not completing the minimum training required for deployment within 24 months after entering the National Guard. (A narrative summarizing procedures followed for discharging members of the USAR who have not completed the minimum training required for deployment within 24 months of entering the USAR also is provided.)

   a. The number of ARNG Soldiers discharged during the previous fiscal year pursuant to section 11115(c)(1) of ARNGCRRA for not completing the minimum training required for deployment within 24 months after entering the ARNG is 32 Officers and 9,444 enlisted, which includes all 54 states and territories. The breakdown by each state is maintained by NGB.

   b. Those soldiers who have not completed the required Initial Entry Training (IET) within the first 24 months are discharged from the Army Reserve under AR 135-178, Separation of Enlisted Personnel. Before discharge, every means available is used to ensure the Soldier has had the opportunity to be trained. In some cases, the Soldier was unable to attend the required scheduled training through no fault of his own, and therefore would be given another opportunity to complete his training (e.g., temporary medical condition, death of an immediate family member, failure to complete high school and requiring an additional semester of summer school). In FY04, the Army Reserve will begin implementation of a Delayed Entry Program (DEP). The purpose of the DEP is to allow the U.S. Army Recruiting Command (USAREC) to have complete ownership of new enlistees until they report to the Military Entrance Processing Station (MEPS) for their Initial Active Duty for Training (IADT). This has changed USAREC's mission from solely a contract mission to a contract and ship mission. DEP enlistees do not become members of Troop Program Units, nor are they counted within Army Reserve end strength, until they report to the MEPS to ship for their IADT. If the DEP enlistee is discharged at any time within the DEP, the recruiter is required to recruit a new enlistee to replace the one discharged.

10. The number of waivers, shown for each state, that were granted by the Secretary during the previous fiscal year under section 1115(c)(2) of ANGCRRA of the requirement in section 1115(c)(1) of ANGCRRA described in paragraph (9), together with the reason for each waiver.

    - In FY03, no waivers were granted by the Secretary of the Army.

11. The number of Army National Guard members, shown for each state, (and the number of U.S Army Reserve members), who were screened during the preceding fiscal year

to determine whether they meet minimum physical profile standards required for deployment and, of those members: (A) the number and percentage who did not meet minimum physical profile standards required for deployment; and (B) the number and percentage who were transferred pursuant to section 1116 of ANGCRRA to the personnel accounting category described in paragraph (8).

a. Screened during the preceding fiscal year to determine whether they meet minimum physical profile standards required for deployment:

- In FY03, approximately 78,791 ARNG Soldiers underwent a physical. Of these personnel, 3,076, or 3.9 percent, did not meet the minimum physical profile standards required for deployment.
- In FY03, approximately 33,145 USAR Soldiers underwent a retention physical. Of these, 7,405 were identified for review due to a profile-limiting condition or failure to meet retention standards.

b. The number and percentage that were transferred pursuant to section 1116 of ANGCRRA to the personnel accounting category described in paragraph (8).

- In FY03, 823 members of the ARNG were transferred from a deployable to a non-deployable status.

12. The number of members, and the percentage of the total membership, of the Army National Guard, shown for each state, who underwent a medical screening during the previous fiscal year as provided in section 1117 of ANGCRRA.

- Public Law 104-106 (NDAA 1996), Div A, Title VII, Section 704 (b), Feb 10, 1996, repealed Section 1117 of ANGCRRA.

13. The number of members, and the percentage of the total membership, of the Army National Guard, shown for each state, who underwent a dental screening during the previous fiscal year as provided in section 1117 of ANGCRRA.

- Public Law 104-106 (NDAA 1996), Div A, Title VII, Section 704 (b), Feb 10, 1996, repealed Section 1117 of ANGCRRA.

14. The number of members, and the percentage of the total membership, of the Army National Guard, shown for each state, over the age of 40 who underwent a full physical examination during the previous fiscal year for purposes of section 1117 of ANGCRRA.

- Public Law 104-106 (NDAA 1996), Div A, Title VII, Section 704 (b), Feb 10, 1996, repealed Section 1117 of ANGCRRA.

15. The number of units of the Army National Guard that are scheduled for early deployment in the event of a mobilization and, of those units, the number that are dentally ready for deployment in accordance with section 1118 of ANGCRRA.

- Public Law 104-106 (NDAA 1996), Div A, Title VII, Section 704 (b), Feb 10, 1996, repealed Section 1118 of ANGCRRA.

16. The estimated post-mobilization training time for each Army National Guard combat unit (and U.S. Army Reserve FSP unit), and a description, displayed in broad categories and by state, of what training would need to be accomplished for Army National Guard combat units (and U.S. Army Reserve FSP units) in a post-mobilization period for purposes of section 1119 of ANGCRRA.

a. Estimated time for post-mobilization training is reported through the Unit Status Report, is classified, and is maintained by the Department of the Army, G-3, Force Readiness Division.

b. Information on the type of training required by units during post- mobilization is maintained by the Continental United States Armies (CONUSAs).

c. Post-mobilization training for enhanced Separate Brigades (eSB) can be categorized as maneuver, attack, defend, command and control, gunnery, NBC defense and sustainment.

d. Post-mobilization training for FSP units is principally common-task testing, NBC defense, force protection, sustainment, command and control, weapons qualification and tactical communications training. Virtually all units also require branch-specific technical training to meet deployment standards. Five additional days are required to conduct convoy lane training (includes live-fire and immediate-action drill training).

17. A description of the measures taken during the preceding fiscal year to comply with the requirement in section 1120 of ANGCRRA to expand the use of simulations, simulators, and advanced training devices and technologies for members and units of the Army National Guard (and the U.S. Army Reserve).

The Army National Guard (ARNG) made significant progress in the use of Training Aids, Devices, Simulators and Simulations (TADSS) during the preceding fiscal year. ARNG teamed with the Training and Doctrine Command's Systems Manager Combined Arms Tactical Trainer in developing a Maneuver Gated Training Strategy that incorporates the use of maneuver simulators into training plans, increasing unit proficiency.

Currently, ARNG is fielding the Abrams Full-Crew Interactive Simulator Trainer (A-FIST XXI) to M1A1 Abrams units. The A-FIST XXI program is co-managed by the National Guard Bureau and the product manager (PM), Ground Combat Tactical Trainers within the Program Executive Office-Simulations, Training and Instrumentation (PEO-STRI). The system was approved by the Commanding General, United States Armor Center in March 2003 as a precision-gunnery trainer for the ARNG. A-FIST XXI allows Soldiers to train on their assigned combat vehicles at home station, virtually replicating the demanding doctrinal Tank Table Standards of a live range. The Advanced Bradley Full-Crew Interactive Simulation Trainer (AB-FIST) will complement the Abrams trainers. Following a rigorous Limited User Test by the Infantry School and the Army Research Institute, AB-FIST was approved in October 2003 by the Commanding General, United States Infantry School as a mobile training device that can be used for Bradley crew training, in addition to the Unit Conduct of Fire Trainer, to meet established live-fire prerequisites as outlined in DA PAM 350-38. In addition, ARNG is rehosting legacy Simulations Network (SIMNET) assets. The SIMNET Upgrades Program will augment SIMNET M1A1 and M2A2 modules with a new, PC-based visual system and host computer, a sound system,and input/output linkages. These modules will be collocated in tank and mechanized infantry platoon sets with upgraded after action review stations.

Janus Battle Staff Trainers are being updated to the Army's approved software solution. Hardware procurement that will support One Semi-Automated Forces (One-SAF) Future Combat System (FCS) fielding in a seamless manner is being planned and executed. The Engagement Skills Trainer (EST 2000) is the Army's approved collective marksmanship training device in FY04. It primarily is used to train and evaluate individual marksmanship for initial-entry Soldiers at the Army training centers. EST 2000 also is used to provide unit collective-gun-

nery and tactical training for dismounted infantry, special operations forces, scouts, engineers, military police squads, and combat support and combat service support elements. These systems also support units conducting the vital homeland-defense and airport-security missions assigned to the ARNG.

In addition to the EST 2000 collective marksmanship trainer, the ARNG developed and fielded the Laser Marksmanship Training System (LMTS) with the Beamhit Corporation. ARNG began fielding the LMTS in 2000. We currently have more than 700 systems fielded, down to the company level. LMTS is a laser-based training device that replicates the firing of the Soldier's weapon without live ammunition. Optimally, it is used to reduce the number of live rounds used during initial, remedial and sustainment training. LMTS is utilized for developing and sustaining marksmanship skills, diagnosing and correcting marksmanship problems, and assessing basic and advanced skills. In August 2003, the Vice Chief of Staff of the Army approved LMTS as an Army training device to be used by units as a component of their basic, rifle-marksmanship training program.

ARNG also has formed a unique partnership with PEO-STRI in the development, verification, validation and accreditation of systems and system upgrades. Through the ARNG Distributed Battle Simulation Program, civilian infrastructure commanders receive assistance from "graybeard" mentors, TADSS facilitators, and Janus Technical Team Exercise Support in the planning, preparation and execution of simulations-based training that augments the support provided by Training Support XXI Soldiers and greatly enhances unit proficiency and readiness.

A-7 The U.S. Army Reserve continues to focus on integrating simulators, simulators and TADSS into training plans. Army Reserve units participate in Corps Warfighter and Battle Command Staff Training exercises to enhance training readiness. The Reserve remains an active member of the Army's simulation community by contributing to the Live, Virtual, Constructive (LVC) Training Environment Periodic Review and the LVC Integration Concept Team. The Army Reserve continues to press PEO-STRI and the National Simulation Center regarding the development of combat support and combat service support functionality within the Army Constructive Training Federation to ensure training capabilities for the entire spectrum. The Army Reserve has also identified the need for greater digital equipment fielding for the reserve components. Current and Future forces need digital capability to train effectively in the contemporary operating environment (COE) and the Joint National Training Capability (JNTC) environment of Army capabilities. The Army Reserve continues to improve training capabilities with the Laser Marksmanship Training System (LMTS) to enhance Army Reserve Soldiers' ability to achieve and maintain marksmanship skills; the Reserve has directly supported the Infantry, Military Police and Transportation schools in the development of devices and simulator-based training, ranging from basic combat to advanced tactical marksmanship involving firing from moving vehicles. The Army Reserve has begun fielding the LMTS as well as the Engagement Skills Trainer 2000. The Army Reserve continues to investigate alternative training mechanisms to simulate urban terrain and potential terrorist activities, including the Virtual Emergency Response Training System (VERTS), which replicates the Fort Dix installation, an Army power projection platform. The Army Reserve continues to develop the Simulations Operations functional area assessment to

ensure that capabilities exist to support the DOD Training Transformation goal of integrated live, virtual and constructive training in a joint environment.

18. Summary tables of unit readiness, shown for each state, (and for the U.S. Army Reserve), and drawn from the unit readiness rating system as required by section 1121 of ANGCRRA, including the personnel readiness rating information and the equipment readiness assessment information required by that section, together with:

    a. Explanations of the information. Readiness tables are classified. This information is maintained by the Department of the Army, G-3.

    b. Based on the information shown in the tables, the Secretary's overall assessment of the deployability of units of the Army National Guard (and U.S. Army Reserve), including a discussion of personnel deficiencies and equipment shortfalls in accordance with such section 1121:

    - Summary tables and overall assessments are classified. Department of the Army, G-3, maintains this information.

19. Summary tables, shown for each state (and the U.S. Army Reserve), of the results of inspections of units of the Army National Guard (and Army Reserve) by inspectors general or other commissioned officers of the Regular Army under the provisions of section 105 of title 32, together with explanations of the information shown in the tables, and including display of:

    a. The number of such inspections;

    b. Identification of the entity conducting each inspection;

    c. The number of units inspected; and

    d. The overall results of such inspections, including the inspector's determination for each inspected unit of whether the unit met deployability standards and, for those units not meeting deployability standards, the reasons for such failure and the status of corrective actions. (For purposes of this report, data for Operational Readiness Evaluations will be provided on eSB and FSP units of the ARNG and for FSP units of the USAR. Training Assessment Model data will be provided to meet this reporting requirement for all other units of the ARNG and USAR. Data on ARNG units will be reported by State and on USAR units by RRC/DRU.)

    - During FY03, ARNG state inspectors general conducted approximately 586 extensive inspections throughout the United States, visiting 970 separate units. Because IG inspections focus on findings and recommendations, the units involved in these inspections were not provided with a pass/fail rating. Results of inspections conducted by inspectors general may be requested for release through The Inspector General of the Army. Operational Readiness Evaluation Data for FSP and eSBs is unavailable because these inspections were eliminated as requirements in 1997. Data available under the Training Assessment Model (TAM) relates to readiness levels and is generally not available in an unclassified format. TAM data is maintained at the state level and is available upon request from state training readiness officials.

    - In accordance with AR 1-201, the United States Army Reserve Command (USARC) conducts inspections of RRCs/DSUs within the USARC Organizational Inspection Program (OIP). USARC maintains the results of all OIPs. The OIP focuses on findings and recommendations and the units do not receive pass/fail ratings. During FY03,

six OIPs were scheduled, but only two were actually conducted. The four units not inspected were not available due to mobilizations. U.S. Army Forces Command (FORSCOM) maintains the results of the CONUSA inspections and Training Assessment Models (TAMs), and holds the data for reserve component FSP unit inspections.

- Summary tables depicting CONUSA inspection numbers by state for the ARNG and by Regional Readiness Command for USAR units are available from DCSOPS, FORSCOM.

20. A listing, for each Army National Guard combat unit (and U.S. Army Reserve FSP units) of the active-duty combat units (and other units) associated with that Army National Guard (and U.S. Army Reserve) unit in accordance with section 1131(a) of ANGCRRA, shown by State, for each such Army National Guard unit (and for the U.S. Army Reserve) by: (A) the assessment of the commander of that associated active-duty unit of the manpower, equipment, and training resource requirements of that National Guard (and Army Reserve) unit in accordance with section 1131(b)(3) of the ANGCRRA; and (B) the results of the validation by the commander of that associated active-duty unit of the compatibility of that National Guard (or U.S. Army Reserve) unit with active duty forces in accordance with section 1131(b)(4) of ANGCRRA.

The listing is contained in FORSCOM Regulation 350-4.

a. Detailed assessments of specific RC units are maintained at the two numbered Armies in the continental United States (CONUSA) and three CONUS-based corps.

For Army National Guard divisions and eSBs:

- Manpower. Several eSBs have shortages in enlisted personnel and junior officers. Duty Military Occupational Specialty Qualification (DMOSQ) is a training challenge because military occupational specialties (MOS) require extensive training, during a limited training window, in different schools that are often taught simultaneously. Within the eSBs, Full Time Support (FTS) continues to be a challenge, currently filled at approximately 55 percent of requirement. In ARNG divisions, recent force-structure authorization increases have caused near-term shortfalls in fill percentages.
- Equipment. Lack of modernized equipment continues to hamper the eSBs. Shortages in chemical defense equipment and night vision devices limit the full range of capabilities for training of the eSBs. The eSBs continue to receive the bulk of any new equipment fielded to the ARNG.
- Training. Adequate training resources in FY03 enabled eSBs to sustain platoon, pre-mobilization training proficiency. Distances to crew-served weapons ranges and the availability of adequate maneuver areas continue to challenge most units. Current simulations do not provide a theater-level simulation system, compatible with current simulation suites that replicate a major-theater-of-war scenario.

For ARNG (and Army Reserve) Force Support Package (FSP) Units:

- Manpower. Shortfalls in FTS manning limit operations and training management. DMOSQ is impacted by limited school spaces for low-density MOSs. Some MOSs require extensive training (11B, 19K, 13B, 13F, 31 and 63H) and sequential schools demand a Soldier's

absence from his civilian employment for extended periods.

- Equipment. Reserve component units do not have the same level of modernization as their active component counterparts in all cases. This can limit interoperability of combat, combat support and combat service support forces and create command-and-control problems, especially during training. Several FSP units will require that shortfalls in force modernization equipment be addressed at the mobilization station. The following are examples of current and projected modernization efforts in the RC: SINCGARS radios, HMMWVs, generators, FMTVs, Javelin and night vision devices.
- Training. Some Equipment Readiness Code-A (ERC-A) equipment shortages inhibit effective training. Additionally, significant shortages of ERC-B and ERC-C equipment hamper collective training. Army Reserve and National Guard units often have significantly older equipment on which to train. Units will require additional training time after mobilization to achieve proficiency on collective tasks, especially if modernized equipment is provided after mobilization. Limited funds and/or limited days available for training generally preclude some Soldiers from attending either Annual Training or DMOSQ schools. Distance to training areas and facilities further erodes available training time.

b. The results of the validations by the commander are maintained by the Department of the Army, G-3.

For ARNG divisions, eSBs and ARNG (and Army Reserve) FSP Units:

- Modernized equipment is the foremost compatibility issue. As Modified Tables of Organization and Equipment in units are updated and unit reorganization continues, the compatibility issue will improve. Additionally, the truck fleet remains a major disparity, because the Army Reserve has been substituting 1980's vintage 5 Ton trucks for 1960 series 2-1/2 Ton Cargo trucks, which the AC has already replaced with the Light and Medium Family of Tactical Vehicles (LMTV and FMTV).
- Lack of force modernization equipment in the Army Reserve and National Guard affects compatibility the most. Nonstandard software systems in these units impact both the Standard Installation Division Personnel System and the Unit Level Logistics System. System compatibility between components is often a challenge. Until reserve component units are modernized and supported at the same level as AC units, most FSP units will not be fully compatible with the active component until after mobilization. Decreased mobilization-to-deployment and/or employment timelines make it imperative that reserve component units be modernized and equipped at the same level as the active component. The National Guard/Reserve Equipment Appropriation (NGREA) funding allows the Army Reserve to procure modernization equipment that the Army does not provide. This will reduce the disparity in AC/RC compatibility, but is not sufficient to bring the components to full compatibility.

21. A specification of the active-duty personnel assigned to units of the Selected Reserve pursuant to section 414(c) of the National

2004 Posture Statement

Defense Authorization Act for Fiscal Years 1992 and 1993 (10 USC. 261 note), shown (A) by State for the Army National Guard (and for the U.S. Army Reserve), (B) by rank of officers, warrant officers, and enlisted members assigned, and (C) by unit or other organizational entity of assignment.

As of 30 Sep 2003, the Army had 4,750 active component Soldiers assigned to Title XI positions. The Army goal is to fill 100 percent of the 5,000 personnel authorized for the AC/RC Program. Although constrained by ongoing support to the Global War on Terror, the active Army is maintaining AC/RC program strength and plans to achieve 100 percent fill by the end of FY04. U.S. Army Human Resources Command carefully tracks fill of Title XI positions in both the Officer Distribution Division and Enlisted Distribution Division.

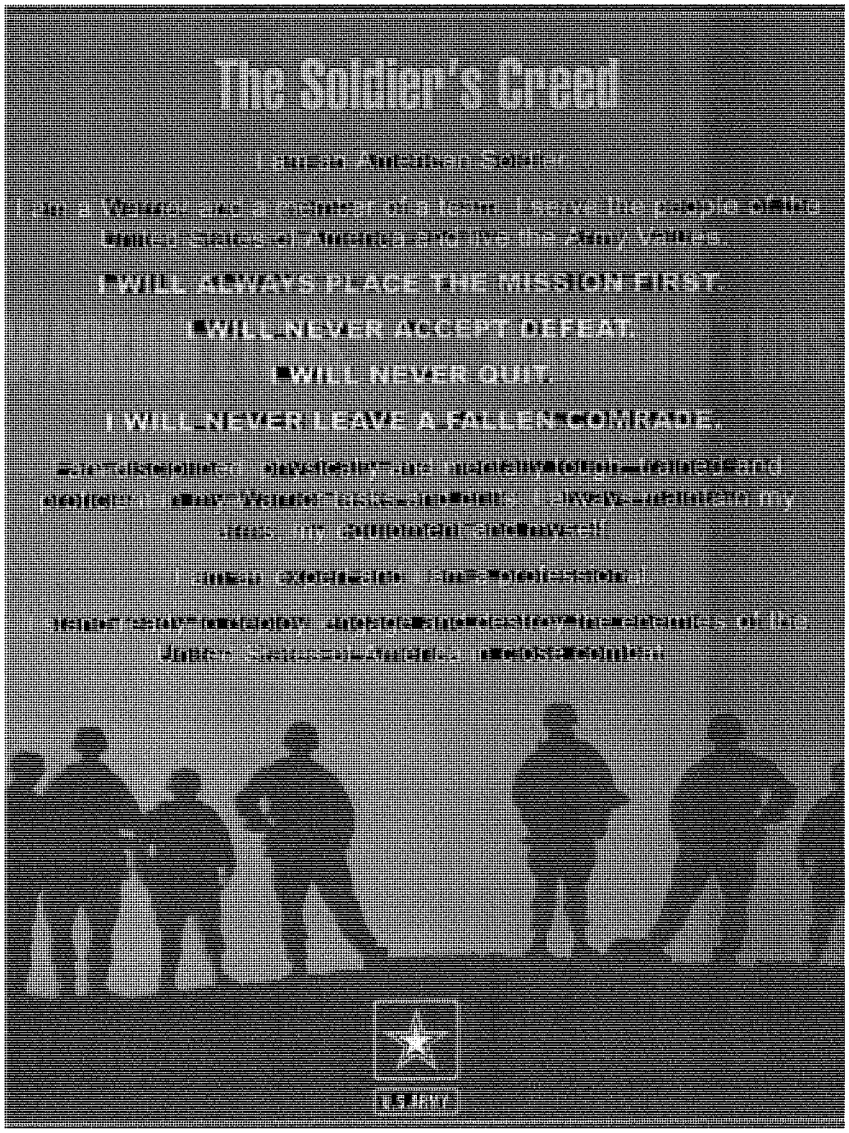
Title XI FY(03) Authorizations

	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

GLOSSARY

AC	Active Component
ACS	Aerial Common Sensor
ACS	Army Community Service
A-FIST	Abrams Full Crew Interactive Simulator Trainer
AIT	Advanced Individual Training
ANGCRRA	Army National Guard Combat Readiness Reform Act
AOR	Area of Responsibility
ARNG	Army National Guard
BCT	Brigade Combat Team
BCTP	Battle Command Training Program
C4	Command, Control, Communications and Computers
C4ISR	Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance
CONUS	Continental United States
CONUSA	Continental United States Armies
DA	Department of the Army
DCGS-A	Distributed Common Ground System–Army
DEP	Delayed Entry Program
DoD	Department of Defense
DOTMLPF	Doctrine, Organizations, Training, Materiel, Leadership, Personnel and Facilities
DRU	Direct Reporting Unit
eArmyU	Army University Access Online
eSB	enhanced Separate Brigade
FCS	Future Combat System
FM	Field Manual
FORSCOM	Forces Command
FRRI	Federal Reserve Restructuring Initiative
FSP	Forward Support Package
GFR	Ground Forces Readiness
IADT	Initial Active Duty for Training
IMA	Installation Management Agency
IRR	Individual Ready Reserve
ISR	Intelligence, Surveillance and Reconnaissance
JFC	Joint Force Commander
JNTC	Joint National Training Capability

JRTC	Joint Readiness Training Center
LMTS	Laser Marksmanship Training System
LVS	Live, Virtual, Constructive
MACA	Military Assistance to Civil Authorities
MACOM	Major Command
MEADS	Medium Extended Air Defense System
MILES	Multiple Integrated Laser Engagement System
MOS	Military Occupational Specialty
NCOES	Noncommissioned Officer Education System
NDAA	National Defense Authorization Act
NETCOM	Network Enterprise Technology Command
NPS	Non Prior Service
NTC	National Training Center
OCONUS	Outside Continental United States
OPTEMPO	Operations Tempo
OSD	Office of the Secretary of Defense
PAC-3	Patriot Advanced Capability-3
PEO	Program Executive Office
PM	Project Manager
RC	Reserve Component
RRC	Regional Readiness Command
SBCT	Stryker Brigade Combat Team
SETS	Secondary Education Transition Study
SIMNET	Simulation Network
SOF	Special Operations Forces
SRS	Strategic Readiness System
S&T	Science & Technology
TADSS	Training Aids, Devices, Simulators and Simulations
TAM	Training Assessment Model
TRADOC	Training and Doctrine Command
TPU	Troop Program Unit
TSV	Theater Support Vessel
UA	Unit of Action
UAV	Unmanned Aerial Vehicle
USAR	United States Army Reserve
USARC	United States Army Reserve Command
VERTS	Virtual Emergency Response Training System
WMD	Weapons of Mass Destruction


The Soldier's Creed
I WILL ALWAYS PLACE THE MISSION FIRST.
I WILL NEVER ACCEPT DEFEAT.
I WILL NEVER QUIT.
I WILL NEVER LEAVE A FALLEN COMRADE.

Chairman WARNER. Thank you very much, General.

Admiral Clark.

STATEMENT OF ADM VERNON E. CLARK, USN, CHIEF OF NAVAL OPERATIONS

Admiral CLARK. Thank you.

Chairman Warner and Senator Levin, distinguished members of the committee: Good morning to each of you. I very much appreciate the opportunity to be here this morning and to talk to you about your great Navy, the Nation's great Navy.

It is also my privilege, like my friend General Schoomaker, to thank you, on behalf of the men and women of the United States Navy—the uniformed members, the civilian members, active and Reserve—for the support provided by Congress to make our Navy ready to respond to the issues that face us in the world today, and for helping us create the Navy of the future.

The support of Congress in the face of difficult choices, choices that each of you must make each year, has made a difference to our people and to our Nation's defense. All of us in the Navy are very grateful for what you do.

Of course, your Navy is just one part of an unparalleled joint warfighting team. I am also very grateful for these great partners that I am sitting here with today at this table. It has been my privilege to serve with these great professionals and I consider them the best of the best. We spend quite a bit of time together, oftentimes just the Joint Chiefs and sometimes with the Secretary. But I can tell you that this group of individuals is dedicated and committed to delivering the kind of joint operating concepts and transformational capabilities that this Nation needs for the future.

We recognize that it will take all of us working together to bring the kind of joint capabilities that the Nation needs now and in the future.

I have outlined, Mr. Chairman, in some detail our Navy's accomplishments over the last year in my written statement. So, in the interest of time, I will not dwell on them here, except to say that this has been an incredible year for our Navy. Your Navy was built to take credible, persistent, combat power to the far corners of the Earth, anywhere, any time the Nation needs us to take it there. Our operations this past year have proved again the value of being truly ready to meet combat and ready to perform combat operations.

At the height of OIF, 7 of our carriers were deployed, 7 of our 10 air wings, and 75 percent of our amphibious structure. In total, 55 percent of our fleet was deployed overseas.

This last year proved again the importance and the need to exploit the vast maneuver space provided to us and the independence to operate from the seas. Most importantly, it proved once again that our Navy's actions this year highlighted the asymmetric advantages that we possess in this country. That is the ability to deploy unparalleled technology and the genius of our people. The things that you have said about our young men and women are greatly appreciated.

With this year's budget request, we seek to accelerate our advantages into the future, to deliver the right readiness for this Nation

at the right cost, to respond to the Nation's warfighting needs, to shape the 21st century workforce, to deepen our investment in the growth and development of our people, our number one asset, to accelerate our investment in our Seapower 21 vision, to recapitalize and transform our Navy, and to improve its ability to operate as part of the joint warfighting team.

As General Schoomaker pointed out, this is not an easy task. Our budget request this year assesses the capabilities we need for today and tomorrow, and it balances the investment, and the key word here is "balance." It balances the investments that we need so that we can take on the challenges and deal with acceptable risks.

As I indicated to this committee last year, we seek to make improvements in our investments for the future. This year we are requesting procurement dollars for 9 new ships and 104 aircraft. As a point of reference, that's 30 percent more than we projected in last year's budget. The key thing that I have spoken with this committee a number of times about is investment streams and the requirement to get the shipbuilding investment stream to the level that it needs to be.

As a point of reference, the year I arrived in this post the account for the Navy shipbuilding and conversion (SCN) was $4.7 billion. We invest this year a little over $11 billion in new construction and in modernization of our force. I am proud of those improvements.

Our investment in aircraft programs is significantly higher than it was 4 years ago as well. We have invested nearly $6 billion in our 2005 budget request and this is almost double our investment in 2001. This does not include the investment of over $6.3 billion in aviation R&D. This number is triple what it was 3 years ago.

We have focused these investments on important new capabilities. The heart of our future family of ships is the DD(X), the 21st century destroyer, a ship that will absolutely revolutionize naval fire support and almost everything that we know about shipbuilding. The DD(X) has a new, stealthy hull form; integrated electric drive and power generation system; modularity and enhanced human systems engineering will reduce manning, and it is estimated that that alone will save the taxpayers over $18 billion in the life of this program; leveraging the platform for future growth and spiral development. It will change the way we develop and construct ships and it will change the way we fight for the next half century. DD(X) starts this year.

The EA–18G was brand new in the budget last year. This year's budget will greatly accelerate the recapitalization of the just plain old EA–6B, the Nation's only joint electronic attack capability. OIF and congressional action last year accelerated the aging process on this airplane. With your support this year means that relief is on the way, and it cannot happen too soon.

We will commission the first *Virginia* class submarine later this year. *Virginia* will incorporate unmanned vehicles and the ability to plug into joint networks like no other submarine ever has in history. Congress' authorization for multi-year procurement of five of these submarines in last year's budget has helped make these important, complex platforms more affordable for the future.

Of course there are others, like the Littoral Combatant Ship (LCS). We will award it with this year's budget. Our first new aircraft carrier in 3 decades, CVN–21, continues to be funded as well as a sea-based missile defense and a nuclear-powered cruise missile attack submarine (SSGN) and F–18E and Joint Strike Fighter (JSF), and the Advanced Hawkeye program. We accelerate our request for the LPD–17 class.

We have other initiatives in this budget, like our Fleet Response Plan (FRP), mentioned the other day in front of this committee, that will deliver the right readiness and the ability to surge 50 percent more combat power than we have ever been able to do routinely in the past.

General Pace described to you this transformational approach. It is a change in the way we organize, train, and equip our force. It means that we can surge this morning, if the President needs us, to six carrier strike groups anywhere we need to in the world.

It is all about maximizing the investment that the taxpayers make in the Nation's defense. The bottom line is that we have framed in this budget the right current readiness at the right cost to the Nation, and for that I seek your support.

Of course, at the heart of everything good that is happening in the Navy today is this: We are winning the battle for people. The momentum here is fantastic. The Navy has seen higher quality recruits, and the best retention that I have ever seen in my life. In fact, for the third straight year, it is the highest retention in the history of the United States Navy. This was made possible with innovative incentive pay pilot programs. We have experienced dramatically reduced attrition, competitive reenlistments in detailing and outstanding deckplate leadership. In short, this is the highest quality Navy this Nation has ever seen, and it is all about the people.

The authorities you have granted us in this regard are incredibly important and in my view, have made the difference. I ask you to continue to give us the tools to be successful. These tools have been critical in our ability to attract, retain, and shape the kind of workforce we need for the future.

I will say this, as I said last year: Manpower is never free. So in this budget I am suggesting and requesting that we reduce our end strength by some 7,900 people from the 2004 levels. Our strategy for doing this is simple. We are capturing the work on our ships and stations, improving our training processes, leveraging technology advances, decommissioning our older, most manpower-intensive platforms where the risks allow us to do so, and rebalancing our Reserve and Active Forces in a way that delivers the right skills when we need them and reduces the personnel strain.

I am committed, Mr. Chairman and members of this committee, to building a Navy that can maximize the capability of our people and minimize the total number on the payroll. We will continue to invest in our sailors' growth and development, and our ability to provide them meaningful and challenging careers that lets them make a difference. This is part of our covenant with them.

As our Navy delivers the more high-tech systems that I mentioned, it is my intent for us to also develop a smaller yet smarter workforce. We will spend whatever it takes to equip and enable our

sailors. We do not want to spend one extra penny for manpower that we do not need.

There is a lot more to talk about, and we will in the closed hearing that follows.

Mr. Chairman, in response to your question about my position and understanding and beliefs prior to OIF, I say this: As I watched the hearing the other day with the Secretary and General Pace, I watched the kind of questions that you were asking, and I thought about where we were at that point in time in our history. I asked the Secretary of Defense if I could read just part of a private correspondence that I sent to him on the morning we commenced combat operations.

It is a private correspondence, I will not read the whole thing, but this part he said would be appropriate for me to share with you, and this was at my request. I started by telling him that we were ready. I said that the leadership in the fleet was confident. I said that our readiness was higher than I had ever seen it.

Then I said this: "For some this is about weapons of mass destruction, for others it is about al Qaeda. For us it is about all of that and more. Iraq has been shooting at our aircraft for over 5 years." I went on to say to him that it was my belief that this cause was just and our people believed in it. Mr. Chairman, that was my position then and that is what I believe today.

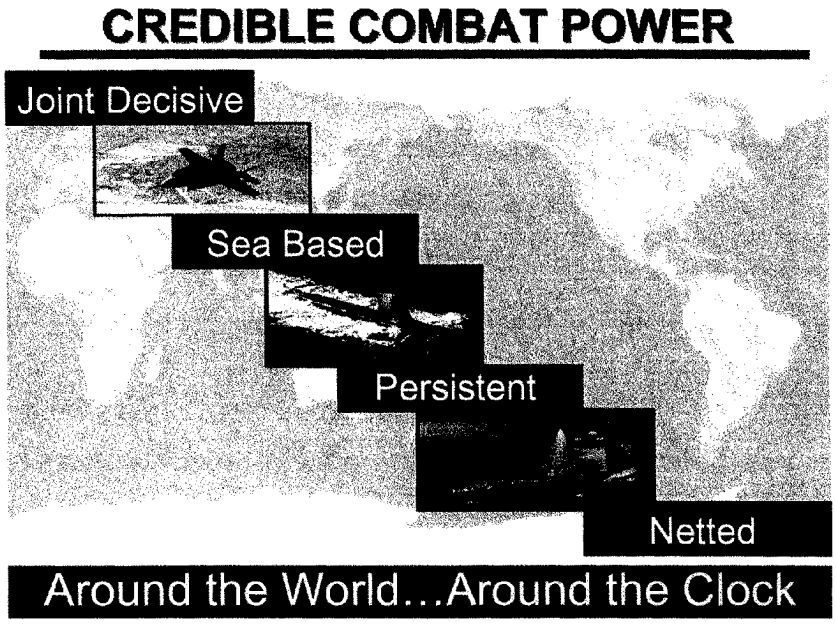
I look forward to your questions and I thank you again for the opportunity to be here.

[The prepared statement of Admiral Clark follows:]

PREPARED STATEMENT BY ADM VERNON E. CLARK, USN

Mr. Chairman and members of the committee, I appreciate this opportunity to appear before you. I want to express my gratitude for the substantial investment you have made in making this Navy the best Navy the Nation has ever seen.

Your Navy is built to take credible combat power to the far corners of this Earth, taking the sovereignty of the United States of America anywhere we need to take it and at anytime we choose to do so. It is capable of delivering the options this Nation needs to meet the challenges of today and it is committed to the future capabilities the joint force will need to win throughout the 21st century.



It is a wonderful time to be a part of this Navy and a great privilege to be associated with so many men and women—active and Reserve, uniformed and civilian—committed to the service and defense of this Nation. I speak for all of our men and women in thanking you for your exceptional and continuous support.

I: YOUR NAVY TODAY—PROJECTING DECISIVE JOINT POWER ACROSS THE GLOBE

Your Navy's performance in Operations Enduring Freedom (OEF) and Iraqi Freedom (OIF) last year proved—more than anything else—the value of the combat readiness in which you have invested. It demonstrated the importance of the latest technology in surveillance, command and control, and persistent attack. It highlighted our ability to exploit the vast maneuver space provided by the sea. Most importantly, it reaffirmed the single greatest advantage we hold over every potential adversary: the genius of young Americans contributing their utmost in their service to this Nation.

This past year, the fleet produced the best readiness levels I have seen in my career. We have invested billions of dollars to training, maintenance, spare parts, ordnance, flying hours and steaming days accounts these last few years, and that investment resulted in the combat ready response of more than half the Navy to operations worldwide.

Seven aircraft carriers and 9 big deck amphibious ships were among the 164 U.S. Navy ships forward deployed last spring in support of OEF and OIF and contingencies worldwide. The Military Sealift Command sailed and chartered more than 210 ships and moved 94 percent of the Nation's joint and combined capability to the fight. We also deployed 3 fleet hospitals, a hospital ship, 22 P–3 aircraft, 25 naval coastal warfare detachments and we mobilized more than 12,000 reservists.

OIF and OEF were the most joint operations in our history and they have provided the best possible opportunity to dissect, study, and analyze some of the limiting factors and effects of how we fight. Beyond the mere numbers, these operations confirmed that we should continue to pursue the capabilities that enhance our power projection, our defensive protection and the operational independence afforded by the sea.

While we recognize that we must continue to challenge all of our assumptions in a variety of scenarios, our lessons learned indicate that the capabilities-based investment strategies, new warfighting concepts and enabling technologies we are pursuing in our Sea Power 21 vision are on the right vector. Let me give you some examples.

• The reach, precision, and persistence of our Sea Strike capability added lethality to ground combat engagements in Afghanistan and Iraq. The joint surveillance and attack technologies and processes that we have already put in place forced enemy combat formations to either disband and desert or be destroyed in place by precision weapons. Navy aviation generated more than 7,000 combat sorties in support of OIF, sometimes flying joint missions with land-based Air Force tankers more than 900 miles from their carriers. Surface combatants and submarines struck targets throughout Iraq with more than 800 Tomahawk missiles. The initial deployments of new F/A–18E/F Super Hornet squadrons greatly extended our range, payload, and refueling options. We will realize more of these capabilities in the future through the conversion of the first of four Trident nuclear-powered ballistic missile submarines (SSBNs) into the nuclear-powered cruise missile attack submarine (SSGN) conventional strike and Special Operations Forces (SOF) platform.

• U.S.S. *Higgins* (DDG 76) provided early warning and tracking to joint forces in Kuwait and southern Iraq to help warn forces and defend against the threat of theater ballistic missiles. This tracking-only capability demonstrated the initial potential of extending Sea Shield defenses to the joint force. In a sign of things to come, we advanced our missile defense capability with another successful flight test of our developmental sea-based defense against short-to-medium range ballistic missiles. U.S.S. *Lake Erie* (CG 70) and U.S.S. *Russell* (DDG 59) combined to acquire, track, and hit a ballistic test target in space with an SM–3 missile in support of the ballistic missile defense program. This was the fifth success in six tests.

Our OIF mine warfare efforts cleared 913 nautical miles of water in the Khor Abd Allah and Umm Qasr waterways, opening 21 berths in the Umm Qasr port and clearing the way for operations in the littoral areas of the Northern Persian Gulf and for humanitarian aid shipments into Iraq. These operations included the use of the High Speed Vessel X1 (Joint Venture), Navy patrol craft and six unmanned, autonomous underwater vehicles (AUVs) directly from our science and technology (S&T) program in the littoral for special operations and mine clearance operations, and gave us important insights into our vision for both future littoral and mine warfare concepts and capabilities.

• We projected joint combat forces across the globe with greater speed and agility than we have ever done in the past. Along with our number one joint partner, the United States Marine Corps, we put more than 60,000 combat-ready marines ashore in Kuwait in 30 days. The Navy's Military Sealift Command delivered more than 32 million square feet of combat cargo and more than 1 billion gallons of fuel to the Nation's warfighters in OEF and OIF. We were able to sustain the strategic and operational flexibility afforded by Sea Basing to generate a three-axis attack on Iraq from our dispersed aircraft carriers, surface combatants, and submarines in the Red Sea, the Mediterranean Sea, and the Persian Gulf.

We forged ahead in our shipbuilding investments. We awarded three preliminary design contracts for the Littoral Combat Ship (LCS), leading to the construction of the first LCS in fiscal year 2005. We selected the baseline design for the DD(X) 21st century multi-mission destroyer, launched *San Antonio* (LPD 17), christened *Virginia* (SSN 774) and began fabrication of *Makin Island* (LHD 8) and *Lewis and Clark* (T–AKE 1).

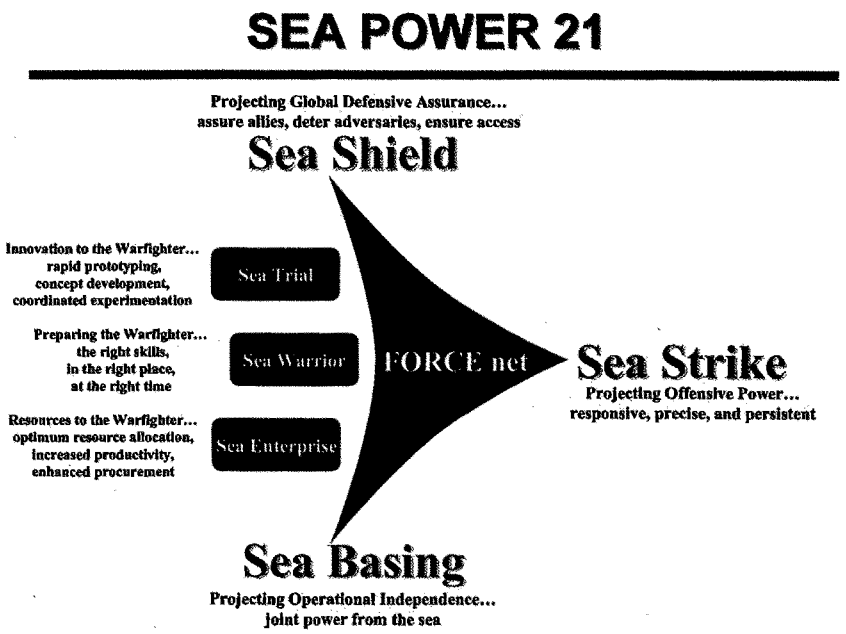
• In OIF, we were able to know more, decide faster, and act more decisively than ever before. Our three-axis, multi-platform attack from the Persian Gulf, Red Sea, and Mediterranean Sea—as well as the geometric increases in striking power, defensive protection and speed of maneuver generated by our joint forces—is made possible by the power of joint command, control, communications, computers, intelligence, surveillance, and reconnaissance (C^4ISR). Fully 80 percent of targets struck with precision ordnance were unknown at aircraft launch. We developed and installed CENTRIX and COWAN networks to enhance joint and coalition interoperability on all of our deploying ships, and we also promulgated the FORCEnet campaign plan, defining the architecture and standards that will help us further integrate warriors, sensors, weapons, and platforms.

These accomplishments this past year have taught us more about who we are and where we are headed. We know that the combat power of the truly joint force is much more than the sum of the Services' contributions. We understand the value of readiness and the importance we must place on improving the fleet's ability to respond and surge with decisive combat power. We relearned the lesson that over flight and basing is not guaranteed; our dominance of the maritime domain and our consequent ability to quickly deliver an agile combat force is a priceless advantage for our Nation. We reaffirmed that our people are now, and always will be, the root of our success.

II: YOUR NAVY TOMORROW—ACCELERATING OUR ADVANTAGES

Readiness, advanced technology, dominance of the maritime domain, and the genius of our people—these are our asymmetric advantages. They are the core of our Sea Power 21 Navy and we intend to accelerate these advantages over the coming year. We are in a position to continue to build upon and recapitalize these strengths, to innovate and experiment, and to push the envelope of operational art and technological progress. Our ability to project persistent, sovereign combat power to the far corners of the Earth now and in the future depends on it.

In last year's statement, I discussed principally the advantages brought by advanced technology and the vast maneuver area of the sea in our Sea Power 21 vision.



This year, I would like to spend a few moments on the efforts we have taken to improve our other advantages: our readiness to respond to the Nation's defense needs and the tools we will need to ensure the right people for our Sea Power 21 Navy.

Today's naval forces and personnel are superbly trained and well provisioned with ordnance, repair parts and supplies. They are ready earlier—for a longer period of time—and they are deploying at a higher state of readiness than ever before. In short, the Navy this Nation has paid for is truly ready to accomplish its missions and it is more ready to do so than I have ever seen it in my career.

I mentioned the results; in OIF, we surged more than half the fleet to fight half a world away. The combined power of our forward presence forces and those that we were able to surge overseas helped keep our enemies on the run. This conflict and our analysis of future campaign scenarios make it apparent that the readiness of both our forward forces and the forces that must surge forward will be critically important to our future. It is no longer good enough to be able to surge just once every 10 years or so.

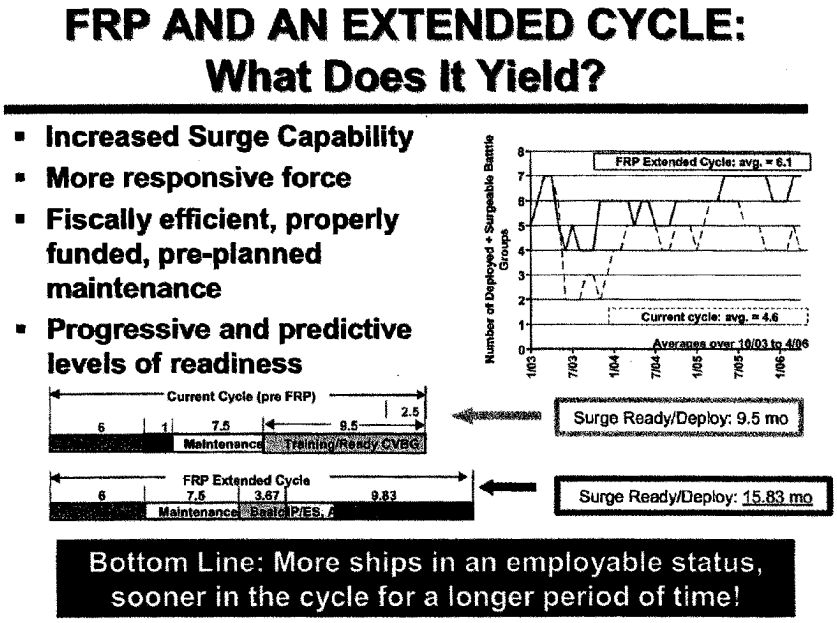
The war on terrorism and the unpredictability of the global security environment make this an immediate imperative. The Nation needs a Navy that can provide homeland defense and be both forward and ready to surge forward to deliver overmatching and decisive combat power whenever and wherever needed. We are committed to do so.

With this in mind, we launched the Fleet Response Plan (FRP) this past year. The FRP resets the force in a way that will allow us to surge about 50 percent more

combat power on short notice and at the same time, potentially reduce some of the personnel strain of forward rotations.

In simplest terms, rather than having only two or three Carrier Strike Groups (CSGs) forward-deployed and properly equipped at any one time—and an ability to surge only a maximum of two more—the FRP enables us to now consistently deliver six forward deployed or ready to surge CSGs almost immediately, plus two additional CSGs in the basic training phase in 90 days or less. This FRP capability is commonly known as six plus two.

To do this, we have fundamentally reconfigured our employment policy, fleet maintenance, deployment preparations and fleet manning policies to expand the operational availability of non-deployed fleet units. We have shifted the readiness cycle from one centered solely on the next-scheduled-deployment to one focused on returning ships to the right level of readiness for both surge and deployed operations. The net result is a fleet that is more ready, with more combat power—more quickly—than was possible in the past.



Our forward rotations remain critically important to our security, to strengthening alliances and coalitions, and to the global war on terrorism. But it is clear we must make these rotations with purpose, not just to fill the calendar.

For example, implementing the new Proliferation Security Initiative to counter weapons of mass destruction (WMD) as a tool for terrorists and their sponsors is likely to involve the use of forward naval forces in maritime interdiction. Additionally, we plan to be ready to establish initial missile defense operations using forward-deployed *Arleigh Burke* class guided missile destroyers and their Aegis systems in Long-Range Tracking and Surveillance roles. Of course, we will continue to provide combatant commanders with the combat-credible, rapidly employable forward forces required for the Nation's defense.

But at the same time, we recognize that our ability to rapidly surge significant additional combat power and provide a range of joint employment options is critically important to the swift and decisive combat operations that must be our future. The FRP allows us to do just that.

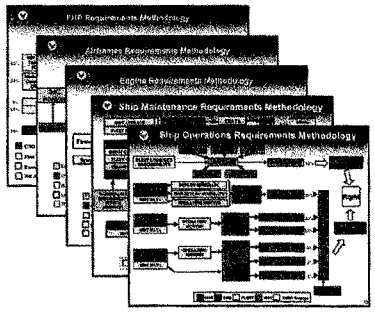
We have an obligation to accurately assess the readiness needs and create the resources necessary to support this FRP capability. This has also been a major focus this past year.

Readiness is a complex process. It is much more than a count of our end strength, our ordnance and spares, and the number of hours and days spent training. It is the product of our ability to deliver the required effects needed to accomplish the

mission. We know too that readiness at any cost is unacceptable; as leaders we must achieve and deliver the right readiness at the right cost.

The Integrated Readiness Capability Assessment (IRCA) was developed for the fiscal year 2005 budget to more carefully examine our readiness processes. Starting with our new FRP operating construct, we took a hard look at everything that we needed to have on hand and what we needed to do to deliver the required combat readiness for the Nation's needs.

INTEGRATED READINESS CAPABILITY ASSESSMENT



- Process
  - Map modeling process
  - Identify opportunities for mitigation
  - Assess level of risk
    - Process Change
    - Management Initiatives
    - Transformational

FRP capability used as the yardstick for all assessments

The IRCA assessment helped us understand the collective contributions of all the components of readiness, accurately define the requirements, align the proper funding, and provide a balanced investment to the right accounts. It improved our visibility into the true requirements and it gave us a methodology to assess and understand both acceptable and unacceptable risks to our current readiness investments.

The end result is this: we have carefully defined the readiness requirement. We have identified areas where we can streamline or cease activities that do not add to readiness. We have requested the funds our commanders need to create the right readiness for fiscal year 2005. I ask for your support of this year's current readiness request as we've redefined these processes and already taken acceptable risks. We will deliver the right readiness at the right cost to the Nation.

These improvements to our operational availability of forces and the associated readiness elements will not be made on the backs of our people.

We have a smart, talented cadre of professionals who have chosen a lifestyle of service. Our ability to challenge them with meaningful, satisfying work that lets them make a difference is part of our covenant with them as leaders.

A new operating concept like the FRP could not be made if we still had the kind of manpower-intensive mindset to problem solving we had even 5 years ago. But today, thanks to your sustained investment in S&T among others, we have already realized some of the advancements in information technology, simulators, human system integration, enterprise resource planning, Web-enabled technical assistance and ship and aircraft maintenance practices that can reduce the amount of labor intensive functions, the training, and the technical work required to ensure our readiness.

These advances speak to our larger vision for our Sea Power 21 Navy and its Sea Warrior initiative. Our people are today's capital assets. Without them, all the advanced weaponry in the world would sit dormant. But at the same time, it is the

effects they deliver that are the true measure of their contribution to readiness and capability.

We have long had a force stove-piped into active and Reserves, uniformed and civilian, sea and shore, and enlisted and officer components, all with work driven largely by the limits of industrial age military capabilities, personnel practices, technology, and the organizational models of the day.

In today's era, when we have whole corporations bought or sold just to capture the intellectual capital of an organization, we recognize that our human resource strategy must capture the talents and efforts of our capital as well. Our vision for the future is a more truly integrated workforce wholly committed to mission accomplishment. This must include a total force approach that can functionally assess missions, manpower, technology, and training and produce an enterprise-wide resource strategy.

The principles of this strategy are clear. We will capture the work that contributes to mission accomplishment. We will define enterprise-wide standards. We will leverage technology to both enhance and capitalize on the growth and development of our people. We will streamline organizational layers. We will instill competition. We will incentivize the talents and behaviors needed to accomplish the mission.

There is still much to study and discuss as we develop our total force approach in the months and years ahead, but we can already see that the application of these principles will help us more accurately define our manpower requirement and lead us to a smaller workforce in the future.

The benefits are enormous. Our people will be powerfully motivated and better educated and more experienced in the coming years. They will be properly equipped to maintain, operate and manage the higher technology equipments that are our future. Our combat capabilities will continue to grow.

We must be committed to building a Navy that maximizes the capability of its people while minimizing the total number in the manpower account. Manpower is never free; in fact, manpower we do not truly need limits both the true potential of our people and the investments needed to transform our combat capability for the future.

Our developing human resource strategy will likely require changes in the way we recruit, assess, train and manage the workforce. Sea Warrior of course, is crucial here. Last year's authorization of the National Security Personnel System (NSPS) is very important to such an effort as well. The NSPS Act authorized a more flexible civilian personnel management system that allows the Department of Defense (DOD) to be a more competitive and progressive employer at a time when our national security demands a highly responsive system of civilian personnel management. The legislation also ensures that merit systems principles govern changes in personnel management, whistleblowers are protected, discrimination and nepotism remain illegal, and veterans' preference is protected. This will facilitate the kind of competition and performance we need for the future. The Navy has volunteered to be in the first wave of conversions to NSPS in 2004.

Most importantly, I believe we will also need these kinds of flexible authorities and incentive tools to shape the career paths and our skills mix in a way that lets us compete for the right talent in uniform, not just within the Navy, but with all the Nation's employers as well.

In the months ahead, I will continue to discuss with you our developing human resource strategy and the kinds of authorities we'll need to deliver on it.

We are beginning to realize the powerful warfighting capabilities of Sea Power 21. Our culture of readiness and our commitment to developing a 21st century workforce will help us employ those transformational capabilities to achieve unprecedented maritime power.

III. OUR FISCAL YEAR 2005 BUDGET REQUEST

This past year our Navy's budget request continued our effort to sustain our current readiness gains, deepen the growth and development of our people and invest in our transformational Sea Power 21 vision while harvesting the efficiencies needed to fund and support these three critical priorities.

This year we intend to:

- Deliver the right readiness at the right cost to support the war on terror and the Nation's warfighting needs,
- Shape the 21st century workforce and deepen the growth and development of our people, and
- Accelerate our investment in Sea Power 21 to recapitalize and transform our force and improve its ability to operate as an effective component of our joint warfighting team.

At the same time, we will continue to pursue the Sea Enterprise improvements that make us a more effective Navy in both fiscal year 2005 and beyond. Our Navy budget request for fiscal year 2005 and the future supports this intent and includes:

• Nine new construction ships in fiscal year 2005, including construction of the first transformational destroyer (DD(X)) and the LCS, the acceleration of a *San Antonio* Class Amphibious Transport Dock Class ship from fiscal year 2006 to fiscal year 2005, and one SSBN conversion and refueling. Our request this year includes the following ships:

- Three *Arleigh Burke* Class Guided Missile Destroyers (DDG)
- One *Virginia* class submarine (SSN)
- One *San Antonio* Class Amphibious Transport Dock (LPD)
- Two Lewis and Clark Class Dry Cargo and Ammunition ships (T–AKE)
- One 21st century Destroyer (DD(X))
- One LCS, and
- One SSBN conversion/refueling

The investment plan across the Future Year's Defense Plan (FYDP) also includes three Maritime Prepositioned Force (Future) (MPF (F)) ships and advanced procurement for an MPF (F) aviation variant. While our build rate dips to six ships in fiscal year 2006, this is a reflection of a shift in focus to the next generation surface combatants and sea basing capabilities. We have also assessed the risks and divested several assets that have high operating costs and limited technological growth capacity for our transformational future; this includes decommissioning two coastal mine hunter ships, and the accelerated decommissioning of the remaining *Spruance*-class destroyers, *Sacramento* Class Fast Combat Store Ships and the first five *Ticonderoga*-class guided missile cruisers in the FYDP.

• Procurement of 104 new aircraft in fiscal year 2005, including the F/A–18 E/F Super Hornet, the MH–60 R/S Seahawk and Knighthawk Multi-mission Combat Helicopter, the T–45 Goshawk training aircraft, and the Marine Corps MV–22 Osprey among others. We continue to maximize the return on procurement dollars through the use of multi-year procurement (MYP) contracts for established aircraft programs like the Super Hornet and we have increased our research and development investment this year in the Joint Strike Fighter (JSF), the EA–18G Airborne Electronic Attack (AEA) aircraft and the broad area anti-submarine, anti-surface, maritime and littoral intelligence, surveillance, and reconnaissance (ISR) capable Multi-mission Maritime Aircraft (MMA).

• Investment in transformational unmanned underwater vehicles (UUVs) like the Long-Term Mine Reconnaissance System, and unmanned aerial vehicles (UAVs) such as the Broad Area Maritime Surveillance UAV and the Joint-Unmanned Combat Air System. The budget also requests funding for experimental hull forms like the X-Craft, and other advanced technologies including the Joint Aerial Common Sensor (JACS).

• A 3.5 percent basic pay raise, and a reduction in average out-of-pocket housing costs from 3.5 percent to 0, allowing sailors and their families more of an opportunity to own their own homes and have more of a stake in their communities;

• Investment in housing and public-private ventures that will help eliminate inadequate barracks and family housing by fiscal year 2007 and enable us to house shipboard sailors ashore when their vessel is in homeport by fiscal year 2008;

• Readiness investment that supports the FRP, including sustained funding for ship and aircraft operations, aviation depot maintenance, and precision-guided munitions. This includes improvements in ship maintenance and training scheduling to maximize surge capabilities.

A. Delivering the Right Readiness at the Right Cost

To me, the "right readiness" is the return on your investment in the Navy. Readiness is the catalyst that brings combat power to bear whenever it is needed. Achieving readiness at any cost however is not good for the Nation. This year's request accurately defines our readiness needs, assesses the risks to our investment and—as requested—will deliver the resources necessary for leaders in the Navy to create the required readiness.

• Ship Operations and Flying Hours requests funds for ship operations operational tempo (OPTEMPO) of 51.0 days per quarter for our deployed forces and 24 days per quarter for our non-deployed forces. We have properly funded the flying hour account to support the appropriate levels of readiness and longer employability requirements of the FRP. This level of steaming and flying hours will enable our ships and air wings to achieve the required readiness over the longer periods defined by the FRP, and as a result, it will improve our ability to surge in crisis and sustain readiness during deployment.

• Ship and Aviation Maintenance. We have made significant improvements these last few years by reducing major ship depot maintenance backlogs and aircraft depot-level repair back orders; improving aircraft engine spares; adding ship depot availabilities; ramping up ordnance and spare parts production; maintaining steady "mission capable" rates in deployed aircraft; fully funding aviation initial outfitting; and investing in reliability improvements.

Our fiscal year 2005 request continues to improve the availability of non-deployed aircraft and meets our 100 percent deployed airframe goals. Our ship maintenance request continues to "buy-down" the annual deferred maintenance backlog and sustains our overall ship maintenance requirement. We are making great strides in improving the visibility and cost effectiveness of our ship depot maintenance program, reducing the number of changes in work package planning and using our continuous maintenance practices when changes must be made.

• Shore Installations. Our Facilities Sustainment, Restoration, and Modernization (SRM) program remains focused on improving readiness and quality of service for our sailors. While our fiscal year 2005 Military Construction and Sustainment program reflects difficult but necessary trade-offs between shore infrastructure and fleet recapitalization, the majority of the SRM trends are very good. Facilities sustainment has increased in fiscal year 2005. Our budget request keeps us on a course to achieve the DOD goal of a 67-year recapitalization rate by fiscal year 2008, achieve Navy goals to eliminate inadequate family and bachelor housing by fiscal year 2007 and provides Homeport Ashore Bachelor Housing by fiscal year 2008. We are exploring innovative solutions to provide safe, efficient installations for our service members, including design-build improvements, and base realignment and closure (BRAC) land sales via the General Services Administration (GSA) Internet. Additionally, with the establishment of Navy Installations Command, we have improved our capability to manage our dispersed facility operations, conserve valuable resources, establish enterprise-wide standards and continue to improve our facility infrastructure.

• Precision-guided munitions receive continued investment in our fiscal year 2005 request with emphasis on increasing the Joint Stand-Off Weapon (JSOW) baseline variant, Joint Direct Attack Munition (JDAM), Tactical Tomahawk (TACTOM), and Laser-Guided Bomb (LGB) inventory levels, while the JSOW penetrator variant enters full-rate production. We have also entered into a common missile program with the U.S. Army to replace the aging inventory of TOW, Maverick, and Hellfire missiles. Joint partnerships with the Air Force and Army in several of our munitions programs continue to help us optimize both our inventories and precious research and development investments and will remain a focus for us in the future.

• Training Readiness. We continue to make significant strides in this critical area. In fiscal year 2004, Congress supported two important programs to advance our training readiness. First, you endorsed the Training Resource Strategy (TRS), to provide more complex threat scenarios and to improve the overall realism and value of our training. Additionally, you funded the Tactical Training Theater Assessment and Planning Program to provide for a comprehensive training range sustainment plan. Our fiscal year 2005 budget continues this work. We are working to make the Joint National Training Capability a reality. We have established a single office to direct policy and management oversight for all Navy ranges as well as serve as the resource sponsor for all training ranges, target development and procurement, and the Navy portion of the Major Range Test Facility Base (MRTFB).

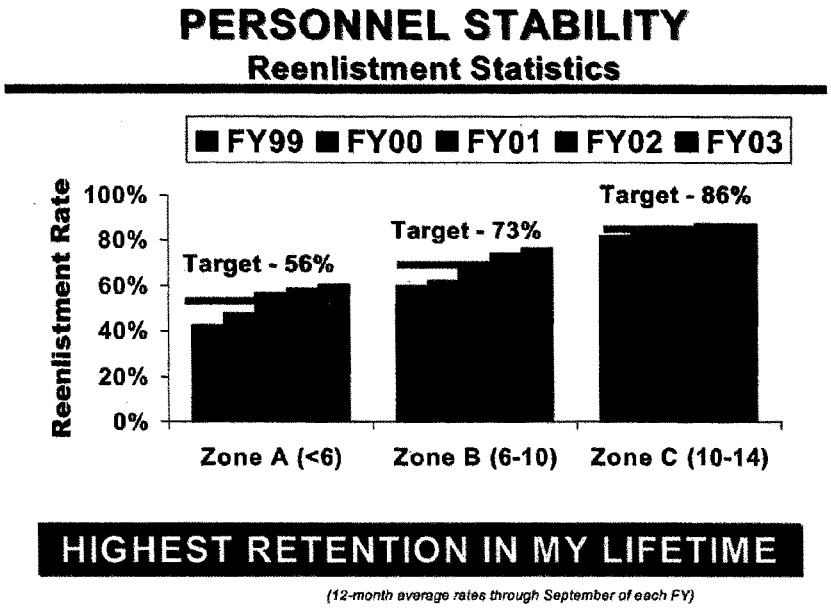
• Environmental Readiness. In the last 2 years, Congress has provided significant legislative relief from encroachment and environmental requirements by amending the Endangered Species Act, the Migratory Bird Treaty Act, and the Marine Mammal Protection Act. These amendments help to balance environmental stewardships and realistic military training. We will continue to focus the use of our ranges on military training, and remain committed to our environmental obligations through integrated natural resource management plans. We will make every effort to protect marine mammals while ensuring our sailors are properly trained and our transformational systems are properly tested. We look forward to demonstrating our ongoing commitment to environmental stewardship.

B. Shaping the 21st Century Workforce

At the heart of everything good in our Navy today is this: We are winning the battle for people. Higher quality recruits, historic retention rates, innovative incentive pay pilots, reduced attrition, competitive reenlistments and detailing, and outstanding leadership in the ranks has made this the highest quality workforce the Navy has ever seen.

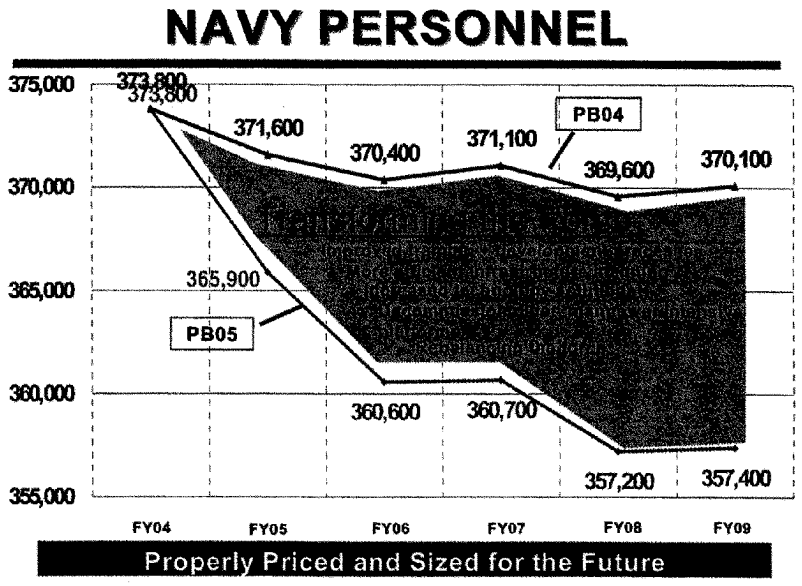
In 2003 specifically, we exceeded all of our aggregate retention goals for the third straight year; our recruiters reached their quotas for the 28th consecutive month;

we reduced attrition another 10 percent from fiscal year 2002 levels; and, through decommissioning older, manpower-intensive platforms, improving training and employment processes, and more efficient infrastructure organization, we have reduced gaps at sea to less than 1,000, down from 18,000 gaps just 6 years ago.



These accomplishments will help us develop the 21st century workforce we will need for our Sea Power 21 Navy. As our Navy becomes more high tech, so must our workforce. Our people will be a more educated and experienced group of professionals in the coming years, and we must properly employ their talents. We will spend whatever it takes to equip and enable these outstanding Americans, but we do not want to spend one extra penny for manpower we do not need.

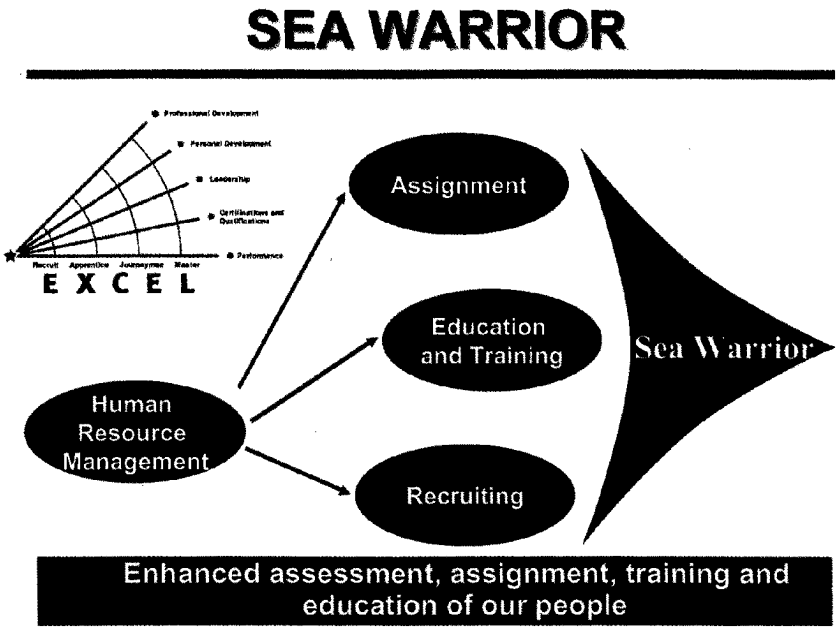
As part of that effort, we continue to pursue the kind of new technologies and competitive personnel policies that will streamline both combat and non-combat personnel positions, improve the two-way integration of active and Reserve missions, and reduce the Navy's total manpower structure. To that end, we are proposing a fiscal year 2005 Navy end strength reduction of 7,900 personnel.



We will use existing authorities and our Perform To Serve (PTS) program to preserve the specialties, skill sets and expertise needed to continue the proper balancing of the force.

We intend to build on the growth and development momentum of the last 3 recordbreaking years. We are fully committed to ensuring every sailor has the opportunity and resources to successfully compete. Our goal remains attracting, developing, and retaining the most highly skilled and educated workforce of warriors we have ever had, to lead the 21st century Navy.

As I testified last year, Sea Warrior is designed to enhance the assessment, assignment, training, and education of our sailors.



Our fiscal year 2005 budget request includes the following tools we need to enhance mission accomplishment and professional growth:

• Innovative personnel employment practices are being implemented throughout the fleet. Optimal manning experiments in U.S.S. *Boxer* (LHD–4), U.S.S. *Milius* (DDG 69) and U.S.S. *Mobile Bay* (CG 53) produced revolutionary shipboard watch standing practices, while reducing overall manning requirements and allowing sailors to focus on their core responsibilities. The fleet is implementing best practices from these experiments to change Ship Manning Documents in their respective classes. Optimal manning means optimal employment for our sailors.

We have our fourth crew aboard U.S.S. *Fletcher* (DD 992) and our third crew aboard U.S.S. *Higgins* (DDG 76) in our ongoing Sea Swap initiative. This has saved millions of dollars in transit fuel costs and increased our forward presence without lengthening deployment times for our sailors. *Fletcher* and *Higgins* will return to San Diego this year after a period of forward deployed operations of 22 months and 17 months respectively. We will continue to assess their condition and deep maintenance needs to develop and apply lessons learned to future Sea Swap initiatives.

• Selective Reenlistment Bonus (SRB). Targeted bonuses such as SRB are critical to our ability to compete for our highly trained and talented workforce both within the Navy and with employers across the Nation as well. Proper funding, adequate room for growth, and the flexible authorities needed to target the right skills against the right market forces are important to the shape of the workforce. This program specifically targets retention bonuses against the most critical skills we need for our future. We ask for your continued support and full funding of this program.

• Perform to Serve. Last year, we introduced PTS to align our Navy personnel inventory and skill sets through a centrally managed reenlistment program and instill competition in the retention process. The pilot program has proven so successful in steering sailors in overmanned ratings into skill areas where they are most needed that the program has been expanded. More than 2,400 sailors have been steered to undermanned ratings and approved for reenlistment since the program began last February and we will continue this effort in 2005.

• Assignment Incentive Pay (AIP) is a financial incentive designed to attract qualified sailors to a select group of difficult to fill duty stations. AIP allows sailors to bid for additional monetary compensation in return for service in these locations. An integral part of our Sea Warrior effort, AIP will enhance combat readiness by

permitting market forces to efficiently distribute sailors where they are most needed. Since the pilot program began last June, more than 1,100 AIP bids have been processed resulting in 238 sailors receiving bonuses for duty in these demanding billets. We ask for continued support of this initiative.

• Professional Military Education (PME). We are taking a more comprehensive approach to the education of our people than we have done in the past. We are in the process of developing a PME continuum that integrates general education, traditional Navy-specific PME, and Joint PME (JPME) curricula. This will allow us to develop a program that fully incorporates all aspects of our professional and personal growth and development training needs. Improvements so far include establishing networks with civilian educational institutions, developing new degree programs, and establishing partnerships with other services' institutions. We are also expanding opportunity through distance learning and the Internet. We are committed to broadening the professional and intellectual horizons of both our officers and our enlisted men and women to prepare them to operate tomorrow's fleet and assume key naval and joint leadership roles.

• The Human Performance Center (HPC) has been established to apply Human Performance and Human System Integration principles in the research, development and acquisition processes. In short, the HPS will help us understand the science of learning. They will ensure training is driven by fleet requirements and they will focus requirements on the performance needed to carry out our missions. This will eliminate potential performance and training deficiencies, save money and help us improve our readiness.

• The Integrated Learning Environment (ILE) is the heart of our revolution in training. ILE is a family of systems that, when linked, will provide our sailors with the ability to develop their own learning plans, diagnose their strengths and weaknesses, and tailor their education to support both personal and professional growth. They will manage their career requirements, training and education records. It will match content to career requirements so training is delivered at the right time. Most importantly, these services will be provided anytime, anywhere via the Internet and the Navy-Marine Corps Intranet (NMCI).

We are taking advantage of every opportunity to accelerate the tools we need to develop our 21st century workforce. The improvements and pilots that Congress has supported—including bonuses, pay table adjustments, retirement reforms, better medical benefits, and our Sea Warrior initiatives—are having the desired impact.

Your support of our fiscal year 2005 request for a 3.5 percent basic pay raise, for our efforts to transform our manpower structure in some fundamental ways, and for a reduction in average out-of-pocket housing costs from 3.5 percent to 0 will have a direct effect on our ability to properly size and shape the 21st century workforce that is our future.

C. Accelerate Our Investment in Sea Power 21

As I testified last year, Sea Power 21 defines the capabilities and processes that the 21st century Navy will deliver. We now have an opportunity to accelerate the advantages that our vision for a joint, netted, and sea-based force provides this Nation, thanks to the tremendous investments that you have made in our battle for people, in the quality of service for each of our sailors, and in readiness.

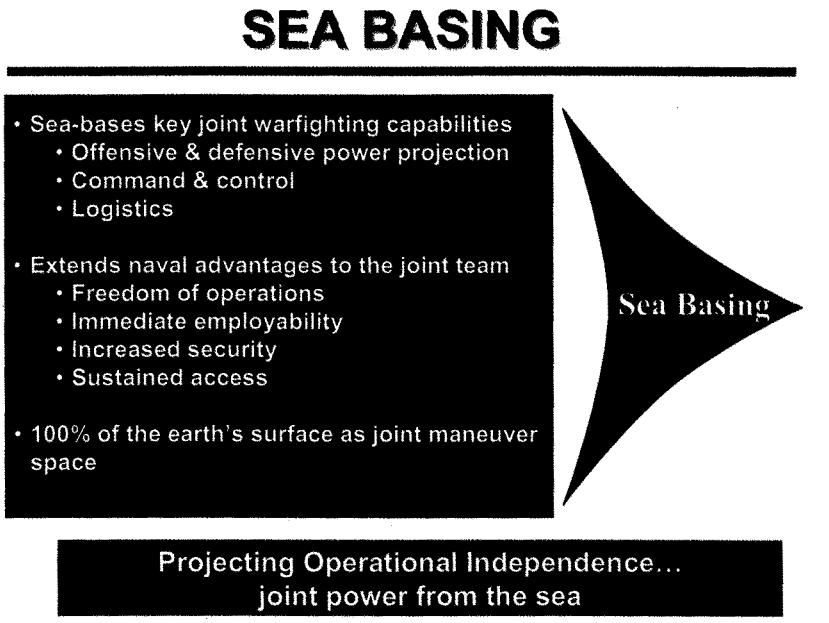
This year, we will pursue distributed and networked solutions that could revolutionize our capability. We will focus on the power of sea basing and our complementary capability and alignment with our number one joint partner, the U.S. Marine Corps. We will sustain a robust science and technology program, and we will exploit investments made in joint research and development (R&D) wherever possible.

For example, we are urgently pursuing technical advances to support our sailors, soldiers, airmen, and marines in Iraq. The Naval Sea Systems Command and the Office of Naval Research are working closely with all Services, government agencies, industry, and academic and government laboratories to identify, test, and deploy promising technologies that can counter improvised explosive devices (IEDs), snipers, suicide bombers, and other force protection threats. We are also pursuing other quick-reaction technology initiatives such as persistent wide-area surveillance using small UAVs, blue force tracking technology, body armor, and extremity protection. We are committed to ensuring that the joint force on the ground is as equipped as they possibly can be to accomplish their mission.

Our highest priority programs within each of the core capability sets that define our Sea Power 21 vision.

Sea basing is the projection of operational independence. Our future investments will exploit the largest maneuver areas on the face of the Earth: the sea. Sea basing serves as the foundation from which offensive and defensive fires are projected—

making Sea Strike and Sea Shield a reality. Sea basing capabilities include, Joint Command and Control, Afloat Power Projection and Integrated Joint Logistics.



Our intent is to maximize our sea basing capability and minimize as much as possible our reliance on shore-based support nodes. To do this, we will make doctrinal, organizational and operational changes mandated by this concept and by the underlying technology that makes it possible. We have an opportunity here, along with the U.S. Marine Corps and the U.S. Army, to reexamine some of the fundamentals of not only how we move and stage ground forces, but how we fight ashore as well. Our highest priority sea basing investments include:

• Surface Combatant Family of Ships. As I have already testified, the power of joint forces in OIF was in the synergy of individual Service strengths. The same concept holds true within the Navy itself. We seek the synergy of networks, sensors, weapons, and platforms that will make the joint force greater in combat power than the sum of the individual parts. Development of the next generation of surface combatants as "sea frames"—analogous to "air frames"—that are part of a modular system is just such an endeavor.

The surface combatant family of ships allows us to dramatically expand the growth potential of our surface combatants with less technical and fiscal risk. To bring these concepts to life and to take them—and the fight—to the enemy, we have decided upon three entirely new ship classes. The first to premier will be the LCS in 2007. The DD(X) will follow in about 2011. Just a few years after the first DD(X), the keel will be laid on the first CG(X), the next class of cruiser designed from the keel up for theater air and ballistic missile defense.

Our R&D efforts and experimentation with high speed and theater support vessels like *Swift*, and the X-Craft later this year, are helping us reduce our technical risk and apply important lessons in hull design and mission modularity to the development of the surface combatant family of ships. DD(X)is the heart of the family and will spiral promising technologies to both CG(X) and LCS in the future. I will discuss each one of these ships in more detail below.

• CVN 21 is the centerpiece of the Navy CSG of the future. It will bring transformational capabilities to the fleet, including a new electrical generation and distribution system, the electromagnetic aircraft launching system (EMALS), a new/enlarged flight deck, weapons and material handling improvements, and a crew reduction of at least 800 personnel. It will be able to generate higher daily and sustained sortie rates than our *Nimitz*-class aircraft carriers. Our fiscal year 2005 request of

$979 million in R&D and procurement funding continues the development of CVN 21 and several critical technologies in the lead ship, including the EMALS prototype and testing already ongoing in Lakehurst, New Jersey. Construction of the CVN 21 remains on track to start in fiscal year 2007.

• CVN 70 RCOH. The fiscal year 2005 budget provides advanced procurement funds for the U.S.S. *Carl Vinson* (CVN 70) RCOH, now scheduled to begin in fiscal year 2006. CVN 70 has sufficient reactor fuel for one additional deployment. This action makes the best possible use of *Carl Vinson*'s remaining fuel capacity and improves shipyard work loading.

• MPF(F). These future Maritime Prepositioning Ships will serve a broader operational function than current prepositioned ships, creating greatly expanded operational flexibility and effectiveness. We envision a force that will enhance the responsiveness of the joint team by the at-sea assembly of a Marine Expeditionary Brigade that arrives by high-speed airlift or sealift from the United States or forward operating locations or bases. These ships will off-load forces, weapons and supplies selectively while remaining far over the horizon, and they will reconstitute ground maneuver forces aboard ship after completing assaults deep inland. They will sustain in-theater logistics, communications and medical capabilities for the joint force for extended periods as well. Our fiscal year 2005 request accelerates the lead MPF(F) from fiscal year 2008 to fiscal year 2007 to reflect our emphasis on Sea Basing capabilities.

Sea Strike is the projection of precise and persistent offensive power. The core capabilities include Time Sensitive Strike; ISR; Ship to Objective Maneuver; and Electronic Warfare and Information Operations.

We are already investing in impressive programs that will provide the capabilities necessary to support Sea Strike; these include the following fiscal year 2005 priorities:

• DD(X). The technology engine for the fleet, DD(X) is the centerpiece of a surface combatant family of ships and will deliver a broad range of capabilities. This advanced multi-mission destroyer will bring revolutionary improvements to precise, time-critical strike and joint fires and our Expeditionary Strike Groups of the future.

Transformational and leap ahead technologies include an electric drive and integrated power system; an advanced gun system (AGS) with the high rate of fire and precision to reach almost 8 times farther and command more than 110 times the area of our current five inch capability; the new Multi-Function Radar/Volume Search Radar suite; optimal manning through advanced system automation, stealth through reduced acoustic, magnetic, infrared, and radar cross-section signature; and enhanced survivability through automated damage control and fire protection systems. DD(X) is an enabler both technically and operationally. This seaframe will also reduce our seagoing manpower requirements and will lower total ownership costs.

This program will provide a baseline for spiral development of technology and engineering to support a range of future seaframes such as CG(X). It will also enable the transformation of our operations ashore. Imagine an Army or Marine rifleman on the ground and Navy petty officer at sea looking at the same real-time picture of enemy troops encamped at a municipal airport. With the push of a button, the rifleman sends targeting coordinates to the petty officer in a DD(X) more than 50 miles offshore. Within a few minutes, rounds from the AGS start falling on the airport with incredible accuracy. That kind of on-demand, persistent time-critical strike will revolutionize our joint fire support and ground maneuver concepts of operation and it will free our strike fighter aircraft for more difficult targets at much greater ranges.

DD(X)'s all-electric drive, called the Integrated Power System (IPS), will not only drive the ship through the water, but will also generate the kind of power capacity that will enable eventual replacement of the AGS. When combined with the physical capacity and volume of the hull form, DD(X) could lead us to revolutionary technologies from the naval research enterprise like the electromagnetic rail gun and directed energy weapons. The fact that rail guns do not require any explosives will free up magazine space for other mission areas. This capability is projected to be a reality in the 2015 to 2018 timeframe. DD(X) will be in service for decades after that; having the kind of growth potential to install those kinds of technologies dramatically lowers our future development costs.

The funding profile for DD(X) supports the 14,000-ton design and the S-Band Volume Search Radar (VSR). Lead ship detail design and construction are planned to start in fiscal year 2005.

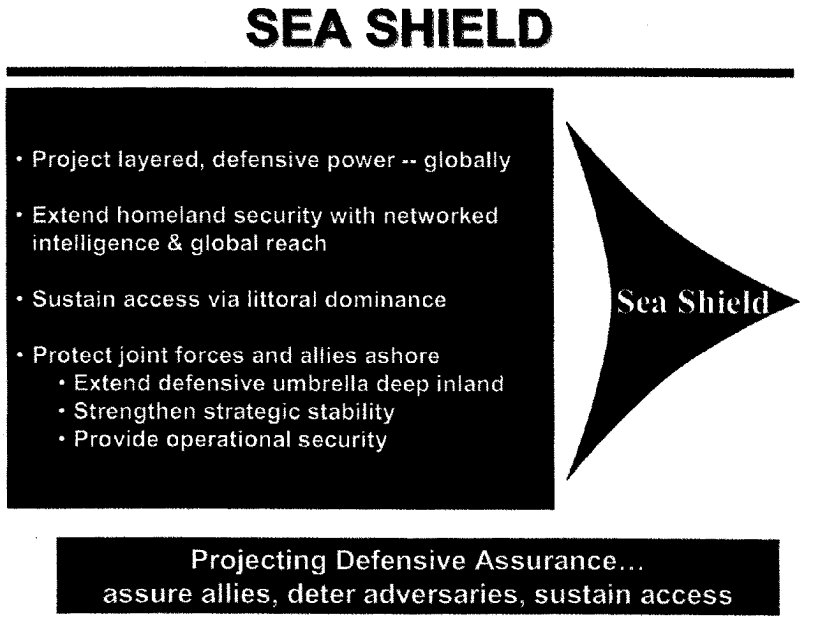
• JSF. The JSF will enhance our Navy precision with unprecedented stealth and range as part of the family of tri-Service, next-generation strike aircraft. It will maximize commonality and technological superiority while minimizing life cycle cost. The JSF has just completed the second year of a 10–11 year development program, and is experiencing a variety of typical challenges that affect System Development and Demonstration (SDD) program schedule and cost. Additional design work is required to address technical issues, primarily weight projections. The budget therefore realigns $5 billion from procurement appropriations in fiscal year 2005 through fiscal year 2009, and Low Rate Initial Production (LRIP) was deferred 1 year to fiscal year 2007. The JSF remains vital to our future. It will give us the range, persistence and survivability needed to keep our strike fighters viable for years to come.

• SSGN. Funding is included in fiscal year 2005 to continue the SSGN conversion program. Our future SSGN capability will provide covert conventional strike platforms capable of carrying 150 Tomahawk missiles. The SSGN will also have the capacity and capability to support SOF for an extended period, providing clandestine insertion and retrieval by lockout chamber, dry deck shelters or the Advanced Seal Delivery System (ASDS), and they will be arrayed with a variety of unmanned vehicles to enhance the Joint Forces Commander's knowledge of the battlespace. The inherently large capacity of these hulls will enable us to leverage future payloads and sensors for years to come. We still expect our first SSGN to be operational in 2007.

• EA–18G. Last year, you initiated funding at our request to replace the aging EA–6B Prowler with the EA–18G AEA aircraft. Increased EA–6B usage in 2003 has resulted in wing center section or outer wing panel fatigue for some 43 EA–6B aircraft, making your support last year critical to our ability to dramatically accelerate the recapitalization of the Nation's only joint electronic attack capability. Using the demonstrated growth capacity of the F/A–18E/F, the EA–18G will quickly recapitalize our electronic attack capability at lower procurement cost, with significant savings in operating and support costs; all while providing the growth potential for fu-

ture electronic warfare system improvements. It will use the Improved Capability Three (ICAP III) receiver suite and provide selective reactive jamming capability to the warfighter. This will both improve the lethality of the air wing and enhance the commonality of aircraft on the carrier deck. We begin purchasing airframes in fiscal year 2006 and will achieve initial operating capability in 2009.

Sea Shield is the projection of layered, global defensive power.



Sea Shield will enhance deterrence and warfighting power by way of real-time integration with joint and coalition forces, high speed littoral attack platforms setting and exploiting widely distributed sensors, and the direct projection of defensive power in the littoral and deep inland. Sea Shield capabilities include: homeland defense, sea and littoral control, and theater air and missile defense. Our highest priority Sea Shield programs this year include:

• Mine Warfare Programs. We intend to field a set of unmanned, modular mine countermeasure (MCM) systems employable from a variety of host platforms or shore sites to minimize our risk from mines and sustain our national economic and military access to every corner of the globe. Our future MCM capability will be faster, more precise and organic to both Expeditionary and Carrier Strike Groups and will ultimately remove both the man and our mammals from the minefield. Within the FYDP, we expect to reduce the time that it takes to render sea mining ineffective by at least half of the time that it takes us today.

Our fiscal year 2005 budget request includes funding to realize organic mine warfare capabilities in one Strike Group this year, while maintaining the funding necessary for a potent and dedicated MCM force. We have also requested an increase of $167 million across the FYDP for mine warfare programs, to include unmanned vehicles such as the Long-Term Mine Reconnaissance System (LMRS) to provide a clandestine mine reconnaissance capability from our *Los Angeles*-class submarines, and the Remote Minehunting System on *Arleigh Burke*-class destroyers (DDGs 91–96). Both of these programs are scheduled to reach initial operating capability (IOC) milestones this year. Future introduction of the LCS with mine warfare mission modules will improve the ability of Strike Groups to neutralize mine threats in parallel with—not in sequence before—other operations.

• Littoral Combat Ship. The role of LCS is to provide access to joint forces in the littorals; a capability gap we identified as a result of the 2001 Quadrennial Defense Review. During the past year and a half, considerable campaign analysis and fleet battle experiments have demonstrated that naval forces need better ways to fight

mines; small, fast, highly armed boats; and quiet diesel and advanced air-independent propulsion submarines operating in shallow waters. The performance of U.S. Navy Patrol Craft and the experimental HSV–X1 Joint Venture in the Iraqi littoral was critical to the early detection and destruction of the Iraqi mine threat. The same kind of capability needs to be delivered in a fast, maneuverable, shallow-draft platform that has the survivability to operate independently. LCS will have these characteristics, along with self-defense, navigation, and command-and-control systems.

LCS will be built from the keel up to be a part of a netted and distributed force, and will be the first ship designed with FORCEnet as a requirement. The main battery of LCS will be its off-board systems: manned helicopters and unmanned aerial, surface and underwater vehicles. It is the off-board vehicles—with both sensors and weapons—that will enter the highest threat areas. Its modular design, built to open-systems architecture standards, provides flexibility and a means to rapidly reconfigure mission modules and payloads. As technology matures, the Navy will not have to buy a new LCS platform, but will upgrade the mission modules or the unmanned systems.

LCS also will have an advanced hull design and be significantly different from any warship that has been built for the U.S. Navy. Detail design and construction of the first LCS Flight 0 ship is planned in fiscal year 2005. The LCS requirements process is tailored to support the rapid delivery of two flights (Flight 0 and 1) of ships, using an evolutionary, "spiral" acquisition approach. The spiral development process allows time-phased capability improvement for ship and mission systems. This incremental development and delivery strategy supports the ship's accelerated acquisition schedule, diverse threat and capability requirements, and dynamic levels of technology push/pull. The ship's modular, open design will also enable lifecycle adaptability and affordability. Four LCSs have been added since last year's budget plan was submitted.

• Missile Defense. Our Navy is poised to contribute significantly in fielding initial sea based missile defense capabilities to meet the near-term ballistic missile threat to our homeland, our deployed forces, and our friends and allies. We are working closely under the authority of the Missile Defense Agency (MDA) to deliver this much-needed capability to the Nation's combatant commanders. Our sea-based missile defense programs experienced tremendous success on the test range this year, scoring two of three intercepts. Continued development and testing will support initial defensive operations beginning in the fall of 2004, with select *Arleigh Burke*-class destroyers providing long range surveillance and tracking to the Nation's capability late this year.

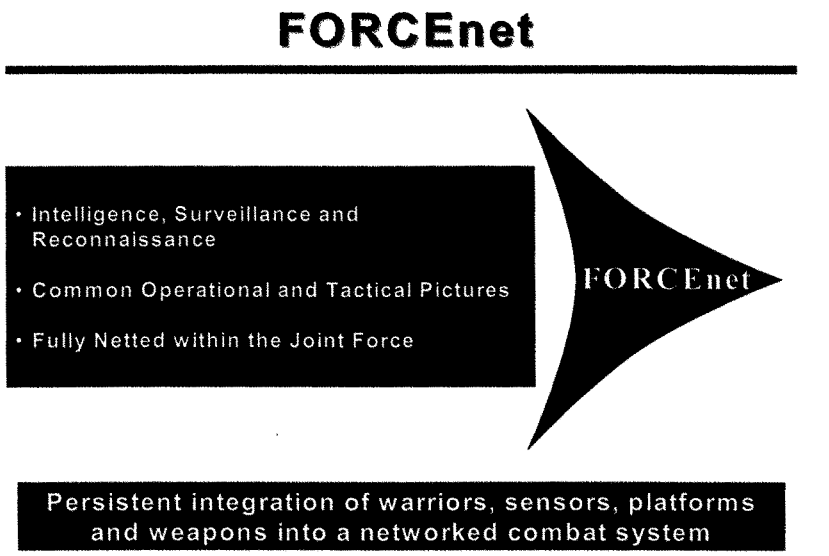
• MMA—Broad Area Maritime Surveillance (BAMS). We significantly increased this year's R&D funding for the MMA to recapitalize our 1950s-era Lockheed "Electra" based P–3 force. Our acquisition plan was further refined this past year with the integration of the BAMS–UAV program into the overarching Maritime Patrol and Armed Reconnaissance requirement. This lethal combination of manned and unmanned reconnaissance aircraft will recapitalize our maritime patrol anti-submarine warfare, anti-surface warfare and armed ISR capability. We also developed a robust sustainment plan for the current P–3 fleet that includes special structural inspections (SSI) and kits that extend P–3 service lives by a minimum of 5,000 hours. This SSI program will replace, correct or modify our current P–3 force to ensure that they do not prematurely reach the end of their fatigue life before we achieve IOC of the MMA in 2013.

• *Virginia*-class submarine (SSN–774). The first ship of this class was christened this year and will commission in 2004. This class will replace *Los Angeles*-class (SSN–688) attack submarines and will incorporate new capabilities, including unmanned vehicles, and the ability to support SOF. It will be an integral part of the joint, networked, dispersed 21st century fleet. Our fiscal year 2004 budget funded the first of five submarines under the MYP contract authorized by Congress last year. The second submarine of the MYP contract is funded in fiscal year 2005. Approximately $240 million in economic order quantity advance procurement is funded in fiscal year 2005 in support of this contract.

• CG Modernization. Funding for the *Ticonderoga*-class cruiser modernization continues in fiscal year 2005. The Cruiser Modernization Program is a mid-life upgrade for our existing Aegis cruisers that will ensure modern, relevant combat capability well into this century and against evolving threats. These warships will provide enhanced area air defense to the Joint Forces Commander. These modifications include installations of the Cooperative Engagement Capability, which enhances and leverages the air defense capability of these ships, and an antisubmarine warfare (ASW) improvement package. These converted cruisers could also be available

for integration into ballistic missile defense missions when that capability matures. Our first cruiser modernization begins in fiscal year 2006.

FORCEnet is the operational construct and architectural framework for naval warfare in the joint, information age. It will allow systems, functions, and missions to be aligned in a way that will transform our situational awareness, accelerate speed of decisions and allow naval forces to greatly distribute its combat power in a unified, joint battlespace. FORCEnet provides the world-class information and technology (IT) tools that we need to continue to be the world-class Navy.



Programs that will enable the future force to be more networked, highly adaptive, human-centric, integrated, and enhance speed of command include:

• Navy Marine Corps Intranet. NMCI is operational and providing commercial IT services for more than 300,000 Navy employees and two combatant commanders. This initiative, as part of our FORCEnet strategy, is providing a single, secure shore-based network and will link with our tactical networks to provide end-to-end collaboration within the Navy and across the joint community. fiscal year 2005 funding of $1.6 billion provides for NMCI operations and, at the same time, continues transition of the remaining legacy IT networks to NMCI enterprise network services. This past year, with the help of the authorizing language you provided, the NMCI program finalized a full partnership agreement with the Defense Information Systems Agency (DISA) for operations and provisioning.

• Mobile User Objective System (MUOS). The new MUOS Satellite Communications (SATCOM) program will increase DOD narrowband ultra-high frequency (UHF) SATCOM capacity by roughly 1,300 percent over current capabilities. MUOS is a $6.4 billion joint interest program, and it supports a particularly important "Comms-on-the-Move" capability for handheld terminals, aircraft, missiles, and UAVs in urban and heavily wooded terrain. We plan to reach the initial operational capability (IOC) milestone in 2009, with full operational capability in 2013.

• Joint Aerial Common Sensor (JACS). We have partnered with the Army in the JACS development program in our pursuit of a replacement for the aging EP–3 airborne information warfare and tactical signals intelligence (SIGINT) aircraft. JACS will provide multi-intelligence strike targeting data and Signals Intelligence capabilities, and will include a Synthetic Aperture Radar, Ground Moving Target Indicator, electro-optical and infrared sights, and measurements and signature capabilities. These will be coupled with automatic/manual data fusion. Our fiscal year 2005 request includes $25 million for this program.

• Joint Tactical Radio System (JTRS). JTRS will be the wireless "last tactical mile" component of the Global Information Grid (GIG) and will transform Navy's tactical communications systems by incorporating Internet Protocol (IP) communica-

tions over multi-spectral radio frequency (RF) media. JTRS is a software programmable, multi-band, multi-mode family of net-workable radios, capable of simultaneous voice, data, video communications and mobile ad hoc networking. Our fiscal year 2005 request includes $56 million for JTRS.

• Deployable Joint Command Control System (DJC2). DJC2 is the priority command and control (C2) transformation initiative. DJC2 will provide a standing, fully deployable, scaleable, and standardized C2 capability to the regional combatant commanders (RCC) and Joint Force Commanders. DJC2 responds to the need for joint, deployable C2 capability, with first RCC delivery to Pacific Command (PACOM) in fiscal year 2005. DJC2 is an enabler for the Standing Joint Force Headquarters concept being developed by Joint Forces Command (JFCOM). The Navy is lead component for the acquisition program, and we ask your support for the $81 million we've requested in fiscal year 2005.

D. Improving Effectiveness

As I have testified, your Navy today is the most capable and most ready Navy in our history, thanks in large part to the support of Congress and of the American people. But, I believe that we can do better—that, in fact, we must do better—as stewards of the public trust in determining not just how much we should spend on programs, but how those defense dollars are spent. This is especially true today because of the strategic challenges posed by the ongoing global war on terrorism, because of our need to recapitalize aging, Cold War-era infrastructure and capability, and because of the burgeoning technological and operational changes that will dramatically alter the way we fight. Revolutionizing the way in which our defense dollars are spent presents opportunities to increase our effectiveness, both now and in the future.

Sea Enterprise is focusing headquarters leadership on outputs and execution, and is creating ideas that will improve our productivity and reduce our overhead costs. Its key objectives are to:

• Leverage technology to improve performance and minimize manpower costs;
• Promote competition and reward innovation and efficiency;
• Challenge institutional encumbrances that impede creativity and boldness in innovation;
• Aggressively divest non-core, underperforming or unnecessary products, services and production capacity;
• Merge redundant efforts;
• Minimize acquisition and life-cycle costs;
• Maximize in-service capital equipment utilization; and
• Challenge every assumption, cost, and requirement.

Department of the Navy senior leadership is actively engaged in tracking the execution of ongoing Sea Enterprise initiatives totaling approximately $40 billion, and identifying $12.4 billion in cost savings and requirements mitigation across the FYDP. We are committed to efficiency and productivity improvements that will generate the savings necessary to augment our investment stream and implement our Sea Power 21 vision—delivering the right force, with the right readiness, at the right cost. Specific highlights of these fiscal transformation initiatives include:

• Right Readiness. Along with the FRP, we have also initiated processes ashore that will generate a more effective force. As just one example, we have established a single shore installation management organization, Commander, Navy Installations (CNI), to globally manage all shore installations, promote "best practices" development, and provide economies of scale, increased efficiency, standardization of polices, and improved budgeting and funding execution. This initiative is anticipated to save approximately $1.2 billion across the FYDP.

• Right Cost. We have taken a hard look at our "level of effort" programs to maximize return on taxpayer investment. This year's effort generated $2 billion in future savings in programs not supported by specific performance metrics in force structure, readiness or cost benefit. In addition, we focused on streamlining our organizations and processes as a means to harvest efficiencies and control costs. Innovative programs like Shipmain and the Naval Aviation Readiness Integrated Improvement Program are aiding in developing and sharing best practices, streamlining maintenance planning and improving performance goals in shipyards, aviation depots, and intermediate maintenance activities. We also reorganized the Navy Supply Systems Command, including the establishment of the Naval Operational Logistics Support Center to consolidate transportation, ammunition and petroleum management. We will continue to look for additional opportunities in this area while leveraging the gains already made.

• Right Force. We believe transformation to our future force must include improving our buying power. To improve upon our force structure, we are divesting noncore, redundant, underperforming, and outdated products and services. We are using multi-year procurement contracts and focusing where possible on economic order quantity purchase practices to optimize our investments. An excellent example lies in the F/A–18E/F multi-year procurement contract that anticipates procurement of 210 aircraft while saving us in excess of $1.1 billion across the FYDP. We also recognize the need to transform our single greatest asymmetric advantage, our people. The upcoming year will focus on ensuring we not only have the right number, but the right mix of military, civilian, and contractor personnel to accomplish the mission at the lowest possible cost. You have given us a tremendous tool to enhance our flexibility in this area, the NSPS, and we plan to take full advantage of it.

Building on prior efforts, I am dedicating a significant amount of personal time to conducting execution reviews with leadership at the major commands across the Navy because, as I see it, leadership engagement in execution is an essential step to achieving our Sea Enterprise objectives. These reviews have provided me the opportunity to focus on the intricate details of the organizations while ensuring commanders are aligned with the vision and direction in which we are steaming. We focus on ways to swiftly move from strategy to implementation, as well as innovative ways to reduce costs and return resources to the enterprise for reinvestment.

In 2005, the Navy will continue to pursue product and process efficiencies and the opportunities to be more effective while improving our warfighting capability. Harvesting the savings for recapitalization is a vital part of that effort, and we will continue to balance the benefits of new productivity initiatives against operational risks. Our intent is to foster a culture of continuous process improvement, reduce overhead, and deliver the right force structure both now and in the future.

IV. CONCLUSION

For us, winning the global war on terrorism remains our number one objective—and victory is the only acceptable outcome. To achieve this, we are accelerating the advantages we bring to the Nation.

The FRP will improve upon the operational availability of fleet units, providing forward deployed forces for enhanced regional deterrence and contingency response, while at the same time, retaining the ability to rapidly surge in times of crisis.

We are investing in enhanced warfighting capability for the joint force, using the extended reach of naval weapons and sensors to reach farther and more precisely with striking power, and deliver broader defensive protection for joint forces ashore and fully leverage our command of the sea.

We are creating a personnel environment that attracts, retains, and relies upon creative, effective, and competitive people. We are investing in the tools, the information technology, and the training that delivers more meaningful job content to them because it is they who offer us our greatest advantage.

The support of Congress is vital to our readiness today and to building the Navy of tomorrow—I thank you for your dedicated efforts and support.

Chairman WARNER. Thank you very much, Admiral. I felt it important to pose that question at this particular time because we are very proud in this Nation of civilian control of the military. Nevertheless, those in the ranks look up and they see you as Chief of Naval Operations (CNO) and they repose in you and the other chiefs a very special trust and confidence. That statement that you just made will resonate throughout the Armed Forces of the United States.

Thank you.

General Hagee.

STATEMENT OF GEN. MICHAEL W. HAGEE, USMC, COMMANDANT OF THE MARINE CORPS

General HAGEE. Thank you. Mr. Chairman, Senator Levin, distinguished members of the committee: It is my privilege to report to you that your marines, active and Reserve, are well trained, well equipped, highly motivated, and they are ready. As Senator

Lieberman so beautifully articulated, their families are behind them.

Your support, and that of the American people, is critical and deeply appreciated. Your sustained commitment to improving our Nation's Armed Forces to meet the challenges of today as well as those of the future is vital to our Nation's security.

Mr. Chairman, in answer to your question, I was in sort of a unique position over the last couple of years, two positions actually. Before becoming Commandant of the Marine Corps, I was the Commanding General of the First Marine Expeditionary Force (MEF). That, of course, was the force that fought up on the right flank in Iraq. In that role I was very involved in the planning of that particular operation. I can tell you, sir, that based on the intelligence that I had received from throughout the Intelligence Community and the analysis of our own internal intelligence individuals, I was absolutely convinced that Saddam Hussein had chemical weapons, if not biological weapons, and that he would use them when we crossed the line of departure.

We prepared those marines for that contingency. We went to great lengths to secure the Saratoga suits. We went to great lengths to ensure they all had protective masks and the appropriate number of filters. We had both chemical and biological detection devices, devices that we did not normally have in the Marine Corps, brought in for that contingency.

I took over as Commandant of the Marine Corps on January 13 of last year. The intelligence that I saw once I came back here to Washington convinced me that I was correct in my analysis. When we crossed the line of departure last March, I was still convinced that he was going to use chemical weapons on our marines and our soldiers. In that particular stance, I am happy that I was wrong on that.

But looking back on the intelligence that we had at that particular time, there is nothing different that I would do, even having perfect vision looking back.

Sir, the Marine Corps' first priority is and will continue to be warfighting readiness and excellence in support of our Nation. In the near term, the Marine Corps is focused on readiness to provide expeditionary forces that meet our Nation's demanding needs. For the long term, the Marine Corps and the Navy are committed to developing a sea basing capability that will provide a critical joint competency for assuring access and projecting power from the sea worldwide.

During this past year, your marines, both active and Reserve, were engaged in operations in support of the global war on terrorism from Afghanistan to the Horn of Africa to Liberia. Highlighting the value of our expeditionary capability, in OIF we deployed a combat-ready sustainable force of almost 70,000 marines and sailors in less than 60 days.

We are now preparing to deploy forces to relieve Army units in western Iraq in support of OIF 2. Beginning this month, we will deploy approximately 25,000 marines into Iraq. In our preparations we are working closely with Army forces in and outside concerning equipment, tactics, techniques, and procedures. We are also draw-

ing on analysis of our experiences last year in southern Iraq, the tactics of the British, and our own extensive small wars experience.

Before we deploy, we are conducting rigorous urban operations training and language and cultural education. We are paying particular attention to individual and vehicle protective equipment enhancements and procedures. We are also continuing to improve our warfighting capabilities by leveraging advancements in technology, developing innovative organizations, and improving our joint training. Currently the First Expeditionary Strike Group, which combines the capabilities of essentially a surface action group, submarine and maritime patrol aircraft, with those of an amphibious ready group and a Marine expeditionary unit, special operations capable, is returning from its deployment to the U.S. Central Command (CENTCOM) area of responsibility (AOR).

We are combining our analysis of OEF and OIF with the lessons from this initial deployment in order to enhance our adaptability, flexibility, and lethality. In addition, naval tactical air (TACAIR) integration continues to be implemented and we are aggressively improving our interoperability with special operations forces.

Our top ground and aviation programs are adequately funded. The introduction of new systems such as the MV–22 Osprey, the Expeditionary Fighting Vehicle, the JSF, the Lightweight 155 Howitzer, the Four-Bladed Cobra and Huey Upgrade Helicopters, and the High Mobility Artillery Rocket System into our force structure will significantly increase our speed, flexibility, and our overall expeditionary and amphibious warfighting capabilities.

In planning for the future uncertainties, the Secretary of the Navy, the CNO, and I are committed to developing a sea basing capability that will provide a critical joint competency for assuring access and projecting power that will greatly improve the Nation's security. Sea basing in the future will assure joint access by capitalizing on the dilemma created by the operational maneuver of forces from the sea. The replacement ships for the amphibious assault ships (LHA) class are an essential part of our concept of joint sea basing.

Mr. Chairman, lastly I would like to emphasize the magnificent performance of your individual marines, the most agile and lethal weapon system we possess.

On behalf of all marines, I thank this committee for your steadfast support and I look forward to your questions.

[The prepared statement of General Hagee follows:]

PREPARED STATEMENT BY GEN. MICHAEL W. HAGEE, USMC

Chairman Warner, Senator Levin, distinguished members of the committee; it is my honor to report to you on the state of readiness of your United States Marine Corps. Your marines are firmly committed to warfighting excellence, and the support of Congress and the American people has been indispensable to our success in the global war on terrorism. Your sustained commitment to improving our Nation's Armed Forces to meet the challenges of today as well as those of the future is vital to the security of our Nation. On behalf of all marines and their families, I thank this committee for your continued support.

I. INTRODUCTION

In the near-term, the Marine Corps' top priorities are to maintain our high state of readiness and to provide capable forces that meet the demanding needs of the unified combatant commanders in order to prosecute the global war on terrorism in

support of the Nation. For the long-term, the Marine Corps and Navy are committed to developing a sea basing capability that will provide a critical joint competency for assuring access and projecting power that will greatly improve the security of the United States. The marked increase in our warfighting capability will be apparent as we introduce new systems such as the MV–22 Osprey, the Expeditionary Fighting Vehicle (EFV), the Joint Strike Fighter (JSF), and the Lightweight 155mm Howitzer into our force structure, using them to enhance the already potent combat power of our Marine Air-Ground Task Forces (MAGTFs) as integral elements of our Nation's joint force.

The Navy-Marine Corps team continues to play a critical role in the global war on terrorism and in the establishment of stability and security throughout the world. During this past year, the Marine Corps, both active and Reserve, was engaged in operations from Afghanistan to the Arabian Gulf, the Horn of Africa, Liberia, the Georgian Republic, Colombia, Guantanamo Bay, and the Philippines. Most prominent in highlighting the value and power of the Nation's naval expeditionary capability was the Marine Corps' participation in Operation Iraqi Freedom (OIF). Success in this operation underscored the unique contributions of our multi-dimensional naval dominance, our expeditionary nature, our flexibility to deal with complex situations and challenges, and the adaptability of our forces and individuals in order to defeat the challenges posed by adaptive, asymmetric enemies, and long-term threats.

Early last year, the I Marine Expeditionary Force (MEF) deployed a combat ready force of almost 70,000 marines and sailors in less than 60 days using the full array of our complementary power projection capabilities. Forward deployed Marine Expeditionary Units (MEUs) (Special Operations Capable) again demonstrated their proven value for immediate response. Eleven strategically located Maritime Prepositioned Force ships were unloaded in 16 days to provide the equipment and sustainment for two Marine Expeditionary Brigades. A 7 ship amphibious force from each coast embarked a total of 11,500 marines, sailors, and their equipment and within 30 days these 14 ships began to arrive and offload in Kuwait. Strategic sea and air lift was also vital to our success in this effort. Exploiting the operational speed, reach, and inherent flexibility of seapower, the Navy-Marine Corps team achieved a rapid buildup of sustained warfighting power that was combat ready to support U.S. Central Command (CENTCOM) on March 1, 2003.

Closely integrated with our joint and coalition partners, as well as Special Operations Forces (SOF), the I MEF provided the combatant commander with a potent combined arms force comprising a balance of ground, aviation, and combat service support elements all coordinated by a dynamic command element. This teamwork—the product of demanding and realistic Service and joint training—presented a multi-dimensional dilemma for the Iraqi regime's forces and loyalists. It also greatly increased the range of options available to our leadership as they addressed each unique and complex situation. The integration of the 1st United Kingdom Division within the I MEF provides outstanding lessons for achieving merged coalition capabilities and consistent goals in the future.

The combat power of I MEF generated an operational tempo that our enemy could not match. With short notice that operations would commence early, the marines and their joint and coalition partners rapidly secured key strategic objectives. The I MEF then engaged in 26 days of sustained combat operations. Using the tenets of maneuver warfare, they executed four major river crossings, fought 10 major engagements, and destroyed 8 Iraqi divisions before stopping in Tikrit—almost 500 miles inland. In support of Joint Special Operations Forces Northern Iraq, the 26th MEU inserted a MAGTF from the Eastern Mediterranean into Northern Iraq—almost 1,200 miles distance. The sustained resources of the Marine Force, which were derived primarily from our seaborne logistics, provided us unrivaled advantages. While our logistics were stretched by the operational commanders, our combat service support units demonstrated flexibility and resourcefulness.

Highlighting the expeditionary mindset of marines, our combined arms force successfully operated in desert, urban, swamp, and rural environments while effectively conducting combat, peacekeeping, and humanitarian operations—at times simultaneously. Marines also demonstrated the ability to re-task and reorganize to conduct unanticipated missions like the taking of the city of Tikrit. Following major combat operations, I MEF assumed responsibility for security and stability in five Central Iraq provinces until they were relieved of the last province by coalition forces this past September. Flexibility and adaptability are key characteristics of an expeditionary force, and they are critical advantages that we must seek to optimize for the future, particularly in this era of global uncertainty.

Recent operations also emphasize the increased importance of access to key regions for projecting our Nation's power. With global interests, the United States

must retain the capability to secure access as needed. Power projection from the sea greatly increases the range of options available to avert or resolve conflicts. A credible naval forcible-entry capability is critical to ensure that we are never barred from a vital national objective or limited to suboptimal alternatives.

Since the end of major combat operations, the Marine Corps has been setting the force in order to enhance warfighting readiness for future contingencies. We are reloading combat equipment and materiel on the ships of the Maritime Prepositioned Squadrons while also ensuring that the requirements for OIF 2 are fulfilled. We are using provided funding to repair, refurbish, and where necessary, replace equipment. During this period, marines have continued to forward deploy. Marine Corps units are supporting Operation Enduring Freedom (OEF) in Afghanistan, operations in the Horn of Africa, exercises critical to supporting the Combatant Commanders' Theater Security Cooperation Plans, and counterdrug operations in support of joint and joint-interagency task forces. In addition, we have conducted a major program to identify and analyze lessons learned from the Iraqi campaign. We have also begun to assimilate these lessons and determine where and how our force should be rebalanced.

As the last few years have demonstrated, the Marine Corps Reserve is a full partner in our total force. Reserve units participated in all aspects of the war in Iraq, providing air, ground, and combat service support as well as a large number of individual augmentees to marine and joint staffs. Mobilized Marine Reserve infantry battalions have also served as ready reaction forces, "on call" to support the Federal Emergency Management Agency's (FEMA) role in homeland security.

II. BUILDING ON SUCCESS FOR IMMEDIATE OPERATIONS

We continue to execute global operations and exercises with our joint and coalition partners. The Marine Corps is preparing to deploy forces to relieve the 3d Armored Cavalry Regiment and the 82d Airborne Division in Western Iraq in support of OIF 2. These forces will be deployed in two rotations of 7 months each. This rotation policy will result in the least disruption for the long-term health of the Marine Corps, precluding stop-loss/stop-move and unnecessary interruptions in recruit training, career progression and development, professional military education, and other deployment requirements. The first rotation, from March until September 2004, will include 25,000 marines and their equipment and includes almost 3,000 Reserve component marines. A second rotation—of like size and composition—will overlap the first and ensure a smooth and stable transition.

In preparation for OIF 2, I MEF has analyzed lessons learned from their experiences in conducting security and stability operations from March to September 2003, and recent Army lessons learned. As they did last year, I MEF is working closely with the Army Forces in Iraq; they have conducted a number of liaison visits with the Army units they will relieve. They have drawn from procedures used by the Los Angeles Police Department for neighborhood patrolling in gang dominated areas, the tactics of the British in Iraq—which reflect years of experience in low intensity conflicts and peacekeeping operations, as well as the Marine Corps' own extensive "Small Wars" experience. We have assimilated these lessons through a comprehensive training package that includes tactics, techniques, procedures for stability and counter-insurgency operations. We have conducted rigorous urban operations training and exercises. Over 400 marines are receiving Arabic language immersion training, and all deploying marines and sailors are receiving extensive cultural education. Our supporting establishment is focused on the equipment, logistics, and training requirements of this force—paying particular attention to individual protective equipment, enhanced vehicle and aircraft hardening, and aviation survival equipment and procedures. This training and support are critically important as we send marines back to war in a volatile, dangerous, and changing situation.

During this next year MEUs will still deploy as part of Naval Expeditionary Strike Groups in support of combatant commander requirements. Units will continue to rotate to Okinawa and Iwakuni Japan, and some of those forces will further deploy in support of OIF 2. While the operational tempo (OPTEMPO) remains high, recruiting and retention continue to exceed our goals. We are monitoring the health of our Service, and we are focused on ensuring that the Marine Corps remains ready for all current and future responsibilities.

III. TAKING CARE OF OUR OWN

Events of the past year continue to highlight the value of the individual marine over all other weapon "systems." While we always strive to provide our marines with the best equipment and weapons, we never forget that people and leadership are the foundations of the Marine Corps' readiness and warfighting capabilities. OIF

demonstrated that the Marine Corps' recruiting, training, and education of the force are extremely successful in maintaining the high standards of military readiness our Nation requires. The Marine Corps remains committed to taking care of our marines, their families, and our civilian marines.

Marines

End Strength

The Marine Corps is assimilating the congressionally authorized increase in Marine Corps end strength to 175,000. The increase of 2,400 marines previously authorized by Congress addressed an urgent need to train and maintain enough marines for the long-term requirements associated with the global war on terrorism. It has been particularly important in enabling us to provide the Nation with a robust, scalable force option specifically dedicated to antiterrorism—the 4th Marine Expeditionary Brigade (Antiterrorism).

The Marine Corps is expeditionary by nature and therefore accustomed to deploying in support of contingency and forward presence missions. We are structured in such a way as to satisfy our enduring requirements and meet operational contingencies as long as the contingencies are temporary in nature. While the force is stretched, we are meeting our current challenging operational commitments. Our high operational and personnel tempos have not negatively impacted accessions or retention efforts; however, we continue to monitor both very closely.

Recruiting

Sustaining our ranks with the highest quality young men and women is the mission of the Marine Corps Recruiting Command. Recruiting Command has consistently accomplished this mission for more than 8 years for enlisted recruiting and 13 years for officer recruiting. This past year the Marine Corps recruited over 100 percent of its goal with over 97 percent Tier I High School graduates. In order to continue attracting America's finest youth, Recruiting Command provides its recruiters the best tools available to accomplish their mission.

The Marine Corps Reserve achieved its fiscal year 2003 recruiting goals with the accession of 6,174 non-prior service marines and 2,663 prior service marines. With regard to our Reserve component, officer recruiting and retention to fill out the requirements of our Selected Marine Corps Reserve (SMCR) units remains our most challenging concern. This is primarily due to the fact that we recruit Reserve officers almost exclusively from the ranks of those who have first served a tour as an active duty marine officer and currently the Corps is experiencing a low attrition rate for company grade officers in our Active Force. We are attempting to alleviate this challenge. Two successful methods include increasing awareness of the benefits of service in the Reserves to the company grade officers who are leaving the active ranks and Reserve officer programs for qualified enlisted marines.

Retention

Retaining the best and the brightest marines is a constant goal; history has proven that superb leadership in the staff noncommissioned officer ranks is a major contributor to the Corps' combat effectiveness. The ranks of this elite group of leaders can only be filled by retaining our best enlisted marines. The Marine Corps has two retention measures and both clearly indicate healthy service continuation rates. Our First Term Alignment Plan (first tour) has consistently achieved its reenlistment requirements over the past 9 years. With just over one-third of the current fiscal year completed, we have achieved 76 percent of our first-term retention goal. Furthermore, our Subsequent Term Alignment Plan (second tour and beyond) reveals that we have already retained 47 percent of our goal for this fiscal year.

Current officer retention is at a 19-year high, continuing a 4-year trend of increasing retention. Despite the increased retention overall, certain military occupational specialties perennially suffer high attrition. We are attempting to overcome this challenge by offering continuation pay for those marines with military occupational specialties that include special qualifications and skills. Military compensation that is competitive with the private sector provides the flexibility required to meet the challenge of maintaining stability in manpower planning.

Marine Corps Reserve

In 2003, the Marine Corps Reserve rapidly mobilized combat ready marines to augment and reinforce the active component. Marine Corps Reserve activations in support of OIF began in January 2003, and peaked at 21,316 Reserve marines on active duty in May 2003. This represented 52 percent of the SMCR. Of the approximately 6,000 reservists currently on active duty, over 1,300 individual mobilization augmentees, individual ready reserves, and retirees fill critical joint and internal

billets. As of January 2004, the Marine Corps Reserve began activating approximately 7,000 SMCR marines in support of OIF 2. Judicious employment of Reserve marines remains a top priority of the Marine Corps to ensure the Marine Corps Reserve maintains the capability to augment and reinforce the active component. Marine Corps Reserve units and individuals are combat ready and have rapidly integrated into Active Forces commands demonstrating the effectiveness of the Total Force Marine Corps.

A strong inspector-instructor system and a demanding Mobilization and Operational Readiness Deployment Test program ensured Marine Corps Reserve units achieved a high level of premobilization readiness. Marine Reserve Units continuously train to a C1/C2 readiness standard, eliminating the need for post-mobilization certification. Ninety-eight percent of SMCR marines called up for duty reported for mobilization and less than 1 percent requested a deferment, delay, or exemption. The Marine Corps Reserve executed a rapid and efficient mobilization with units averaging 6 days from notification to being deployment-ready, and 32 days after receiving a deployment order they arrived in theater. Many activated Marine Reserve units were ready to deploy faster than strategic lift could be provided.

Building on the important lessons of the last year, the Marine Corps is pursuing several transformational initiatives to enhance the Reserves' capabilities as a ready and able partner with our active component. These pending initiatives include: increasing the number of Military Police (MP) units in the Reserve component; establishing a Reserve Intelligence Support Battalion to include placing Reserve Marine Intelligence Detachments at the Joint Reserve Intelligence Centers; returning some of our civil affairs structure to the active component to provide enhanced planning capabilities to the operational and Service headquarters; and, introducing an improved Individual Augmentee Management Program to meet the growing joint and internal requirements.

When called, the Marine Corps Reserve is ready to augment and reinforce. Our Reserve marines are a vital and critical element of our total force. The training, leadership, and quality of life of our Reserve component remain significant Marine Corps priorities.

Marine For Life

The commitment to take care of our own includes a marine's transition from active service back to civilian life. The Marine For Life Program's mission is to provide sponsorship for our more than 27,000 marines who honorably leave active service each year. The program was created to nurture and sustain the positive, mutually beneficial relationships inherent in our ethos, "Once a Marine, Always a Marine." In cities across the United States, Reserve marines help transitioning marines and their families get settled in their new communities. Sponsorship includes assistance with employment, education, housing, childcare, veterans' benefits, and other support services needed to make a smooth transition. To provide this support, Marine For Life taps into the network of former marines and marine-friendly businesses, organizations, and individuals willing to lend a hand to a marine who has served honorably.

Initiated in fiscal year 2002, the program will reach full operational capability in fiscal year 2004. In addition to 110 Reserve marines serving as "Hometown Links," an enhanced web-based electronic network, easily accessed by marines worldwide, will support the program. The end state of the Marine For Life Program is a nationwide marine and marine-friendly network available to all marines honorably leaving active service, that will improve their transition to civilian life.

Civilian Marines

Civilian Workforce Campaign Plan

Recognizing that our civilian marines are integral to the success of military operations, General James L. Jones, the 32nd Commandant of the Marine Corps, charged our senior Marine Corps officials with the development and implementation of a strategic 5-year plan for the recruitment, development, and retention of our civilian marines. The Civilian Workforce Campaign Plan (CWCP) consists of six strategic goals: (1) nurture, build, and grow civilian marines; (2) provide flexible career opportunities; (3) create leaders at all levels; (4) improve the performance evaluation system; (5) strengthen workforce management expertise; and (6) establish an integrated total force management approach. As commandant, I have provided the following additional implementing guidance.

Our vision is to make the Marine Corps the employer of choice for a select group of civilians imbued with the Marine Corps values of honor, courage, and commitment. Through implementation of the CWCP, we will not only define what the Marine Corps will offer its civilian marines, but what the Corps expects from them.

We will attract, nurture, build, and grow civilian marines by providing innovative recruitment, development, retention, reward, and acculturation programs throughout the work-life cycle.

National Security Personnel System

We want to take this occasion to thank again the committee and Congress for enacting the National Security Personnel System (NSPS) in the National Defense Authorization Act for Fiscal Year 2004. The act authorized a more flexible civilian personnel management system for the Department of Defense (DOD) that allowed DOD to be a more competitive and progressive employer at a time when our national security demands a highly responsive system of civilian personnel management. The legislation ensures that merit system principles govern any changes in personnel management, whistleblowers are protected, discrimination remains illegal, and veterans' preference is protected. The Department will collaborate with employee representatives, invest time to try and work out our differences, and notify Congress of any differences before implementation. In January, DOD officials met with union representatives to begin the development of a new system of labor-management relations. Later this year, following an intensive training program for supervisors, managers, human resources specialists, employees, as well as commanders and senior management, the DOD plans to begin implementing NSPS. The Marine Corps, along with the entire Department of the Navy, expects to be in the first wave of implementation.

Military-Civilian Conversions

The Marine Corps will continue to actively pursue a review of all functional areas within the Marine Corps in an effort to return more marines to the operating forces. Through fiscal year 2003, we have returned over 2,000 manned structure spaces to the operating forces, and we will return approximately 650 more marines in fiscal year 2004. The fiscal year 2005 President's budget converts roughly an additional 1,400 more billets from marines to civilian marines, which will provide us more options to increase manning in the operating forces.

Education

Amid today's uncertain, volatile security environment, our most effective weapon remains the individual marine who out-learns, out-thinks, and out-fights any adversary. Such warfighting competence is secured only through intellectual development. Recent events demonstrated how quality education instills confidence in marines. Our educational standards and programs produce innovative leaders who take initiative and excel during challenging situations involving uncertainty and risk. These high educational standards are inculcated by the Marine Corps University and are designed to target every rank in both our Active and Reserve Forces. Each year the Marine Corps University student population includes members of the other Services, various government agencies as well as dozens of international military officers from over 30 different countries.

The Marine Corps endeavors to provide its marines with 'lifelong learning' opportunities through a variety of educational programs, college courses, and library services on our bases and stations. Furthermore, distance learning programs through the Marine Corps University make continuing education available to marines regardless of their location. In addition, the Marine Corps will continue to fully fund the Tuition Assistance Program in accordance with DOD guideline—funding for 100 percent of tuition cost up to $250 per semester hour with a maximum of $4,500 per year. In fiscal year 2003, there were 25,662 marines enrolled in almost 80,000 courses with the help of the Tuition Assistance Program.

Joint Initiatives

The Marine Corps synchronizes its educational objectives with those of the other armed services in order to provide regional combatant commanders with the most capable joint force. We support the proposal for a Joint Advanced Warfighting School (JAWS) and for broadening Joint Professional Military Education (JPME) opportunities for the Total Force. By working closely with Joint Forces Staff College and our sister services, JAWS has the potential to empower future combatant commanders with talented officers who are experienced in campaign planning. Intent on broadening our joint experience base, the Marine Corps is pursuing an accredited advanced joint curriculum (JPME Phase II) at the Marine Corps War College and will continue to work to provide JPME opportunities for both active and Reserve components.

Senior Leader Development Program

The Senior Leader Development Program was developed last year to address General Officer and Senior Executive Service career development and to link education opportunities to career progression. A study was commissioned to identify the competencies required in each of our general officer billets in an effort to link core and complimentary curriculum with the assignment process. Within the core curriculum, senior leaders will attend the Joint Warfare series of courses as prerequisites by rank and billet while they study innovation, business transformation, and resource management through complementary courses.

Quality of Life/Quality of Service

The Marine Corps works to improve the quality of life for marines and their families in order to continue the success of the all volunteer force. We provide excellent quality of life programs and services, while also helping new marines to better understand what to expect in the military lifestyle. We continuously assess, through a variety of means, the attitudes and concerns of marines and their families regarding their quality of life expectations. With 67 percent of our marines deployed away from their home installations at the height of OIF, we carefully captured lessons learned to ensure quality of life programs meet the needs of deployed marines and families who remain at home. Community and family assistance centers were established at Camp Lejeune, Camp Pendleton, Marine Corps Air Station Miramar, and Marine Corps Base Twentynine Palms to provide marine family members and loved ones access to relevant information and referral services.

To further help marines and their families before, during, and after deployments, the Marine Corps implemented Marine Corps Community Services (MCCS) One Source, a Marine Corps-conducted, DOD funded pilot program providing around-the-clock information and referral services. MCCS One Source is especially useful to our activated Marine Reserves and their families as they negotiate the requirements and procedures associated with utilization of military programs such as TRICARE and other benefit services. In recognition of the importance of the transition home after deployments for both marines and their families, the Marine Corps developed a standardized return and reunion program consisting of a mandatory warrior transition brief for returning marines, a return and reunion guidebook for marines and family members, a caregiver brief, and briefs designed for spouses.

We greatly appreciate the supplemental appropriations bills during 2003, that contained additional help for deployed marines and their families. In 2004, quality of life efforts will continue to focus on issues related to supporting deployed forces and their families.

Safety

Safety programs are vital to force protection and operational readiness. Marine leaders understand the importance of leadership, persistence, and accountability in the effort to reduce mishaps and accidents. The fiscal year 2003 off-duty and operational mishap rates were driven upward by the mishaps that occurred during and post OIF, while the aviation mishap rate decreased. To meet the Secretary of Defense's challenge to all Services to reduce mishaps by 50 percent in 2 years, the Marine Corps is focusing on initiatives that deal particularly with the development of strategies and specific interventions to reduce all mishaps. Our leadership at every level understand the challenge, and we are actively involved in the effort to safeguard our most precious assets—marines and sailors.

IV. BUILDING ON SUCCESS FOR THE FUTURE

The Marine Corps, in partnership with our Navy brethren, provides our Nation with unrivaled maritime power to help secure peace and promote our national interests. The President's fiscal year 2005 budget, together with your support, will provide a strong foundation for our continued success. The fiscal year 2005 budget—predicated on a peacetime OPTEMPO—sustains a high level of readiness and ensures our ability to rapidly respond to emerging situations. It also allows us to assimilate new technologies and explore new concepts that will help realize the full potential of our people and their equipment. We will continue to seek improved means to increase the efficiency of our investments and increase the combat effectiveness of our forces.

Technology and Experimentation

The Marine Corps has a long history of innovation and adaptation. Experimentation is our principle means to explore new ideas and technologies in order to develop new capabilities to overcome emerging challenges. The Marine Corps Combat Development Command has realigned its experimentation program around the Sea

Viking campaign. This campaign will explore both concept and prototype technology development pathways leading to the sea-based expeditionary capabilities envisioned for the future, to include forcible entry from the sea. The Sea Viking campaign is complementary to the joint concept development and experimentation campaign of Joint Forces Command (JFCOM) and the Navy's Sea Trial experimentation process. As an integral part of this effort, the Marine Corps is refining the expeditionary combat capabilities best suited to participate in future Expeditionary Strike Group (ESG) and Expeditionary Strike Force operations. It is also exploring the potential for an expanded Seabasing capability in support of future joint operations.

The Marine Corps Warfighting Laboratory has experimented with several new pieces of equipment to enhance individual and small unit effectiveness. Based on successful experimentation, limited numbers of the M16A4 Modular Weapons System, Rifle Combat Optic, and the Integrated Intra Squad Radio were fielded for use during OIF. The Marine Corps continues to seek enhanced capabilities for the future as we continue to improve and transform the force. In addition, we have procured sufficient quantities of the Outer Tactical Vest and its Small Arms Protective Insert plates to ensure all marines participating in OIF 2 are equipped with enhanced ballistic protection.

New Concepts and Organizations

The Expeditionary Force Development System implemented this past year is a methodological process that is designed to facilitate the development and realization of military operational concepts. It is a streamlined and integrated system that covers all phases of concept development to the acquisition of necessary equipment and weapons systems. The Expeditionary Force Development System proved to be of great value to our forces engaged in combat operations and is proving to be a helpful means of ensuring that the Marine Corps quickly profits from recent operational experiences. The system is compatible with and supports naval and joint transformation efforts as it integrates transformational, modernization, and legacy capabilities and processes. Several emerging concepts and organizational structures are maturing that will benefit the Marine Corps and ensure we can meet the future demanding requirements of the combatant commanders.

The Sea Basing Concept

Sea basing, envisioned as a national capability, is our overarching transformational operating concept for projecting and sustaining multi-dimensional naval power and selected joint forces at sea. As stated by the Defense Science Board in its August 2003 Task Force report: "Sea basing represents a critical future joint military capability for the United States." It assures joint access by leveraging the operational maneuver of forces globally from the sea, and reduces joint force operational dependence upon fixed and vulnerable land bases. Sea basing unites our capabilities for projecting offensive power, defensive power, command and control, mobility and sustainment around the world. This will provide our regional combatant commanders with unprecedented versatility to generate operational maneuver. Sea basing will allow Marine Forces to strike, commence sustainable operations, enable the flow of follow-on forces into theater, and expedite the reconstitution and redeployment of Marine Forces for follow-on missions. As the core of naval transformation, sea basing will provide the operational and logistical foundation to enable the other pillars of naval transformation (Sea Strike, Sea Shield, Sea Base, and FORCEnet).

This year, the Marine Corps has continued to refine plans for the Marine Expeditionary Brigade of 2015, in concert with our concept for sea-based operations. Similarly, the analysis of alternatives for our Maritime Prepositioning Force (Future) (MPF(F)), a critical component of Seabasing, will provide valid choices for achieving Seabasing capabilities. These initiatives will complement, rather than replace, the amphibious lift and forcible entry capacity of the LHA(R), LPD–17, and LHD, and will provide the Nation a deployment and employment capability unmatched in the modern world.

Expeditionary Strike Groups

The Marine Corps and Navy continue the series of experiments that will refine the ESG concept. This concept will combine the capabilities of surface action groups, submarines, and maritime patrol aircraft with those of Amphibious Ready Groups and enhanced MEUs (Special Operations Capable) to provide greater combat capabilities to regional combatant commanders. Navy combatants are incorporated within the existing training and deployment cycle of the Amphibious Ready Group. Further experimentation will also allow us to test command-and-control arrangements for the ESG. We will soon complete the pilot deployment in this series, ESG–1, composed of West Coast Navy and Marine Forces. The ESG–2, composed of East Coast

Navy and Marine Forces, will deploy later this year. Currently, the Marine Corps Combat Development Command is working with Navy and Marine operating forces to capture critical information from these experimental deployments to ensure that the ESG capability thoroughly integrates doctrine, organization, training, materiel, leadership, education, personnel, and facilities. Also, the Marine Corps Combat Development Command is working with the Navy to develop the concept for the employment of the additional capabilities that the ESG provides regional combatant commanders. Finally, the Center for Naval Analyses is evaluating the series of experiments through embedded analysts deployed with both ESGs and will submit their consolidated reports to the Navy and Marine Corps in October 2004.

Marine Corps—U.S. Special Operations Command Initiatives

The Marine Corps continues to aggressively improve interoperability with SOF. The U.S. Special Operations Command-Marine Corps Board has developed over 30 initiatives to support our interoperability goals. The Marine Corps and U.S. Special Operations Command (SOCOM) are working to leverage existing pre-deployment and deployment training as a means to "operationalize" our relationship. Our deploying MEUs (Special Operations Capable) exchange liaison officers with the Theater Special Operations Commands as the MEUs deploy within the various theaters. On June 20, 2003, a Marine Corps "proof of concept" detachment that is task organized to complement SOCOM mission areas in Direct Action, Special Reconnaissance, Coalition Support and Foreign Internal Defense formally stood up at Camp Pendleton, California. The Detachment transferred to the operational control of SOCOM last December, to facilitate joint pre-deployment training and is scheduled to deploy in April 2004, with a Naval Special Warfare Squadron supporting CENTCOM. Finally, we are conducting joint training with SOCOM in the areas of fixed and rotary wing air support of special operation missions.

Reestablishment of Air-Naval Gunfire Liaison Companies

During this past summer the Marine Corps reestablished an Air-Naval Gunfire Liaison Company in I MEF and another in the II MEF. These companies provide teams that specialize in all aspects of fire support—from terminal control to support of division fire support coordination centers. They greatly enhance the MAGTF Commanders' liaison capability—with foreign area expertise—to plan, coordinate, employ, and conduct terminal control of fires in support of joint, allied, and coalition forces. Each company will be fully stood up by this summer, and a separate platoon will be stood up in III MEF in October 2004.

Tactical Aircraft Integration

Naval Tactical Aircraft (TACAIR) Integration makes all naval strike-fighter aircraft available to meet both Services' warfighting and training requirements. As part of the TACAIR Integration plan, a Marine fighter-attack squadron will eventually be attached to each of the 10 active carrier air wings and will deploy aboard aircraft carriers. In addition, three Navy strike-fighter squadrons will be assigned into the Marine Corps' Unit Deployment Program for land-based deployments. Force structure reductions associated with this plan should result in a total cost savings and cost avoidance of over $30 billion. The integration of the fifth marine squadron into a Carrier Air Wing and the first Navy squadron into the Unit Deployment Program are scheduled for later this year.

TACAIR Integration retains our warfighting potential and brings the naval services a step closer to the flexible sea based force we envision for the future. A leaner, more efficient naval strike-fighter force is possible because of three underlying factors. The first factor is "Global Sourcing"—the ability to task any non-deployed Department of Navy squadron to either Service's missions, allowing for a reduction in force structure. Second, 'Level Readiness'—applying the proper resources to training, maintenance, and modernization, will ensure the smaller force is always capable of responding to the Services' and Nation's needs. Third, the development of an operational concept that will efficiently manage the employment of this integrated strike-fighter force within the naval and joint context. Support of readiness accounts, modernization programs, and our replacement of the F/A–18 and AV–8B with the short takeoff and vertical landing (STOVL) JSF will ensure the potential promised by this integration.

Better Business Practices

The Secretary of Defense and Secretary of the Navy have emphasized, and the Marine Corps is committed to, business transformation in order to optimize resource allocation. The Marine Corps is employing a variety of business transformation initiatives including: competitive sourcing of over 3,500 commercial billets to save $57 million annually; outsourcing garrison food service in our mess halls in the con-

tinental United States in to free up 594 marines for other duties; using public-private ventures to fund new family housing and to increase the quantity of safe, comfortable, and affordable homes; consolidation of equipment maintenance from five to three echelons in order to improve maintenance effectiveness and efficiency; and, regionalizing garrison mobile equipment to realign marines and dollars with higher priorities. The Marine Corps continues to develop its activity based costing capability in order to support fact based decision making.

In March 2003, the Marine Corps began participation in the Navy Marine Corps Intranet (NMCI)—a network outsourcing initiative that will provide a common end-to-end Department of the Navy information system capability for voice, video, and data communications. By outsourcing information technology services not considered to be core competencies, the Marine Corps has been able to return 355 supporting establishment personnel structure spaces to the operating forces. As a result of this improved business practice, the NMCI operating environment will promote greater naval interoperability. The Marine Corps will continue to refine our business practices and increase the effectiveness of warfighting potential.

V. OUR MAIN EFFORT—EXCELLENCE IN WARFIGHTING

Training

Training at Eglin Air Force Base

In anticipation of the cessation of naval expeditionary forces training in Vieques, Puerto Rico, efforts began in September 2002 to establish a new training capability at Eglin Air Force Base (AFB). Training at Eglin AFB is envisioned to provide a near-term pre-deployment training capability for East Coast Navy Amphibious Ready Groups/ESGs and MEUs (Special Operations Capable), with the potential to be part of the long-term solution. The training concept was designed for up to two 10-day training periods per year. The long-term objective is that during each 10-day event, the ESGs will be able to conduct the full spectrum of training required. The Marine Corps has invested approximately $4.2 million in environmental assessment/mitigation and infrastructure development required to establish an initial training capability at Eglin AFB.

In December 2003, the Marine Corps completed its first 10-day training period at Eglin AFB, at an additional cost of approximately $1 million. The Marine Corps is assessing the quality the training offered at Eglin AFB while continuing to explore and develop other options, both within the United States and abroad. While Eglin AFB has the potential for enhanced live fire and maneuver training, developing this capability will require a significant investment by the Department of the Navy and DOD to upgrade existing facilities.

Joint National Training Capability

As described by the Deputy Secretary of Defense: "The centerpiece of our Training Transformation effort will be a Joint National Training Capability." The Joint National Training Capability is one of the three pillars of Training Transformation, and will improve joint interoperability by adding certified 'joint context' to existing Service training events. The Joint National Training Capability is a cooperative collection of interoperable training sites, nodes, and events that synthesizes combatant commander and Service training requirements with the appropriate level of joint context.

The first in a series of pre-Initial Operational Capability (IOC) Joint National Training Capability exercises was held in January 2004, linking a Marine Corps Combined Arms Exercise with live close air support sorties, a Navy Stand-off Land Attack Missile Exercise, an Army rotation at the National Training Center, and an Air Force Air Warrior Exercise. The Marine Corps will be actively involved in future Joint National Training Capability exercises including Combined Arms Exercises and Marine Aviation Weapons and Tactics Squadron-1 evolutions scheduled for fiscal year 2005. The Marine Corps is fully engaged in the Joint National Training Capability program development, and is on track to enhance Service core-competency training with the appropriate level of joint context. In concert with the other Services, the Marine Corps is working with JFCOM to refine the phrase "joint context," certify ranges, and accredit exercises to ensure the force is training properly.

Infrastructure

Blount Island Facility

The acquisition of the Blount Island facility in Jacksonville, Florida, is critical to our Nation and to our Corps' warfighting capabilities. Blount Island's peacetime mission is to support the Maritime Prepositioning Force. Its wartime capability and capacity to support massive logistics sustainment from the continental United

States gives it strategic significance. The Blount Island facility has a vital role in the National Military Strategy as the site for maintenance operations of the Maritime Prepositioning Force. The Marine Corps thanks Congress for your role in supporting this acquisition project. Phase II, funded by the $115.7 million appropriated in the Defense Authorization Act of 2004, gives the Marine Corps ownership of the leased maintenance area and supporting dredge disposal site consisting of 1,089 acres.

Encroachment

We are grateful to Congress for providing a tool to facilitate the management of incompatible developments adjacent to or in close proximity to military lands. We are working with state and local governments and with non-governmental organizations such as the Trust for Public Lands, The Nature Conservancy, the Sierra Club, and the Endangered Species Coalition to acquire lands buffering or near our bases including Camp Lejeune, Marine Corps Air Station Beaufort, and Camp Pendleton. In return for our investment, the Marine Corps is receiving restrictive easements that ensure lands acquired remain undeveloped and serve as buffer zones against future encroachment on our bases.

We are also grateful to Congress for codifying legislation that gives us the opportunity to partner with the U.S. Fish and Wildlife Service and State fish and game agencies in order to manage endangered species present on military lands. Management via our Integrated Natural Resources Management Plans, which we prepare in partnerships with these agencies, allows us to protect and enhance populations of these species on our lands while allowing marines to train. Finally, we support the Secretary of Defense's efforts to provide flexibility under the Clean Air Act and to clarify the governing authorities under which the DOD would manage operational ranges. The Marine Corps strives to be a good environmental steward and the growing number of endangered species on our lands and their increasing populations are examples of our successes. We remain committed to protecting the resources entrusted to us by the American people.

Base Realignment and Closures

A successful Base Realignment and Closure (BRAC) process, resulting in recommendations in 2005, is critically important to the Nation, the DOD, and the Department of Navy. By eliminating excesses and improving efficiencies, the armed services will achieve a transformation of our infrastructure in the same way we are achieving a transformation of our forces. Recommendations will be developed only after a thorough and in-depth review.

Command and Control

Naval expeditionary warfare will depend heavily on the ability of the forces to share linked and fused information from a common source which will, in turn, ensure command and control of widely dispersed forces. Exploiting the use of space, ground and aerial platforms requires a networked, protected, and assured global grid of information. Leveraging command and control technology to improve our interoperability continues to be our focus of effort.

Advances in technology and a need to leverage existing infrastructure requires us to establish a new information technology (IT) framework—one that is more reliable, efficient, secure, and responsive. This new IT framework must provide enhanced information access and improved information services to the operating forces. By streamlining the deployment of IT tools and realigning our IT resources, the Marine Corps Enterprise IT Services will shift the burden away from the operating forces by establishing a new IT environment. This IT environment will fuse and integrate Department wide, net-centric enterprise services to provide a common set of sharable IT services to the entire Marine Corps. By eliminating individual organizations providing duplicative and redundant services, we will reduce the IT burden on the operating forces through enterprise provided IT services, and improve our ability to process information and enhance the speed of decisionmaking.

Intelligence

Our fiscal year 1996 through fiscal year 2004 enhancements to Marine Corps intelligence improved the intelligence capability within Marine Corps units and established a "reach-back" intelligence production capability between forward deployed units and our Marine Corps Intelligence Activity in Quantico, Virginia. These improvements are proving to be remarkably beneficial to our efforts in OIF and OEF. Marine intelligence is concurrently supporting ongoing operations, preparing for near term operations, and transforming our intelligence systems to meet future warfighting requirements. Marine Intelligence Specialists have provided significant contributions to ongoing operations in Iraq, Afghanistan, and Djibouti and will play

a crucial intelligence role as Marine Forces return to Iraq in larger numbers this year. Before again deploying to Iraq, we will train over 400 marines in basic Arabic to aid in our efforts to work with the Iraqis at the patrol level, and we will provide enhanced language training for some of our Arabic heritage speakers and others trained linguists to increase our operational influence and effectiveness. Meanwhile, we prepare for future conflicts by ensuring that our intelligence training and systems funded in the fiscal year 2005–2009 program incorporate the latest technological advances and become more capable of seamless interoperability with the systems used by other Services and national agencies.

Mobility

As preliminary assessments of operations in Iraq highlight, operational and tactical mobility are essential to overcome the current range of threats. The ability to rapidly respond and then flexibly adapt to a changing situation is critical to address future challenges. Increasing the speed, range, and flexibility of maneuver units that are enhanced by logistical power generated from the sea, will increase naval power projection. The following initiatives are vital to achieve greater operational mobility:

MV–22 Osprey

The MV–22 remains the Marine Corps' number one aviation acquisition priority. While fulfilling the critical Marine Corps medium lift requirement, the MV–22's increased range, speed, payload, and survivability will generate truly transformational tactical and operational capabilities. With the Osprey, Marine Forces operating from a sea base will be able to take the best of long-range maneuver and strategic surprise, and join it with the best of the sustainable forcible-entry capability. Ospreys will replace our aging fleets of CH–46E Sea Knight and CH–53D Sea Stallion helicopters.

KC–130J

Continued replacement of our aging KC–130 fleet with KC–130J aircraft is necessary to ensure the viability and deployability of Marine Corps Tactical Air and Assault Support well into the 21st century. Acquisition of the KC–130J represents a significant increase in operational efficiency and enhanced refueling and assault support capabilities for the Marine Corps. The KC–130J provides the aerial refueling and assault support airlift resources needed to support the Osprey, the JSF, and the MAGTF and Joint Force Commanders.

Expeditionary Fighting Vehicle

The EFV, formerly known as the Advanced Amphibious Assault Vehicle (AAAV), will provide Marine Corp surface assault elements the requisite operational and tactical mobility to exploit fleeting opportunities in the fluid operational environment of the future. Designed to be launched from naval amphibious shipping from over the horizon, the EFV will be capable of carrying a reinforced Marine Corp rifle squad at speeds in excess of 20 nautical miles per hour in sea state three. This capability will reduce the vulnerability of our naval forces to enemy threats by keeping them well out to sea while providing our surface assault forces mounted in EFVs the mobility to react to and exploit gaps in enemy defenses ashore. Once ashore, EFV will provide Marine Corp maneuver units with an armored personnel carrier designed to meet the threats of the future. EFV will replace the aging Assault Amphibious Vehicle (AAV). With its high speed land and water maneuverability, highly lethal day/night fighting ability, and advanced armor and Nuclear, Biological, and Chemical (NBC) protection, the EFV will significantly enhance the lethality and survivability of Marine Corp maneuver units and provide the MAGTF and ESG with increased operational tempo across the spectrum of operations.

Power Projection Platforms

Combined with embarked marines, amphibious warships provide our Nation with both a forward presence and a flexible crisis response force. These power projection platforms give decisionmakers immediately responsive combat options. As the sea basing concept matures, enhanced naval expeditionary forces will be optimized to provide a full spectrum of capabilities.

Inherent in the Sea Strike pillar of the sea basing concept is the ability to both strike with fires from the sea base and from units maneuvering within the littoral region. The dilemma that these two offensive capabilities impose on an enemy and the multitude of options they create for our leadership increase our ability to achieve success effectively and efficiently. The built-in flexibility and survivability of amphibious ships coupled with their combat sustainment capability ensure the rapid achievement of a full range of offensive operations that either allow us to ac-

complish operational objectives directly or enable us to set the conditions for major joint operations. The ability to defeat an anti-access strategy—before it is completed or even once it is developed—is vital to our national security objectives.

The LPD 17 class amphibious ships, currently planned or under construction, represent the Department of the Navy's commitment to a modern expeditionary power projection fleet. These ships will assist our naval forces in meeting the fiscally-constrained programming goal of lifting 2.5 Marine Expeditionary Brigade Assault Echelons (AEs). The lead ship detail design has been completed and the construction process is over 80 percent, complete with a successful launch in July 2003. Production effort is focused on meeting test milestones for a November 2004 delivery. Construction of LPD 23 has been accelerated from fiscal year 2006 to fiscal year 2005, leveraging Fiscal Year 2004 Advance Procurement resources provided by Congress. LPD 17 replaces four classes of older ships—the LKA, LST, LSD, and the LPD—and is being built with a 40-year expected service life.

LHAs 1–5 reach their 35-year service life at a rate of one per year in 2011–2015. LHD–8 will replace one LHA when it delivers in fiscal year 2007. In order to meet future warfighting requirements, the Navy and Marine Corps leadership is evaluating LHA (Replacement)—LHA(R)—requirements in the larger context of joint sea basing, power projection, the global war on terrorism, and lessons learned from OEF and OIF. The resulting platform will provide a transformational capability that is interoperable with future amphibious and Maritime Preposition Force ships, high-speed connectors, advanced rotorcraft like the MV–22, JSF, and EFVs.

Maritime Prepositioning Force

The leases on the current Maritime Prepositioning Ships begin to expire in 2009. The MPF(F) will be a key enabler to sea-based operations. It will allow us to better exploit the maneuver space provided by the sea to conduct joint operations at a time and place of our choosing. When the MPF(F) becomes operational, the maritime prepositioning role will expand far beyond its current capability to provide the combat equipment for a fly-in force. MPF(F) will serve four functions that the current MPF cannot: (1) at-sea arrival and assembly of units; (2) direct support of the assault echelon of the Amphibious Task Force; (3) long-term, sea-based sustainment of the landing force; and (4) at-sea reconstitution and redeployment of the force. The enhanced capabilities of these ships will significantly increase the capability of the Sea Base—in the sea basing concept—to provide unimpeded mobility and persistent sustainment. This enhanced sea base will minimize limitations imposed by reliance on overseas shore-based support, maximize the ability of the naval elements of the joint force to conduct combat operations from the maritime domain, and enable the transformed joint force to exploit our Nation's asymmetric advantage of our seapower dominance. The ability to rapidly generate maneuver forces from this sea base will augment our forward presence and forcible entry forces, increasing the overall power and effect of the joint campaign. Acceleration of the lead MPF(F) from fiscal year 2008 to fiscal year 2007 in the fiscal year 2005 budget reflects an emphasis on sea basing capabilities. The fiscal years 2005–2009 plan procures three MPF(F) ships and advanced construction for an MPF(F) aviation variant.

High Speed Connectors

High Speed Connectors (HSCs) possess characteristics that make them uniquely suited to support the sea base and sea-based operations. HSCs are unique in combining shallow draft, high speed, and large lift capacity into a single platform. HSCs will help create an enhanced operational capability by providing commanders with a flexible platform to deliver tailored, scalable forces in response to a wide range of mission requirements. The range and payload capacity of HSCs, combined with their ability to interface with current and future MPF shipping and access austere ports greatly enhances the operational reach, tactical mobility, and flexibility of sea-based forces.

Mine Countermeasure Capabilities

There is a great need to continue the development of our mine countermeasure capabilities. A major challenge for the Navy-Marine Corps team is ensuring the effective delivery of ground forces ashore when mines and other anti-access measures are employed in the surf zone or ashore beyond the high water mark. We are currently exploring with the Navy how the technology of Joint Direct Attack Munitions (JDAM) promises a short-term solution and may lead to a better long-term solution to the challenge of mines in the surf zone. Using unitary bombs, fuses, and JDAM tail kits, we have designed a mine countermeasure known as the JDAM Assault Breaching System (JABS). Preliminary test results are showing promise as an interim solution for breaching surface laid minefields and light obstacles in the beach

zones. Further testing and characterization of the JABS system is proceeding throughout fiscal year 2004 with tests against Surf Zone Mines and obstacles.

Some aspects of JABS development may lead to a long-term solution to the mine threat. One possible solution that is envisioned includes developing bomb-delivered darts that physically destroy buried mines in the Beach Zone and Surf Zone region. In addition, the Navy has adopted the Marine Corp Coastal Battlefield Reconnaissance and Analysis (COBRA) mine sensor system for the beach zone with a planned product improvement enhancement for COBRA called the Rapid Overt Airborne Reconnaissance (ROAR) that extends detection to the very shallow water and the surf zone regions by 2015. In addition, the Marine Corps seeks to improve breaching capability beyond the high water mark by developing both deliberate and in-stride breaching systems. These include the Advanced Mine Detector program and the Assault Breacher Vehicle program.

Fires and Effects

As events over the past year have demonstrated—and suggest for the future—the increased range and speed of expeditionary forces and the depth of their influence landward has and will continue to increase. To fully realize these capabilities the Nation requires a range of complementary, expeditionary lethal and non-lethal fire support capabilities. During OIF, 60 AV–8B Harrier aircraft were based at-sea aboard amphibious shipping—minimizing the challenge of airfield shortages ashore. This prelude to future sea-based operations was extremely successful with over 2,200 sorties generated—mostly in support of I MEF ground units. A key factor to this success was the employment of forward operating bases close to the ground forces which allowed the AV–8B to refuel and rearm multiple times before returning to their ships. In addition, the complementary capabilities of surface and air delivered fires were highlighted in this campaign. Further, the importance of both precision and volume fires was critical to success. Precision fires assisted in reducing both collateral damage and the demands on tactical logistics. I MEF also validated the requirement for volume fires in support of maneuver warfare tactics. These fires allow maneuver forces to take advantage of maneuver warfare opportunities before precision intelligence can be developed and precision fires can be employed against fleeting targets or rapidly developing enemy defensive postures.

Short Take Off Vertical Landing Joint Strike Fighter

The STOVL JSF will be a single engine, stealth, supersonic, strike-fighter capable of short take-offs and vertical landings. The aircraft is designed to replace the AV–8B and FA–18 aircraft in the Marine Corps inventory. The operational reliability, stealth, and payload capability designed into the STOVL JSF represents a great improvement in combat capability over existing legacy platforms. The aircraft is in the second year of a 10–12 year development program. The STOVL JSF force is integral to our future warfighting capabilities. Its design and capabilities will fulfill all Marine Corps strike-fighter requirements and better support the combined arms requirements in expeditionary operations. Continued support of the STOVL JSF is vital to the Marine Corps.

Indirect Fires Support

In response to identified gaps in our indirect fires capability, the Marine Corps undertook an effort to replace the aging M198 155mm towed howitzers and provide a full spectrum all-weather system of systems fires capability. Operations in Iraq confirmed this requirement and the direction that the Marine Corps has undertaken. This system of systems will be capable of employing both precision and volume munitions.

The Lightweight 155mm Howitzer (LW 155) is optimized for versatility, pro-active counter fire and offensive operations in support of light and medium forces. It supports Operational Maneuver from the Sea and replaces all M198s in the Marine Corps, as well as the M198s in Army Airborne, Light Units, and Stryker Brigade Combat Teams. Compared to the current system, the LW 155 is more mobile, capable of more rapid deployment, more survivable, and more accurate. IOC is expected during fiscal year 2005, and a full operational capability will be reached 3 years later.

The High Mobility Artillery Rocket System (HIMARS) fulfills a critical range and volume gap in Marine Corps fire support assets by providing 24 hour, all weather, ground-based, responsive, General Support, General Support-Reinforcing, and Reinforcing indirect fires throughout all phases of combat operations ashore. HIMARS will be fielded in one artillery battalion of the active component and one battalion of the Reserve component. An IOC is planned for fiscal year 2007 with a full capability expected during fiscal year 2008. An interim capability of one battery during fiscal years 2005–2006 is also currently planned.

The Expeditionary Fire Support System (EFSS) is the third element of the triad of ground firing systems, and it will be the principal indirect fire support system for the vertical assault element. EFSS-equipped units will be especially well suited for missions requiring speed, tactical agility, and vertical transportability. The estimated Approved Acquisition Objective is 88 systems. Initially, this provides eleven batteries to support our MEUs (Special Operations Capable). IOC is planned for fiscal year 2006 and full operational capability is planned for fiscal year 2008.

Naval Surface Fire Support

An important element of our fires and effects capability will continue to be surface ships that provide direct delivery of fires from the sea base. Critical deficiencies currently exist in the capability of the Navy to provide all-weather, accurate, lethal and responsive fire support throughout the depth of the littoral in support of expeditionary operations. In the critical period of the early phases of the forcible entry operations when organic Marine Corps ground indirect fires are not yet or just beginning to be established, the landing force will be even more dependent on the complementary capability required of naval surface fire support assets. To date, no systems have been introduced or are being developed which meet near- or mid-term Naval Surface Fire Support requirements. The DD(X) destroyer—armed with two 155mm Advanced Gun Systems—continues to be the best long-term solution to satisfy the Marine Corps' Naval Surface Fire Support requirements. Our Nation's forcible entry, expeditionary forces will remain at considerable risk for want of suitable sea-based fire support until DD(X) joins the fleet in considerable numbers in 2020. Currently, the lead ship of this class will not be operational until fiscal year 2013. In addition, the Marine Corps is closely monitoring research into the development of electromagnetic gun technology to support future range and velocity requirements. Electromagnetic guns could potentially provide naval surface fire support at ranges on the order of 220 nautical miles, and could eventually be incorporated into ground mobile weapon systems like the future EFVs as size, weight, and power technology hurdles are overcome.

H–1 (UH–1Y/AH–1Z)

The current fleet of UH–1N utility helicopters and AH–1W attack helicopters is reaching the end of their planned service life and face a number of deficiencies in crew and passenger survivability, payload, power availability, endurance, range, airspeed, maneuverability, and supportability. The Department of the Navy has determined that the H–1 Upgrade Program is the most cost effective alternative that meets the Marine Corps' attack and utility helicopter requirements until the introduction of a new technology advanced rotorcraft aircraft. The H–1 Upgrade Program is a key modernization effort designed to resolve existing safety deficiencies, enhance operational effectiveness of both the UH–1N and the AH–1W, and extend the service life of both aircraft. Additionally, the commonality gained between the UH–1Y and AH–1Z (projected to be 84 percent) will significantly reduce life-cycle costs and logistical footprint, while increasing the maintainability and deployability of both aircraft. On October 22, 2003, the program to enter Low-Rate Initial Production (LRIP), and on December 29, 2003, the LRIP Lot 1 aircraft contract was awarded to Bell Helicopter.

Information Operations

The Marine Corps is exploring ways to ensure marines will be capable of conducting full spectrum information operations, pursuing the development of information capabilities through initiatives in policy and doctrine, career force, structure, training and education, and programs and resources. Marine Forces will use information operations to deny, degrade, disrupt, destroy or influence an adversary commander's methods, means or ability to command and control his forces.

New Weapons Technologies

The Marine Corps is particularly interested in adapting truly transformational weapon technologies. We have forged partnerships throughout DOD, other agencies, and with industry over the past several years in an effort to develop and adapt the most hopeful areas of science and technology. Several notable programs with promising technologies include: (1) Advanced Tactical Lasers to potentially support a tactical gunship high energy laser weapon, (2) Active Denial System—a high-power millimeter-wave, non-lethal weapon, (3) Free Electron Lasers for multi-mission shipboard weapons application, and (4) various promising Counter Improvised Explosive Device technologies.

Logistics and Combat Service Support

Logistics Modernization

Since 1999, the Marine Corps has undertaken several logistics modernization efforts to improve the overall effectiveness of our MAGTFs as agile, expeditionary forces in readiness. Some of these initiatives have reached full operational capability or are on track for complete implementation. Applying the lessons learned from OIF resulted in new initiatives concerning naval logistics integration, naval distribution, and the integration of the Combat Service Support Element with Marine Corps Bases.

The Marine Corps' number one logistics priority is the re-engineering of logistics information technology and the retirement of our legacy systems, which is described in the next section. The Marine Corps is working to enhance the integration of its distribution processes across the tactical through strategic levels of warfare, providing the warfighter a "snap shot" view of his needed supplies in the distribution chain to instantly locate specific items that are en route. This capability, described in the following section, will result in increased confidence in the distribution chain and will reduce both the quantity of reorders and the amount of inventory carried to support the warfighter.

Logistics Command and Control

The Global Combat Support System-Marine Corps is the Marine Corps' portion of the overarching Global Combat Support System Family of Systems as designated by the Joint Requirements Oversight Council (JROC) and the Global Combat Support System General Officer Steering Committee. It is a Marine Corps acquisition program with the responsibility to acquire and integrate commercial off the shelf software in order to satisfy the information requirements of commanders, as well as support the Marine Corps Logistics Operational Architecture. The Global Combat Support System—Marine Corps program will provide modern, deployable information technology tools for all elements of the MAGTF. Existing Logistics Information Systems used today in direct support of our MAGTFs are either not deployable (mainframe based) or are deployable with such limited capability (tethered client server) that our commanders lack in-transit and asset visibility. Global Combat Support System-Marine Corps requirements include a single point of entry, Web-based portal capability to generate simple requests for products and services, logistics command and control capability to support the MAGTF, and back office tools to assist in the management of the logistics chain. These capabilities will improve warfighting excellence by providing commanders with the logistics information they need to make timely command and control decisions. The key to improving the accuracy and visibility of materiel in the logistics chain is to establish a shared data environment.

End-to-End Distribution

The Marine Corps is aggressively pursuing standardization of the materiel distribution within the Marine Corps to include interfacing with commercial and operational-level DOD distribution organizations. Furthermore, distribution processes and resources used in a deployed theater of operations need to be the same as those used in garrison. We strongly support United States Transportation Command's designation as the DOD's Distribution Process Owner. In this capacity, United States Transportation Command can more easily integrate distribution processes and systems at the strategic and operational levels and provide the DOD a standard, joint solution for distribution management. Materiel End-To-End Distribution provides Marine Corp commanders the means to seamlessly execute inbound and outbound movements for all classes of supply while maintaining Total Asset and In-transit Visibility throughout the distribution pipeline.

VI. CONCLUSION

The Marine Corps remains focused on organizing, training, and equipping our forces to best support combatant commanders throughout the spectrum of combat. Incorporating recent experiences, increasing our forces' integration with joint capabilities, exploiting the flexibility and rapid response capabilities of our units, and preserving the adaptability of our marines, will collectively lead to more options for the combatant commanders. The Marine Corps' commitment to warfighting excellence and the steadfast support we receive from this committee will lead to success in the global war on terrorism while helping to ensure America's security and prosperity.

Chairman WARNER. We thank you for your service, General, and I thank you for your very clear and forthright statement, which again will be listened to very carefully by your forces and their families for your actions and judgment concerning the conflict in Iraq. I share your view, as we all do. WMD were not there readily available to be used.

General Jumper.

STATEMENT OF GEN. JOHN P. JUMPER, USAF, CHIEF OF STAFF, UNITED STATES AIR FORCE

General JUMPER. Mr. Chairman, Senator Levin, members of the committee: It is a pleasure for me to be here today and to represent more than 700,000 active duty, Air National Guard, Air Force Reserve, and Air Force civilians who serve in our United States Air Force.

I would like to thank this committee for their continued support of all that we do around the world to deal with this global war on terrorism and the other contingencies that we support globally. Senator Lieberman, I am particularly taken by your acknowledgment of our families that are out there, that we hear from every single day. I am encouraged every day at the courage and the bravery of those families, and I would also include in that the commitment of the employers who support our mobilized Air National Guard and Air Force Reserve members that have served throughout this crisis.

I would also like to take this time, Mr. Chairman, to make the point that during Operation Desert Shield and Operation Desert Storm in 1990 and 1991 I was put in charge of preparing for biological and chemical warfare defense by then Chairman of the Joint Chiefs of Staff Colin Powell when I worked for him on the Joint Staff. The evidence then was compelling, and continued to be throughout the years of our no-fly zone operations, of stored chemical and biological weapons, even weaponizing on warheads. We did not know the disposition of their Scud missiles, but we knew that there were missiles left over after the Operation Desert Storm and Operation Desert Shield crisis.

We watched for years as the Iraqis made attempts to evade the inspectors that were on the ground finding these weapons, and then we watched, as was pointed out earlier, the attempts to shoot at our airplanes that were patrolling the no-fly zones. I was, as Admiral Clark said, convinced then and I was convinced as we went into the war that they were there, and I stand by my position at that time.

Chairman WARNER. Thank you, General.

General JUMPER. Sir, as Admiral Clark pointed out, the group at this table spend a lot of time together, and we talk about our capabilities jointly and the ability to go to war jointly. We have decided among ourselves that we will never be going alone to any confrontation that this Nation undertakes. We have embarked on a series of joint concepts of operations so that we can be together when we do deploy at the Nation's bidding.

As the Army undertakes its new concept of operations (CONOP) for a brigade combat team and as the sea basing CONOP unfolds, we are configuring our Air Force to be able to maintain the superi-

ority in air and space and to join in on these concepts of operations as required to make them successful. We are also undertaking dedicated efforts to improve our close air support for the United States Army. You will see in this budget efforts that will assure that we have dedicated and improved close air support on into the future.

We in the United States Air Force have completed our configuration to the Air Expeditionary Force, an effort that has taken us since 1994 and in a more dedicated way since 1997 to complete this configuration into 10 equally capable expeditionary force packages. Today I can report to you that 75 percent of our people in the Air Force are on tap to be mobilized if required.

OIF required us to deploy 8 of our 10 Air Expeditionary Forces. We pulled them forward. We deployed into 32 bases and locations around the world. I can tell you that at the height of OIF I do not think we had one tent left in the United States Air Force. We continue today with 14 bases open throughout the AOR to conduct operations.

Like the Army, the Air Force helped us with our security needs. They provided us with their National Guard security forces when we experienced increased threat conditions after September 11. We now have almost 100 percent of our combat engineers deployed to help the transition in and out between the United States Army and the United States Marine Corps.

We have invested, and will continue to invest, a great deal in the technology of air and space. We will see continued development of the space-based radar (SBR), and of the transformational communications system. We will see the F/A–22 in the budget as it continues to go through its operational testing. This is a system that will be able to deal with the surface-to-air missiles that we see being developed and deployed right now around the world, and will also be able to deal with anything that comes up to challenge us in the air.

We are developing a new series of joint weapons, to include standoff munitions. We are developing a 250-pound small diameter bomb that will be able to glide with internal wings out many miles, allowing it to deal with targets far away. When we are able to incorporate this on an F/A–22 we will be able to support the brigade combat team concept deep behind enemy lines to support people on the ground.

As for mobility, you will see that we continue to acquire additional C–17s, airplanes that have been renownedly successful. We saw in OIF the drop of over 1,000 members of the 173rd Brigade in northern Iraq, which proved to be a very successful operation. Jumping with the Army were 22 airmen who got to the ground and made sure that the air field was able to be used to land aircraft as quickly as possible.

In concert with the United States Navy, we continue to develop unmanned aerial vehicles (UAVs) and to put these UAVs out there in the hands of the people who need them: the Predator unmanned vehicle, the Global Hawk, and the Predator B. These are armed Predators: The two versions of the Predator are both armed and can deal with targets, as we saw them do in Iraq when we took out a satellite TV station being used by Baghdad Bob that was

parked right near the Grand Mosque. We were able to do that with great precision, with only a very small warhead used from the Predator UAV.

We continue to ask that we be able to recapitalize our tanker force in a way that is appropriate and is approved by this committee and by Members of Congress.

We ask for continued improvement of our bomber force, to include standoff capability on our B–1s. We ask that we may develop a bomb rack from which we can drop 80 individually guided, Global Positioning System (GPS)-guided munitions from a single B–2. This has been tested and proven to be successful.

Of course, as the other Service Chiefs have testified, none of this is made possible without absolutely magnificent people. More than 20 percent of each of our Air Expeditionary Force packages are made up of members of the Air National Guard and the Air Force Reserve. We cannot go to war without them. They volunteer in normal times to go on these rotations, and then we have innovative concepts that are working. Take, for example, the blended unit in Senator Chambliss' State of Georgia that has the Air National Guard and the Active-Duty Force in the same unit. In this case, it is commanded by a guardsman, but the command can transfer back and forth, and it provides us a terrific way to have ready forces that Air National Guard members can fall in on in times of surge. We are going to look at this concept also in the future with our fighter forces, to include the F/A–22.

We are happy to report, as are the other Services, great progress and success in retention and in recruiting. Before this fiscal year started, we had 43 percent of this year's recruiting already in the bank and ready to go. Retention again for several years in a row now is at 100 percent in all categories. We expected some drop after stop-loss was dropped last summer. We saw no dropoff in retention. I am proud to report, sir, that in my travels overseas where I have visited with soldiers, sailors, airmen, and marines in the AOR, the highest morale I have ever seen and a pride that I can tell you I have never felt before.

Sir, it is a pleasure to be here today and I look forward to your questions.

[The prepared statement of General Jumper follows:]

PREPARED STATEMENT BY GEN. JOHN P. JUMPER, USAF

Mr. Chairman, Senator Levin, and distinguished members of the committee, the Air Force has an unlimited horizon for air and space capabilities. Our Service was borne of innovation, and we remain focused on identifying and developing the concepts of operations (CONOPs), advanced technologies, and integrated operations required to provide the joint force with unprecedented capabilities and to remain the world's dominant air and space force.

Throughout our distinguished history, America's Air Force has remained the world's premier air and space power because of our professional airmen, our investment in warfighting technology, and our ability to integrate our people and systems together to produce decisive effects. These Air Force competencies are the foundation that will ensure we are prepared for the unknown threats of an uncertain future. They will ensure that our combatant commanders have the tools they need to maintain a broad and sustained advantage over any emerging adversaries.

In this strategic environment of the 21st century, and along with our sister Services, our Air Force will continue to fulfill our obligation to protect America, deter aggression, assure our allies, and defeat our enemies. As we adapt the Air Force to the demands of this era, we remain committed to fulfilling our global commitments as part of the joint warfighting team. In partnership, and with the continuing

assistance of Congress, we will shape the force to meet the needs of this century, fight the global war on terrorism, and defend our Nation.

The 2004 Posture Statement is our vision for the upcoming year and is the blueprint we will follow to sustain our air and space dominance in the future. We are America's Air Force—disciplined airmen, dominant in warfighting, decisive in conflict.

INTRODUCTION

In 2003, U.S. and coalition military operations produced unprecedented mission successes—across the spectrum of conflict and around the globe. The joint warfighting team demonstrated combat capability never previously witnessed in the history of conflict. Integrating capabilities from air, land, sea, and space, the U.S. and coalition allies achieved considerable progress in the ongoing global war on terrorism. In our most recent engagements, our Armed Forces fulfilled our immediate obligations to defend America, deter aggression, assure our allies, and defeat our enemies.

The foundation of these achievements can be found in the Department of Defense's (DOD) commitment to teamwork and excellence. Operation Iraqi Freedom (OIF) was a joint and coalition warfighting effort from planning to execution. Air, ground, maritime, and space forces worked together at the same time for the same objectives, not merely staying out of each other's way, but orchestrated to achieve wartime objectives. Our air and space forces achieved dominance throughout the entire theater, enabling maritime and ground forces to operate without fear of enemy air attack. Our airmen demonstrated the flexibility, speed, precision, and compelling effects of air and space power, successfully engaging the full range of enemy targets, from the regime's leadership to fielded forces. When our ground and maritime components engaged the enemy, they were confident our airmen would be there—either in advance of their attacks, or in support of their operations. America's Air Force was there, disciplined, dominant, and decisive.

These operational accomplishments illustrate the growing maturation of air and space power. Leveraging the expertise of our airmen, the technologies present in our 21st century force, and the strategies, CONOPs, and organizations in use today, the U.S. Air Force continues to adapt to meet the demands of this new era, while pursuing the war on terrorism and defending the homeland.

On September 11, 2001, the dangers of the 21st century became apparent to the world. Today, the U.S. faces an array of asymmetric threats from terrorists and rogue states, including a threat that poses the gravest danger to our Nation, the growing nexus of radicalism and technology. As we continue our work in Afghanistan and Iraq, we stand ready to respond to flashpoints around the world, prepared to counter the proliferation of weapons of mass destruction (WMD) to unfriendly states and non-state entities.

We are adapting to new and enduring challenges. As we do, we are exploiting the inherent sources of strength that give us the advantages we enjoy today. It is a strategy predicated on the idea that, if we accurately assess our own advantages and strengths, we can invest in them to yield high rates of military return. This approach helps us create a portfolio of advantages allowing us to produce and continue to exploit our capabilities. Our goal is to create a capability mix consistent with CONOPs and effects-driven methodology, relevant to the joint character and increasingly asymmetric conduct of warfare.

Since 1945, when General Henry "Hap" Arnold and Dr. Theodore von Karman published Toward New Horizons, the Air Force has evolved to meet the changing needs of the Nation—with the sole objective of improving our ability to generate overwhelming and strategically compelling effects from air and now, space. It is our heritage to adapt and we will continue to do so. During this comparatively short history, we became the best air and space force in the world through our focus on the development of professional airmen, our investment in warfighting technology, and our ability to integrate people and systems to produce decisive joint warfighting effects.

The Air Force is making a conscious investment in education, training, and leader development to foster critical thinking, innovation, and encourage risk taking. We deliberately prepare our airmen—officer, enlisted, and civilian—with experience, assignments, and broadening that will allow them to succeed. When our airmen act in the combined or joint arena, whether as an Air Liaison Officer to a ground maneuver element, or as the space advisor to the Joint Force Commander (JFC), this focused professional development will guide their success.

We are also investing in technologies that will enable us to create a fully integrated force of intelligence capabilities, manned, unmanned and space assets that

communicate at the machine-to-machine level, and real-time global command and control (C2) of joint, allied, and coalition forces. Collectively, these assets will enable compression of the targeting cycle and near-instantaneous global precision-strike.

As we cultivate new concepts of global engagement, we will move from analog to digital processes and adopt more agile, non-linear ways of integrating to achieve mission success. This change in thinking leads to capabilities including: networked communications; multi-mission platforms which fuse multi-spectral sensors; integrated global intelligence, surveillance, and reconnaissance (ISR); robust, all-weather weapons delivery with increased standoff; small smart weapons; remotely-piloted and unattended aircraft systems; advanced air operations centers; more secure position, navigation, and timing; and a new generation of satellites with more operationally responsive launch systems.

Investment in our core competencies is the foundation of our preparation for future threats. They ensure we have the tools we need to maintain strategic deterrence as well as a sustained advantage over our potential adversaries. Ultimately, they ensure we can deliver the dominant warfighting capability our Nation needs.

Potential adversaries, however, continue to pursue capabilities that threaten the dominance we enjoy today. Double-digit surface-to-air missile systems (SAMs) are proliferating. China has purchased significant numbers of these advanced SAMs, and there is a risk of wider future proliferation to potential threat nations. Fifth-generation advanced aircraft with capabilities superior to our present fleet of frontline fighter/attack aircraft are in production. China has also purchased, and is developing, advanced fighter aircraft that are broadly comparable to the best of our current frontline fighters. Advanced cruise missile technology is expanding, and information technology is spreading. Access to satellite communications, imagery, and use of the Global Positioning System (GPS) signal for navigation are now available for anyone willing to purchase the necessary equipment or services. With this relentless technological progress and the potential parity of foreign nations, as well as their potential application in future threats, the mere maintenance of our aging aircraft and space systems will not suffice. Simply stated, our current fleet of legacy systems cannot always ensure air and space dominance in future engagements.

To counter these trends, we are pursuing a range of strategies that will guide our modernization and recapitalization efforts. We are using a capabilities-based planning and budgeting process, an integrated and systematic risk assessment system, a commitment to shorter acquisition cycle times, and improved program oversight. Our goal is to integrate our combat, information warfare, and support systems to create a portfolio of air and space advantages for the joint warfighter and the Nation. Thus, we continue to advocate for program stability in our modernization and investment accounts.

The principal mechanisms that facilitate this process are our Air Force CONOPs. Through the CONOPs, we analyze problems we will be asked to solve for the JFCs, identify the capabilities our expeditionary forces need to accomplish their missions, and define the operational effects we expect to produce. Through this approach, we can make smarter decisions about future investment, articulate the link between systems and employment concepts, and identify our capability gaps and risks.

The priorities that emerge from the CONOPs will guide a reformed acquisition process that includes more active, continuous, and creative partnerships among the requirement, development, operational test, and industry communities who work side-by-side at the program level. In our science and technology (S&T) planning, we are also working to demonstrate and integrate promising technologies quickly by providing an operational "pull" that conveys a clear vision of the capabilities we need for the future.

We are applying this approach to our space systems as well. As the DOD's executive agent for space, we are producing innovative solutions for the most challenging national security problems. We have defined a series of priorities essential to delivering space-based capabilities to the joint warfighter and the Intelligence Community. Achieving mission success—in operations and acquisition—is our principal priority. This requires us to concentrate on designing and building quality into our systems. To achieve these exacting standards, we will concentrate on the technical aspects of our space programs early on—relying on strong systems engineering design, discipline, and robust test programs. We also have many areas that require a sustained investment. We need to replace aging satellites, improve outmoded ground control stations, achieve space control capabilities to ensure freedom of action, sustain operationally responsive assured access to space, address bandwidth limitations, and focus space S&T investment programs. This effort will require reinvigorating the space industrial base and funding smaller technology incubators to generate creative "over the horizon" ideas.

As we address the problem of aging systems through renewed investment, we will continue to find innovative means to keep current systems operationally effective. In OIF, the spirit of innovation flourished. We achieved a number of air and space power firsts: employment of the B–1 bomber's synthetic aperture radar and ground moving target indicator for ISR; incorporation of the Litening II targeting pod on the F–15, F–16, A–10, and the B–52; and use of a Global Hawk for strike coordination and reconnaissance while flown as a remotely piloted aircraft. With these integrated air and space capabilities, we were able to precisely find, fix, track, target, and rapidly engage our adversaries. These examples illustrate how we are approaching adaptation in the U.S. Air Force.

Ultimately, the success of our Air Force in accomplishing our mission and adapting to the exigencies of combat stems from the more than 700,000 active, Guard, Reserve, and civilian professionals who proudly call themselves "airmen." In the past 5 years, they have displayed their competence and bravery in three major conflicts: the Balkans, Afghanistan, and Iraq. They are a formidable warfighting force, imbued with an expeditionary culture, and ready for the challenges of a dangerous world.

Poised to defend America's interests, we continue to satisfy an unprecedented demand for air and space warfighting capabilities—projecting American power globally while providing effective homeland defense. This is the U.S. Air Force in 2004—we foster ingenuity in the world's most professional airmen, thrive on transitioning new technologies into joint warfighting systems, and drive relentlessly toward integration to realize the potential of our air and space capabilities. We are America's airmen—confident in our capability to provide our Nation with dominance in air and space.

AIR AND SPACE DOMINANCE IN A NEW ENVIRONMENT

The U.S. Air Force ensures a flexible, responsive, and dominant force by providing a spectrum of operational capabilities that integrate with joint and coalition forces. To sustain and improve upon the dominance we enjoy today, the Air Force will remain engaged with the other Services, our coalition partners, interagency teams, and the aerospace industry. As we do, we will incorporate the lessons learned from rigorous evaluation of past operations, detailed analyses of ongoing combat operations, and thoughtful prediction of the capabilities required of a future force.

The pace of operations over the past year enabled us to validate the function and structure of our Air and Space Expeditionary Forces (AEFs). Operations in 2003 demanded more capability from our AEFs than at any time since their inception in 1998. However, for the first time we relied exclusively on our AEFs to present the full range of our capabilities to the combatant commanders. Through our 10 AEFs, our AEF prime capabilities (space, national ISR, long range strike, nuclear, and other assets), and our AEF mobility assets, we demonstrated our ability to package forces, selecting the most appropriate combat ready forces from our Total Force, built and presented expeditionary units, and flowed them to the theaters of operation in a timely and logical sequence. We rapidly delivered them to the warfighters, while preserving a highly capable residual force to satisfy our global commitments.

More than three-fourths of our 359,300 active duty airmen are eligible to deploy and are assigned to an AEF. Through much of the past year, Total Force capabilities from 8 of the 10 AEFs were engaged simultaneously in worldwide operations. The remaining elements were returning from operations, training, or preparing to relieve those currently engaged. By the end of 2003, more than 26,000 airmen were deployed, supporting operations around the world.

In 2004, we will continue to use the AEFs to meet our global requirements while concurrently reconstituting the force. Our number one reconstitution priority is returning our forces to a sustainable AEF battle rhythm while conducting combat operations. Attaining this goal is about revitalizing capabilities. For most airmen, that will include a renewed emphasis on joint composite force training and preparation for rotations in the AEF. Through the AEF, the Air Force presents right-sized, highly trained expeditionary units to JFCs for employment across the spectrum of conflict.

Global War on Terrorism

The year 2003 marked another historic milestone for the U.S. and the Air Force in the global war on terrorism. Since September 11, 2001, air and space power has proven indispensable to securing American skies, defeating the Taliban, denying sanctuary to al Qaeda and other terrorist organizations, and most recently, removing a brutal and oppressive dictator in Iraq. This global war on terrorism imposes on airmen a new steady state of accelerated operations and personnel tempo (PERSTEMPO), as well as a demand for unprecedented speed, agility, and innova-

tion in defeating unconventional and unexpected threats, all while bringing stability and freedom to Afghanistan and Iraq. The Air Force and its airmen will meet these demands.

Operation Noble Eagle

High above our Nation, airmen protect our skies and cities through air defense operations known as Operation Noble Eagle (ONE). The Total Force team, comprised of active duty, Air National Guard, and Air Force Reserve airmen, conducts airborne early warning, air refueling, and combat air patrol operations in order to protect sensitive sites, metropolitan areas, and critical infrastructure.

This constant "top cover" demands significant Air Force assets, thus raising the baseline of requirements above the pre-September 11 tempo. Since 2001, this baseline has meant over 34,000 fighter, tanker, and airborne early warning sorties were added to Air Force requirements.

This year the Air Force scrambled nearly 1,000 aircraft, responding to 800 incidents. Eight active duty, 8 Air Force Reserve, and 18 Air National Guard units provided 1,300 tanker sorties offloading more than 32 million pounds of fuel for these missions. Last year, over 2,400 airmen stood vigilant at air defense sector operations centers and other radar sites. Additionally, in 2003, we continued to institutionalize changes to our homeland defense mission through joint, combined, and interagency training and planning. Participating in the initial validation exercise Determined Promise–03, the Air Force illustrated how its air defense, air mobility, and command and control capabilities work seamlessly with other agencies supporting U.S. Northern Command (NORTHCOM) and Department of Homeland Security (DHS) objectives. The integration and readiness that comes from careful planning and rigorous training will ensure the continued security of America's skies.

Operation Enduring Freedom—Afghanistan

Operation Enduring Freedom—Afghanistan (OEF) is ongoing. Remnants of Taliban forces continue to attack U.S., North Atlantic Treaty Organization (NATO), coalition troops, humanitarian aid workers, and others involved in the reconstruction of Afghanistan. To defeat this threat, aid coalition stability, and support operations, the Air Force has maintained a presence of nearly 24,000 airmen in and around the region. Having already flown more than 90,000 sorties (over 72 percent of all OEF missions flown), the Air Force team of active, Guard, and Reserve airmen continue to perform ISR, close air support (CAS), aerial refueling, and tactical and strategic airlift.

While fully engaged in ONE and OIF, the men and women of the Air Force provided full spectrum air and space support, orchestrating assets from every Service and 10 different nations. Of these, Air Force strike aircraft flying from nine bases flew more than two-thirds of the combat missions, dropped more than 66,000 munitions (9,650 tons) and damaged or destroyed approximately three-quarters of planned targets. In 2003 alone, Air Force assets provided more than 3,000 sorties of on-call CAS, responding to calls from joint and/or coalition forces on the ground.

Last year, the Air Force brought personnel and materiel into this distant, landlocked nation via 7,410 sorties. Over 4,100 passengers and 487 tons of cargo were moved by airmen operating at various Tanker Airlift Control Elements in and around Afghanistan. To support these airlift and combat sorties and the numerous air assets of the coalition with aerial refueling, the Air Force deployed over 50 tankers. In their primary role, these late 1950s-era and early 1960s-era KC–135 tankers flew more than 3,900 refueling missions. In their secondary airlift role, they delivered 3,620 passengers and 405 tons of cargo. Without versatile tankers, our Armed Forces would need greater access to foreign bases, more aircraft to accomplish the same mission, more airlift assets, and generate more sorties to maintain the required duration on-station.

Operations in Afghanistan also highlight U.S. and coalition reliance on U.S. space capabilities. This spanned accurate global weather, precise navigation, communications, as well as persistent worldwide missile warning and surveillance. For example, OEF relied on precision navigation provided by the Air Force's GPS constellation, over-the-horizon satellite communications (SATCOM), and timely observations of weather, geodesy, and enemy activity. To accomplish this, space professionals performed thousands of precise satellite contacts and hundreds of station keeping adjustments to provide transparent space capability to the warfighter. These vital space capabilities and joint enablers directly leveraged our ability to pursue U.S. objectives in OEF.

Operations Northern Watch and Southern Watch

During the past 12 years, the Air Force flew over 391,000 sorties enforcing the northern and southern no-fly zones over Iraq. With the preponderance of forces, the

Air Force, along with the Navy and Marine Corps, worked alongside the Royal Air Force in Operations Northern Watch (ONW) and Southern Watch (OSW). Manning radar outposts and established C2 centers, conducting ISR along Iraq's borders, responding to almost daily acts of Iraqi aggression, and maintaining the required airlift and air refueling missions taxed Air Force assets since the end of Operation Desert Storm. Yet, these successful air operations had three main effects: they halted air attacks on the ethnic minority populations under the no-fly zones; they deterred a repeat of Iraqi aggression against its neighbors; and they leveraged enforcement of United Nations (U.N.) Security Council Resolutions. Throughout this period, our airmen honed their warfighting skills, gained familiarity with the region, and were able to establish favorable conditions for OIF. For more than a decade, American airmen rose to one of our Nation's most important challenges, containing Saddam Hussein.

Operation Iraqi Freedom

On March 19, 2003, our airmen, alongside fellow soldiers, sailors, marines, and coalition teammates, were called upon to remove the dangerous and oppressive Iraqi regime—this date marked the end of ONW/OSW and the beginning of OIF. OIF crystallized the meaning of jointness and the synergies of combined arms and persistent battlefield awareness.

In the first minutes of OIF, airmen of our Combat Air Forces (USAF, USN, USMC, and coalition) were flying over Baghdad. As major land forces crossed the line of departure, Air Force assets pounded Iraqi C^2 facilities and key leadership targets, decapitating the decisionmakers from their fielded forces. Remaining Iraqi leaders operated with outdated information about ground forces that had already moved miles beyond their reach. As the land component raced toward Baghdad, coalition strike aircraft were simultaneously attacking Iraqi fielded forces, communications and command and control centers, surface-to-surface missile launch sites, and were supporting Special Operations Forces, and ensuring complete air and space dominance in the skies over Iraq. Due to these actions and those during the previous 12 years, none of the 19 Iraqi missile launches were successful in disrupting coalition operations, and not a single Iraqi combat sortie flew during this conflict. Twenty-one days after major combat operations began, the first U.S. land forces reached Baghdad. Five days later, the last major city in Iraq capitulated.

The Air Force provided over 7,000 CAS sorties to aid land forces in the quickest ground force movement in history. Lieutenant General William S. Wallace, Commander of the U.S. Army V Corps said, "none of my commanders complained about the availability, responsiveness, or effectiveness of CAS—it was unprecedented!" As Iraqi forces attempted to stand against the integrated air and ground offensive, they found a joint and coalition team that was better equipped, better trained, and better led than ever brought to the field of battle.

Training, leadership, and innovation coupled with the Air Force's recent investment in air mobility allowed U.S. forces to open a second major front in the Iraqi campaign. Constrained from access by land, Air Force C–17s airdropped over 1,000 paratroopers from the 173rd Airborne Brigade into northern Iraq. This successful mission opened Bashur airfield and ensured U.S. forces could be resupplied.

Before 2003, the Air Force invested heavily in the lessons learned from OEF. Shortening the "kill chain," or the time it took to find, fix, track, target, engage, and assess was one of our top priorities. This investment was worthwhile, as 156 time-sensitive targets were engaged within minutes, most with precision weapons. The flexibility of centralized control and decentralized execution of air and space power enabled direct support to JFC objectives throughout Iraq. Coalition and joint airpower shaped the battlefield ahead of ground forces, provided intelligence and security to the flanks and rear of the rapidly advancing coalition, and served as a force multiplier for Special Operations Forces (SOF). This synergy between SOF and the Air Force allowed small specialized teams to have a major effect throughout the northern and western portions of Iraq by magnifying their inherent lethality, guaranteeing rapid tactical mobility, reducing their footprint through aerial resupply, and providing them the advantage of "knowing what was over the next hill" through air and space-borne ISR.

The Air Force's C^2ISR assets enabled the joint force in Afghanistan as well. This invaluable fleet includes the RC–135 Rivet Joint, E–8 JSTARS, and the E–3 Airborne Warning and Control System (AWACS). This "Iron Triad" of intelligence sensors and C^2 capabilities illustrates the Air Force vision of horizontal integration in terms of persistent battlefield awareness. Combined with the Global Hawk unmanned aerial vehicle (UAV) and Predator remotely piloted aircraft, spaced-based systems, U–2, and Compass Call, these invaluable system provided all-weather,

multi-source intelligence to commanders from all services throughout the area of responsibility.

OIF was the Predator's first "networked" operation. Four simultaneous Predator orbits were flown over Iraq and an additional orbit operated over Afghanistan, with three of those orbits controlled via remote operations in the U.S. This combined reachback enabled dynamic support to numerous OIF missions. Predator also contributed to our operational flexibility, accomplishing hunter-killer missions, tactical ballistic missile search, force protection, focused intelligence collection, air strike control, and special operations support. A Hellfire equipped Predator also conducted numerous precision strikes against Iraqi targets, and flew armed escort missions with U.S. Army helicopters.

Space power provided precise, all-weather navigation, global communications, missile warning, and surveillance. The ability to adapt to adverse weather conditions, including sandstorms, allowed air, land, and maritime forces to confound the Iraqi military and denied safe haven anywhere in their own country. As the Iraqis attempted to use ground-based GPS jammers, Air Force strike assets destroyed them, in some cases, using the very munitions the jammers attempted to defeat. As Defense Secretary Donald Rumsfeld noted, this new era was illustrated by the coalition's "unprecedented combination of power, precision, speed, and flexibility."

During the height of OIF, the Air Force deployed 54,955 airmen. Ambassador Paul Bremer, Chief of the Coalition Provisional Authority (CPA), pronounced, "In roughly 3 weeks [we] liberated a country larger than Germany and Italy combined, and [we] did so with forces smaller than the Army of the Potomac." Led by the finest officers and non-commissioned officers, our airmen flew more than 79,000 sorties since March 2003. Ten thousand strike sorties dropped 37,065 munitions. The coalition flew over 55,000 airlift sorties moved 469,093 passengers and more than 165,060 tons of cargo. In addition, over 10,000 aerial refueling missions supported aircraft from all services, and 1,600 ISR missions provided battlespace awareness regardless of uniform, Service, or coalition nationality. This was a blistering campaign that demanded a joint and combined effort to maximize effects in the battlespace.

Today, Air Force airmen continue to contribute to the joint and coalition team engaged in Iraq. At the end of the year, 6,723 airmen from the active duty, Reserve, and Air National Guard conducted a wide range of missions from locations overseas, flying approximately 150 sorties per day including CAS for ground forces tracking down regime loyalists, foreign fighters, and terrorists. On a daily basis, U–2 and RC–135 aircraft flew ISR sorties monitoring the porous borders of Iraq and providing situational awareness and route planning for Army patrols in stability and support operations. Providing everything from base security for 27 new bases opened by the coalition to the lifeline of supplies that air mobility and air refueling assets bring to all joint forces, Air Force airmen are committed to the successful accomplishment of the U.S. mission in Iraq.

Other Contingency Operations

In 2003, the Air Force remained engaged in America's war on drugs and provided support to NATO ground forces in the Balkans. Since December 1989, Air Force airmen have been an irreplaceable part of the interagency fight against illegal drug and narcotics trafficking. Deployed along the southern U.S., in the Caribbean, and Central and South America, airmen perform this round-the-clock mission, manning nine ground-based radar sites, operating 10 aerostats, and flying counter drug surveillance missions. The Air Force detected, monitored, and provided intercepts on over 275 targets attempting to infiltrate our airspace without clearance. Along with our interagency partners, these operations resulted in 221 arrests and stopped hundreds of tons of contraband from being smuggled into our country.

In the Balkans, airmen are fully committed to completing the mission that they started in the 1990s. Today, Air Force airmen have flown over 26,000 sorties supporting Operations Joint Guardian and Joint Forge. These NATO-led operations combine joint and allied forces to implement the Dayton Peace Accords in Bosnia-Herzegovina and enforce the Military Technical Agreement in Kosovo. At the end of 2003, approximately 800 airmen were supporting NATO's goal of achieving a secure environment and promoting stability in the region.

Additionally, the Air Force engaged in deterrence and humanitarian relief in other regions. While the world's attention was focused on the Middle East in the spring of 2003, our Nation remained vigilant against potential adversaries in Asia. The Air Force deployed a bomber wing—24 B–52s and B–1s—to the American territory of Guam to deter North Korea. At the height of OIF, our Air Force demonstrated our country's resolve and ability to defend the Republic of Korea and Japan by surging bomber operations to over 100 sorties in less than 3 days. This

deterrent operation complemented our permanent engagement in Northeast Asia. The 8,300 airmen who are stationed alongside the soldiers, sailors, marines, and our Korean allies maintained the U.N. armistice, marking 50 years of peace on the peninsula.

Our strength in deterring aggression was matched by our strength in humanitarian action. In response to President Bush's directive to help stop the worsening crisis in Liberia, we deployed a non-combat medical and logistics force to create a lifeline to the American Embassy and provide hope to the Liberian people. An AEF of airmen provided airlift support, aeromedical evacuation, force protection, and theater of communications support. Flying more than 200 sorties, we transported and evacuated civilians and members of the Joint Task Force (JTF) from bases in Sierra Leone and Senegal. The 300 airmen deployed in support of JTF-Liberia reopened the main airport in Monrovia, and ensured the security for U.S. military and civilian aircraft providing relief aid.

Strategic Deterrence

The ability of U.S. conventional forces to operate and project decisive force is built on the foundation of our strategic deterrent force; one that consists of our nuclear-capable aircraft and intercontinental ballistic missile (ICBM) forces, working with the U.S. Navy's Fleet Ballistic Missile Submarines. In 2003, these forces as well as, persistent overhead missile warning sensors and supporting ground-based radars, provided uninterrupted global vigilance deterring a nuclear missile strike against the U.S. or our allies. The dedicated airmen who operate these systems provide the force capability that yields our deterrent umbrella. Should that deterrence fail, they stand ready to provide a prompt, scalable response.

Exercises

The Air Force's success can be attributed to the training, education, and equipment of our airmen. Future readiness of our operations, maintenance, mission support, and medical units will depend on rigorous and innovative joint and coalition training and exercising. This year we are planning 140 exercises with other Services and agencies and we anticipate being involved with 103 allied nations. We will conduct these exercises in as many as 45 foreign countries. Participation ranges from the joint/combined command post exercise Ulchi Focus Lens with our South Korean partners to the tailored international participation in our FLAG exercises and Mission Employment Phases of USAF Weapons School. From joint search-and-rescue forces in Arctic Sarex to Partnership for Peace (PFP) initiatives, our airmen must continue to take advantage of all opportunities that help us train the way we intend to fight.

In addition to previously designed exercises, recent operations highlighted the need for combat support training. During OEF and OIF, the Air Force opened or improved 38 bases used by joint or coalition forces during combat. Our Expeditionary Combat Support teams established secure, operable airfields in Kyrgyzstan, Uzbekistan, Pakistan, and in Iraq. They also built housing, established communications, and erected dining facilities that are still used by other Services and follow-on forces today. To prepare our airmen for these missions, we have created Eagle Flag, an Expeditionary Combat Support Field Training Exercise. During this exercise, combat support personnel apply the integrated skills needed to organize and create an operating location ready to receive fully mission capable forces within 72 hours. From security forces and civil engineers to air traffic controllers and logisticians, each airman required to open a new base or improve an austere location will eventually participate in this valuable exercise.

Our ranges and air space are critical joint enablers and vital national assets that allow the Air Force to develop and test new weapons, train forces, and conduct joint exercises. The ability of the Air Force to effectively operate requires a finite set of natural and fabricated resources. Encroachment of surrounding communities onto Air Force resources results in our limited or denied access to, or use of, these resources. We have made it a priority to define and quantify the resources needed to support mission requirements, and to measure and communicate the effects of encroachment on our installations, radio frequency spectrum, ranges, and air space. We will continue to work with outside agencies and the public to address these issues. The Air Force strongly endorses the Readiness Range and Preservation Initiative. It would make focused legislative changes, protecting the Air Force's operational resources while continuing to preserve our Nation's environment.

Lessons for the Future

As we continue combat operations and prepare for an uncertain future, we are examining lessons from our recent experiences. Although we are currently engaged with each of the other Services to refine the lessons from OIF, many of the priorities

listed in the fiscal year 2005 Presidential budget submission reflect our preliminary conclusions. The Air Force has established a team committed to turning validated lessons into new equipment, new operating concepts, and possibly new organizational structures. Working closely with our joint and coalition partners, we intend to continue our momentum toward an even more effective fighting force.

One of the most important lessons we can draw was envisioned by the authors of the Goldwater-Nichols Act. ONE, OEF, and OIF all validated jointness as the only acceptable method of fighting and winning this Nation's wars. In OIF, the mature relationship between the Combined Forces Land Component Commander (CFLCC) and the Combined Forces Air Component Commander (CFACC) led to unprecedented synergies. The CFACC capitalized on these opportunities by establishing coordination entities led by an Air Force general officer in the supported land component headquarters and by maintaining internal Army, Navy, Marine Corps, and coalition officers in his own headquarters. Both of these organizational innovations enabled commanders to maximize the advantages of mass, lethality, and flexibility of airpower in the area of responsibility.

Another lesson is the Air Force's dependence on the Total Force concept. As stated above, September 11 brought with it a new tempo of operations, one that required both the active duty and Air Reserve component (ARC) to work in concert to achieve our national security objectives. The synergy of our fully integrated active duty, Air National Guard, and Air Force Reserve team provides warfighters with capabilities that these components could not provide alone.

Our Reserve component accounts for over one-third of our strike fighters, more than 72 percent of our tactical airlift, 42 percent of our strategic airlift, and 52 percent of our air refueling capability. The ARC also makes significant contributions to our rescue and support missions, and has an increasing presence in space, intelligence, and information operations. In all, the ARC provides a ready force requiring minimum preparation for mobilization. Whether that mobilization is supporting flight or alert missions for ONE, commanding expeditionary wings in combat, or orchestrating the Air Force Special Operations roles in the western Iraqi desert, the ARC will remain critical to achieving the full potential of our air and space power.

A third lesson was validation of the need for air and space superiority. Through recent combat operations, the Air Force maintained its almost 50-year-old record of "no U.S. ground troops killed by enemy air attack." Without having to defend against Iraqi airpower, coalition commanders could focus their combat power more effectively. In addition, air and space superiority allowed airmen to dedicate more sorties in support of the ground scheme of maneuver, substantially reducing enemy capability in advance of the land component.

We also need to continue to advance integration and planning—integration of Service capabilities to achieve JFC objectives, interagency integration to fight the war on terrorism, and information integration. Integration of manned, unmanned, and space sensors, advanced command and control, and the ability to disseminate and act on this information in near-real time will drive our combat effectiveness in the future. Shared through interoperable machine-to-machine interfaces, this data can paint a picture of the battlespace where the sum of the wisdom of all sensors will end up with a cursor over the target for the operator who can save the target, study the target, or destroy the target.

Finally, there are three general areas for improvement we consider imperative: battle damage assessment, fratricide prevention/combat identification, and equipping our battlefield airmen. First, battle damage assessment shapes the commander's ability for efficient employment of military power. Restriking targets that have already been destroyed, damaged, or made irrelevant by rapid ground force advances wastes sorties that could be devoted to other coalition and joint force objectives. Advances in delivery capabilities of our modern fighter/attack aircraft and bombers mean that ISR assets must assess more targets per strike than ever before. Precision engagement requires precision location, identification, and precision assessment. Although assets like the Global Hawk, Predator, U–2, Senior Scout, and Rivet Joint are equipped with the latest collection technology, the Air Force, joint team, and Intelligence Community must work to ensure that combat assessments produce timely, accurate, and relevant products for the warfighters.

We are also improving operational procedures and technology to minimize incidents of fratricide or "friendly fire." In OIF, major steps toward this goal resulted from technological solutions. Blue Force Tracker and other combat identification systems on many ground force vehicles allowed commanders situational awareness of their forces and enemy forces via a common operational picture. Still, not all joint or coalition forces are equipped with these technological advances. We are pursuing Fire Support Coordination Measures that capitalize on the speed and situational

awareness digital communications offer rather than analog voice communications and grease pencils.

A third area we are actively improving is the effectiveness of the airmen who are embedded with conventional land forces or SOF. With assured access to Air Force datalinks and satellites, these "Battlefield Airmen" can put data directly into air-land-sea weapon systems and enable joint force command and control. We have made great progress in producing a Battlefield Air Operations Kit that is 70 percent lighter, with leading-edge power sources; one that will increase the combat capability of our controllers. This battle management system will reduce engagement times, increase lethality and accuracy, and reduce the risk of fratricide. This capability is based upon the good ideas of our airmen who have been in combat and understand how much a single individual on the battlefield can contribute with the right kit.

Summary

The airmen of America's Air Force have demonstrated their expertise and the value of their contributions to the joint and coalition fight. These combat operations are made possible by Air Force investments in realistic training and education, superior organization, advanced technology, and innovative tactics, techniques, and procedures. In the future, our professional airmen will continue to focus advances in these and other areas guided by the Air Force CONOPs. Their charter is to determine the appropriate capabilities required for joint warfighting and to provide maximum effects from, through, and in air and space. This structure and associated capabilities-based planning will help airmen on their transformational journey, ensuring continued operational successes such as those demonstrated in 2003.

ENSURING AMERICA'S FUTURE AIR AND SPACE DOMINANCE

Air Force lethality, mobility, speed, precision, and the ability to project U.S. military power around the globe provide combatant commanders the capabilities required to meet the Nation's military requirements and dominate our enemies. Consistent with the DOD's focus on Joint Operating Concepts, we will continue to transform our force—meeting the challenges of this era, adapting our forces and people to them, and operating our service efficiently. We will adopt service concepts and capabilities that support the joint construct and capitalize on our core competencies. To sustain our dominance, we develop professional airmen, invest in warfighting technology, and integrate our people and systems together to produce decisive joint warfighting capabilities.

DEVELOPING AIRMEN—RIGHT PEOPLE, RIGHT PLACE, RIGHT TIME

At the heart of our combat capability are the professional airmen who voluntarily serve the Air Force and our Nation. Our airmen turn ideas, tools, tactics, techniques, and procedures into global mobility, power projection, and battlespace effects. Our focus for the ongoing management and development of Air Force personnel will be to: define, renew, develop, and sustain the force.

Defining our Requirements

To meet current and future requirements, we need the right people in the right specialties. The post-September 11 environment has taxed our equipment and our people, particularly those associated with force protection, ISR, and the buildup and sustainment of expeditionary operations. Our analysis shows that we need to shift manpower to stressed career fields to meet the demands of this new steady state, and we are in the process of doing this. We have realigned personnel into our most stressed specialties and hired additional civilians and contractors to free military members to focus on military specific duties. We have also made multi-million dollar investments in technology to reduce certain manpower requirements. We have redirected our training and accession systems and have cross-trained personnel from specialties where we are over strength to alleviate stressed career fields, supporting the Secretary of Defense's vision of moving forces "from the bureaucracy to the battlefield."

Since 2001, we have exceeded our congressionally mandated end strength by more than 16,000 personnel. In light of the global war on terrorism and OIF, DOD allowed this overage, but now we need to get back to our mandated end strength. We are addressing this issue in two ways: first, by reducing personnel overages in most skills; and second, by shaping the remaining force to meet mission requirements. To reduce personnel, we will employ a number of voluntary tools to restructure manning levels in Air Force specialties, while adjusting our Active Force size to the end strength requirement. As we progress, we will evaluate the need to implement additional force shaping steps.

We are also reviewing our ARC manpower to minimize involuntary mobilization of ARC forces for day-to-day, steady state operations while ensuring they are prepared to respond in times of crisis. Since September 11, 2001, we have mobilized more than 62,000 people in over 100 units, and many more individual mobilization augmentees. Today, 20 percent of our AEF packages are comprised of citizen airmen, and members of the Guard or Reserve conduct 89 percent of ONE missions. We recognize this is a challenge and are taking steps to relieve the pressure on the Guard and Reserve.

In fiscal year 2005, we plan to redistribute forces in a number of mission areas among the Reserve and active components to balance the burden on the Reserves. These missions include our Air and Space Operations Centers, remotely piloted aircraft systems, Combat Search and Rescue, Security Forces, and a number of high demand global mobility systems. We are working to increase ARC volunteerism by addressing equity of benefits and tour-length flexibility, while addressing civilian employer issues. We are also looking at creating more full-time positions to reduce our dependency on involuntary mobilization.

We are entering the second year of our agreement to employ Army National Guard soldiers for force protection at Air Force installations, temporarily mitigating our 8,000 personnel shortfall in security forces. As we do this, we are executing an aggressive plan to rapidly burn down the need for Army augmentation and working to redesign manpower requirements. Our reduction plan maximizes the use of Army volunteers in the second year, and allows for demobilization of about one third of the soldiers employed in the first year.

Future Total Force

Just as in combat overseas, we are continuing to pursue seamless ARC and active duty integration at home, leveraging the capabilities and characteristics of each component, while allowing each to retain their cultural identity. We continue to explore a variety of organizational initiatives to integrate our Active, Guard, and Reserve Forces. These efforts are intended to expand mission flexibility, create efficiencies in our Total Force, and prepare for the future. Today's Future Total Force team includes a number of blended or associate units that are programmed or are in use. The creation of the "blended" unit, the 116th Air Control Wing at Robins Air Force Base, Georgia, elevated integration to the next level. With an initial deployment of over 730 personnel, and significant operational achievements in OIF, we are now examining opportunities to integrate active, Guard, and Reserve units elsewhere in order to produce even more measurable benefits, savings, and efficiencies.

The reasons for this type of integration are compelling. We can maximize our warfighting capabilities by integrating Active, Guard, and Reserve Forces to optimize the contributions of each component. Reservists and guardsmen bring with them capabilities they have acquired in civilian jobs, leveraging the experience of ARC personnel. Integration relieves PERSTEMPO on the Active-Duty Force. Because ARC members do not move as often, they provide corporate knowledge, stability, and continuity. Finally, integration enhances the retention of airmen who decide to leave active service. Because the Guard and Reserve are involved in many Air Force missions, we recapture the investment we've made by retaining separating active duty members as members of the ARC.

Renewing the Force

To renew our force, we target our recruitment to ensure a diverse force with the talent and drive to be the best airmen in the world's greatest Air Force. We will recruit those with the skills most critical for our continued success. In fiscal year 2003, our goal was 5,226 officers and 37,000 enlisted; we exceeded our goal in both categories, accessing 5,419 officers and 37,144 enlisted. For fiscal year 2004, we plan to access 5,795 officers and 37,000 enlisted.

In the Air Force, the capabilities we derive from diversity are vital to mission excellence and at the core of our strategy to maximize our combat capabilities. In this new era, successful military operations demand much greater agility, adaptability, and versatility to achieve and sustain success. This requires a force comprised of the best our Nation has to offer, from every segment of society, trained and ready to go. Our focus is building a force that consists of men and women who possess keener international insight, foreign language proficiency, and wide-ranging cultural acumen. Diversity of life experiences, education, culture, and background are essential to help us achieve the asymmetric advantage we need to defend America's interests wherever threatened. Our strength comes from the collective application of our diverse talents, and is a critical component of the air and space dominance we enjoy today. We must enthusiastically reach out to all segments of society to ensure the

Air Force offers a welcoming career to the best and brightest of American society, regardless of their background. By doing so, we attract people from all segments of society and tap into the limitless talents resident in our diverse population.

In addition to a diverse force, we also need the correct talent mix. We remain concerned about recruiting health care professionals and individuals with technical degrees. To meet our needs, we continue to focus our efforts to ensure we attract and retain the right people. We will also closely monitor ARC recruitment. Historically, the Air National Guard and Air Force Reserve Command access close to 25 percent of eligible, separating active duty Air Force members with no break in service between their active duty and ARC service.

Developing the Force

Over the past year, we implemented a new force development construct in order to get the right people in the right job at the right time with the right skills, knowledge, and experience. Force development combines focused assignments and education and training opportunities to prepare our people to meet the mission needs of our Air Force. Rather than allowing chance and happenstance to guide an airman's experience, we will take a deliberate approach to develop officers, enlisted, and civilians throughout our Total Force. Through targeted education, training, and mission-related experience, we will develop professional airmen into joint force warriors with the skills needed across the tactical, operational, and strategic levels of conflict. Their mission will be to accomplish the joint mission, motivate teams, mentor subordinates, and train their successors.

A segment of warriors requiring special attention is our cadre of space professionals, those that design, build, and operate our space systems. As military dependence on space grows, the Air Force continues to develop this cadre to meet our Nation's needs. Our Space Professional Strategy is the roadmap for developing that cadre. Air Force space professionals will develop more in-depth expertise in operational and technical space specialties through tailored assignments, education, and training. This roadmap will result in a team of scientists, engineers, program managers, and operators skilled and knowledgeable in developing, acquiring, applying, sustaining, and integrating space capabilities.

Sustaining the Force

The Air Force is a retention-based force. Because the skill sets of our airmen are not easily replaced, we expend considerable effort to retain our people, especially those in high-technology fields and those in whom we have invested significant education and training. In 2003, we reaped the benefits of an aggressive retention program, aided by a renewed focus and investment on education and individual development, enlistment and retention bonuses, targeted military pay raises, and quality of life improvements. Our fiscal year 2003 enlisted retention statistics tell the story. Retention for first term airmen stood at 61 percent, exceeding our goal by 6 percent. Retention for our second term and career airmen was also impressive, achieving 73 percent and 95 percent respectively. Continued investment in people rewards their service, provides a suitable standard of living, and enables us to attract and retain the professionals we need.

One of the highlights of our quality of life focus is housing investment. Through military construction and housing privatization, we are providing quality homes faster than ever before. Over the next 3 years, the Air Force will renovate or replace more than 40,000 homes through privatization. At the same time, we will renovate or replace an additional 20,000 homes through military construction. With the elimination of out-of-pocket housing expenses, our Air Force members and their families now have three great options—local community housing, traditional military family housing, and privatized housing.

Focus On Fitness

We recognize that without motivated and combat-ready expeditionary airmen throughout our Total Force, our strategies, advanced technologies, and integrated capabilities would be much less effective. That is why we have renewed our focus on fitness and first-class fitness centers. We must be fit to fight. That demands that we reorient our culture to make physical and mental fitness part of our daily life as airmen. In January 2004, our new fitness program returned to the basics of running, sit-ups, and pushups. The program combines our fitness guidelines and weight/body fat standards into one program that encompasses the total health of an airman.

TECHNOLOGY-TO-WARFIGHTING

The Air Force has established a capabilities-based approach to war planning, allowing us to focus investments on those capabilities we need to support the joint warfighter. This type of planning focuses on capabilities required to accomplish a variety of missions and to achieve desired effects against any potential threats. Our capabilities-based approach requires us to think in new ways and consider combinations of systems that create distinctive capabilities.

Effects Focus: Capabilities-Based CONOPs

The Air Force has written six CONOPs that support capabilities-based planning and the joint vision of combat operations. The CONOPs help analyze the span of joint tasks we may be asked to perform and define the effects we can produce. Most importantly, they help us identify the capabilities an expeditionary force will need to accomplish its mission, creating a framework that enables us to shape our portfolio.

- Homeland Security CONOPs leverage Air Force capabilities with joint and interagency efforts to prevent, protect, and respond to threats against our homeland—within or beyond U.S. territories.
- Space and Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C^4ISR) CONOPs harness the integration of manned, unmanned, and space systems to provide persistent situation awareness and executable decision-quality information to the JFC.
- Global Mobility CONOPs provide combatant commanders with the planning, command and control, and operations capabilities to enable timely and effective projection, employment, and sustainment of U.S. power in support of U.S. global interests—precision delivery for operational effect.
- Global Strike CONOPs employ joint power-projection capabilities to engage anti-access and high-value targets, gain access to denied battlespace, and maintain battlespace access for required joint/coalition follow-on operations.
- Global Persistent Attack CONOPs provide a spectrum of capabilities from major combat to peacekeeping and sustainment operations. Global Persistent Attack assumes that once access conditions are established (i.e. through Global Strike), there will be a need for persistent and sustained operations to maintain air, space, and information dominance.
- Nuclear Response CONOPs provide the deterrent "umbrella" under which conventional forces operate, and, if deterrence fails, avails a scalable response.

This CONOPs approach has resulted in numerous benefits, providing:

- Articulation of operational capabilities that will prevail in conflicts and avert technological surprises;
- An operational risk and capabilities-based programmatic decisionmaking focus;
- Budgeting guidance to the Air Force Major Commands for fulfilling capabilities-based solutions to satisfy warfighter requirements;
- Warfighter risk management insights for long-range planning.

Modernization and Recapitalization

Through capabilities-based planning, the Air Force will continue to invest in our core competency of bringing technology to the warfighter that will maintain our technical advantage and update our air and space capabilities. The Capabilities Review and Risk Assessment (CRRA) process guides these efforts. Replacing an outdated threat-based review process that focused on platforms versus current and future warfighting effects and capabilities, our extensive 2-year assessment identified and prioritized critical operational shortfalls we will use to guide our investment strategy. These priorities present the most significant and immediate Air Force-wide capability objectives.

We need to field capabilities that allow us to reduce the time required to find, fix, track and target fleeting and mobile targets and other hostile forces. One system that addresses this operational shortfall is the F/A–22 Raptor. In addition to its contributions to obtaining and sustaining air dominance, the F/A–22 will allow all weather, stealthy, precision strike 24 hours a day, and will counter existing and emerging threats, such as advanced surface-to-air missiles, cruise missiles, and time sensitive and emerging targets, including mobile targets, that our legacy systems cannot. The F/A–22 is in low rate initial production and has begun Phase I of its operational testing. It is on track for initial operational capability in 2005. A com-

plementary capability is provided by the F–35 Joint Strike Fighter, providing sustainable, focused CAS and interservice and coalition commonality.

We also recognize that operational shortfalls exist early in the kill chain and are applying technologies to fill those gaps. A robust command, control, and sensor portfolio combining both space and airborne systems, along with seamless real-time communications, will provide additional critical capabilities that address this shortfall while supporting the Joint Operational Concept of full spectrum dominance. Program definition and risk reduction efforts are moving us towards C^4ISR and Battle Management capabilities with shorter cycle times. The JFC will be able to respond to fleeting opportunities with near-real time information and will be able to bring to bear kill-chain assets against the enemy. Additionally, in this world of proliferating cruise missile technology, our work on improving our C^4ISR capabilities—including airborne Active Electronically Scanned Array (AESA) radar technology—could pay large dividends, playing a significant role in America's defense against these and other threats. To create this robust command and control network, we will need a flexible and digital multi-service communications capability. We are well on our way in defining the architecture to make it a reality. The capabilities we are pursuing directly support the Department's transformational system of interoperable joint C^4ISR.

There is a need for a globally interconnected capability that collects, processes, stores, disseminates, and manages information on demand to warfighters, policy makers, and support people. The C2 Constellation, our capstone concept for achieving the integration of air and space operations, includes these concepts and the future capabilities of the Global Information Grid (GIG), Net Centric Enterprise Services, Transformational Communications, the Joint Tactical Radio System, and airborne command, control, and communication assets, among others.

One of the elements of a sensible strategy to maintain U.S. power projection capabilities derives from a global aerial refueling fleet that serves Air Force, Navy, Marine Corps, and coalition aircraft. Our current fleet of aging tankers met the challenges of OEF and OIF but is increasingly expensive to maintain. The fleet averages more then 40 years of age, and the oldest model, the KC–135E, goes back to the Eisenhower administration. Recapitalization for this fleet of over 540 aerial refueling aircraft will clearly take decades to complete and is vital to the foundation and global reach of our Air Force, sister Services, and coalition partners. The Air Force is committed to an acquisition approach for this program that will recapitalize the fleet in the most affordable manner possible.

Capabilities-driven modernization and recapitalization efforts are also taking place on our space systems, as we replace constellations of satellites and ground systems with next generation capabilities. The Evolved Expendable Launch Vehicle (EELV) has completed six successful launches. Using two launch designs, we will continue to seek responsive, assured access to space for government systems. Space-based radar (SBR) will provide a complementary capability to our portfolio of radar and remote sensing systems. We will employ internet protocol networks and high-bandwidth lasers in space to transform communications with the Transformational Satellite, dramatically increasing connectivity to the warfighter. Modernization of GPS and development of the next-generation GPS III will enhance navigation capability and increase our resistance to jamming. In partnership with the National Aeronautics and Space Administration (NASA) and the Department of Commerce, we are developing the National Polar-orbiting Operational Environmental Satellite System, which offers next-generation meteorological capability. Each of these systems supports critical C^4ISR capabilities that give the JFC increased technological and asymmetric advantages.

Space control efforts, enabled by robust space situation awareness, will ensure unhampered access to space-based services. Enhanced space situation awareness assets will provide the information necessary to execute an effective space control strategy. However, we must be prepared to deprive an adversary of the benefits of space capabilities when American interests and lives are at stake.

Additional capability does not stem solely from new weapon system acquisitions. It results from innovative modernization of our existing systems. One example is incorporating a Smart Bomb Rack Assembly and the 500-lb. version of the Joint Direct Attack Munition (JDAM) into the weapons bay of the B–2. In September 2003, we demonstrated that the B–2 bomber is now able to release up to 80 separately targeted, GPS-guided weapons in a single mission. This kind of innovation reduces the number of platforms that must penetrate enemy airspace while holding numerous enemy targets at risk. The second order consequences run the gamut from maintenance to support aircraft.

We will also address the deficiencies in our infrastructure through modernization and recapitalization. Improvements to our air and space systems will be limited

without improvements in our foundational support systems. Deteriorated airfields, hangars, waterlines, electrical networks, and air traffic control approach and landing systems are just some of the infrastructure elements needing immediate attention. Our investment strategy focuses on three simultaneous steps: disposing of excess facilities; sustaining our facilities and infrastructure; and establishing a sustainable investment program for future modernization of our facilities and infrastructure.

Finally, we need to continue to modernize and recapitalize our information technology infrastructure. To leverage our information superiority, the Air Force is pursuing a modernization strategy and information technology investments, which target a common network infrastructure and employ enterprise services and shared capabilities.

Science and Technology

Our investment in S&T has and continues to underpin our modernization and recapitalization program. Similar to our applied-technology acquisition efforts, the Air Force's capability-based focus produces an S&T vision that supports the warfighter.

The Air Force S&T program fosters development of joint warfighting capabilities and integrated technologies, consistent with DOD and national priorities. We will provide a long-term, stable investment in S&T in areas that will immediately benefit existing systems and in transformational technologies that will improve tomorrow's Air Force. Many Air Force S&T programs, such as directed energy, hypersonics, laser-based communications, and the emerging field of nanotechnology, show promise for joint warfighting capabilities. Other technology areas, such as miniaturization of space platforms and space proximity operations, also show promise in the future. Through developments like these, the Air Force S&T program will advance joint warfighting capabilities and the Air Force vision of an integrated air and space force capable of responsive and decisive global engagement.

Capabilities-Based Acquisition/Transforming Business Practices

To achieve our vision of a flexible, responsive, and capabilities-based expeditionary force, we are transforming how we conceive, plan, develop, acquire, and sustain weapons systems. Our Agile Acquisition initiative emphasizes speed and credibility; we must deliver what we promise—on time and on budget. Our goal is to deliver affordable, sustainable capabilities that meet joint warfighters' operational needs.

We continue to improve our acquisition system—breaking down organizational barriers, changing work culture through aggressive training, and reforming processes with policies that encourage innovation and collaboration. Already, we are:

- Realigning our Program Executive Officers (PEOs). By moving our PEOs out of Washington and making them commanders of our product centers, we have aligned both acquisition accountability and resources under our most experienced general officers and acquisition professionals.
- Creating a culture of innovation. Because people drive the success of our Agile Acquisition initiatives, we will focus on enhanced training. Laying the foundation for change, this past year 16,500 Air Force acquisition professionals, and hundreds of personnel from other disciplines, attended training sessions underscoring the need for collaboration, innovation, reasonable risk management, and a sense of urgency in our approach.
- Reducing Total Ownership Costs. With strong support from the Secretary of Defense, we will expand the Reduction in Total Ownership Cost program with a standard model ensuring that we have accurate metrics.
- Moving technology from the lab to the warfighter quickly. Laboratories must focus on warfighter requirements and researchers need to ensure technologies are mature, producible, and supportable. Warfighters will work with scientists, acquisition experts, and major commands to identify gaps in capabilities. With help from Congress, we have matured our combat capability document process to fill those gaps. During OIF, we approved 37 requests for critically needed systems, usually in a matter of days.
- Tailoring acquisition methods for space systems. In October 2003, we issued a new acquisition policy for space systems that will improve acquisitions by tailoring acquisition procedures to the unique demands of space systems.

Transformation of our business processes is not limited to acquisition activities. Our Depot Maintenance Strategy and Master Plan calls for financial and infrastructure capitalization to ensure Air Force hardware is safe and ready to operate across the threat spectrum. Our increased funding for depot facilities and equipment modernization in fiscal year 2004–2009, along with public-private partnerships, will result in more responsive support to the JFC. We expect to maximize production and

throughput of weapon systems and commodities that will improve mission capability.

Our logistics transformation initiative will revolutionize logistics processes to improve warfighter support and reduce costs. The goal of the Air Force's logistics transformation program, Expeditionary Logistics for the 21st century, is to increase weapon system availability by 20 percent with zero cost growth. Our current initiatives—depot maintenance transformation, purchasing and supply chain management, regionalized intermediate repair, and improved logistics command and control—will transform the entire logistics enterprise.

Our depots have put some of these initiatives into place with exceptional results. In fiscal year 2003, our depot maintenance teams were more productive than planned, exceeding aircraft, engine, and commodity production goals and reducing flow days in nearly all areas. Implementation of "lean" production processes, optimized use of the existing workforce, and appropriate funding, all contributed to this good news story. In addition, our spares support to the warfighter is at record high numbers. In 2003, supply rates and cannibalization rates achieved their best performance since fiscal years 1994 and 1995, respectively. Fourteen of 20 aircraft design systems improved their mission capable rates over the previous year, with Predator UAVs improving by 11 percent, and B–1 bombers achieving the best mission capable and supply rates in its history. Thanks to proper funding, fleet consolidation, and transformation initiatives, spare parts shortages were reduced to the lowest levels recorded across the entire fleet.

Financing the Fight

An operating strategy is only as good as its financing strategy. Similar to acquisition, logistics, and other support processes, our finance capabilities are strong. We are taking deliberate and aggressive steps to upgrade our financial decision support capability and reduce the cost of delivering financial services. Our focus is on support to our airmen, strategic resourcing and cost management, and information reliability and integration. The initiatives that will get us there include self-service web-based pay and personnel customer service, seamless e-commerce for our vendor payment environment, budgets that link planning, programming, and execution to capabilities and performance, financial statements that produce clean audit opinions while providing reliable financial and management information, and innovative financing strategies.

INTEGRATING OPERATIONS

The Air Force excels at providing communications, intelligence, air mobility, precision strike, and space capabilities that enable joint operations. Our airmen integrate these and other capabilities into a cohesive system that creates war-winning effects. Integration takes place at three levels. At the joint strategic level, integration occurs between interagencies and the coalition. Integration also takes place within the Air Force at an organizational level. At its most basic level, integration takes place at the machine-to-machine level to achieve universal information sharing which facilitates true integration at every level.

Integrating Joint, Coalition, and Interagency Operations

The ever-changing dynamics of global events will drive the need to integrate DOD and interagency capabilities and, in most cases, those of our coalition partners. Joint solutions are required to produce warfighting effects with the speed that the global war on terrorism demands. Fully integrated operations employ only the right forces and capabilities necessary to achieve an objective in the most efficient manner. We must also integrate space capabilities for national intelligence and warfighting.

We are pursuing adaptations of our C2 organizations and capabilities to support this vision. While the Air Force's global C2 structure has remained relatively constant, throughout our 57-year history, the demands of a changing geopolitical environment have stressed current C2 elements beyond their design limits.

We have conducted an extensive review of our C2 structures to support the National Security Strategy objectives of assure, dissuade, deter, and defeat as well as the Secretary of Defense's Unified Command Plan (UCP). We will enhance our support for the JFC and our expeditionary posture through a new Warfighting Headquarters Construct. This will enable the Numbered Air Forces to support Unified Combatant Commanders in a habitual supported-supporting relationship. Working with their strategy and planning cells on a daily basis will ensure that Air Force capabilities are available to the JFC's warfighting staff. This new headquarters will provide the Combined Air Operations Center (CAOC) with sufficient staff to focus on planning and employment of air, space, and information operations throughout the theater.

We are also adapting the capabilities of our CAOCs. The CAOCs of each headquarters will be interconnected with the theater CAOCs, all operating 24 hours a day, 7 days a week. They will be operated as a weapons system, certified and standardized, and have cognizance of the entire air and space picture. This reorganization will increase our ability to support our combatant commanders, reduce redundancies, and deliver precise effects to the warfighters. As we near completion of the concept development, we will work with the Secretary of Defense and Congress to implement a more streamlined and responsive C2 component for the combatant commanders and national leadership.

Integrated operations also depend on integrated training. We continue to advance joint and combined interoperability training with our sister Services and the nations with which we participate in global operations. The Joint National Training Capability (JNTC) will improve our opportunities for joint training. The aim of the JNTC is to improve each Service's ability to work with other Services at the tactical level and to improve joint planning and execution at the operational and strategic levels. The Air Force has integrated live, virtual, and constructive training environments into a single training realm using a distributed mission operations (DMO) capability. JNTC will use this DMO capability to tie live training events with virtual (man-in-the-loop) play and constructive simulations. Live training in 2004—on our ranges during four Service-conducted major training events—will benefit from improved instrumentation and links to other ranges as well as the ability to supplement live training with virtual or constructive options. These types of integrated training operations reduce overall costs to the services while providing us yet another avenue to train like we fight.

Integrating Within the Air Force

The Air Force is continuing to strengthen and refine our AEF. The AEF enables rapid build-up and redeployment of air and space power without a lapse in the Air Force's ability to support a combatant commander's operations. The Air Force provides forces to combatant commanders according the AEF Presence Policy (AEFPP), the Air Force portion of DOD's Joint Presence Policy. There are 10 AEFs, and each AEF provides a portfolio of capabilities and force modules. At any given time, two AEFs are postured to immediately provide these capabilities. The other eight are in various stages of rest, training, spin-up, or standby. The AEF is how the Air Force organizes, trains, equips, and sustains responsive air and space forces to meet defense strategy requirements outlined in the Strategic Planning Guidance.

Within the AEF, Air Force forces are organized and presented to combatant commanders as Air and Space Expeditionary Task Forces (AETFs). They are sized to meet the combatant commander's requirements and may be provided in one of three forms: as an Air Expeditionary Wing (AEW), Group (AEG), and/or Squadron (AES). An AETF may consist of a single AEW or AEG, or may consist of multiple AEWs or AEGs and/or as a Numbered Expeditionary Air Force. AETFs provide the functional capabilities (weapon systems, expeditionary combat support and command and control) to achieve desired effects in an integrated joint operational environment.

One of our distinctive Air Force capabilities is Agile Combat Support (ACS.) To provide this capability, our expeditionary combat support forces—medics, logisticians, engineers, communicators, security forces, services, and contracting, among several others—provide a base support system that is highly mobile, flexible, and fully integrated with air and space operations. ACS ensures responsive expeditionary support to joint operations is achievable within resource constraints—from creation of operating locations to provision of right-sized forces. An example of this capability is the 86th Contingency Response Group (CRG) at Ramstein Air Base, organized, trained, and equipped to provide an initial "Open the Base" force module to meet combatant commander requirements. The CRG provides a rapid response team to assess operating location suitability and defines combat support capabilities needed to establish Air Expeditionary Force operating locations.

Another example of ACS capability is the light and lean Expeditionary Medical System (EMEDS) that provides the U.S. military's farthest forward care and surgical capability. Air Force medics jump into the fight alongside the very first combatants. Whether supporting the opening of an air base or performing life saving surgeries, these medics bring an extraordinary capability. They carry backpacks with reinforced medical equipment, permitting them to perform medical operations within minutes of their boots hitting the ground. Complementing this expeditionary medical capability is our air evacuation system that provides the lifeline for those injured personnel not able to return to duty. The other Services and our allies benefited greatly from this capability in OEF and OIF. The Army and Navy are now de-

veloping a similar light and lean capability. The success of EMEDS is also apparent in the reduction of disease and non-battle injuries—the lowest ever in combat.

Horizontal Machine-to-Machine Integration

We also strive to increasingly integrate operations at the most basic level—electron to electron. Victory belongs to those who can collect intelligence, communicate information, and bring capabilities to bear first. Executing these complex tasks with accuracy, speed, and power requires assured access and the seamless, horizontal integration of systems, activities and expertise across all manned, unmanned, and space capabilities. Such integration will dramatically shorten the kill chain.

Machine-to-machine integration means giving the warfighter the right information at the right time. It facilitates the exchange of large amounts of information, providing every machine the information it needs about the battlespace and an ability to share that information. In the future, we will significantly reduce the persistent challenges of having different perspectives or pictures of the battlefield. Examples would be to ensure that the A–10 could see the same target as the Predator or to guarantee that the F–15 has the same intelligence about enemy radars as the Rivet Joint.

We want a system where information is made available and delivered without regard to the source of the information, who analyzed the information, or who disseminated the information. It is the end product that is important, not the fingers that touch it. The culmination of the effort is the cursor over the target. It is an effect we seek, and what we will provide.

The warfighters' future success will depend on Predictive Battlespace Awareness (PBA). PBA relies on in-depth study of an adversary before hostilities begin in order to anticipate his actions to the maximum extent possible. We can then analyze information to assess current conditions, exploit opportunities, anticipate future actions, and act with a degree of speed and certainty unmatched by our adversaries. PBA also relies on the ability of air and space systems to integrate information at the machine-to-machine level and produce high-fidelity intelligence that results in a cursor over the target. The result—integrated operations—is our unique ability to conduct PBA and impact the target at the time and place of our choosing. This machine-to-machine integration will include a constellation of sensors that create a network of information providing joint warfighters the information and continuity to see first, understand first, and act first.

The C2 Constellation is the Air Force capstone concept for achieving the integration of air and space operations. Our vision of the C2 Constellation is a robust, protected network infrastructure, a globally based command and control system to encompass all levels of the battle and allow machines to do the integration and fusion. It uses Battle Management Command and Control and Connectivity and consists of command centers, sensors, and systems like the U–2, SBR, the Distributed Common Ground System, and our CAOCs. Given the C2 Constellation's complexity, the Air Force recognizes the need for an architecture to address myriad integration issues—methodically—so all elements work in concert.

SECURING AMERICA'S NEXT HORIZON

Armed with the heritage of air and space power in combat, the lessons learned from our most recent conflicts, and the powerful advances in technology in the 21st century, we stand ready to deliver decisive air and space power in support of our Nation. Whether called to execute a commanding show of force, to enable the joint fight, to deliver humanitarian assistance, or to protect our Nation from the scourge of terrorism, we will deliver the effects required. Our ability to consistently answer the call is our dividend to the Nation, a result of our sustained investment in people, technology, and integration.

Our portfolio of advantages provides dividends on the battlefield. We bring to bear a diversified collection of capabilities, which answer the needs of a spectrum of combat and humanitarian operations. As one would with any investment, we will monitor, maintain, and adjust our investments as needed to reflect the demands of a dynamic environment. Transformational initiatives in the way we organize, train, and equip reflect such adjustments, changes that will result in significant gains for our force, for the joint team, and for our Nation. Yet, we will not shift our focus from the core competencies that have provided the foundation for our success and continue to do so. The success of the Air Force resides in the airmen who employ the technology of warfighting through integrated operations with our joint and coalition partners. This is our heritage and our future. This is America's Air Force.

Chairman WARNER. Thank you, General, for that statement. I think the committee as a whole is very appreciative of the good

strong reports from each of you that we have received this morning.

We will now proceed to a first round of 6 minutes each and I will lead off. General Schoomaker, we are preparing to have one of the largest rotations of forces in Iraq in contemporary military history. That not only involves the training to have those men and women ready when they arrive, but also the equipment. You and I have spent some time here recently in consultation on how at this very moment further adaptations are being made to the equipment, particularly the high-mobility multipurpose wheeled vehicle (HMMWV), to meet the ever-changing type of threat and weaponry being used. General Hagee, you are about to oversee your forces once again returning to Iraq.

So I will ask each of you to discuss the ramifications of this very significant turnover of forces and equipment, whether it is the HMMWV, personal vests, or body armor. What is the status as they go into this face of harm's way?

General SCHOOMAKER. Sir, as you correctly stated, this is one of the largest movements we have had since World War II. It is very complex. We have approached it in a very deliberative fashion, we have extended the period of time in which this rotation will take place to provide for the adequate preparation time, training, coordination, reconnaissance, and all of the things we have to do to ensure an appropriate seamless turnover of forces for this very complicated theater.

Included in this is the extensive management of the equipment that will remain behind. Any equipment that we have designed, especially for force protection, including the up-armored vehicles, not just the up-armored HMMWVs but the extensive efforts we have been making on other larger vehicles that are there—supply trucks, the body armor, these kinds of things. We have, I am happy to say, met the goal—which I testified to previously—in both Iraq and Kuwait to have the Interceptor Body Armor now over there in sufficient numbers for everybody to have. All of that will remain in place and it is being managed in a very detailed way that will ensure that nobody is not protected with the very best equipment that we can acquire.

We have tripled the number of up-armored HMMWVs that are in the theater and are moving toward a requirement of 4,100. This is a constantly moving target. We have included the Marine Corps' requirements in that number and we are working very closely with General Hagee's people to ensure that adequate distribution of vehicles for their sector takes place.

We have significantly increased production of this equipment. You and I have had extensive conversations about not only the up-armored HMMWV situation but also the add-on armor kits that are being produced. So unless you want to go into more detail, sir, I will stop there.

Chairman WARNER. That is fine.

General Hagee.

General HAGEE. I will not repeat what General Schoomaker said, but we are ready. We have about 3,000 vehicles—which includes both large vehicles and the smaller HMMWVs—that we are hardening right now in conjunction with the Army. The Army is also

leaving behind some of their so-called up-armored HMMWVs. When the transfer of authority takes place we believe that we will have all of our vehicles hardened and ready to go.

We have enough body armor for every single marine to produce sufficient protection, not only in Iraq but in Afghanistan. Working with the Army, we have also developed technical means against these improvised explosive devices (IEDs), but I cannot go any further here in open session.

In addition, we have spent the last few months working with the Army doing extensive training, taking their lessons learned from Iraq. We have sent every single maneuver battalion through an extensive 1-week course out in southern California. We have taken all of our pilots and put them through a 2-week course down at Yuma, Arizona. We have also taken our combat support and combat service support marines, reminded them that every marine is a rifleman, and sent them through an extensive training course.

Sir, as we deploy this month we believe we are ready.

Chairman WARNER. Thank you.

The Commandant mentioned Afghanistan. Obviously, the theaters are in some competition for equipment. It would be my expectation that you find that your forces in Afghanistan are equally well equipped as those in Iraq. Am I correct on that, General?

General SCHOOMAKER. That is correct, sir.

Chairman WARNER. You mentioned in your opening statement the tremendous value the Guard and Reserve have held throughout this and indeed other conflicts. Yet when the Secretary of Defense came, he very forthrightly said that there had been some analytical studies made of the Guard and Reserve and their training, and workup for such operations should be changed.

Can you elaborate on how you are working with the Guard and Reserve community to begin to make them into units that are more readily able to integrate with the Active Forces?

General SCHOOMAKER. Sir, I would be happy to. At the highest level, our initiative of modularity that allows us to plug and play Reserve component units with active component units in a seamless fashion is, of course, our objective. Take a look at the way that we have been and are currently preparing and have been preparing the three guard brigades that are part of this current rotation going in for OIF 2. We have put the very best equipment on these soldiers, about $3,000 a set, including Interceptor Body Armor, the very best of weaponry, and all of the other equipment that is out there. They have been going through one of the most extensive training regimens, both at the National Training Center and at the Joint Readiness Training Center, which replicates very closely the environment in which they will operate, with extensive civilians on the battlefield, etcetera.

Chairman WARNER. Thank you for that, General.

Lastly, General Jumper. The brunt of the transportation has fallen in many ways on your Transportation Command. What is the status of those aircraft and their ability to really handle this enormous transfer of forces that it is beginning to undertake?

General JUMPER. Mr. Chairman, a great deal of planning has gone on, not only for the airborne portion of this, but also for the portion that we send on ships. I have talked to General Handy, the

commander of the U.S. Transportation Command, about this and he has a flow plan that is going to get this done in a timely fashion.

I am confident that the planning for this has been good and that the flow will be normal.

Chairman WARNER. The Navy's role, Admiral, is up and ready on this?

Admiral CLARK. That is correct, sir. As we speak, we have a ship full of General Hagee's helicopters in the Red Sea en route, and all of the other shipping that is required is under control and ready to go.

Chairman WARNER. Thank you, gentlemen.

Senator Levin.

Senator LEVIN. Thank you, Mr. Chairman.

As I indicated in my opening remarks, the budget that is before us does not include funding to pay for the incremental costs of operations in Iraq and Afghanistan. How are we going to pay for the costs that we know are going to be incurred before a supplemental budget is presented to us in next January?

Let me ask General Schoomaker specifically. Do you have an estimate of the incremental costs that are going to be required to continue those ongoing operations at the same level in Iraq and in Afghanistan?

General SCHOOMAKER. Sir, I do not have an estimate, other than to look at the level at which we are currently operating. This year our share of that supplemental approached around $38 billion, in the fiscal year 2004 budget.

Senator LEVIN. Do you have an estimate as to what the approximate monthly incremental cost would be to maintain those operations at the current level?

General SCHOOMAKER. At the current level, sir, I believe we are expending around $3.7 billion in Iraq.

Senator LEVIN. Per month?

General SCHOOMAKER. Per month, yes, sir.

Senator LEVIN. Those are incremental costs?

General SCHOOMAKER. This is what I understand right now to be the total cost of operating in Iraq. In Afghanistan it is about $900 million a month.

Senator LEVIN. Do you have the costs for the other Services? General Hagee, do you have a cost?

General HAGEE. Sir, right now, within the Marine Corps, we are projecting for this fiscal year expending about $800 million to $900 million. Discussing this with the Secretary of the Navy, we believe that for this year it is about $1.5 billion. We have captured those costs. We have submitted them to the Office of the Secretary of Defense (OSD) and we expect for them to be paid out of the supplemental.

Senator LEVIN. General Schoomaker, General Hagee, press reports indicate that the Central Intelligence Agency (CIA) is concerned that a civil war could erupt in Iraq within the next 6 months. How prepared are your forces, given the large rotation, to address that potential turn of events if this occurred, General Schoomaker?

General SCHOOMAKER. Sir, we are going to have a peak of almost 200,000 people in there at the peak of the rotation. We certainly are not intending to hold those people in there. That is part of the rotation base.

I have heard of the discussions about the possibility of civil war and that is clearly a possibility, but I have not heard anybody predicting that in fact that is the case. We are prepared to deal with whatever comes our way. We are very well prepared to fight. We are very well prepared to do our duty there in the manner that we are doing it now.

Senator LEVIN. General Hagee, do you have any comment on that?

General HAGEE. Sir, I would align myself with the Chief of Staff of the Army.

Senator LEVIN. There were a number of expectations and assumptions that were based on prewar intelligence that did not pan out. For example, the expectation that many Iraqi army units would defect. That did not happen. There was an expectation that Iraqi police would stay at their stations. That did not happen.

The fact that these did not happen led to subsequent events, such as the looting and the destruction of government files and buildings. These events probably led to what I and others consider to be a major error; the decision of Ambassador Bremer to disestablish the Iraqi army. As a result the various Iraqi security units had to be rebuilt from the ground up.

There are certain other predictions, assumptions, and assessments, made by the Intelligence Community which did not take place. Obviously, the first is the presence of WMD. General Hagee gave us one example of how our actions were affected by those assessments and predictions. The same thing could be said relative to a CIA assessment that Iraq had UAVs that were intended for delivering WMD, but apparently they did not.

There were more than 500 sites where WMD or WMD-related activities were possibly located. This means that there may have been targets that we did not strike because we were concerned about collateral damage from the potential release of chemical and biological weapons. Those are just some of the assessments and predictions that did not pan out.

This is my question to each of you: Have you been interviewed by either the Senate or House Intelligence Committees or by any other congressional committee to determine the impact of prewar intelligence on the planning for or the conduct of OIF? General Schoomaker?

General SCHOOMAKER. No, sir, I have not.

Senator LEVIN. Admiral Clark?

Admiral CLARK. No, sir.

Senator LEVIN. General Hagee?

General HAGEE. No, sir.

Senator LEVIN. General Jumper?

General JUMPER. No, sir.

Senator LEVIN. Do we have contingency plans in the event that Iraq, after sovereignty is transferred to them, does not agree to provide the status that we want for our U.S. forces in Iraq? Once sovereignty is transferred, we are going to have to deal then with

whoever that sovereign is relative to the operation of our forces and presumably reach an agreement with that entity that represents the government of Iraq relative to the status of our forces and the ability of our forces to operate.

Do we have contingency plans in the event that Iraq does not agree to provide the status that we want or allow the U.S. forces to operate freely there? General, let me again start with you. Do you know of any contingency plan?

General SCHOOMAKER. Sir, I am not aware of what is going on in that regard. I think it is appropriate for General Abizaid to address that.

Senator LEVIN. Do any of you have any comment on that? [No response.]

My time is up. Thank you.

Chairman WARNER. Senator McCain.

Senator MCCAIN. Thank you, Mr. Chairman. I want to thank the witnesses for being here today.

General Schoomaker, this transition that was just discussed of troops being rotated in Iraq will result in about 40 percent of those troops being Guard and Reserve units. Is that correct?

General SCHOOMAKER. Sir, I believe the last figure I was given is about 37 percent.

Senator MCCAIN. This is probably the largest percentage of guardsmen and reservists in a combat situation in history. Would you agree with that?

General SCHOOMAKER. Sir, I would not be able to agree with that. I do not know. I am not sure.

Senator MCCAIN. I do not have the facts, but I continue to disagree with the assertion made by the Secretary of Defense and all of you again today that we will not have significant impact on retention of guardsmen and reservists. Many of these guardsmen and reservists will be there for their second tour, is that correct?

General SCHOOMAKER. Sir, I do not have the figures before me, but if I recall the testimony the Secretary gave the other day, something like 7 percent of the Guard and Reserve has been called up more than once.

Senator MCCAIN. Well, we will find out, I guess. As I have said before, I hope that I am wrong.

You intend to expand, General Schoomaker, the size of the Army by 30,000 individuals over 4 years. Is that correct?

General SCHOOMAKER. Sir, I have asked to grow some headroom in the Army so that we have the ability to do the modularity, movements, and transformation that we want to do, while we find the offsets for them within our current end strength authorization.

Senator MCCAIN. I guess I had better repeat the question, General Schoomaker: Is there going to be an increase of 30,000 troops over a 4-year period?

General SCHOOMAKER. Yes, sir.

Senator MCCAIN. Do you intend to ask for that to be paid for each year in an emergency supplemental? It is not reflected in any budget request by the DOD.

General SCHOOMAKER. No, sir, it is not. That is what I asked for; it is under the supplemental funding under the current level of operations that we have. As I said before, we have 11,000 people

right now above our statutory end strength that are being paid for through the supplemental because of the level of operations. What I have asked for is to be able to target who we keep so we can form more units while we fund the offsets in personnel within our current authorization through our restructuring and other initiatives.

Senator MCCAIN. Which again, in all due respect, ends up with an increase of 30,000 personnel. Is that correct?

General SCHOOMAKER. Yes, sir. I asked to be able to grow to that level. We cannot achieve that level overnight. This is going to be incremental growth over that period.

Senator MCCAIN. But each year is it the intention to ask for the funding for this out of emergency supplemental funding?

General SCHOOMAKER. Sir, as long as we have this emergency, yes, in conjunction with what we have in our program. Obviously if the emergency terminates then we will have to terminate this, but this is why we built the off-ramps during the period of growth.

Senator MCCAIN. I guess my point is, Mr. Chairman, I have not known of personnel increases being paid for in the name of emergency supplementals to pay for a conflict. I think what it does is it increases the size of the deficit and again deceives the American people about the size of the deficit and the debt that we are incurring per household.

General Jumper, are you aware that members of the Senate Armed Services Committee staff were given falsified information by the people at Tinker Air Force Base?

General JUMPER. No, sir, I am not.

Senator MCCAIN. You were not aware of this issue being discussed in an open hearing? Your liaison people did not inform you of our concern about that?

General JUMPER. No, sir, not about false statements. I have heard nothing about false statements.

Senator MCCAIN. I showed before the committee doctored documents that were given to the staff of this committee. You know nothing about that?

General JUMPER. I am sorry, sir; I do not.

Senator MCCAIN. General Hagee, do you need additional members of the Marine Corps to carry out your responsibilities?

General HAGEE. As I see the situation right now, no, sir.

Senator MCCAIN. You do not?

General HAGEE. I do not, sir.

Senator MCCAIN. Thank you.

Thank you, Mr. Chairman.

Chairman WARNER. Thank you, Senator McCain.

Senator MCCAIN. I would like to have several questions submitted for the record.

Chairman WARNER. Without objection, all members are given that opportunity.

You raised very important questions relative to the budget and the supplemental, as did Senator Levin. I wish to make it clear that, having been in the building myself for many years, these witnesses before us received guidance from the Secretary of Defense as to what to do. They did not make the decision not to include in their own budget process the cost for those personnel. I think we

all agree on that. It is a level above them where that decision was made as to the allocation of the budget costs.

Are we agreed on that, gentlemen?

Senator LEVIN. I think that is usually true.

Chairman WARNER. Yes. They are responding to the actual facts, but the decision on the budget was made, frankly, by the Office of Management and Budget (OMB) and promulgated through the Secretary of Defense.

Senator LEVIN. They could appeal it to the President, I guess, under Goldwater-Nichols.

Chairman WARNER. Senator Lieberman.

Senator LEVIN. Good old Goldwater-Nichols.

Senator LIEBERMAN. Thank you, Mr. Chairman, and again thanks to the chiefs for being here.

Mr. Chairman, there have been some references made and questions asked regarding the ongoing debate about the quality of our intelligence about WMD and the way in which the administration used that intelligence. Those are important questions. I think it is even more important that we focus, as I believe all of us want to do, and as Senator Levin mentioned in his opening statement, on how we support you and our forces to successfully complete the mission in Iraq. While the inquiry regarding WMD and the intelligence is significant certainly as we go forward, what is really important is to go forward.

We are there now. We have successfully carried out what I have for more than a decade believed was a just and necessary mission, which was to overthrow Saddam Hussein. I have no doubt, thanks to the skill and bravery of your forces, that America and the world are safer as a result.

Now the question is how to complete the next phase, which in some sense is a different mission. So my questions will focus on that. I, like everyone else, have been reading lately and hearing about Mr. Abu Mus'ab al-Zarqawi, a Jordanian thought to have links to al Qaeda. We now link him to a number of bombings in Iraq and now have found this disk with what looks like a request by him to the leadership of al Qaeda for support for what he called "a secular war against the Shias."

I must say, parenthetically, I have always been struck by the conclusion that there was no link between al Qaeda and Saddam Hussein. How could there be a link, they say, because al Qaeda is theological and Saddam was very secular? I am not reaching a conclusion here, but I am just urging others not to reach a conclusion. Unfortunately, they had something that tied them together, which was their hatred of us.

I now return to my question. The news about Zarqawi leads me to ask, how would you describe the insurgency we are facing now? Am I right in concluding it is a mix of Baathist loyalists, Saddam loyalists, and terrorists? Is that the conclusion you reach about the enemy we are facing in this phase of the conflict in Iraq? I will start with you, General Schoomaker, and then General Hagee.

General SCHOOMAKER. Sir, I think it has been best described as being a combination of former regime loyalists and dead-enders. There are certainly some criminal elements that are being paid to

perform certain things by them, and obviously you have seen intelligence that there are other entities that are there.

It appears from what has been in the open press today that there is a direction towards trying to work the seams between the different entities within the country to their advantage. I will pass the question to General Hagee.

Senator LIEBERMAN. As you advise the Secretary and equip and staff General Abizaid, I take it that you have no doubt that part of the element we are fighting in Iraq is terrorists. They are not just the Baathist loyalists, is that right, General?

General SCHOOMAKER. Yes, sir, I think that that is clear. The evidence is there. But terror is a tactic as well as a philosophy.

Senator LIEBERMAN. Right.

General SCHOOMAKER. I think that we nevertheless, regardless of what the source of it is, are seeing terror tactics used against us in this insurgency. The source of it from my perspective matters less from my area of responsibility, which is to protect and prepare our soldiers to perform over there. I would agree in that regard.

Senator LIEBERMAN. That is an important point and I accept it. There may be terrorist groups that have come in from outside, but the point is that from the point of view of your forces terrorism is terrorism. It could be the Baathists using terrorist means.

General Hagee.

General HAGEE. Sir, I agree with that assessment.

Senator LIEBERMAN. Let me ask a more general question, which builds a little bit on questions that have been asked before. I will ask each of you this. Does the budget submitted by the administration give you the resources you need to fight the ongoing war against the insurgents in Iraq and conduct those essential military activities to win the peace as well as to be prepared to fight and win if necessary elsewhere in the world?

Understanding that you can never have everything you want in a world of limited resources, what would be your top unfunded requirement if in fact you feel that you received as much of your priority list as you need in the administration's budget?

General SCHOOMAKER. Sir, I would have to submit that for the record. I would not like to guess at that at this stage. I would like to say that the 2004 budget with supplemental is sufficient to prepare us and to conduct the operations that we are doing today. What we have in the 2005 Army budget is sufficient to prepare and equip the Army to do the day-to-day things to support our preparation for the war. It does not include the contingency costs of actually operating over in that theater.

Senator LIEBERMAN. What you would like to submit in writing is what your top unfunded requirement would be. Did I understand that correctly?

General SCHOOMAKER. If you are asking me that question, that is the way I would prefer to answer it, yes, sir.

[The information referred to follows:]

The fiscal year 2005 budget supports our highest Army base program priorities. Should additional funds become available, we would apply them first to accelerate our force protection efforts, including ballistic armor protection and individual soldier equipment.

Senator LIEBERMAN. Fine.

Admiral Clark.

Admiral CLARK. The demand on the Navy is certainly not the same as it is on the Army and the Marine Corps with regard to this specific fight. The requirement for us to be represented globally certainly is there. Thirty-two percent of my force is forward-deployed today. I have sufficient resources to execute that.

Over the course of our discussion, I have talked on a consistent pattern about the requirement to make sure this force is ready. In my opening testimony I spoke to the value of readiness. I assure you that this budget has the resources in it to make sure that it is ready and I can respond this afternoon if I have to.

With regard to my most pressing requirement—and you are exactly right, in a perfect world I could dream up some things that we could go faster. I fundamentally believe that one of the things that is costing us in the acquisition side of the house is that many of our programs—because of resources, we are not able to move fast enough, so we have them on a program on minimum sustain rate or do not invest as rapidly as we could which ends up costing the Nation more.

But I will tell you that for me, the focus is now on how to create the Navy of the future. For too many years we did not buy enough ships and airplanes. That would be my most pressing need and that is where I would put additional resources: to recapitalize ships, aircraft, and submarines, in a more rapid manner.

Senator LIEBERMAN. Thanks, Admiral.

I know I am over my time, Mr. Chairman. I wonder if we could just ask General Hagee and General Jumper to respond, please?

Chairman WARNER. Yes, of course.

General HAGEE. Sir, with the combination of the budget and the supplemental we can handle day-to-day operations and any other contingencies that come up. As far as the number one item on my list, it would be resetting the force, ensuring as we use the equipment either in Iraq or Afghanistan or wherever that we have sufficient funds to either purchase new equipment or to refurbish the equipment that is coming back.

Senator LIEBERMAN. Thank you.

General Jumper.

General JUMPER. Sir, we also have the resources to do our job, and resetting the force quickly and being able to recapitalize, as Admiral Clark says, are the two priorities on the Air Force's list.

Senator LIEBERMAN. Thank you all for your testimony. Thanks for what you do for us and our country every day.

Chairman WARNER. We thank you, Senator Lieberman.

Senator Dole.

Senator DOLE. Thank you, Mr. Chairman. I certainly want to thank the Service Chiefs for being here today, but I also want to thank you for the great work that you are doing in leading our young men and women in the military as they fight and battle terrorism both here at home and abroad. Thousands of young men and women in my home State of North Carolina are currently fighting the war on terror in Iraq. We are forging a process of peace and in doing so we are moving toward turning control of the government and society back to the Iraqi people.

In Iraq and Afghanistan, our Nation is helping to rebuild schools and hospitals, water supply systems and roadways. We have made great progress, thanks to our diverse and skilled workforce, which is meeting the challenges with a courage that makes us all very proud indeed.

With this month's deployment of North Carolina's 30th Heavy Enhanced Separate Brigade, I have been made painfully aware of some of the problems faced by the National Guard units as they mobilize. General Schoomaker, what are you doing to guarantee that the service members are expeditiously transitioned to active duty payrolls and that their lodging and subsistence are of the same quality as the active units that are training on the same bases?

Would you respond to that, and then also to the budget request news release sent out by DOD which proposes, "the use of innovative management to improve the mobilization process." Could each of you go into more specifics about how your Service intends to meet that objective?

General SCHOOMAKER. Senator Dole, thank you very much. As I think you might know, I spent considerable time with the 30th Brigade, Old Hickory, all the way from its pre-mobilization through the mobilization process and through its most recent training at the Joint Readiness Training Center. We have pulled out all stops to ensure that they are absolutely prepared, equipped, trained, have all of the benefits, and to ensure that they have mission success.

To answer the second part of your question, we are going to school on ourselves in preparation for mobilization. We are learning very much about what we are doing now and have been doing in mobilization. Both the Chief of the Army National Guard and the Chief of the Army Reserve are working with us to achieve the initiatives through modularity and a transition from what we used to call an "alert, train, deploy" mentality to a "train, alert, deploy" capability within our Reserve components.

Senator DOLE. Would others answer briefly, please.

Admiral CLARK. Very briefly, we have now only 1,900 Reserves mobilized. Our problem and challenge is significantly different than the other Services. Suffice it to say that the main way we are taking this on, Senator, is this: We are rebalancing the active-Reserve mix so that we do not get caught in a position where if we have to go accomplish some mission, we are forced to have a lot of Reserves on day one. We have restructured our fast response force so that Reserves will not be required for at least the first 60 days of any operation we might be required to be involved in.

General Schoomaker's comment about learning from ourselves is absolutely true. We continue to do that. The biggest area for us has been in pay. We have made great progress with the computer systems to support that.

General HAGEE. Senator, we are an expeditionary ready force. We have active duty personnel located with our Reserve units to ensure that their training meets the same standards as our Active-Duty Forces. We are ready to activate those individuals within an extremely short period of time to respond to any contingency.

General JUMPER. Senator, in the Air Force we train our Air National Guard and Air Force Reserve to the same standards as the active and they share the same equipment. We have a very high volunteer rate for our normal rotations in the Air Force, but we are configured with our Air Expeditionary Forces so that we can call forward the active portions of those forces as force packages as we need them if we want to avoid mobilization.

Still, with our high volunteer rates we do not think that that is necessary in normal times.

Senator DOLE. General Jumper, I have an interest in the A–10 aircraft. This year's budget shows a significant procurement funding increase for the A–10. The A–10 certainly has shown its continued capabilities in Iraq, despite its status as an aging aircraft. Does the budget investment support your goal of extending the service life of this aircraft to 2028? Have recent operations further validated the use of other platforms, like the F–16 and the B–1, for the close air support mission?

General JUMPER. Well, Senator, especially since Kosovo and particularly into Afghanistan, we have worked close air support with every kind of airframe that we have. The most significant addition has been our bomber force. In many cases we have been able to provide close air support with greater accuracy with our GPS-guided bombs than we have actually being closer to the ground with some of our fighter aircraft.

But our F–16s, our A–10s, and our bomber aircraft are all committed to that mission. We will continue to have, in the Air Force, dedicated airplanes whose sole mission is close air support like the A–10. As you say, we have a significant upgrade program. How this will play out into the future and how we work this with the aging aircraft problems with the A–10 is yet to be determined, but we will continue with dedicated close air support capability in our Air Force.

Senator DOLE. Thank you.

My time has expired. Thank you, Mr. Chairman.

Chairman WARNER. Thank you very much, Senator, for your contributions on these questions.

Now, Senator Reed.

Senator REED. Thank you, Mr. Chairman.

Gentlemen, thank you for your service to the Nation and your individual branches of the Service. My theme will be reminiscent of many that are here today. The most remarkable thing about this budget is what it leaves out, not what it includes. It leaves out the cost of operations in Iraq and Afghanistan, and the deliberate increases as a result of 30,000 additional Army troops that were committed to.

I think it is a deceptive way to finance the operations of the military and I think it also has practical ramifications. It impacts the Army most specifically and the Marine Corps to a similar degree.

General Schoomaker, as I understand, the way we are financing operations today is that this budget proposal will cover the routine operations of the Army through the 2005 year, but operations in Afghanistan and Iraq and other contingencies are being funded out of the 2004 supplemental?

General SCHOOMAKER. That is correct, sir.

Senator REED. At the current burn rate, when do you run out of 2004 supplemental money? What day or month?

General SCHOOMAKER. Sir, we are funded through the end of this year. At the burn rate, we are funded through the end of the fiscal year.

Senator REED. You are funded until September 30?

General SCHOOMAKER. Until 30 September, yes, sir.

Senator REED. The 30th. If this supplemental is delayed past September 30, say the end of November, or even delayed until the following year, which is customary nowadays, you will burn out all the money that is appropriated?

General SCHOOMAKER. That is correct, sir.

Senator REED. In trying to balance the commitments and the demands, do you anticipate cutting down base support operations as a way to cover shortfalls?

General SCHOOMAKER. Sir, quite frankly I only have visibility of what the Army has. I do not know what OSD has available. I am concerned, and I think this is what you are getting to, on how we bridge the gap between the end of this fiscal year and whenever we can get a supplemental in the next year. I do not have an answer for you exactly how we would do that.

Senator REED. Thank you, General.

Admiral Clark, do you have similar concerns?

Admiral CLARK. I do not, because I do not have that kind of surge requirement at this time. If I had to increase the pace of aviation operations, then I would need additional resources. I will end up being the party that pays for the Marine Corps transportation and that is a small amount that we will have to deal with. We expect to be covered out of the 2004 supplemental for this movement and then next year we will have to deal with when they would be coming home.

Senator REED. General Hagee, your comments?

General HAGEE. Sir, I share the Chief of Staff of the Army's concerns about this.

Senator REED. General Jumper?

General JUMPER. Sir, so do I. We are funded through the end of fiscal year 2004 and then we will have to either cash flow or find a way to bridge until any potential supplement in 2005.

Senator REED. So if we do not see a supplemental up here in the middle of the summer, given the way we work, you gentlemen in varying degrees are facing a funding problem beginning September, or beginning October 1. Is that a fair assumption?

General SCHOOMAKER. Yes, sir.

Senator REED. Admiral Clark, except for the Navy?

Admiral CLARK. Based on what I said last time, I do not have any requirements that I know of at this time, but I might have a small transportation requirement.

Senator REED. General Hagee.

General HAGEE. Yes, sir, we will have a challenge during that first quarter. We would take actions like General Jumper mentioned: forward flowing or cash flowing until the supplemental became available.

Senator REED. Let me ask another related question. This goes against the Army because they are bearing so much of this burden

and bearing it extremely well, General. The Secretary of Defense had a chart at the last hearing which he is going to use to talk about the end strength increases. What I find remarkable is that from September 2003 to December 2003 the Army lost 10,000 soldiers at a time that stop-losses were in place, and at a time that we were contemplating at least increasing the number of soldiers.

I am concerned that this trend, if it continues, will be serious in terms of manning the forces, regardless of whatever end strength and by whatever means we achieve, coupled together with the anticipation in July when OIF 1 finishes of significant recruitment problems and retention problems. Could you comment upon that, General Schoomaker?

General SCHOOMAKER. I am not familiar with the chart you just held up and I do not know about losing 10,000 soldiers.

Senator REED. This is the Secretary of Defense's chart, with the end strength of the actual Army. They show in September 2003 499,301, and in December, 490,174. This is a loss of about 10,000 personnel in end strength. That is his chart.

General SCHOOMAKER. Sir, our statutory end strength at the end of last year was 480,000.

Senator REED. I am probably being confusing. The numbers I refer to is the actual end strength, not the statutory.

General SCHOOMAKER. That is temporary end strength, that has grown within their authority, and within the authority of the Secretary of Defense.

Senator REED. I am not questioning the legality. It appears to me that we lost 10,000 soldiers, real boots on the ground, at a time we had stop-loss orders in effect, and at a time in which we were trying to begin our recruitment for these additional soldiers.

General SCHOOMAKER. Sir, they are not related. That is what I am trying to tell you. We have met our retention and recruiting goals at 100 percent of the force. The force waxes and wanes based upon who we are mobilizing, and who we are moving, and it has been as high as twice that number during part of the year.

Senator REED. If you could provide me a more specific written response——

General SCHOOMAKER. Yes, sir, I will.

[The information referred to follows:]

The drop in end strength is directly attributable to traditionally low enlisted accessions in December and the end of the active component, 12-month skill-based stop loss/stop move program. Historically, the active Army does not bring many new soldiers onto active duty during the holiday season. Thus, each year, strength dips a few thousand in December and recovers in January. In the summer of fiscal year 2003, the Army terminated the skill-based stop loss/stop move program. The termination plan provided for most solders who were subject to stop loss to depart the active Army between October 31, 2003 and December 20, 2003. Approximately 8,000 soldiers chose to depart during that time. A new stop loss policy began in January 2004, and only affects soldiers in deploying units. It will not be based on a soldier's military occupational specialty. With the implementation of unit stop loss and a return to accessing new soldiers in January, all factors indicate a steady increase in strength into the summer months.

Senator REED. I will provide more specific questions perhaps.

If you just look at the lines here, we are increasing actual end strength month by month though last year. We hit a peak in December of last year and we started going down. If the next report for January, February, and March shows continued deterioration in

actual end strength, I think it undercuts your ability to conduct your mission and it raises a serious problem. I will just stop there.

General SCHOOMAKER. Yes, sir.

Senator REED. Thank you, Mr. Chairman.

Chairman WARNER. Senator Allard.

Senator ALLARD. Thank you, Mr. Chairman. I have a brief statement I would like to have included in the record just prior to my questioning.

Chairman WARNER. The statement will be put into the record.

[The prepared statement of Senator Allard follows:]

PREPARED STATEMENT BY SENATOR WAYNE ALLARD

Thank you, Mr. Chairman. I want to express my appreciation to each of you for your leadership and dedication. A year ago, our Nation was demanding much of our military. Our forces were fighting in Afghanistan, assisting local forces in Yemen, Djibouti, and Georgia, and defending our homeland. Since then, they have taken on a new mission: the securing and stabilization of Iraq. The mobilization of thousands of men and women in the Reserves and National Guard are indicative of the size and scope of our current military operations. Despite many hardships, our soldiers, sailors, airmen, marines, and coast guardsmen have stepped forward and embraced their country's call to arms. We thank them for their service. We thank each of you for providing them with the leadership they need to defend our Nation.

Even as we confront our foes around the world today, we must prepare to meet the threats of tomorrow. The ongoing transformation of the military is vital to the future safety and security of this great Nation. We must not avoid making difficult choices about legacy systems. Nor should we turn away from the cost of investing in new technologies. We must remain committed to this effort. The superiority of American arms in the decades to come is at stake.

I want to thank our witnesses for taking the time to appear before us today. I know each of you have many responsibilities, particularly during this time of conflict. Yet, it is important for us to hear from you the needs of the men and women under your command. So, I again thank you for being here.

Thank you, Mr. Chairman. I look forward to our time of questions.

Senator ALLARD. Just recently, I went to a Board of Visitors meeting, which is advisory to the Superintendent of the Air Force Academy (AFA), and I want to take this opportunity to thank General Jumper as well as Secretary of the Air Force Roche for attending the last two Board of Visitors meetings. I know they are very busy individuals and their commitment to the future leaders of the Air Force is very much appreciated.

I would also add that this last meeting was probably the best Board of Visitors meeting I have had the chance to attend in the 6 years that I have been on the Board. We are under new leadership with Jim Gilmore, who is our chairman, and both the Superintendent of the AFA, General Rosa, as well as the Commandant, General Weida. They gave good reports and I think most generally, in talking with the members of the Board, they felt that considerable progress had been made at the AFA as far as addressing this problem with sexual assaults that they have just been dealing with for the last year or so.

I would ask General Jumper, who was there and listened, if he might share with this committee his assessment of where we are with sexual assault issues there at the AFA and how the plan is moving forward.

General JUMPER. Thank you, Senator. I appreciate your efforts, sir, to reinvigorate the Board of Visitors and to get the members interested in what is going on out there. You and Chairman Gil-

more have done a superb job of that and I think that is what made the meeting such a success.

Senator, there is a great deal that has gone on as we implement the provisions of the Fowler Commission report. We have about 80 percent of those recommendations implemented at the AFA. The actions that you and the Board of Visitors took at the last meeting went a long way in implementing many of the rest of those provisions. As we have looked at the agenda for change at the AFA, I think we have seen an excellent response, especially with regard to the use of alcohol among the cadets. The number of incidents have gone down dramatically. We do not declare success on that. We just take it as a trend.

The number of sexual assault incidents that have been reported since the new leadership has been in place is 10. Those are being dealt with. The issue that we are consumed with right now, that I know Senator Collins is worried about, is the issue of confidentiality and actually how we implement something that allows some element of confidentiality. We are working on that right now with the DOD Inspector General to try and find a way to accommodate all the concerns surrounding that.

I think from the alcohol uses, to the reporting, to the response team measures that we have put in at the AFA, I think that the attitude that I see when I go out there is positive. Senator, I visit often and I randomly go around and talk to the cadets, as does Secretary Roche. I see a recognition of the problem. I see less and less denial and a determination to get on with fixing the elements of this problem.

We will continue to press forward with all energy, Senator, to get through this thing.

Senator ALLARD. Thank you, General Jumper.

General Schoomaker, the President's fiscal year 2005 budget request provides over $1.4 billion for the DOD's chemical demilitarization program. You have a major role in that, or the Army has a major role in it. I was looking at the budget request and how the Government Performance and Results Act (GPRA), which is a provision that has been put in place by Congress for agencies to measure the progress and results of their programs, received the lowest rating as far as measuring results.

It does not necessarily reflect funding, but there are also some problems with cost overruns and some other problems. I wonder if you would just share with me about the funding and some of the evaluations of that program. The bottom line question is are we going to be able to meet the 2012 treaty deadline for the Army's chemical demilitarization program?

General SCHOOMAKER. Sir, I know that Acting Secretary of the Army Brownlee is personally involved in running this issue. I am not as familiar with it and I would be glad to provide for the record the information.

[The information referred to follows:]

The Army remains committed to safely and efficiently meeting treaty deadlines.

Senator ALLARD. Yes, I wish you would do that, because the GPRA measurement on that means that you are setting goals and objectives and you are not meeting them. I am concerned about

that. Could you give this to me and perhaps maybe the rest of the members of the committee who are interested in knowing what is happening?

General SCHOOMAKER. I would be glad to.

Senator ALLARD. I am particularly concerned about the cost overruns and everything that we are hearing about in that particular program. I think that is an area of concern and something that we need to watch.

I have another question for you. The Denver Post reported 3 weeks ago that as many as 40 women have been sexually assaulted while serving our country in Iraq. Then The Washington Post wrote an article and then USA Today wrote an editorial on that. As a result, Secretary Rumsfeld ordered a comprehensive investigation into the matter.

Is the Army addressing the problem of sexual misconduct when soldiers are deployed?

General SCHOOMAKER. Would you say the last part of your question again?

Senator ALLARD. Are you addressing this problem in the Army?

General SCHOOMAKER. Yes, sir, we are. We are addressing it very aggressively. This has been a subject that has received leadership attention. It is a chain of command issue. It is a leadership issue. It is a discipline issue. We have significant resources available to us to handle it and we are reviewing those in regard to much of what General Jumper just spoke to.

Senator ALLARD. Back to you, General Jumper. Last November the Armed Services Subcommittee on Strategic Forces, which I chair, held a hearing on the current status of many of our military space programs. It was noted that many of these programs had fallen behind schedule, experienced enormous cost overruns, and they may not be appropriately managed.

I believe that we cannot allow our military space programs to continue down this path, which could eventually threaten our space dominance. I believe that we need to seriously examine the size and type of satellites that we are building and I believe our launch capabilities need to be much more responsive and much more affordable.

General Jumper, given that the cost of building a few large, highly capable satellites is becoming prohibitively expensive, do you believe it is time for us to begin examining the possibility of building large quantities of smaller, less capable satellites that together provide the same overall capability?

General JUMPER. Senator, I can tell you that Pete Teets, who is the Space Executive for OSD and the Under Secretary of the Air Force, is focused on the ability of our space industry to perform. It has to do with a number of things, not the least of which is getting our arms around the requirements.

It has long been a practice in the space industry that requirements can come from all directions and that they are perhaps not properly constrained. We are taking aggressive action to get hold of the requirements.

Certainly one of the things that has to be looked at is the size and complexity of the satellites. There is a large effort going on with the development of microsat technology and what it might be

able to do for us, especially as we look at being able to focus on specific areas. I take your point, sir, and I know that Mr. Teets is looking at that and I think that is probably one of the alternatives to the way we are going now.

Chairman WARNER. Thank you very much, Senator. We are past the time.

Senator ALLARD. Thank you. Sorry, I did not realize.

Chairman WARNER. Not at all.

Senator ALLARD. Thank you, Mr. Chairman.

Chairman WARNER. It is a very important question.

Senator Pryor.

Senator PRYOR. Thank you, Mr. Chairman.

Admiral Clark, I was interested in a comment you made about moving the Navy to more technically advanced ships.

We are moving toward much more technically advanced ships. I am curious about that. In a sense, are you saying that we are going to have fewer and fewer tasks that, say, an E–1 can perform on those ships and more and more tasks on those ships that E–6s will perform? How will that work?

Admiral CLARK. You have it exactly. The technology that we are inserting in our new platforms is going to require a more experienced, call it a richer experienced, force. I said in my opening testimony that our asymmetric advantages are technology and the genius of our people, and I want all of it I can get.

DD(X) starts construction in 2005. DD(X) will be an all-electric ship. It will have the ability to project fires 100 miles. It will revolutionize naval fires. Today we can do it at around 10. This will change the way we fight with the Marine Corps, and it will change the way we support Army units on the ground.

A typical ship today that size maybe would have 500 or 600 people on it. This one is going to have between 100 and 150 people on it. No, I do not anticipate that there are going to be many E–1s there. It is going to require a very experienced group of people to operate this ship.

This is why I need all of the incentive tools to shape the force, and it is why I am one chief that is talking about a force that is much more capable but with fewer people in it.

Senator PRYOR. Right. I assume for budgetary reasons there will be fewer people with a higher pay scale, is that right? But does that wash out in the end in terms of——

Admiral CLARK. Well, it absolutely is shaped differently. For 4 years, I have been coming up here talking about making my force richer and experienced. When I got here, the top six, that is E–4 through 9, were 69.9 percent of my force. In 2004 it goes to 73.3, and in this budget it goes to 74 percent of my force.

You cannot change this overnight and we have been progressively growing the experience in the force. It provides more opportunity for our people, but also sends them the message: We need you, we need your skill set, and this is what the Navy is going to be like in the future.

Senator PRYOR. Let me ask this in light of that, and I follow what you are saying completely. I recently received a letter from a constituent from my State of Arkansas and I believe he is stationed in Japan. Under the high-tenure system, it sounds like he

is about to be forced to retire. He is an E–6. I do not know all of his background, and do not know a lot about him, but I do have his letter right here.

I wonder if we should reevaluate our high-tenure system in light of what you just said, that there may be some people that maybe do not go up their promotion chain, but are awfully good at what they do. We should keep those people for a longer period of time. Does that make sense?

Admiral CLARK. That absolutely makes sense. As CNO, one of the things I get to do is put policies in place. In order to shape the manpower force, I put policies in place that put a limit on an individual that has served for a number of years and has not been promoted, in order to then make room for a hard charger that has the potential to serve much longer in the future. I put rules in on how long they can serve without being promoted.

Having said that, every individual is an individual, and I have waiver clauses on every one of those policies. That option is always open and we assess each case as required to meet the needs of the current and future naval service.

Senator PRYOR. Yes, because, based on what you said a few moments ago, it seems like you want preferably more tenured people, more experienced people, and fewer of them per ship. I understand that. I did not want to point out an inconsistency, but I just did not know how that worked.

General Schoomaker, let me ask you a question about this huge rotation that you are undergoing right now in Iraq. I think you are moving out 125,000, and moving in 110,000, if I understand the numbers correctly. Could you just give us a status report on that rotation?

General SCHOOMAKER. Sir, the rotation is on schedule and moving very well in every aspect, from the transportation plan to the transfers authority in the theaters.

Senator PRYOR. We are right on the timetable?

General SCHOOMAKER. We are doing very well, yes, sir.

Senator PRYOR. Are there any hidden or maybe unexpected costs that you had not anticipated? Are the costs of the rotation tracking your schedule?

General SCHOOMAKER. I am aware of nothing that is different in that regard.

Senator PRYOR. Let me also ask this, General Schoomaker. Since I have been on this committee, which has been just over a year now, we have heard a lot about transformation. What is the most significant development or developments in transformation in this budget that we are talking about today? What should we see in the Army over this fiscal year, that we as a committee can look to and track and follow the transformation process?

General SCHOOMAKER. Sir, it would take the rest of the hearing for me to lay it all out. We are going to come over and provide exquisite detail to every member and every staff member that would like to see what we are doing. In short, modularizing the force, increasing the number of modules, and putting enablers in that cause these modules to be much more powerful than they are today. This changes the doctrine to look much more like the doctrine of the future, not the doctrine of the past. Using this momentum, as a re-

sult of the war and the focus and the level of funding, we have to reset for tomorrow, not reset for yesterday.

You will see three new brigades this year, at least three new brigades next year, and four brigades the following year. We will increase the Active Force by 30 percent with a minimal cost to our program.

If you take a look at the National Guard, Lieutenant General Blum is building towards 34 brigades that look exactly like the kinds of brigades that we have. If we go all the way to the end of what we can do, we could end up potentially with 82 brigades in the United States Army. That means that the dwell time issues, the kinds of pressures that are on the Guard and Reserve and the Active Force, can be reduced. The force is also stabilized so that people stay longer in one place, kids go to the same schools, spouses work, and people can invest in homes and develop equity like other people do. All of these kinds of things are all part of this transformation.

Transformation is not just equipment. It is about the full dimension of the doctrine.

Chairman WARNER. Thank you very much, Senator, General.

Senator Collins.

Senator COLLINS. Thank you, Mr. Chairman.

General Schoomaker, last Saturday I had the great privilege of participating in a welcome back ceremony for 24 soldiers from the Maine National Guard who were returning from Afghanistan. I would note that Maine has the third highest percentage of guardsmen and women being deployed right now in the entire Nation.

Last week Secretary Rumsfeld suggested to us that the Guard is not overstressed and he provided us with a chart that showed that only 7 percent of our Guard have been mobilized more than once during the past 10 years. That does not reflect the experience of my Guard units in Maine at all. Many of them have been deployed three times in the last 10 years. Some were mobilized with only 5 days notice. Many of them had no idea how long they were going to be gone nor when they would return.

I want to emphasize that the members of the Maine Guard are very proud of their service and they do a fabulous job, but repeated deployment over a 10-year period, 3 times in 10 years, has imposed a tremendous strain on their families. I am reminded of the old saying that you recruit the soldier, but you retain the family. I think, as Senator McCain and others have suggested, that we are going to see an exodus from the Guard and Reserves that is going to be very harmful because of these repeated deployments.

I have two questions for you. First, how are you going to restructure the Guard units so that you spread the burden more evenly? My units are clearly in this 7 percent. Second, will the additional 30,000 active duty troops that you are requesting help relieve some of the excessive pressure on these overused Guard units?

General SCHOOMAKER. Senator, thank you very much for your question and thank you for the service of your constituents. We are very proud of them. While you were meeting them I was down in Senator Pryor's State with 400 Guard commanders and command sergeant majors from across the whole United States working on exactly what you are talking about.

This is not an issue of how many people as much as it is what capabilities and how many units of capability we have available to us. The overstressed people that we have in the Guard and Reserve and the Active Force are in specialties that have high demand of which we have too few of them. So much of our transformational activity is balancing lesser used capability within our force into the more highly used capabilities within our force, so we can reduce that stress.

I would like to refer to the rain barrel analogy that the Secretary of Defense used the other day. I used it with him but he beat me up a little bit when I first used it. Apparently he liked it because he used it with you. The problem is we are paying for a full barrel of rain water here. I would prefer to call it maybe whiskey, but we had to go with rain water. The spigot is too high up on the side of the barrel and we are not able to assess all of that liquid that is in the bottom of that barrel.

What we want to do is move that spigot down by creating more of the low-density units and take the units we have too many of that we do not use enough and convert them and balance them across the Active, Guard, and Reserve Force structure. It is essential. To do this we have to have some room, and thus the temporary bump. That buys us the ability to start doing it now, because the faster we can create more of these brigades that look like each other in other capabilities the faster we will be able to relieve the stress on the force. That kind of pulls it together.

Because of this rebalancing that we do, that temporary strength goes away and the units remain when it is over.

Senator COLLINS. Thank you.

Admiral Clark, you did not think you were going to get off scot-free today when I am here. I am going to submit several questions to you about shipbuilding, but I want to bring up a different issue today with you. A few months ago I also welcomed back to Brunswick Naval Air Station a squadron of P–3 pilots and crews who had been assigned overseas to provide support in both our operations in Afghanistan and in Iraq.

Could you comment on the role of the P–3 aircraft in OEF and OIF and what you see as the future for our marine patrol aircraft?

Admiral CLARK. Absolutely, and thank you for asking the question. This is a group of people who everybody really needs to know about for what they have been doing for America. This airplane, which was designed over 30 years ago, actually probably 40 years ago, was designed to go hunt submarines.

It is a classic example of what happens in America when you apply the genius of our people and you keep introducing new systems. Over time we have put better and better sensors on this airplane, which was designed to do reconnaissance, and sometimes even underwater reconnaissance. In OIF, I will tell you that they operated principally in support of the land forces. We operated them at an extraordinary rate.

These airplanes are wearing out. In fact, I took a proposal to the Secretary of Defense recently and said that I cannot keep flying them at this rate. The rate that we are flying them at today will not meet the transition for the new airplane that we have in this year's budget, the R&D for, the multimission maritime aircraft

(MMA). We cannot get to the transition without limiting the flight hours on this airframe.

These people have done a fabulous job and it is our task to husband this resource, use it where the Nation must use it in order to deal with the global war on terrorism and the challenges that we face. The men and women flying in these old airplanes are doing a magnificent job.

Senator COLLINS. Thank you.

Chairman WARNER. Thank you, Senator, very much.

Senator Akaka.

Senator AKAKA. Thank you very much, Mr. Chairman.

I want to express how proud I am of our troops and the efforts they are making in keeping our Nation secure, and also of the great military leadership that we have had.

General Schoomaker, I understand that the Army is attempting to reset your prepositioned stocks. General Hagee, your statement suggests that this task is already largely accomplished for the Marine Corps. However, I believe both of your Services are also continuing to use at least some portion of those stocks in support of ongoing operations in Iraq. I have two questions.

First, what is the current status of your prepositioned stocks, and how much do you plan to continue to draw on them during OIF 2? Second, based on those answers, how long will it take you to reset your prepositioned equipment, how much supplemental funding will it require, and what is the impact on your ability to respond to other missions in the meantime? Thank you.

General SCHOOMAKER. Senator, thank you for the question. The most heavily used prepositioned stocks are those that are actually in Kuwait right now, the ones that we used for the war. The 3rd Infantry Division, for instance, deployed from Fort Stewart and Fort Benning, fell in on those prepositioned stocks and that is what they used to fight the war.

We have something like 9,000 pieces of equipment in those prepositioned stocks that require resetting. This will take us a couple years to do. Most of this equipment is the equipment that was used for the phase one-two operations, or the battle operations. We are not using them today, so we are starting to reset the equipment.

The equipment that we have sent into theater for current operations, primarily HMMWV and other wheeled vehicle forces, is different. I think the one that is most used right now is the one that is in Kuwait. We are resetting it. Others are intact and available to us for worldwide commitment.

Senator AKAKA. General Hagee.

General HAGEE. Yes, sir. I may have not been quite clear. We are resetting the force right now. We are in the midst of accomplishing that. We have not completed the refurbishment of our three maritime prepositioning squadrons. We have one that is essentially complete and ready to respond to any contingency. We have several ships in the two other squadrons that are complete.

The remaining ships are either providing equipment to our forces in Iraq, the forces that are getting ready to flow in, or are in the process of being refurbished right now. How long it will take until we have all three squadrons back up will be a function of how long

we will have to use the equipment there in Iraq. We are going to be working on this for a couple more years to come.

Senator AKAKA. General Schoomaker, your statement makes clear the need for all soldiers, regardless of their specialty, to be able to engage in combat missions. This guidance, the wisdom of which continues to be made abundantly clear in Iraq, seems to imply the need for additional training, especially on small arms. I know that the Army has for some time had a shortfall in ammunition. The direction you are heading in would indicate that shortages are likely to increase. If it is not classified, what is the current size and cost of your ammunition shortfall and what are your plans to address it?

General SCHOOMAKER. Sir, let me start with the last part of your question first and if it does not answer your question I will provide the rest for the record. I have asked them to take a look at opening another facility for small arms production this year. We are in the process of doing that right now.

You are correct, we are stressed in the small arms area, have been for quite a while, and I am concerned about it. The need to train all soldiers to a higher level, especially the combat support and combat service support soldiers, to do live fire convoy protection against ambushes, and to improve their proficiency in individual arms, puts additional strain on our small arms ammunition budget. We are doing that training right now. We are proceeding and I am told that we are okay in terms of having the ammunition available today to do that.

But I know if we fire at this rate that we are going to have to produce ammunition more in the future, so now is the time to facilitize in order to enable that.

I think it will cost between $30 and $40 million to create another facility to do this. Right now the Army has one small arms ammunition manufacturing facility.

Senator AKAKA. General Schoomaker, your statement emphasizes the Army's need to continue its efforts in leader development and states that you will ensure that leaders get "the right mix of operational assignments and training and education opportunities for now and in the future."

I am wondering how your initiative to extend the length of time that soldiers stay at a given post to up to 6 or 7 years interacts with your leader development goals, especially at posts that have a small number of units or that have very similar type units. Can you explain how soldiers at small or homogeneous posts will get multiple assignments that will advance their leadership skills over a 7-year period?

General SCHOOMAKER. Yes, sir. Obviously we have to look at the larger posts as being the ones that are the easiest at which to do this. Take Fort Hood, Texas, for example. With two divisions there, you have the ability to professionally develop in an operational setting much easier than you do on some of the outlying ones.

In some cases we are going to have to look regionally to be able to do the things that we want to do with some of the smaller places. Our commitment to the professional military education piece, however, remains the same and we are working the whole process right now. I quite frankly do not see that we will have a

problem maintaining the institutional training side such as schools and education.

We need to ask ourselves the opposite question than we have always asked. The question ought to be, "Why are we moving this soldier?" If the answer is good then we will move that soldier. If the answer is, "well, because he or she has been here 2 or 3 years and it is time to move," I do not think that cuts the mustard. As long as we can continue to develop the soldier and provide cohesion in the unit that soldier and his or her family should stay.

I think we are going to find an overwhelming number of cases in which we do not have to move soldiers. Every soldier we do not move is a soldier in the force. We have an average of 63,000 soldiers every day in motion that are not in units. By stabilizing this Army, I can certainly get 8 to 10,000 soldiers manning brigades. That is part of what we have to do. That is part of what we are doing inside of this temporary 30,000 that we are talking about. We are finding those people and getting them to the units so that we can bring down that temporary piece of it.

I am sorry for such a long answer, but it is an extremely complicated process that will make this Army better in the future than it was before we went into this.

Chairman WARNER. Thank you very much, Senator, for your questions.

Senator AKAKA. Mr. Chairman, thank you very much.

Chairman WARNER. Senator Chambliss.

Senator CHAMBLISS. Thank you, Mr. Chairman.

General Hagee, I was pleased to see your comments in your written statement relative to the purchase of Blount Island and what an asset that has been to the Marine Corps. I think that the peacetime mission as well as the wartime mission at Blount Island is going to be an even greater asset to the Marine Corps in the future.

I was going to ask you about the armor plating of the HMMWVs and the tactical trucks, but you responded to Senator Warner's question and mentioned that. I am very proud of the work that the folks at the Marine Corps Logistics Base (MCLB) in Albany have done there and I am glad to hear that the leadership as well as the men and women in theater have a great appreciation for the improvement of those systems.

General Schoomaker, I want to go back to Senator Allard's question to you relative to these allegations of sexual assault in Iraq and Kuwait. I know this is not isolated to Iraq and Kuwait. It is not isolated to the Army. These are the latest allegations that have come forth. You mentioned that this is a chain of command issue. I want to make sure that you are comfortable with the fact that the chain of command is operating to the extent that you as Chief of Staff of the Army are getting information directly from the ground on what is happening with respect to these allegations. I want to make sure that you have a procedure in place that is not just adequate, but a procedure in place that is working to allow the allegations of this nature to be brought forth in the proper and sensitive respect that it should be brought forth, and that these allegations are being handled in a very professional manner and that justice is being meted out.

Are you comfortable that that is being done?

General SCHOOMAKER. Sir, I am comfortable that we have the resources and the procedures and the regulations and the training and everything else that is required. You are hitting on the most important part and that is compliance with all of this. That is why the Acting Secretary of the Army and I are personally involved and we are energized to make sure that we are complying. We have a task force that the Acting Secretary set up to look into this, to make sure that we are in compliance, and to find out why in each case that we find ourselves not in compliance, why we are not.

I will tell you, this goes back to the chain of command and discipline. It goes back to things that are fundamental, and we need that to address that and fix it. Unfortunately, we are not aware of all of these allegations, what Senator Allard was talking about there regarding those numbers. We are not aware of each and every one of those, so I do not know what the magnitude of what his figures are. We are on top of this and will continue to do it. This extends into our military academy.

Senator CHAMBLISS. That is an issue that the Personnel Subcommittee, if not the full committee, Mr. Chairman, is going to be following very closely because it is critically important to you, I know, and certainly to us and to all members of each branch of the service.

General SCHOOMAKER. Sir, I would add that, since I have a daughter going into the Army, that I have a personal interest in making sure.

Senator CHAMBLISS. Well, I know you are concerned, but I just want to make sure it gets the profile that it needs to be attended to.

General Jumper, I appreciate your comment about the work that the blended wing is doing at Robins. Now Brigadier General Lynn is commanding the first blended wing that I think is going to be the precedent for every branch of the Service in the future relative to the integration of the Guard and Reserve into the Active Force. Those men and women down there continue to do a terrific job and I am just as proud of them as you are.

I want to talk with you for a minute about strategic airlift. You talked about the C–17 and the great work that it is doing, has done, and continues to do in theater. I agree with that, and strategic airlift has been absolutely central to our success in both Afghanistan and Iraq over the past 3 years. It has also been central to the success of the expeditionary Air Force for much longer than that.

Now, you are currently in the process of revising the mobility requirements study to incorporate lessons learned in OIF and OEF, and I understand this study is going to be complete by June 2005. However, I do not think it takes a complex, time-consuming study to determine that we simply do not have enough airlift. We cannot build enough C–17s, or modify enough C–5s fast enough to produce the amount of airlift capability that we need.

One illustration of this, which I find a little troubling, is that 125 times over the last 3 years DOD has contracted with the Russians to use An–124 aircraft for strategic airlift because we simply did not have enough of our own. At the same time, DOD and the Air

Force seem to be dragging their feet on funding C–5 modernization programs which could help alleviate our need to contract with the Russians.

I would appreciate your comments on this situation as well as your comments on how you will fund the C–5 modernization effort in order to increase our strategic airlift capacity.

General JUMPER. Yes, sir, Senator, and thank you for that question. The global mobility forces that are out there working every day are indeed the key to our ability to reach out around the world. The current mobility study has put the requirement at 54.5 million ton-miles per day. That is the number that we are challenging and we are looking and looking again to see if that is the right measure or if we need to rethink it completely in this contingency world that we live in.

In order to get to that number, we were on the track that got us to some number of C–17s plus a re-engined and re-engineered C–5. Part of our work with the C–5s is to see how many of the C–5s that are currently in the inventory are capable of being modified. Do they have service life left? Have they been overworked? That work is ongoing and as part of the study that is due in the summer of 2005 we will then be able to put those together and come up with an answer on the right combination of C–17s and C–5s modified to be able to meet the requirement.

That work is ongoing. It is on the front burner. We have made some adjustments in the funding of the C–5 to move from the Reliability and Enhancement and Re-engining Program (RERP) to the avionics modernization program in the C–5 so we can keep more of those compatible with the current Federal Aviation Administration (FAA) and international regulations. But I can assure you, Senator, this is an area of concern for us and we are going to keep pushing this.

Chairman WARNER. Thank you very much, General, and thank you for raising the questions about the sexual assault. Sexual assault is a primary concern to this full committee.

Senator Clinton.

Senator CLINTON. Thank you, Mr. Chairman, and thanks to all of you for the work you do every day and for once again coming to appear before this committee.

General Schoomaker, I am equally concerned along with Senators Chambliss and Allard on the investigation into the allegations of sexual assault and misconduct. Will you be sharing the results of the investigation with this committee at some future date?

General SCHOOMAKER. Senator, I would be glad to. We are taking a look at our internal processes and making sure that they are being complied with and find out if there are things that we have to tailor. We would be glad to share that.

Senator CLINTON. I would appreciate that. Does the internal processes review also include looking at these individual cases that have come to the attention of the press? Obviously that concerns us as well.

General SCHOOMAKER. Yes, ma'am.

Senator CLINTON. Thank you, General.

General, with respect to the news that yesterday the Army Corps of Engineers admitted it had falsely stated that the Air Force and

the Small Business Administration were involved in the awarding of the contract to Halliburton for the rebuilding of Iraq's oil industry, will you direct the Corps to provide this committee with information on how it decided to award that contract to Halliburton?

General SCHOOMAKER. I will ask them to do that, Senator.

Senator CLINTON. Thank you, General.

General, I am deeply impressed by the work that the Army is doing under the rubric of transformation. The report that you have provided us in this posture review is very reassuring and persuasive as you make these significant changes. I am also concerned about some very old problems, and the recent unclassified study by the Army's Combined Arms Center at Fort Leavenworth, a 504-page internal Army history of the Iraqi war, which pointed out considerable problems in logistics.

In reading the press reports of this report, we are struck by all of the old-fashioned problems we had. People could not communicate. They always were outracing their supply lines. They did not have the information as well as the resources that they thought. The fact that the strategy of starting the war before all support groups were in place, in order to achieve an element of surprise, taxed the resources of local commanders.

How are you addressing that issue? Is that an issue that is reflected in this budget or are there additional resources and changes that need to be taken into account?

General SCHOOMAKER. Those issues are reflected in the budget. The logistician for the combined force land component commander, General Christianson, is now the G–4 of the Army. He suffered the problem on that end. He is now part of the solution, and we are aggressively looking at it.

You are exactly right, we have not made the best use of our information technologies. We have not done things that we can do to fix this. But in all fairness, I also have to say that the distances and the speed at which all of this occurred seriously exposed these issues. These are far greater distances than were anticipated doctrinally. I have heard it said that the distance from Kuwait to Mosul, up where the 101st was, is like going from Omaha Beach to Berlin. That is a pretty good distance. That is a lot further than Patton tried to do in his Redball Express.

I think this is a serious issue because it has everything to do with our strategic and operational level agility, and our ability to do the logistics. There is also a lot of money tied up in this. Believe me, we are going to school on this piece.

Senator CLINTON. General, I know that many of us on this committee want to be very helpful to you in confronting this set of challenges, and it does strike me that there is an opportunity here to think a little bit outside the box. I have long thought that we ought to be pushing much harder on alternative energy and clean energy. We use fuel cells, for example, to lift off our space shuttles, but we are not yet figuring out how to use them in our military on a day-to-day basis.

There are some opportunities not just in the immediate arena about how we should solve this problem the best we can right now, but also opportunities to think outside the horizon about what could we be working on at this moment that would help us. We

would appreciate any suggestions or ideas that you or any of the other Services have that would enable us to help on this.

I was particularly struck in the report about the failure of communication, which was so reminiscent of what happened in New York on September 11. Police were not able to talk to firefighters, people in one part of the building could not communicate with someone in another part; and then to read that again the radios were out of range, and people were improvising with cell phones. We just have to get a better grip on what we need to do with technology.

Just as the Defense Advanced Research Projects Agency (DARPA) and the space program were the source of new technology that had tremendous effects both for the military and civilian side, we need to be making some of those investments today as well.

General SCHOOMAKER. I do not disagree with you.

Senator CLINTON. The final point I would make to all the Services, General, is that I appreciated what you said about train, alert, and deploy, and I continue to be concerned about the medical and dental readiness of our Guard and Reserve. I asked this question for all of our Service Chiefs at last year's posture hearings, but since then a General Accounting Office (GAO) study released in 2003 found that the Army had not been able to consistently carry out the statutory requirements for monitoring the health and dental status. The result was that many reservists called up could not be deployed because of health, and particularly, dental problems.

I would like to get some additional information about what we are doing to try to deal with that. Of course, the fact that we do not have universal health care insurance so Guard and Reserves are on the civilian economy, and do not necessarily have the health care that they need, is an issue far beyond this hearing. I would appreciate knowing about whatever the Army or other Services are doing to try to make sure that we have the health status as good as possible.

General SCHOOMAKER. Senator, I am happy to report that we are tracking this very well. For those we have mobilized, we have a baseline of their medical status as they went in. As they come back out, we are doing a very good job in comparing the baseline to make sure they are corrected.

But you are exactly right. We were previously funded to have one physical every 5 years for our Guard members and no dental. This means that they arrive with only what they have been doing with themselves. It is one of the reasons why we changed the mobilization criteria. Now we mobilize for the first 25 days, and do a medical check. If we have problems, we demobilize. We only keep those that pass it as it goes forward.

We have to fix this systemically in the future, and part of that is being better prepared before an alert so that we can deploy more rapidly with a more ready force.

Senator CLINTON. Thank you.

Chairman WARNER. Thank you very much.

Senator Sessions.

Senator SESSIONS. Thank you, Mr. Chairman.

I want to congratulate all of you on the continuing superb performance of our men and women in uniform. I could not be

prouder. They have been stressed in a number of different situations. They have consistently shown discipline and courage on the battlefield or in the streets of the cities in Iraq. Many of them had to have felt threatened, but they have held their fire, they maintained their discipline in the face of hostility, and have won friends as a result. I am just very proud of them.

Also I am proud and hope we can continue to improve our jointness idea, where air, ground, naval, and marine forces all work together as one force for America. As we do that, I think we will utilize our existing resources better. We get more bang for the buck that we have invested. I could not be prouder of what you are doing. We are transforming in the middle of a war. It is a very stressful time to have to do that. Maybe it is a good time in the sense that we are learning exactly what we need to be effective.

As you noted on logistics, General Schoomaker, you learn from stress. We are learning from stressing our Guard and Reserve how we can do it better.

General Schoomaker, is it fair to say that since you have been in your position, one of your top priorities has been this personnel issue; how to confront it, how to use our Guard and Reserve better and more effectively, and how to configure our Active-Duty Forces effectively?

General SCHOOMAKER. That is correct. We are funding almost 2.6 million people in uniform, and we need to figure out how to get the most out of each and every one of them, not just them individually, but how to configure them in a way that is most useful for not only the current operating environment but what the future one is going to be. We cannot transform without transforming the personnel system.

Senator SESSIONS. I think you are correct. We are looking forward to your report on this intensive analysis you have done about troop strength, configuration, and the brigades idea that you have. I do think that it is time for us to think anew, out of the box, as Senator Clinton said, and really develop a force that is appropriate, perfect if possible, for the future we might be facing.

I thought I understood you to say that you could maybe even increase the effective force by 30 percent with this rearrangement. Did I understand that?

General SCHOOMAKER. Sir, there is no question we can.

Senator SESSIONS. Well, that is a tremendous thing. I know you have increased our manpower and our end strength by utilizing the flexibility that has been given you. But also to be able to increase the effectiveness of our force by 30 percent, Mr. Chairman, that is tremendous.

General SCHOOMAKER. Sir, I have to reemphasize, the increase in manpower is temporary. I do not intend to retain that manpower. I want it long enough to get the pump primed and to get these capabilities developed, so that I can have that 30 percent increase within the level of end strength that I have today.

Senator SESSIONS. Well, General Schoomaker, you are a combat veteran. You have been a special forces guy all your life. You understand warfare, and if you say you can do that I think we ought to give you the chance to do it. I will be supportive for sure.

General SCHOOMAKER. I appreciate it.

Senator SESSIONS. General Schoomaker and General Hagee, we are going to have a lot of equipment that has also taken some hits and wear and tear in the deserts of Iraq and Afghanistan, and we have to reset that equipment so it will be available for you. I am pleased to see this budget does have a 7-percent defense budget increase but I am concerned. It is good that the President has done this. But do we have enough, and do we have a plan to reset that equipment, tracked vehicles, wheeled vehicles, and other equipment that maybe suffered substantial wear and tear? General Schoomaker and General Hagee?

General SCHOOMAKER. Sir, this year we are resetting the equipment that we can with the additional funding we have through the supplemental. We do not have the funds to reset this equipment within the program beyond this year. I will say it one more time: I think we have to have 2 years of supplemental beyond this emergency to reset this force. It is just going to take us that long to do it. War and the level of operation that we have conducted over there consumes equipment. It consumes engines, transmissions, and even metal on aircraft. This is a huge task. I said that approximately 9,000 pieces of equipment need to be reset alone for the prepositioned stocks.

Senator SESSIONS. I have heard that a figure of $3 billion may be necessary. Is $3 billion a figure that you could vouch for?

General SCHOOMAKER. Senator, that figure does not resonate with me. I think that the supplemental that will be required will be considerable if we continue this level of operation and reset the force.

Senator SESSIONS. General Hagee.

General HAGEE. Yes, sir. We are using the 2004 supplemental to reset the force during this fiscal year. We are also capturing those costs of equipment expenditure both in Afghanistan and in Iraq and would expect that those costs would be covered by a supplemental in 2005 or in the out years.

Senator SESSIONS. I think we are going to have to confront that. After the last Gulf War I think we learned we did not set aside enough money to refurbish our equipment and it cost us in the long run. It is better to invest that early rather than later.

Thank you, Mr. Chairman.

Chairman WARNER. Thank you very much, Senator. Thank you very much.

Senator Ben Nelson.

Senator BEN NELSON. Thank you, Mr. Chairman.

Thank you, gentlemen, for being here today. Let me add my appreciation to the families of the military because, like many of my colleagues, I have made calls to those who have lost loved ones. I have spoken to wives, I have spoken to parents. They are all resolute in their pride of the service of their loved one. We all recognize how important that service is and how important it is to do everything that we can to have adequate end strength for security of the forces as well as for the importance of the mission.

Perhaps in the long term restructuring makes sense and a temporary effort to try to make certain that we have end strength sufficient to take care of security of the troops and the mission makes sense. What I hope is that the process of restructuring is being

based on that need rather than on the budget process. The budget process is in my judgment the equivalent of making a pie a piece at a time. That way, we never really know what is coming and we cannot see a comprehensive budget at any one particular point in time because of one nuance or another. We cannot do it in this budget, but it will be in a supplemental, or rather in two supplementals.

I hope in the next 3 years there are no more than two supplementals, but I suspect it will not be limited to the DOD budget. There will be supplementals for other things as well.

I hope that the process here of reorganization, which cannot ignore budgetary constraints and budgetary concerns, will not be driven simply by a budget. I think there may be a feeling among some of my colleagues that the budget may have more to do with it than it should.

I only want to say that as a prelude to asking, General Schoomaker, in your judgment is this being done, not simply for budgetary purposes, but for the end strength requirements that you see today and tomorrow?

General SCHOOMAKER. Sir, I am not sure I exactly followed your question, but I will tell you why we are doing this. We have an enormous amount of momentum as a result of this conflict and we ought to take advantage of this momentum that we are paying for, because we are conducting operations, and we ought to reset ourselves the way we want to be tomorrow, not set ourselves the way we were.

It is kind of a silver lining in a black cloud—if we had to pay for this level of motion to get this whole thing moving, it would take us decades to do the kind of transformation that we can do now within this window of opportunity. It is as simple as that in my mind. It may not be complex enough to answer your question, but I think that this is a window of opportunity.

Senator BEN NELSON. At the end of the day, it is not being done primarily for budgetary purposes? It is being done to transform the military and to protect troops and mission?

General SCHOOMAKER. That is correct.

Senator BEN NELSON. Present and future missions.

General SCHOOMAKER. In the end, we end up with the same size force configured differently, with better capability for the future.

Senator BEN NELSON. In the interim, is that end strength sufficient to protect the security of the troops and the mission? I know in the long term transformation may get us to where we need to be, but what about the immediate term? To use another analogy, if you want to cut asparagus in your garden you have to plant it 2 years early. What I am concerned about is making sure that in the current situation we will have protection of our troops.

General SCHOOMAKER. Sir, in the current situation, what we know today, we are fine. This is working for what we know today. I cannot predict what is going to happen in the future. If we end up with a huge conflict in the future, all bets will be off.

Senator BEN NELSON. I understand that.

One more question. I appreciate your response to my letter regarding the Army's aviation review. Do you have any idea when

this might conclude so that we would know what is going to happen with regard to any potential changes that might develop?

General SCHOOMAKER. I expect that no later than the end of this month I will be back-briefed on the final results, and we will share that here. We will gladly open it up and let everybody look at it.

Again, we are looking at modularity.

Senator BEN NELSON. Yes.

General SCHOOMAKER. Right now all these brigades are different, from the number of helicopters in them, to the number of units, to sub-units within these brigades. The way they are organized is extraordinarily inefficient.

Senator BEN NELSON. I appreciate the fact that you are doing that. I think it is important to continue to make those reviews.

General Jumper, I would like to commend you first for continuing your vision to maintain what has been referred to as a Total Force, blending together active Air Force, Air Force Reserve, and the Air National Guard. It has been successful in Nebraska, we believe. We have watched it very carefully.

As part of balancing your forces, are you planning to move current KC–135s from Reserve units to the active? If so, do you know what would happen to the missions for those that would be losing their KC–135s?

General JUMPER. Sir, there is a flow plan that has been shown around and I will make sure you get that flow plan. I would not want to try to articulate any piece of it because it is a total plan. It is out there, and I will be glad to get that to you.

Senator BEN NELSON. If you get it to me personally, that will satisfy my questions.

General JUMPER. Yes, sir.

Senator BEN NELSON. I appreciate it.

Thank you very much, gentlemen. Thank you for your service.

Chairman WARNER. Thank you very much.

Senator Bill Nelson.

Senator BILL NELSON. Gentlemen, thank you for your service to our country.

General Jumper, in the course of the intelligence that was given to us prior to us voting on the resolution regarding Iraq, we were told not only about the WMD, but we were also told about the UAVs. All of this information has since been unclassified by statements that were made by the President as well as the Secretary of State. The information includes the UAVs as a threat to the interests of the United States and being put on ships off the Atlantic coast that could threaten United States eastern seaboard cities with WMD.

What we were not told was, as reported by The Washington Post a week ago, that Air Force intelligence totally discounted the story of the UAVs. The Air Force intelligence that should know more about UAVs than anybody else in the country. Did you know about that Air Force intelligence report?

General JUMPER. No, sir, I did not at the time. The Intelligence Community gets together all elements of its intelligence sources and they come together, as the Air Force does, and each contributes their knowledge to the effort. That goes into an overall assess-

ment that is put out by the Central Intelligence Agency (CIA) that has privy to everything.

I did not know. At the time this was not an Air Force position that was contrary to another position. This was our input at the time to the overall effort as part of the Intelligence Community.

Senator BILL NELSON. Were you the Chief of Staff of the Air Force at the time?

General JUMPER. I was, sir, yes.

Senator BILL NELSON. Mr. Chairman, there is another example as we get into this question of how were we so faulty on the intelligence, and how we were not told that there was a disagreement, a dispute as to the accuracy of that intelligence. Instead, it was presented to us as, in this case with UAVs, as if it was the gospel truth. Here the Air Force Chief of Staff did not even know about the disagreement in Air Force intelligence, and that it had no truth to it.

Chairman WARNER. Would you allow me to read into the record.

Senator BILL NELSON. Please, Mr. Chairman.

Chairman WARNER. "The classified version showed there was a major disagreement on the issue from the agency with the greatest expertise on such aircraft, the Air Force. The Air Force does not agree that Iraq is developing UAVs primarily intended to be delivery platforms for chemical and biological warfare (CBW) agents. It said 'The small size of Iraq's new UAVs strongly suggests a primary role of reconnaissance, although CBW delivery is an inherent capability.'"

I think you will find that much of the material that came before the Senate did have the caveats and so forth set forth in them.

Senator BILL NELSON. Well, according to what you just read, it clearly states the Air Force's opinion that they did not have the capability of delivering the WMD. We find out that General Jumper, the Chief of Staff of the Air Force, does not even know about that dispute. That concerns me and it concerns the obvious question that we have to answer in the future of having accurate and timely intelligence in order to protect ourselves.

Thank you for sharing that, Mr. Chairman.

General Schoomaker, you have stated here that we should train, alert, and deploy the Reserves instead of alert, train, and deploy the Reserves. Yet the budget just submitted has a $600 million shortfall in the training for the Reserves. Why?

General SCHOOMAKER. Sir, I cannot answer that. I will get back to you on it. I was unaware of it.

Senator BILL NELSON. It is there. What I do not know is that it might not just be the Reserves. It may be the National Guard as well. But whether it is $600 million just for the Army Reserves or $600 million for the Reserves and the National Guard, the question is obviously begged, what you are trying to do in remolding the Army? I congratulate you. You have had a lot of accolades around this table today, and we want to see you succeed. It is a changing world and we have to succeed. Yet we have a budget in front of us with a $600 million shortfall.

General SCHOOMAKER. Sir, I will look at that. I do not understand it that way. But, taking your word for it that is where it is, I will look at it and I will get back to you and let you know.

[The information referred to follows:]

Based on projected Reserve component mobilizations in fiscal year 2005, $606 million for drills and annual training was realigned from the Reserve component pay accounts to support other priorities, including the extension of TRICARE to the Reserve components. At the projected mobilization levels, the Reserve component training budget provides the funds necessary to conduct military occupational specialty training (individual training at 95 percent), professional military education training (leader training), and the necessary operational tempo to support collective training for those units preparing for mobilization and deployment while in a Reserve status, as well as enabling recently demobilized units to maintain their readiness edge.

Senator BILL NELSON. Perhaps at some time, Mr. Chairman, we might want to get General Helmly, the head of the Reserves, to come up and let us specifically get at this. This budget is not reflecting where the Chief of Staff of the Army wants to go.

General SCHOOMAKER. Sir, General Profit is here from the Office of the Chief of the Army Reserves and also General Blum, who is the Chief of the National Guard Bureau.

Chairman WARNER. Does the Senator wish to have the General approach the microphone and give a response to your question?

Senator BILL NELSON. Absolutely.

Chairman WARNER. Fine. General Schoomaker, will you invite your colleague up, please.

General BLUM. I thank you for the opportunity to respond on this. We are working very closely with the Army on this. It is one Army with three components, for the first time in the history of this Nation. General Schoomaker is using Army fiscal assets against all three components to assure that all three components are ready to do what this Nation requires or asks of them.

I am not aware of the $600 million shortfall that you are talking about, but I will be happy to look at what you see and I would be glad to discuss it. If the goal for us is to have all the money we need and want to achieve the level of readiness that we would like, that goal does not exist in any budget with any supplemental. There will be some risk, and General Schoomaker and General Helmly, the Chief of the Army Reserve, and I are working in a very collaborative effort to make sure, as we move to this modularity piece, which is a big piece to solving the problem, that the units get what they need in time to be ready so they can make the train, alert, and deploy model.

It is not intended that everybody in the Army, all three components, will be equally and adequately resourced, to be completely combat-ready at any moment. The people that are being reset obviously are coming back in, refitting and reconfiguring. That is where resources come from that set up the people who are moving into the getting-ready set, so that when they are ready and they are called upon they have had the training, equipment, and resources they need to go down range and do their jobs.

But I would very much like to see what you have, and if we are short, sir, we will work to identify those shortfalls for you.

General SCHOOMAKER. We need to look at this, because we may disagree on what it is you are talking about here. I am unaware of that level of underfunding.

Senator BILL NELSON. What I am trying to do is help you.

General SCHOOMAKER. Sir, I can use all the help I can get, believe me. But you have presented something here that just does not resonate with me. We have been working so closely together, so I am surprised I would not know something like that.

Senator BILL NELSON. Mr. Chairman, I want to help General Schoomaker, because jihadists, as I have reported to you, are going across the Syrian border and they are killing our American men and women. There is an offer out there on the table which I have reported to you all, to General Myers, to the Secretary of State, and the Secretary of Defense, etcetera. There is an offer on the table to seal that border, as presented by President Assad. If that had not filtered down to you, General Schoomaker, I would suggest that that is something you might want to follow up on. It is obviously of considerable concern to you to be able to secure that border.

General SCHOOMAKER. Sir, I watched the Secretary's testimony when you raised that issue. I have been on that border and I know what it takes to seal borders, and that would be an incredible effort if that were possible.

Chairman WARNER. Thank you very much, Senator.

Senator Kennedy.

Senator KENNEDY. Thank you. Thank you, Mr. Chairman.

Again, I want to thank all of you for service to the country. We are all grateful and we thank you for being here today.

General Schoomaker, I want to just focus on one area and that is the HMMWVs, light-skinned HMMWVs. I visited a wonderful young person, and I am sure you have too, out at Walter Reed on Saturday. He had been wounded December 10, losing both of his legs in Iraq. We have had 16 killed from Massachusetts. A great number of those have been as a result of riding in light-skinned HMMWVs.

The wonderful young person is Private John Hart. Brian Hart, his father, and his mother Alma ask that the one thing to try and make sure is that we are not going to let these young people out there in light-skinned HMMWVs. You are aware of this issue and the problem.

We have had conflicting testimony in recent months and also going back to 2003, on the numbers that are going to be needed in terms of the HMMWVs and also the add-on armor kits. Starting on September 30, 2003, HMMWV requirements were 1,723. When you were here on November 17, the number that was mentioned was 3,600. Now I believe 4,149 is the exact figure.

The up-armored HMMWV is more of a challenge. If we go strictly with the up-armored HMMWV, it could be as late as the summer of 2005 before we would have all of them. Secretary Brownlee was talking about 3,600 when he testified on November 19. You are now talking about 4,100 at the present time.

In the budget for this year you have $355 million, which is 818. In 2005 it is $156 million. For HMMWV add-on armor kits it is $209 million for this year and none for 2005. Medium truck add-on armor kits saw zero funding in 2004 and will see zero funding in 2005 for heavy truck add-on armor kits, its zero funding in 2004 and zero funding in 2005.

Does the President's 2005 budget fully fund your requirement for the up-armored HMMWVs?

General SCHOOMAKER. Sir, your numbers are correct on the up-armored HMMWVs. The difference in when we testified before you last on this issue and now is the marine requirement.

Senator KENNEDY. Marine and Air Force too, I believe.

General SCHOOMAKER. Yes, sir. The requirement has quadrupled. Our total requirement for the entire Army in the future is about 11,000 up-armored HMMWVs. We did not have that requirement before. The answer is, against the entire Army requirement, no, it is not funded here. It is going to take us years to do that.

I think you know that Secretary Brownlee had the chief executive officers (CEOs) of both AM General and O'Gara-Hess together this week or last week. They are looking at how to increase the production levels at the facilities. We are raising production levels from 80 to 220 a month, and right now in those plants they are working two 10-hour shifts. We are looking at how we might be able to increase it further.

Senator KENNEDY. I think the area and the requirement of the greatest need is obviously Iraq and having sufficient numbers of either the armored HMMWVs or the armor kits. I am just wondering when we are going to be able to get those. How are we going to be able to tell the parents of these kids that we do not have armored HMMWVs or armor kits available?

General SCHOOMAKER. Sir, we are producing the add-on armor kits in great number.

Senator KENNEDY. Well, the 2004 funding is $209 million and there is none in 2005. You have $209 million for 2004 vehicles; in fiscal year 2005, zero out. You only have enough in the request for 818 HMMWVs. Given the magnitude of this problem and the magnitude of the problem today in Iraq, it is difficult to see how something as basic as these HMMWVs and the body armor are not being met.

We have the statement from Lieutenant General James Helmly, who said: "The suddenness, the uncertainty, the rapidity with which we mobilized the units not only caught them, the Army, flat-footed but it meant you had shortages of body armor that came up, shortages of up-armored HMMWVs." That is January 21, 2004. He did not mean you. I know you have come in to it.

What we are asking is why the budget now for the Army does not reflect the need that you have in Iraq to make sure that every one of those young soldiers is going to be in an armored HMMWV or going to be guaranteed that the add-on armor kits are going to be there.

General SCHOOMAKER. Sir, the budget is only part of the answer. We are using the current supplemental funding to fund much of the level of effort that we have going on, including the local efforts I know you are aware of all of the local efforts that are going on to manufacture things.

The Army never intended to up-armor every HMMWV, until this kind of situation arose that we have today. We never intended to have this number of HMMWVs. We have taken armored units, artillery units, and all kinds of other units, and put them into HMMWVs as motorized formations, which never existed before. This is an area where you cannot fix it overnight. It is a matter of physics.

Senator KENNEDY. I understand that this was not anticipated. Many of us thought that might be the case. It was not anticipated.

Mr. Chairman, I would like to just ask if the General could provide, from the supplementary other funding, all the funding that you have available. I want to know so I can tell this family exactly whether or not HMMWVs and the body armor these parents are talking about have the highest priority.

General SCHOOMAKER. Sir, force protection is our highest priority.

Senator KENNEDY. I talked to General Abizaid 5 months ago and he said: "The supplemental request will permit the services to rapidly resolve this equipment problem, rapidly resolve the procurement of up-armored HMMWVs." That was 6 months ago.

General SCHOOMAKER. Sir, we have tripled the number of up-armored HMMWVs in theater.

Senator KENNEDY. Okay, but how many are necessary to be replaced in Iraq today? How many young people are going out on patrol today in Iraq in the light-skinned HMMWVs?

General SCHOOMAKER. Sir, I do not know.

Senator KENNEDY. If any of them are going out it is wrong, I think. You would agree, would you not?

General SCHOOMAKER. Sir, there are some people that do go out there and they go out on purpose, but there is capacity there for people to use the up-armored ones for their patrols.

Senator KENNEDY. General, we can get into this. You will have a tough time convincing the young boy I saw, who lost both his legs 4 weeks ago in a light-skinned HMMWV.

Now, if there are areas that are passive, okay. I think that it is a tragedy if we are not ensuring that every young serviceman that goes on out in any dangerous area in Iraq, is not going to be adequately protected. I do not understand it. If you have the supplementary funding and the production list, I want to know how we are going to guarantee this so I can tell tell the Hart family, that there is not going to be a young person that is going to go out on a patrol in a risky area in Iraq that is not going to have the adequate protection. We ought to be able to do that. I am sure you agree with that.

General SCHOOMAKER. Sir, I do. I am with you 100 percent. We will provide you with that data.

Senator KENNEDY. If we can get that from you and the supplementary services and what is happening over there in terms of these patrols, I would appreciate it.

Thank you, Mr. Chairman.

Chairman WARNER. Thank you, Senator Kennedy.

When I opened the question period of this hearing, the question period, my first question related to the HMMWVs and their status. I think Acting Secretary Brownlee and the Chief of Staff are doing their very best. I should point out that in my detailed discussions with you, General, about the issue of the HMMWV, you carefully pointed out to me that there are some missions during which the men are safer using the lighter weight HMMWV. Am I not correct on that?

General SCHOOMAKER. Sir, there are people making choices on which vehicle they want. The choices are not random, but because

the nature of the mission requires it, they choose not to use the up-armored HMMWV. This whole measure of protection against IEDs and other things is a matter of a multitude of capabilities, as has been discussed, to include some that we should not discuss here.

I am confident that we are doing everything we can to move increasingly more up-armored HMMWVs and other armored vehicles into theater to do exactly what Senator Kennedy is talking about. We share the same goal here.

Chairman WARNER. It is important that you share the same goal.

Senator KENNEDY. I thank the chair, but the fact is you are below the requirement that the Army has set for themselves and this budget which we are having our hearing on does not provide the makeup of the requirement that the Army itself has set. That is my point. If it does and I am wrong and you are making it up with supplementary funds, then I look forward to hearing from you.

Thank you, Mr. Chairman.

Chairman WARNER. Thank you.

General Hagee, do you wish to make any further comments about the HMMWVs that will be in your units going over?

General HAGEE. No, sir. I have already addressed that in my statement, sir.

Chairman WARNER. Thank you.

Now, Senator Levin, you and I will conclude here. Would you like to lead off and we will just alternate with questions?

Senator LEVIN. I would be happy to do that.

Just on this HMMWV issue, is the facility that is armoring the HMMWVs working three shifts?

General SCHOOMAKER. I do not know how many shifts they are working. I am told they are working 20 hours a day, and I believe that is two shifts of 10 hours.

Senator LEVIN. Can we check that out?

General SCHOOMAKER. Yes, sir.

Senator LEVIN. Just to make sure that they are working 24–7? As to whether there is anything more that we can do moneywise, we do not have to wait for a supplemental. This issue is important enough that it could be done tomorrow if there is any indication that the budget is the reason. If it is not the reason, then is the facility going 24–7? If it is not, then we expect it will be.

General SCHOOMAKER. Sir, I will get you all of the facts on this.

[The information referred to follows:]

No, the facility that is up-armoring the HMMWV is currently working two 10-hour shifts each day. During these shifts, the contractor is producing 185 vehicles for March, 205 vehicles for April, and 220 vehicles per month for May through August 2005. This contractor is fully capable of meeting our needs.

Senator LEVIN. General, one of the disadvantages of the new unit rotation approach is that the expertise that is gained and the relationships with Iraqis that have been built over a 12-month period are severed abruptly. They are cut abruptly in a major way as these whole units rotate. It would be much less dramatic if it was individual rotation. Is that an issue which is being addressed in some way?

General SCHOOMAKER. Sir, as I mentioned, we are stretching this rotation and the turnover over a period of 4 or 5 months for exactly

that reason. I know for instance the unit that I talked to in the training base the other day has already made four trips over there and is doing right-seat rides. This period of handoff here is deliberate and the intention is to make sure to pass all the contacts to one another and be comfortable in that regard.

General HAGEE. Senator, I would like to add that we are doing the same thing in the Marine Corps. We are working very closely with the 82nd Airborne Division over there. We have already made several trips over there, and we are going to take our time in the handover to ensure that we are completely familiar with that battleground.

Chairman WARNER. I will shift to a question here now for the CNO. The subject is shipbuilding, which is something that you and I have worked on for many years. The budget request for the Navy's shipbuilding and conversion account is almost $1.5 billion less than last year. The Navy states there are nine ships in the budget request, but two of these ships, one DD(X) and one LCS, which has been your ship from the beginning, are funded with the research, development, test, and evaluation (RDT&E) funds at a fraction of what these ships will eventually cost.

I am also concerned that the budget request projects only six ships in the fiscal year 2006 budget.

Can you enlighten us as to why DOD reduced the shipbuilding and conversion account by 13 percent in this particular request before us here today? You have often spoken of your 375-ship Navy. I think we are at 297 this morning, thereabouts?

Admiral CLARK. 294 this morning, Mr. Chairman.

Chairman WARNER. 294.

Admiral CLARK. Yes, sir.

Well, the path to 375 is to start buying new ones and to buy the kind of ships that we need for the future. The LCS will allow us to buy the kind of ships we need to dominate the near-land arena and we are going to have to buy them in numbers. They are going to be smaller ships, but we are not buying them just so we can buy small ships to have numbers. Because it is plug-and-play, it is going to be a revolutionary kind of a concept in the way we build, outfit, and put the combat systems in the ship, again with very low manning. That is what we need in the future.

Your specific question about why this number is lower than last year is that each year when I have come to testify before this committee I have been trying to make this number bigger. As I mentioned in my opening statement, I have balanced this the best I know how. Because we have been allowed under the procurement rules to procure the first ship of a class in R&D, the number for this particular year is a lower number. The reality is that if we had paid for it all in 1 year the Shipbuilding and Conversion, Navy (SCN) number itself would be remarkably bigger.

The other thing about it is that we have several ships that are being done in modernization programs that constitute major segments of the total SCN fund. I am talking specifically about the SSGNs and the engineering-refueling overhauls in the submarines and so forth.

As I have said before, we need to think about recapitalizing the ships in the Navy with a stream of resources. I have said that I

am reaching for a $12 billion stream and that is what I have been doing.

I have testified in response to a previous question about the importance of DD(X) and the importance to our future Navy. Where I see ourselves today, Mr. Chairman, is here. We have been working to get to the point where we are today, where the ships are going to start rolling off the line, and this is a great victory for the Navy, and it has happened because we had the support of Congress to get here.

This is not a finished task. In order to create the resources to recapitalize the Navy, we are trying to transform the way we do business in the Navy. The resources that have allowed us to move from the number I talked to you about when I started this job—I had just between 4 and 5, it was under $5 billion that year in the account. In the whole decade of the 1990s it was barely over $6 billion per year. This is the hole that we created.

I am pleased that this year, in new construction, we are at almost $10 billion, and with the other modernization we are at $11.1 billion. We are on the way. We are not there and we have to keep working at it.

It is exactly what we are working on right now, the development of the program for next year. We take a dip next year, but we are looking at that hard to see how we can recover from that. 2006 happens to be a very difficult year for us.

When the Secretary of Defense was here he raised a question about the gap that we have taken in DD(X) in 2006. I will tell you that there is a learning curve to be had in any shipbuilding project, as in any development program. If I had plenty of resources, I would have funded that ship in 2006 and kept right on going as fast as we could. The fact is I am required to put all of the money in 1 year to buy a ship for a 4- to 6-year construction or a 6- or 7-year construction for a carrier and I did not have the resources in the 2005 bill to put it in 2006. We will be working that hard to see how we can improve that number for next year. We desperately need to do that to get to the size Navy we need.

The other point that was made is that the Navy is more capable than it has ever been before—a very factual statement. Lethal platforms. There is one area, though, where numbers really count. The laws of physics still prevail and I have not figured out a way to have one of these ships be in more than one place at one time.

I never said 375 is the exact number. It is about the right number. As you analyze the scenarios and the kind of forward presence that the Nation wants when representing the country, that number will ebb and flow. It is the target for us to reach for and we are seeking to rechannel funds so we can realize the Navy of the future.

Chairman WARNER. Thank you, Admiral. I know from the many years I was privileged to serve in this body it is not a matter of preference to the Navy, but we are very conscious as a Nation of the need for the sea lanes to be kept open, not only for security purposes but also for protecting our commerce. Therefore, Congress has historically been very supportive of shipbuilding for the United States Navy. Thank you.

Senator Levin, why do you not take a question.

Senator LEVIN. Thank you, Mr. Chairman.

I would like to ask General Schoomaker about the effect of rotation on the capability of the forces that we have there. As I understand it, the 4th Infantry Division is modern and digitized. The 101st Air Assault Division has a huge helicopter fleet. Both of those units are coming out. Will their replacements be as capable?

General SCHOOMAKER. The geometry and the way General Abizaid is changing the shape of Iraq over there, require different kinds of capabilities. The forces that we are putting in there are sufficient for the tasks that he wants them to perform.

I think you know that the Stryker brigade is going to be one of the areas where the 101st was, for instance, in the north. This is one of the areas where he is starting to move more things towards local control. We are meeting his requirement with the force structure that he wants.

I ought to remind you that, even though the 4th Infantry Division was there, for instance, we basically dismounted them out of most of their heavy platforms and put them in HMMWVs to do the kind of things that they were going to do, such as motorized force, artillery, in some cases armor, and infantry. We are meeting the need that he articulated, and it certainly is not the same kind of force that went in and fought the war and then stayed.

Senator LEVIN. This is sort of a follow-up to that, Mr. Chairman.

What did Secretary Rumsfeld mean when he said that the capability of the security forces in Iraq will increase?

General SCHOOMAKER. I believe he is talking about our Iraqi security forces.

Senator LEVIN. Thank you.

Chairman WARNER. Let us talk about another aspect of intelligence. We have had a lot of discussions, of course, about the WMD and things like that. However, we must as a Nation constantly be improving our intelligence from lessons learned. We cannot wait until six different committees look into the intelligence as they are looking at the issues now. On a real-time basis, we have to contribute to the Intelligence Community and strengthen the decisions and the knowledge that we think are best.

I would like to ask all of you this question. There has been significant attention paid to the national intelligence, as we said. There were reports shortly after major combat operations concluded in Iraq about problems with tactical intelligence. What is your assessment of the intelligence support provided to the battlefield commanders in the Iraq and Afghanistan theaters of operations? What improvements to national, theater, and tactical intelligence need to be made now to best support our combat forces and others all over the world who are relying on this intelligence? What initiatives have you taken in your respective military departments to ensure the strongest tactical intelligence?

Why do we not give you a rest, General, and we will start in with General Jumper.

General JUMPER. Thank you, Mr. Chairman. The biggest problem we found as a result of our lessons learned from OIF was our bomb damage assessment and how we were able to get accurate and timely bomb damage assessment to the commanders on the ground. Part of this is what I call an administrative problem. It is a prob-

lem of definition in what it takes to score an enemy vehicle destroyed, which I think really has to be relooked. We are undertaking that now to try and get those definitions which are more useful to the field commander, who is much more concerned about whether he is going to have to deal with an enemy tank company in the next 5 or 6 hours than he is with whether or not the national intelligence was able to score a kill because the turret was separated from the body of the tank.

It is that sort of detail we are trying to correct, and we are also trying to organize ourselves so that we take advantage of all the sensors that are over that battlefield. Among the Services here, we have hundreds of vehicles over that battlefield with sensors that can be turned on to this surveillance problem after they deliver their weapons. That is one thing we are going to focus on with some energy, in order to get that corrected. It has been a chronic issue with late Battle Damage Assessment (BDA) and we are going to take that one head-on.

You will see money in our budget against this notion of being able to network the platforms we already own. We saw some magnificent results during the dust storm in OIF. During the depth of that dust storm, we put together our JSTARS vehicles with a Global Hawk vehicle, networked the bombers and some of the assets from the other Services, in order to know exactly when reinforcements were moving down out of Baghdad toward especially the Medina Division south of Baghdad, we were able to coordinate with our space efforts to know exactly when the dust storm was going to be there and then to network those assets to be able to destroy them as they moved down, even before they got into position.

Chairman WARNER. What about the targeting? Your targeting is highly dependent on accurate intelligence.

General JUMPER. That intelligence, of course, was the real-time surveillance that was made available because we were able to focus those platforms on that particular problem.

The question is, then, how do we arrange these assets so that we can shift from some of the national priorities of collecting intelligence to be analyzed into putting those same assets against the real and emerging problems that exist on the battlefield at any one moment, like we were able to do during the dust storm?

With proper networking, you can treat this as an interleaved solution. You can focus for just very short periods of time, seconds or minutes, on one problem long enough to get an answer and then go back to another chore, much like you do with a network of computers.

This is what we are trying to do. There is money in the program to be able to do this with networking, with programs like the E–10A, and other command and control efforts along with the Intelligence Community to network this in a proper way.

Chairman WARNER. Thank you.

General Hagee.

General HAGEE. Yes, sir. This is an issue that we are addressing, just like the logistics issue that Senator Clinton brought out. Sir, when you talk about tactical intelligence, you are talking about information that is fleeting, and it is really important that you get it quickly to the user on the ground.

I would divide this into three main areas. One is UAVs, and General Jumper talked a little bit about that and the ability of our UAVs to quickly get that information down to the individual marine or soldier who is on the ground. We are addressing that in this particular budget.

The second area, which General Jumper talked about quite a bit, is having these various sensors be able to talk to one another, to fuse this information and turn the data into actual intelligence quickly for that individual on the ground. We are addressing that large area.

The third area has to do with human intelligence (HUMINT). When you get right down to it, there is just some information that you can only get via HUMINT. I believe that we need to do much better in this particular area. Having discussed some of this with Director Tenet, I know he feels exactly the same way and is doing what he can to increase this Nation's HUMINT capability.

Chairman WARNER. Thank you very much. I likewise want to see emphasis put on HUMINT.

Admiral?

Admiral CLARK. Well, there are several areas that I would focus on. I would start by saying that there were some great victories in intelligence and we are focusing on all the things that did not turn out right. I happen to believe that one of the first things that we need to focus on is continued work to turn strategic intelligence into tactical intelligence with the speed of light. We are unable to do that and get it to the end user. What I believe happens today is that there is a lot of intelligence that is there, and we own it, but we cannot get it to the right place.

Let me give you an example of things that worked very well. It has been little talked about, but we were able to determine that they were trying to and were ready and prepared to deploy mines in the waterways. If they had done so we would have been working for months to get them all out of there. Fortunately, we saw them doing it. We had the intelligence to get it done.

Here is what I think that leads to. I believe the future is going to have a much greater focus and influence on a requirement for pre-hostilities. This is why I believe that gets me to sensors. General Hagee mentioned UAVs. It is all unmanned sensors. We had, for the first time ever, a half dozen pre-production models of unmanned sensors over there working in the waterways. It is important to have the ability to know before hostilities start and to be able to operate clandestinely in enemy territory or in near-land arenas. Lacking that, you cannot play your hand until hostilities start.

We have to have the platforms and the sensors to be able to do that. We need unmanned vehicles in the air and on the surface. A major problem for us is we have to sort ourselves out in the waterways, where it is free for everybody to be. You cannot do that with a large platform. This is why a low-cost LCS is so important to me. We have to have a smaller platform that can react with speed and saturate and dominate the area with unmanned vehicles, so that we own the space.

Networking is vitally important. General Jumper mentioned that. Let me go to the next point.

We call it Automatic Target Acquisition (ATA). ATA is really fundamentally machine-to-machine discussions instead of machine-to-human, by human-to-machine discussions. We have to exploit our technical advantage there.

I would say that the other issue with sensors is we have programs in the budget that are going to vastly improve our capability. Working with the Air Force, Active Electronically Scanned Array (AESA) radar is coming. It will tremendously improve our ability to see the ground. Then we have to be able to communicate it, just as Senator Clinton talked about the whole issue of communications. The modern communications that will carry these data streams is a primary investment priority for the Nation.

Chairman WARNER. Did you wish to include in that the programs for countering anti-ship missiles?

Admiral CLARK. Absolutely.

Chairman WARNER. That is a growing concern to this Senator.

Admiral CLARK. Yes, sir.

Chairman WARNER. All right, thank you.

Now, General Schoomaker.

General SCHOOMAKER. Sir, thank you. I will be very brief here.

We learned a lot. We have a lot of lessons learned. There are about 127 areas specifically in tactical intelligence from OIF lessons learned and OEF. About 107 of those have been rectified and are working.

There are four key areas. One of them is tactical collection. It has already been spoken to here across the board. It really is saying that every soldier is a sensor, and you are collecting from everybody that is in touch with the space. It has to do with HUMINT, it has to do with the integration of UAVs, and it has to do with the kinds of things that you can do and live.

It really is an issue of understanding that intelligence is an operation. It cannot be a union issue here. You have to fight for knowledge, and that is one of the things that we know. It is things like having a common operating picture for both blue forces and red forces.

The second one is in reporting, and that is reporting from the soldier all the way up to the national level. We are not making the best use of our information technology (IT) infrastructure, of our processes and all the rest of it, still legacy.

Also crucial is access to national level intelligence. There is still too much difficulty in terms of accessing databases across the board in a timely fashion. I am now talking about the tactical level, which is still very complicated.

Chairman WARNER. That is something we should address very promptly. I would appreciate if you would give me a little memorandum on how you see that problem and what recommendations you would like to make to Congress to step into this situation.

General SCHOOMAKER. Sir, this is a huge issue and I think we all share this question of how we really get access so that we can mine all of what we really know in a way that is coherent.

Chairman WARNER. Let us close out on this issue. You will come back to me and coordinate your memorandum with the other Service Chiefs. Senator Levin and I serve on the Intelligence Commit-

tee, and that, to me, is something we should pay a high level of attention to.

General SCHOOMAKER. Sir, I would add this last point and I will quit. That is, networking the analytical centers, so that we are not only networking Services but are networked across the interagencies and the joint services, national through tactical, is very important to us.

The last point I will make is that one of the things that makes our future formation so powerful is that we are putting a significant reconnaissance, surveillance, and target acquisition (RSTA) capability within those formations. We are talking about the modular brigades, ground cavalry kinds of organizations, UAVs, and scouts with the kinds of optics and sensors that we need. The payback on this in terms of capability is huge and that is one of the main centerpieces of what we are doing.

Chairman WARNER. As a seasoned combat soldier, you know that intelligence is an enormous force multiplier.

Senator Levin.

Senator LEVIN. Thank you.

I want to go back to the issue of national intelligence and the shortfalls and errors there. I asked you about whether or not you had been interviewed relative to the effect of impact of prewar national intelligence on the planning for or conduct of OIF and you indicated no. Now I want to ask you another question relating to the national intelligence, and that is whether or not you have seen any reports or analyses of the impact of that national intelligence on the conduct of OIF. Have you seen any reports on the issue inside your service or anywhere else?

It does not make any difference where we start. General Jumper, again we will give you the first shot.

General JUMPER. Sir, I am scanning here. That is a broad question. I cannot recall anything particular that analyzed that. If I come up with something I will get back to you immediately.

[The information referred to follows:]

Sir, I have staffed this issue with our Senior Intelligence Office, the Director for Intelligence, Surveillance, and Reconnaissance, and his staff. We have no documentation or other indications of any reports of analysis concerning the impact of prewar national intelligence on the conduct of Operation Iraqi Freedom.

Senator LEVIN. Thank you.

General Hagee.

General HAGEE. No, sir, I have not.

Senator LEVIN. Admiral Clark.

Admiral CLARK. No, I have not.

Senator LEVIN. General.

General SCHOOMAKER. Sir, we only have the lessons learned kind of information within our own resources. I have seen that, but nothing else.

Senator LEVIN. In terms of what I am talking about, you have not seen that kind of an analysis?

General SCHOOMAKER. To the best of my knowledge I have not, sir.

Senator LEVIN. Now, I have a pending request, as our chairman knows, that is sitting on the Secretary of Defense's desk. It is a pending report to have interviews with our military leaders, includ-

ing our commanders in the field, to see if we cannot make an assessment of the impact of our national intelligence on the conduct of OIF. I am just hopeful that we can get a positive answer from the Secretary of Defense. There just is no justification, it seems to me, for the delay in getting a positive answer, and it is essential that this committee and other committees look at that aspect of our prewar intelligence.

I am just going to state this. I am not going to ask you a question on this. I am just going to state this as a fact, that we are awaiting the answer to that request. It seems to me that it is a responsibility of this committee and the similar committee on the House to understand that impact. I know that the Secretary of Defense has representatives here. Perhaps we can get a prompt answer and a positive answer to my request.

Chairman WARNER. On that point, when you and I were visiting with the Secretary, I think it was last week, we discussed a range of those inquiries and he seemed to indicate that he is going to take these under serious consideration.

Senator LEVIN. I hope he does. I think our responsibility is a heavy one here for the future well-being of this country as well as for any accountability and responsibility in the past. The future it seems to me requires that we do everything we possibly can to understand the effect of our intelligence on operations and planning, as well as the other aspects of intelligence for other purposes. That is right within the purview of this committee, and I would hope that the Secretary of Defense would help us carry out that responsibility with a positive answer.

I have just one last question for General Hagee. There have been press reports that some of the Marine Corps officers believe that the Army was too confrontational in its approach in Iraq and unnecessarily antagonized the population, and that the Marines were going to pursue something less confrontational as a way of encouraging greater Iraqi cooperation against the insurgents. I am wondering if you would comment on those press reports, and tell me whether they are accurate or not?

General HAGEE. Sir, I have seen those press reports and I can tell you that the Army and the Marine Corps are working together very well to ensure that we have learned all the lessons that they have gathered over there and that we can implement them when they go in.

When the Army first went in, the battlefield looked a certain way and, because of the great performance of those soldiers over there, that battlefield has changed. Both the Army and the Marine Corps are changing their tactics to respond to that change.

Senator LEVIN. Thank you.

Chairman WARNER. Thank you.

Gentlemen, we have had an excellent hearing and we will be submitting additional questions for the record. Thank you very much and pass a well-done down to your troops.

[Questions for the record with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR JOHN WARNER

SPARE PARTS AND LOGISTICS SUPPORT

1 and 2. Senator WARNER. General Schoomaker, last year, Congress supported the Army's request for significant increases in funding for fiscal year 2004 to address challenges in the Army's spare parts and logistics support program. Current estimates indicate, however, that the Army will only be able to spend approximately 70 percent of what was authorized by Congress. Why is the Army unable to fully execute the amount authorized by Congress? What are the consequences for the Army of not spending the funding for spare parts and logistics support program that was authorized by Congress?

General SCHOOMAKER. In the fiscal year 2004 budget request the Army assumed risk in base operations support (BOS) to support an emergent requirement to increase the inventory of spare parts. The realignment plan, developed prior to operations in Iraq, was a 3-year effort to increase spares on the shelf in anticipation of future needs. With the onset of war in 2003, the Army used fiscal year 2003 supplemental funds to accelerate the replenishment of repair parts. As a result, the funds originally budgeted for this effort are no longer required for this program and will be realigned to BOS, the original source of these funds. This action does not reduce the availability of spare parts.

3. Senator WARNER. General Schoomaker, Admiral Clark, and General Jumper, departmental and Service investments in basic research serve many purposes, one of which includes training of the future defense workforce in disciplines of critical importance to our national security. Do you feel confident that the current investment trend will ensure an adequate number of appropriately-trained domestic experts to fill the Department of Defense's (DOD) need for an innovative workforce in key disciplines such as mechanical, aerospace and chemical engineering, computer architecture, mathematics, physics, and oceanography?

General SCHOOMAKER. Basic research supports the fundamental training of graduate students in the key disciplines indicated, and these individuals can contribute to our future defense workforce needs. The current funding streams are sufficient to ensure an adequate number of students to fill the DOD's needs, assuming other significant factors, such as sudden funding reductions, competition with private industry for similar resources, or a decline in the number of native-born U.S. citizens acquiring advanced technical degrees, do not disrupt the trend.

Admiral CLARK. I am confident that both our investments and the way in which we have structured our research and development (R&D) programs will ensure an adequate number of the kinds of domestic research scientists and engineers that you have mentioned. Between the Naval Research Lab and the In-house Laboratory Independent Research (ILIR) program, we have roughly $115 million going annually to help develop appropriately trained scientists and engineers in key disciplines.

In addition, we are working with the National Science Foundation (NSF) to start a $10 million pilot program, commencing in fiscal year 2005, that is focused on bringing into the Naval Research Enterprise the next generation of scientists and engineers. This program, called Naval Research—Science and Technology for America's Readiness (N–STAR), is focused on revitalizing connections between the Navy's R&D centers and the Nation's universities.

General JUMPER. The current Air Force Science and Technology (S&T) investment portfolio, including over $215 million for basic research, is focused on providing technology that ultimately enables warfighting capabilities. Although there may be a perception that overall basic research funding is in decline, Air Force "core" basic research has actually increased about $13 million or almost 5 percent real growth over the fiscal year 2004 President's budget. This Air Force basic research investment is closely linked with academia and this link is expected to attract, develop, and produce graduates that can compete in future job markets that support our endeavors in delivering the warfighting capabilities needed to ensure our national defense. While recruiting and retaining scientists and engineers (S&Es) continues to be a challenge, we have no indication that there will be a shortage of S&Es in the future.

QUESTIONS SUBMITTED BY SENATOR JOHN MCCAIN

TANKERS

4. Senator MCCAIN. General Jumper, according to the Air Force, "There is only a negligible amount of funds in the fiscal year 2005 budget that falls under the

tanker lease heading, and no funds to actually lease aircraft. Should the current review and Congress concur leasing is the best way ahead, funds could be reallocated using the normal budgeting tools." Exactly what funding is there in this budget that relates in any way to the tanker program?

General JUMPER. There is no money included in the fiscal year 2005 President's budget for the KC–767A program. The KC–767A program accelerates the start of our tanker recapitalization effort. However, the tanker recapitalization program of record in the fiscal year 2005 President's budget, PE41221F KC–135 Tanker Replacement, has funding that starts in fiscal year 2006 and notionally delivers its first aircraft in fiscal year 2010, depending on the recommendation of the analysis of alternatives.

5. Senator MCCAIN. General Jumper, from the Air Force's statement, am I to understand that it is your intention to fund the lease of up to 20 tankers by reprogramming from other systems?

General JUMPER. The National Defense Authorization Act for Fiscal Year 2004 authorized leasing 20 tankers and buying 80 more under multiyear authority. If the program is approved by the Office of the Secretary of Defense (OSD), we intend to submit an above threshold reprogramming for fiscal year 2005 funds.

FORCE PROTECTION

6. Senator MCCAIN. General Schoomaker, I am perplexed about a situation dealing with base security forces. The Army active duty, Reserve and National Guard security forces are, according to your words and every outside expert, stretched thin. In fact, at Fort Huachuca in Arizona and Army bases elsewhere, security forces, military police (MP), and gate guards are supplemented by the civilian guards. Why are Army and National Guard service members guarding Air Force bases?

General SCHOOMAKER. In September 2002, OSD and the Air Force asked the Army to provide force protection augmentation at Air Force installations based on the Air Force's inability to sustain global force protection and security levels. In December 2002, the Secretary of the Army signed a Memorandum of Agreement providing force protection augmentation at Air Force installations for 2 years. We are currently in the second year. Army augmentation is scheduled to end in November 2004.

7. Senator MCCAIN. General Jumper, why are you using Army guardsmen and reservists to provide gate guard and base security force protection and have chosen not to augment or replace your base security force with contract or civilian security guards?

General JUMPER. The use of Army guardsmen was, and remains today, a stopgap measure used until longer-term solutions like civilian and contractor guard forces are fully developed. Since the service agreement was started in January 2003, we have shifted from a mobilized Army augmentation force to a 100-percent volunteer force in the second year of this 2-year agreement. Originally, the Army provided over 8,000 soldiers to augment Air Force force protection capabilities. Today, that number has been reduced to less than 5,300 soldiers. We are using every available means to meet these increased demands through utilization of technology infusion, Air Reserve component volunteers, manpower realignments within end strength limits, civilian conversions, and contract development. Our goal remains the same: reduce reliance on mobilized Guard and Reserve Forces as alternatives come online.

FUTURE COMBAT SYSTEM

8. Senator MCCAIN. General Schoomaker, an independent assessment of the Future Combat Systems (FCSs) "other transaction authority" agreement conducted by a subcontractor called CommerceBasix highlighted the financial risk associated with this $15 billion agreement that was being negotiated with Boeing. Among other things, this due diligence assessment concluded that if the Army did not address the issues it identified in the May 31, 2003 version of the "other transaction authority" agreement, the Army's contractually based financial risk could exceed $1 billion. To what extent were the issues raised in this assessment adequately addressed in the final "other transaction authority" agreement with Boeing?

General SCHOOMAKER. The other transaction agreement executed between the Department of the Army and Boeing for the system development and demonstration (SDD) phase of the FCS program contained sufficient contractual provisions to provide necessary protections for both the Army and Boeing. We are of the opinion that

the contractual issues raised in the CommerceBasix findings were addressed in the SDD other transaction agreement and that the provisions provided sufficient safeguards for the government's $14.1 billion program investment.

9 and 10. Senator MCCAIN. General Schoomaker, to what extent have you evaluated the Army's legal and financial risks associated with the final "other transaction authority" agreement with Boeing? Will you provide a copy of documents that reflect your evaluation to this committee?

General SCHOOMAKER. As previously responded, I have not undertaken any evaluation regarding the FCS. The Acting Secretary of the Army has commissioned the Institute for Defense Analysis (IDA) study and the Army will release the study in the June 2004 timeframe.

11. Senator MCCAIN. General Schoomaker, did Army Acquisition Chief Claude Bolton, at any time, convey CommerceBasix' analysis, or any information regarding this analysis, to Boeing?

General SCHOOMAKER. Not to my knowledge.

12. Senator MCCAIN. General Schoomaker, if Mr. Bolton conveyed CommerceBasix' analysis, or any information regarding this analysis, please indicate to whom, and when, he did so.

General SCHOOMAKER. I have no knowledge of this.

13. Senator MCCAIN. General Schoomaker, please provide a copy of both the May 31, 2003, and the final version of the FCSs "other transaction authorization" agreement.

General SCHOOMAKER. The information requested is attached.

DAAE07-03-9-F001
PZ0007

A MODIFICATION TO THE AGREEMENT

BETWEEN

THE BOEING COMPANY
P.O. BOX 516
J.S. MCDONNELL BLVD.
ST. LOUIS, MO 63166-0516

AND

U.S. ARMY TANK-AUTOMOTIVE AND ARMAMENTS COMMAND
6501 E. ELEVEN MILE ROAD
WARREN, MI 48397-5000

CONCERNING

FUTURE COMBAT SYSTEMS (FCS)
SYSTEM DEVELOPMENT AND DEMONSTRATION (SDD) PHASE

Agreement No.: DAAE07-03-9-F001
Modification No.: PZ0007
Prior Total Government Funds Obligated to Date: $240,456,470.00
Total Government Funds Changed by This Action: $336,000,000.00
New Total Government Funds Obligated to date: $576,456,470.00
Modification Effective Date: 10 December 2003
Authority: 10 USC. 2371 and Section 845 of the Public Law 103-160, as modified by Section 804 of Public Law 104-201, and as amended by Section 803 of the Floyd D. Spence National Defense Authorization Act for FY 2001.

Line of Appropriation: See Attachment 12

The Government priority rating for the Defense Priorities and Allocations Systems (DPAS) (15 CFR 700) under this agreement is DO. Boeing is required to adhere to all of the requirements of this rating.

Boeing CAGE Code: 69236

---

1. The purpose of this Modification PZ0007 is to establish the definitive agreement of the parties for CLIN 0001 regarding the effort necessary to accomplish Systems Development and Demonstration (SDD) for the Future Combat Systems Increment I and related efforts in support of future increments.

2. The parties agree that for the period from the date of signature of this modification until the Agreement completion, that CLIN 0001 shall be Cost-Plus-Fixed/Incentive-Fee. CLIN 0002 and its related CLINs shall continue to be Cost-Plus-Fixed-Fee.

3. Any language conflict between this modification PZ0007 and any prior Agreement language shall be resolved in favor of this modification PZ0007.

4. The Executive Summary, Table of Contents, Articles I through XXXIII, and Attachments One through Fourteen attached to this Modification supersede and replace the Executive Summary, Table

DAAE07-03-9-F001
PZ0007

of Contents, Articles I through XXXIII, and Attachments One through Fourteen of the original Agreement signed 30 May 03.

5. To implement this change, the appropriate original pages for the Executive Summary, Table of Contents, Articles I through XXXIII, and Attachments One through Fourteen are deleted from the Agreement and the attached replacement pages for the Executive Summary, Table of Contents, Articles I through XXXIII, and Attachments One through Fourteen are substituted in lieu thereof.

FOR THE BOEING COMPANY

Maureen S. Johnson 03 Dec 03
Maureen S. Johnson Date
Deputy Director, Contracts,
Pricing & Exports-FCS

FOR THE UNITED STATES OF AMERICA
THE U.S. ARMY TANK-AUTOMOTIVE
AND ARMAMENTS COMMAND

Pamela Demeulenaere 10 Dec 2003
Pamela Demeulenaere Date
Grants Officer

Table of Contents

EXECUTIVE SUMMARY 6
FCS UNIT OF ACTION SYSTEMS SYSTEM DEVELOPMENT AND DEMONSTRATION PHASE6
FCS OVERVIEW 6
BACKGROUND 7
SDD PHASE 7
SDD STATEMENT OF OBJECTIVES FOR ACHIEVING IOC 8
KEY TENETS OF THE PROGRAM 10
ARTICLE I: SCOPE OF THE AGREEMENT 11
A. Structure 11
B. Program Definitization 11
C. Agreement 15
D. Non-Disclosure of Sensitive Government Program Information 16
E. Lower Tier Agreements 16
F. Definitions 16
ARTICLE II: TERM 20
A. The Term of the Agreement 20
B. Termination Provisions 20
C. Termination Notification 20
D. Lower Tier Agreements 20
E. Extending the Term 21
F. The following FAR/DFARS clauses apply: 21
ARTICLE III: DELIVERABLE SCHEDULE 22
A. Deliverable Schedule – Data and Software 22
B. Deliverable Schedule – Hardware 22
C. SDD Completion 22
D. The following FAR/DFARS clauses apply: 23
ARTICLE IV: MANAGEMENT OF THE PROGRAM 24
A. Program IPT Structure 24
B. Management and Program Structure 24
C. Board of Directors 24
D. IPT Structure 25
E. Management Reserve 25
F. Government Member IPT Responsibilities 25
G. IPT Issue Resolution 26
H. Earned Value Management System 26
I. Office Space and Administrative Support 27
J. Work Breakdown Structure (WBS) 28
K. Class IV Unmanned Aerial Vehicle 28
ARTICLE V: IDENTIFICATION OF WORK TO BE PERFORMED 29
ARTICLE VI: OBLIGATION AND INCREMENTAL FUNDING SCHEDULE 30
A. Obligation 30
B. Incremental Funding 30
C. Funding Schedules 30
D. The following FAR/DFARS clauses apply: 31
ARTICLE VII: FEE 32
A. FIXED FEE 32
B. PERFORMANCE/COST/SCHEDULE INCENTIVE FEE 32
ARTICLE VIII: MAKE/BUY, COMPETITION AND DIRECTED SUBCONTRACTS 38
A. Make/Buy 38

B. Competition 38
C. Directed Subcontracts 39
D. Competitive Subcontract Safeguards 39
E. The following FAR/DFARS clauses apply: 39
ARTICLE IX: PAYMENT AND PAYMENT RELATED ITEMS 40
A. Payment 40
B. CLIN 0001 40
C. CLIN 0002 41
D. Voucher Content 41
E. Payment Process 41
F. Accounting/Appropriation Data for Payment Office 42
G. Payment-Related Clauses 42
ARTICLE X: FINANCIAL MANAGEMENT 45
A. Government Audit of Records 45
B. Accounting Practices 45
C. Lower Tier Agreements 46
D. The following FAR/DFARS clauses apply: 46
ARTICLE XI: SECURITY 47
A. Program Security 47
B. Protection and Disclosure of Information – Public Release 47
C. Lower Tier Agreements 47
D. Shipment of Controlled Materials 47
E. The following FAR/DFARS clauses apply: 47
ARTICLE XII: GOVERNMENT-FURNISHED EQUIPMENT, PROPERTY, INFORMATION, FACILITIES, AND SERVICES 48
A. General 48
B. GFX Added During SDD Performance 48
C. MOAs Incorporated by Reference 48
D. The following FAR/DFARS clauses apply: 49
ARTICLE XIII: MODIFICATIONS 50
A. General 50
B. Cost or Pricing Information in Support of Modifications 50
C. The following FAR/DFARS clauses apply: 51
ARTICLE XIV: AGREEMENT ADMINISTRATION 52
ARTICLE XV: DISPUTES 53
A. General 53
B. Dispute Resolution Procedures 53
ARTICLE XVI: INTELLECTUAL PROPERTY RIGHTS 54
ARTICLE XVII: PATENT RIGHTS 55
ARTICLE XVIII: DATA AND SOFTWARE RIGHTS 56
A. Definitions 56
B. Allocation of Principal Rights 57
C. Marking of Data or Software 59
D. Validation of Asserted Restrictions -- Data and Software 60
E. Lower Tier Agreements 61
ARTICLE XIX: FOREIGN ACCESS TO TECHNOLOGY 62
A. Definition 62
B. Export Compliance 62
C. Lower Tier Agreements 63
ARTICLE XX: CIVIL RIGHTS ACT 64
ARTICLE XXI: BOEING INFORMATION 65

ARTICLE XXII: ORDER OF PRECEDENCE 66
ARTICLE XXIII: EXECUTION 67
ARTICLE XXIV: LIABILITY AND INSURANCE 68
A. Liability and Insurance 68
B. The following FAR/DFARS clauses apply: 68
ARTICLE XXV: ORDERING FROM GOVERNMENT SUPPLY SOURCES 69
ARTICLE XXVI: STATEMENT OF WORK CLARIFICATIONS 70
ARTICLE XXVII: SMALL BUSINESS SUBCONTRACTING PLAN 73
A. Goals 73
B. Subcontracting Reporting 73
C. Lower Tier Agreements 73
ARTICLE XXVIII: ADVANCE AND PRE-AWARD COST AGREEMENTS 74
ARTICLE XXIX: COMPLEMENTARY PROGRAMS 75
ARTICLE XXX: SDD TECHNICAL BASELINE 76
ARTICLE XXXI: FAR/DFARS CLAUSES 78
A. Commonly Used Terms 78
B. Clause Incorporated by Reference 78
C. FAR Clauses Incorporated by Reference 78
D. DFARS Clauses Incorporated by Reference 78
ARTICLE XXXII: DESIGN AND SOURCE CONSIDERATIONS 79
ARTICLE XXXIII: TERMINATION LIABILITY 80
A. Special Termination Liability 80
B. Full Termination Liability 81

Attachments

1. System Development and Demonstration (SDD) Statement of Work (SOW)
2. Deliverables List
3. DD Form 254, Contract Security Classification Specification
4. Government Furnished Equipment, Property, Information, Facilities, and Services
5. Reserved
6. Data or Software to be Furnished with Restrictions
7. Office Space and Administrative Support
8. Integrated Master Plan
9. Directed Subcontracts
10. Reserved
11. Complementary and Associated Programs
12. Accounting / Appropriation Data for Payment Office
13. CLIN 0001 Structure
14. CLIN 0002 and Related CLINs Structure

The parties mutually agree that the Executive Summary, in its entirety, to include the Systems Development and Demonstration Phase (SDD) Statement of Objectives (SOO) for achieving Initial Operational Capability (IOC) and Key Tenets of the Program, is included as an overview of the Program and to describe the overarching objectives and vision for the Future Combat Systems (FCS) Unit of Action (UA) for IOC and beyond; and that the Executive Summary is non-contractual and non-binding on either party, unless specified elsewhere within the Agreement.

EXECUTIVE SUMMARY

FCS UNIT OF ACTION SYSTEMS SYSTEM DEVELOPMENT AND DEMONSTRATION PHASE

FCS OVERVIEW

1. The goal of US Army Transformation is the creation of the Future Force (FF). The FF will be strategically deployable and capable of performing operations across the spectrum of conflict in a joint inter-operational environment.

2. The FF is characterized by an innovative and revolutionary new operational and organizational concept for the Unit of Action (UA). The UA is the tactical warfighting echelon of the FF, comprised of echelons at Brigade and below to fight tactical engagements and win battles. The UA is designed to win on the offensive, across the spectrum of conflict, against any expected adversary as part of a division-like Unit of Employment (UE) or Joint Task Force (JTF). In a low-end Small-Scale Conflict (SSC), one or more UAs can operate directly under a JTF. A UA can serve as an Army Forces (ARFOR) component headquarters for the JTF in this framework. The UA will account for the mission sets of these combat formations, with the exception of Special Forces (SF), Ranger, and Airborne Forces. The Army's UA will be part of a joint team that is decisive in any operation, against any level threat, in any environment. This team must be strategically and operationally responsive, rapidly deployable; able to change patterns of operations faster than the enemy can respond, and adjust to enemy changes of operations faster than he can exploit them. The UA accounts for these mission sets by operating as a Family of Systems (FoS) and a System of Systems (SoS). A FoS is a set or arrangement of independent systems that can be arranged or interconnected in various ways to provide different capabilities. The mix of systems can be tailored to provide desired capabilities dependent on the situation.

3. The Future Combat Systems (FCS) is a Family of Systems (FoS) networked to operate as a System of Systems (SoS) and will serve as a core materiel building block within the UA. The program goals are to: (1) acquire Future Combat Systems, (2) equip Soldiers, and (3) field FCS to UAs to enable achievement of the UA Operational and Organizational (O&O) Plan. The Army intends to field FCS Increment I with Initial Operational Capability (IOC) in 2010 for an FCS-equipped maneuver battalion and Full Operational Capability (FOC) in 2012 for the Army's first Future Force UA. Boeing is not responsible for the entire UA; they are only responsible for the specific work identified in the Agreement.

4. "FCS are comprised of a family of advanced, networked air- and ground-based maneuver, maneuver support, and sustainment systems that will include Manned and Unmanned (MUM) platforms. FCS are networked via a Command, Control, Communications, Computers, Intelligence, Surveillance, Reconnaissance (C4ISR) architecture including networked communications, network operations, sensors, battle command system, training, and both MUM Reconnaissance and Surveillance (R&S) capabilities that will enable levels of Situational Understanding (SU) and synchronized operations heretofore unachievable. FCS will operate as a SoS as defined in Chairman of the Joint Chiefs of

Staff Instruction (CJCSI) 3170.01B that will network existing systems, systems already under development, and new systems to be developed to meet the needs of the UA. The network will enable improved Intelligence, Surveillance, and Reconnaissance (ISR), enhanced analytical tools, joint exchange of blue and red force tracking down to the tactical level, battle command, real-time sensor-shooter linkages, and increased synergy between echelons and within small units. It will also enable the UA to connect to UE and Joint-Interagency-Multinational (JIM) capabilities, making these capabilities available to the small units of the UA as well as with adjacent, non-contiguous units. FCS will enable the networked UA to develop the situation in and out of contact, set conditions, maneuver to positions of advantage, and to close with and destroy the enemy through standoff attack and combat assault per the OF UA O&O Plan." (Operational Requirements Document (ORD), 14 April 2003, Change 3, Joint Requirements Oversight Council (JROC) approved).

BACKGROUND

1. On 14 March 2002 Defense Advanced Research Projects Agency (DARPA) awarded an Other Transaction Agreement (OTA), Section 845 for Prototypes to The Boeing Company to serve as the U.S. Army's Lead Systems Integrator (LSI). The Boeing Company was selected as the LSI to partner with the Government in an Integrated Product Process Development (IPPD) environment to develop, manage and execute all aspects of the FCS program through Concept and Technology Development (CTD), with an option for System Development and Demonstration (SDD). This Agreement constitutes the exercise of the option contemplated in the CTD Agreement, MDA972-02-9-0005. Key among the LSI CTD responsibilities was to manage risk and facilitate transition to Milestone B. Continuing with the LSI into SDD was contingent upon the successful execution of the CTD Phase and negotiation of the subsequent SDD Agreement. The FCS program, cooperatively executed by DARPA and the Army, successfully exited the Concept and Technology Development (CTD) phase.

2. While the Army intends to retain the LSI for the foreseeable future, to maintain competition throughout the life cycle, significant portions of SDD and Initial Production (IP) will be competitively awarded by the LSI to subcontractors specifically selected for their domain expertise. The initial capability increment is the first in a series of time-phased requirements, all of which are expected to be satisfied by the same LSI. SDD has competitive subcontracts, and performance specifications will be used to acquire the SDD hardware and software from a series of competitive actions. These specifications were made available for industry comment, during the CTD phase, to further encourage competition. It is planned to continue into IP for Increment I with the LSI using subcontracts being competitively awarded to the maximum extent feasible.

3. The Army, other Services, Joint activities or Allies have initiated or developed a number of technologies, and there are a significant number of ongoing programs that have relevance to FCS. In excess of one hundred (100) programs have been evaluated as having a need to interact with the FCS Program for SDD Increment I. During SDD additional programs may be added as complementary programs while others may be deleted. "Complementary Programs" for purposes of this Agreement is defined in Article I, subparagraph F.

SDD PHASE

1. The Increment I SDD phase will complete the integration of the FCS into a stable, interoperable, producible, supportable, and cost effective SoS that satisfies initial user expectations. The SDD phase includes Systems Integration and Systems Demonstration. During Systems Integration, the LSI will use the approved O&O and the JROC-validated Mission Needs Statement (MNS) and Operational Requirements Document (ORD) to integrate selected technologies at a SoS level. Recognizing that UA and FF development and demonstration work is ongoing and in parallel with the FCS SDD work, the

LSI is also charged to work closely with the UA/FCS Proponent and the Army to ensure FCS SDD work is closely synchronized with the larger UA and FF development effort. The LSI will also ensure that the FCS roadmap to objective FCS capabilities is properly informed by, and synchronized with, CTD work for subsequent increments of FCS capability. The LSI will provide required program information and data to support decision-making through the IPPD structure. The Government will participate in all program decisions, to include Make/Buy and approval of competitive selection decisions, and the Government may disapprove any action taken under these processes. Linkage of the LSI's Modeling and Simulation (M&S) design work to the Army's FF Battle Labs will provide customer feedback to support FCS design work as envisioned under Simulation and Modeling for Acquisition, Requirements and Training (SMART). During the systems integration process, M&S and component-level tests will verify technology and subsystem integration to ensure subsystem performance is achievable. The Distributed Product Description (DPD) will provide the complete digital system description within which the virtual technology component hardware will be tested. During Systems Demonstration, components will undergo a mix of virtual and physical testing. System simulation and its interactions with internal and external components will be accomplished through the use of M&S technologies, System Integration Laboratory (SIL) and networking to complement physical testing. Systems Demonstration will include prototype build and the execution of a series of Synthetic User Tests and Developmental Tests (DT). Results of testing will be integrated into the final production design prior to approval for entry into IP at Initial Production Decision (IPD). The prototype equipment may be refurbished (under separate contract), dependent upon suitability for use, availability of funds and identified needs, in the current production configuration and delivered to the First Unit Equipped (FUE) for New Equipment Training.

SDD STATEMENT OF OBJECTIVES FOR ACHIEVING IOC

These objectives must be read as a whole as the elements are inter-related. As with the SoS, the whole is much greater than the sum of the parts. While these are the overall objectives for the SDD Agreement and beyond, the greater objective of achieving IOC by the end of the decade must shape the work and decisions that are made in SDD.

1. Field FCS SoS solutions to UAs with initial FCS Increment I equipped battalion at IOC by the end of the decade and a FOC FCS Increment I equipped UA by 2012 to enable the UA to fight effectively as articulated in the UA O&O Plan:
   a. An organized, manned, trained and equipped subset (to be defined at Initial Production Decision ([IPD]) of the FCS-equipped UA ready to begin new equipment and organizational training, leading to Operational Test Readiness Review III and the Initial Operational Test.
   b. Successful verification of each critical operational issue during Operational Test.
   c. Successful verification that the SoS is fully supportable and vital logistics goals are achieved.

2. Achieve a successful SDD effort:
   a. At IPD, Production and Deployment Entrance Criteria are achieved /demonstrated.
   b. At IPD, FCS UA Increment I Capabilities Specification is demonstrated for Increment I required performance.
   c. The LSI/Army partnership has defined, planned, and managed the systems engineering process to transform the FCS ORD into a tested SoS solution suitable for start of IP, conducted system reviews as defined in the Systems Engineering Management Plan (SEMP), and prepared for the IPD Defense Acquisition Board (DAB) review. These actions support achieving Increment I threshold capability.
   d. At Critical Design Review (CDR) all schedules impacting/influencing the SoS are aligned with all performance expectations considered low to moderate risk for IPD.

e. Necessary actions taken to ensure an achievable schedule in support of equipping UAs with initial force capability by the end of the decade. Sufficiently detailed Integrated Master Plan (IMP) and Integrated Master Schedule (IMS) facilitating management of the efforts to achieve IOC by end of decade are accomplished, with significantly greater detail through SDD.
f. An Earned Value Management System (EVMS) for the LSI, first tier subcontractors, and select second tier subcontractors whose contributions exceed the dollar thresholds for requiring EVMS or who are designated by the PM, FCS as needing this level of management insight are implemented and validated.
g. Advanced Collaborative Environment (ACE) fully deployed and operational prior to CDR.

3. Adopt a spiral development process to target the objective capability:
   a. Cost parameters necessary to support achieving objective capability, including specific recommendations on the development, fielding and support of future increments, to include life cycle cost impacts are identified.
   b. A plan for integrating, scheduling, measuring, and controlling the evolution of the FCS SoS development, test, and fielding leading to objective FCS Full Operational Capability (FOC) determined through continuous User requirements development and reflected in the latest version of the FCS ORD continues to be maintained.
   c. CTD work on subsequent FCS increments of capability is synchronized in an efficient and effective manner over time with previous increments under development or in production.
   d. All elements of the FCS program including LSI, Government, suppliers, and associate contractor activities are integrated into an event driven plan. Work is closely coordinated with Training and Doctrine Command (TRADOC) and Headquarters, Department of Army (HQDA) so that each increment of FCS capability is properly integrated and synchronized with the larger roadmaps for the UA and FF. Risk reduction activities with spiral development objectives for each program event including the plan to incrementally improve capability throughout the systems' life cycle based on spiral upgrades and technology insertion has been defined.
   e. Concurrent development of program increments, with the UA/FCS Proponent, to ensure rapid technical integration and support parallel CTD activities under DARPA or Army purview have been planned.

4. Establish FCS Enterprise as a solid enduring partnership between Combat Developers, Materiel Developers and Industry:
   a. TRADOC Deputy Chief of Staff, Development (DCSDEV), Unit of Action Maneuver Battle Lab (UAMBL), TRADOC System Manager for FCS work in concert with the Material Developers and the LSI to establish and evolve the FCS operational and mission requirements.
   b. DARPA, Research, Development, and Engineering Command (RDEC), PEOs, Program Manager, Army Test and Evaluation Command (ATEC) and Defense Contract Management Agency (DCMA) work in concert with the Combat Developers and the LSI to establish and define materiel solutions to meet continuous User requirements development needed to support and evolve the program to objective capability.
   c. LSI and Industry partners work in concert with the Material Developers and Combat Developers to design, develop, produce, field, sustain and support fielding of each increment of FCS FoS to FF UAs.

5. Key Performance Metrics will be demonstrated and documented in the SoS and individual system performance specifications based upon Increment I Key Performance Parameters (KPPs) and their prioritized ORD requirements:
   a. Reliability, supportability, efficiency, and deployability goals will be specifically identified, metrics will be established and incorporated into the documented performance baseline at the SoS and individual system levels.

b. Supportability, sustainment, deployability, and fielding planning, including establishment of processes; procedures, and logistics management metrics, will be developed and tested to ensure logistics requirements are met across the FCS SoS. Performance-Based Logistics (PBL) business processes and performance standards will be developed and validated, data management and analysis processes will be designed, and the PBL concept for sustainment will be expanded to incorporate complementary systems into the FCS Supportability Strategy. Collective performance of the requirements under this contract will be evaluated for effectiveness in achieving Operational Availability, Operation and Support Costs and Footprint.
c. Key data have been provided and maintained on the ACE to ensure a solid foundation for Simulation-Based Acquisition activities to ensure close collaboration with the User in design work as envisioned in SMART.
d. Development of SoS and FoS performance level modeling and simulation capability for use in analyzing requirements, evaluating design performance, and supporting system level testing has been managed and coordinated. System level modeling and simulation of information management, interoperability, lethality, survivability, supportability, agility/versatility, responsiveness, and vulnerability effectiveness evaluation has been developed. Use of this modeling and simulation capability across the SoS, FoS, testing, and other users, as needed, to support evaluation of FCS performance for selected designs including analysis of life-cycle cost impacts is coordinated.

6. LSI responsibility for total systems integration will be established and leveraged to ensure success both for SDD and beyond:
   a. The management resources, engineering resources, products, and services required to design, build, procure, test, field and sustain prototypes or simulations for the integrated FoS, including the distributed network systems, platforms, supportability, and training, when integrated and operated with systems external to FCS, constitute the FCS SoS are provided.
   b. Competitive procurement and management of systems and subsystems to the extent feasible to ensure "best of industry" involvement in the development of the FoS elements.
   c. Complementary systems and specific interaction needed to properly support the FCS program have and will continue to be identified in collaboration with PM, FCS.
   d. Program, including future increments, is shaped within planned funding and potential future cost constraints.

7. All actions needed to achieve future compliance with the Army Release, Fielding and Transfer Program (AR 700-142) dated May 1, 1995, and achievement of Material Release prior to IOC and FOC are taken.

KEY TENETS OF THE PROGRAM

- Create Opportunity for Best of Industry to Participate.
- Leverage Government Technology Base to Maximum Extent.
- Associate On-Going Enabling Efforts With LSI-Led Activity.
- Collaborative Environment From Design Through Life Cycle.
- As a Minimum, Commonality at Subsystem/Component Level.
- Design/Plan for Technology Integration
- Retain Competition Throughout Future Force Acquisition.
- Appropriate Government Involvement in Procurement Processes.
- Maintain and Shape Government Acquisition Community
- Maintain and Shape the Industrial Base of the Future
- Program Affordability--Balance Performance and Sustainment
- Consistent and Continuous Definition of Requirements

ARTICLE I: SCOPE OF THE AGREEMENT

A. Structure

1. The Boeing Company, as the LSI, and its industry teammate, Science Applications International Corporation (SAIC), shares with the United States Army a common vision for the FCS that will serve as the materiel foundation for the UA. The parties are entering into an extended alliance between the Government and industry to provide advanced technologies that support enhanced warfighting capabilities and techniques for the Army to fulfill an expanding and evolving set of Army missions for the 21st century. This Agreement expresses the relationship between Boeing, as the LSI, and the Government, as represented by the Program Manager, Future Combat Systems and the Grants Officer. The LSI will continue to use the "best of industry" to work together with the Government to achieve a successful SDD Increment I phase, and to achieve the Army Vision of fielding an FCS threshold capability to enable the UA to achieve its O&O Plan with threshold FCS equipped maneuver battalion this decade.

2. A program management decision process, that addresses Cost As an Independent Variable (CAIV), will be used to focus on the cost, schedule, and performance trade-offs in relation to SoS Life Cycle Cost (LCC) containment and Total Ownership Costs (TOC) estimates to help achieve operational capability within program cost constraints. Boeing's CAIV process contains three basic tenets: (1) setting cost targets; (2) allocating cost targets to subcontractors; and (3) reporting on program-level cost targets.

3. The planned funding for the program is a primary constraint for the Agreement. All proposed changes that increase cost will include recommendations of statement of work requirements to be modified, reduced, or deleted in order to perform within the existing Agreement funding constraints, unless the Grants Officer notifies Boeing that additional funds will be made available.

B. Program Definitization

(Paragraph B was applicable only to the definitization period from 30 May 03 through 26 Nov 03. This language is retained to document the historic record. However, changes were made to the original paragraphs 2 and 3 to update funding amounts through modification P00006.)

1. The FCS SDD program effort is undefinitized at this time. The definitization period is referred to as "Program Definitization." Program Definitization is planned to be funded at $190,000,000.00 and is intended to ensure a timely definitization. The $190,000,000.00 is considered to be insufficient to ensure maintenance of the currently planned program schedule. There is no requirement for Boeing to work beyond the funding specifically provided in the Agreement.

2. Funds are now currently available for the full $190,000,000.00 plus an additional $42,456,470.00, for a new total funding of $232,456,470.00 for CLIN 0001. The Government's obligation under this Agreement is contingent on the availability of appropriated funds from which payment for Agreement purposes can be made. No legal liability on the part of the Government for any payment may arise until funds are made available to the Grants Officer for this Agreement and until Boeing receives notice of such availability, to be confirmed in writing by the Grants Officer. The funds that are currently available are $232,456,470.00 for CLIN 0001.

3. The $240,456,470.00 is the current limitation of the Government's liability for all Agreement CLINs. If the Agreement is terminated prior to definitization, no amount above the $130,000,000.00 can or

will be added for either cost or fee. If additional funding is added, then the limitation of liability will be increased by the amount of the additional funding.

4. The FY 04 funding identified, $60,000,000.00, will be provided as early as available, but it is recognized that this may not be until late October or even November and that until such time as additional funding is obligated, the actual amount obligated to the Agreement is the Government's limitation of liability.

5. Definitization will include a cost estimate for the SDD Agreement and provision for applicable fee (fee for the balance of the Agreement is not defined at this time and may include fixed, incentive, award, etc.). The fee arrangement, described herein, used for the period through definitization, shall not set a precedent for the fee arrangement for the balance of the program. The fee for the definitization period is comprised of two parts, a base fee and an incentive fee. The incentive fee is comprised of five elements as described below. Any unearned incentive fee will be retained for use as fee for future incentive period(s) in the definitized Agreement with the specific application period and criteria determined by the fee determining official.
   a. The fee for the period through definitization consists of a base fee in support of the overall definitization effort, and an incentive fee arrangement to support the definitization by rewarding the accomplishment of the major elements during definitization of the OTA. The total fee opportunity for the definitization period is $24,685,560.00. This consists of a base fee of $9,874,224.00 in support of the overall definitization effort, and an incentive fee arrangement to support the definitization by rewarding the accomplishment of the major elements as identified below.
      (1) Technical: $1,645,704.00,
      (2) Software: $1,645,704.00,
      (3) Manpower agreement: $3,291,408.00,
      (4) Subcontracts: $3,291,408.00 ($1,645,704.00 for the competitive subcontracts and $1,645,704.00 for the MGV Subcontracts) and
      (5) A fee for the definitized and signed Agreement in the amount of $4,937,112.00 for definitization of the OTA.

   The fee for element 5, the definitized and signed Agreement, is reduced the longer it takes to definitize. The fee for the definitized and signed Agreement is $4,937,112.00. Commencing 210 days after award of the Agreement, the fee for element 5 will be reduced by $822,852.00, and reduced an additional $822,852.00 every 30 calendar days thereafter until the Agreement is definitized or the element 5 fee exhausted.
   b. The total fee associated with the $130,000,000.00 is $16,890,120.00. Of that amount $6,756,048.00 is base fee, and the balance is for the following incentive fee elements:
      (1) $1,126,008.00 is for Technical,
      (2) $1,126,008.00 is for Software,
      (3) $2,252,016.00 is for Manpower agreement,
      (4) $2,252,016.00 is for Subcontracts ($1,126,008.00 for the competitive subcontracts and $1,126,008.00 for the MGV Subcontracts), and
      (5) $3,378,024.00 is for the definitized and signed Agreement.
   c. The total fee associated with the $60,000,000.00 is $7,795,440.00. Of that amount $3,118,176.00 is base fee, and the balance is for the following incentive fee elements:
      (1) $519,696.00 is for Technical,
      (2) $519,696.00 is for Software,
      (3) $1,039,392.00 is for Manpower agreement,
      (4) $1,039,392.00 is for Subcontracts ($519,696.00 for the competitive subcontracts and $519,696.00 for the MGV Subcontracts), and
      (5) $1,559,088.00 is for the definitized and signed Agreement.

d. The five incentive fee elements are defined as follows:

(1) **Technical** - UA Increment I specification updated to align with JROC approved ORD, dated 14 April 2003. By System Requirements Review (SRR), all JROC ORD requirements will be reconciled. This reconciliation can take two forms:

(a). Establishment of a fully coordinated threshold (either JROC- compliant or approved through the Trade Study process).

(b). Establishment of a Threshold Range contingent upon the outcome of a Trade Study that has yet to be performed, including:

(i) Appropriate justification as to why the Trade Study could not be performed prior to the SRR.

(ii) A Change Control Board (CCB) - approved Trade Study Plan.

(2) **Software** - Demonstration of the Net Fires use case utilizing SoS COE Build 0 on the C4ISR test bench to validate C2 capabilities using SoS COE APIs.

(a) The capabilities that are represented by the Net Fires use case shall be described as system engineering requirements that are documented in the Dynamic Object Oriented Requirements System (DOORS) database, and traceable to the ORD, and to the test cases to be run as part of the demonstration. All software process artifacts (peer reviews, etc.) that can demonstrate compliance with the approved software development process shall be compiled and made available for review prior to the demonstration. Compilation on ACE is acceptable.

(b) The C4ISR test bed shall be under configuration control at the time of test and shall have been demonstrated to be suitable for use prior to the demonstration. The LSI SQA organization will be the agent to confer a judgment of suitability.

(c) As part of the readiness review for the demonstration, the LSI shall present the original estimates and the actual values for the following metrics for all software included in the demonstration.

(i) Report on estimated Source Lines of Code (SLOC) at the time of Agreement award vs. actual SLOC at the time of demonstration.

(ii) Report on estimated productivity (SLOC/hr) at the time of Agreement award vs. actual productivity (SLOC/hr) achieved during development of the software for the demonstration.

(iii) Report on estimated levels of software reuse and associated effort at the time of Agreement award vs. actual achieved levels of reuse and associated effort.

(d) These actual values shall be used to revise the cost and schedule estimates for SDD, and presented as additional planning data for program management purposes.

(e) The LSI shall present any suggested changes to the UML style guide/standards based upon implementation of the Net Fires use case.

(3) **Subcontracts** - Competitive subcontracts - 100% of all competitive subcontracts resolved and 85% definitized. Resolved means that a proposal or bid has been submitted, evaluated and/or negotiated or a cost agreement is in place. If negotiations are not complete, the LSI will submit to the Grants Officer a statement outlining final cost expectations, with adequate and proper back up. Manned Ground Vehicle (MGV) subcontracts will be fully definitized or the following: (1) Subsystem source selections complete, (2) United Defense UD/General Dynamics (GD) work split defined, and (3) The LSI completes an analysis of the UD/GD proposals and submits substantiated pricing data with adequate backup to the Grants Officer.

(4) **Manpower Agreement** - Agreement between LSI and Government on LSI manpower will be considered complete after the Grants Officer notifies the LSI that the Grants Officer and the PMO are satisfied with the appropriate staffing levels for the IPTs.

(5) **Definitization of Agreement** - This is the final definitive agreement for SDD, including the fee arrangements for the balance of the SDD program. For definitization, the parties must harmonize Boeing's projected expenditures with the funding profile and scope of work.

e. The base fee in support of the overall definitization effort shall be paid based upon the ratio of cumulative costs incurred, to date, to the total estimated costs for program definitization. The incentive fee pool will be paid on a provisional basis prior to accomplishment of the specific elements as defined above. A provisional billing payment may be made on a pro-rata basis against the 180 day definitization period. The 180 day period represents 12 planned vouchers and Boeing will equally divide the provisional fee payments. When an element is completed, the balance of the fee available relative to that element will be paid with the approval of the Grants Officer.

f. Funds above the $190,000,000.00 may be provided at the Government's discretion to maintain Program schedule. A provisional fee for billing purposes will be provided at ten dollars provisional fee, for every one hundred dollars of estimated cost funded. Based on the fee structure negotiated at definitization the amount of provisional fee made available to Boeing will be adjusted either up or down as appropriate, and will be consistent with the fee structure for the balance of the Agreement in its entirety. If excess fee has been paid then it will either be decremented from the next voucher submitted or otherwise submitted to the Government based on the specific direction of the Grants Officer.

g. The complexities and risk associated with the FCS SDD Increment 1 Program are significant. The challenges of the program warrant the establishment of the maximum possible opportunity to earn fee. The fee available to be earned shall be based on the total negotiated cost base for the Agreement, including all normally allowable and allocable costs such as subcontracts, labor hours, and normal and customary rate applications in accordance with Boeing's approved disclosure statement. This commitment to provide an incentive commensurate with Program risk does not endorse or prohibit any particular fee structure, which shall be subject to negotiation for definitization. Establishment of the award fee arrangement requires a set of award fee evaluation areas and criteria that provide the expectations for excellent performance, and Boeing's achievement of excellent performance will enable Boeing to earn the maximum fee available. (Note: The award fee arrangement was changed to a fixed fee/incentive fee arrangement at definitization as described in Article VII, Fee.)

6. Boeing shall perform the work tasks to satisfy the accomplishment criteria for the first two IMP program events, SoS Requirements Review (SoSRR) and the Program Definitization, by 180 days after award. The scheduled IMP events are supported by doing those tasks that have been identified as needing to be initiated in the first six months. The following tasks are part of that process.

   a. The Initial Baseline Review (IBR) for the program shall be conducted by 120 days after award.

   b. It is understood that the initial IMP/IMS will need further refining at the IMS task level. Some tasks may require greater definition to support the criteria for the IMP events and additional tasks may need to be defined or eliminated. It is expected that the fidelity for the program will be of adequate detail by definitization to support both the agreed to dollars and the funding profile for the program.

   c. The LSI will accompany PM, FCS on the scheduled visits to the PEO/PMs associated with Complementary Systems between June 2003 and September 2003. The LSI will participate with the Government in preparing and finalizing all Memoranda of Agreement (MOAs) by definitization. The LSI will participate with the Government in attempting to prepare and finalize all Subordinate Memoranda of Agreement (SMOAs) by definitization. The LSI will prepare all draft Associate Contractor Agreements (ACAs) prior to definitization. Some of the drafts (those ACAs where an initial SMOA has been signed and the complementary program prime contractor has been directed by the Government initiate discussions with the LSI to develop an ACA) will

have been worked with applicable contractors and some will be Boeing generated documents only.

7. Timely accomplishment of the Program Definitization will include: the detailed Integrated Master Schedule (IMS) at the LSI level by 135 days after award; the validation of the linkage between the Work Breakdown Structure (WBS), the Integrated Management Plan/Integrated Master Schedule, and the Technical Baseline to the agreed to cost by 165 days after award in order to achieve a definitive Agreement by 180 days after award. If the Agreement is not definitized within 30 days after the fee for the definitized and signed Agreement has been exhausted (per Article I, paragraph B.5.a. above), the definitization will be subject to Disputes, Article XV. Towards ensuring timely accomplishment the parties agree to meet within 30 days of award and identify the appropriate supporting tasks to the above schedule. Both parties will ensure periodic management reporting to facilitate the understanding of the progress being made.

8. The modification that definitizes the ceiling priced Agreement is planned to be a totally superceding modification for the entire FCS SDD program, incorporating those fixed portions of the business arrangement reflected in this Article for the definitization period.

9. There will be no Government manpower provided through definitization, unless the Agreement is expressly modified to provide Government manpower in lieu of LSI manpower. The requirements for Government Manpower will be identified and finalized during the definitization process. The government furnished equipment, property, information, facilities, and services (GFX) list will be finalized during the definitization process.

10. The Statement of Work (SOW) at Attachment 1 is the SDD program SOW for FCS Increment I. The SOW, the terms and conditions other than the business arrangement for definitization, and all other attachments will be finalized during the definitization process so that all Agreement requirements at definitization will match the ceiling for the Agreement. There have been changes to the documents subsequent to 2 May 2003 and prior to execution of this Agreement. All such changes will be addressed during the definitization process. The ceiling price for the Agreement for definitization purposes is the Government's funding limitation and is not reflective of the proposal submitted. The definitization process will reconcile these issues to arrive at a definitive agreement.

C. Agreement

1. This Agreement is an Other Transaction pursuant to 10 U.S.C. 2371 and Section 845 of the 1994 National Defense Authorization Act, (Public Law 103-160) as amended. An incentive fee arrangement will be used to create incentives for Boeing to achieve the program goals, as described in Article VII, Fee.

2. This Agreement is not a procurement contract, grant, or cooperative agreement. The Federal Acquisition Regulation (FAR) and Department of Defense FAR Supplement (DFARS) apply only as specifically referenced herein. This Agreement is not intended to be, nor shall it be construed as, by implication or otherwise, a partnership, a corporation, or other business organization. The Army will obtain access to program results and certain rights to patents, data and software pursuant to Articles XVII, Patent Rights and XVIII, Data and Software Rights.

3. As part of the competition to select an LSI for CTD, industry was advised of the Government's intent to exercise a follow-on option with the selected LSI for SDD. This Agreement, DAAE07-03-9-F001, constitutes the exercise of the SDD option contemplated by DARPA and the Army in the CTD solicitation and Agreement, MDA972-02-9-0005.

4. The Senior Procurement Executive for the agency approved, in writing, that in accordance with Section 845 of the National Defense Authorization Act for Fiscal Year 1994, Public Law 103-160, as amended (10 U.S.C. § 2371 *note*), the use of an OTA, that exercises the option contemplated by DARPA and the Army in the CTD phase, continues the use of non-traditional defense contractors in significant roles, and provides for innovative business arrangements or structures that would not be feasible or appropriate under a FAR-based procurement contract, and is the appropriate instrument for the FCS SDD Phase.

D. Non-Disclosure of Sensitive Government Program Information

1. In the course of Agreement performance, the Government may furnish Boeing information (written, verbal or otherwise) developed outside of the FCS program, regarding Army programs and initiatives that are often sensitive to past, present, and future procurements within the Government (hereafter "Sensitive Government Program Information"). If the Government initially makes a disclosure of Sensitive Government Program Information to Boeing in non-written form, e.g., verbally, the information disclosed shall be identified as being Sensitive Government Program Information and confirmed, as such, in writing, by the Government within thirty (30) days from such disclosure. Subject to the foregoing, Sensitive Government Program Information will be marked as such before it is provided to Boeing. Boeing agrees to use reasonable efforts not to use or reproduce Sensitive Government Program Information for any purpose other than fulfilling the FCS Program (the "Purpose"), and to keep Sensitive Government Program Information in confidence, disclosing it only for the Purpose to (a) Boeing employees assigned to or supporting the FCS Program, (b) the Government and its FCS Program support contractors, and (c) other companies, organizations, or individuals that have agreed contractually to control Sensitive Government Program Information under the same conditions set forth herein. The obligations set forth above shall not apply: to information which is or becomes publicly available, or to information which is already in the possession of the recipient without restrictions, or to the extent prior written authorization of the Government is given, or after three (3) years after receipt of the information. This provision does not supersede the terms and conditions of Article XVIII, Data and Software Rights.

2. Boeing shall establish appropriate written procedures as required to carry out the obligations of subparagraph D.1.

E. Lower Tier Agreements

Boeing may disclose such Sensitive Government Program Information to subcontractors, regardless of tier, on the FCS program, provided that it includes subparagraph D.1. in each such subcontract.

F. Definitions

The following definitions are used for purposes of this Agreement in lieu of definitions that may occur elsewhere:

1. The term "Agreement" as used herein refers to these articles and the attachments hereto.

2. The term "Lead Systems Integrator" or "LSI" or "contractor" refers to The Boeing Company, acting as a single party, responsible to the U.S. Government through the Program Manager, Future Combat Systems and the Grants Officer, U.S. Army Tank-automotive and Armaments Command (TACOM).

3. The term "Program" refers to the Future Combat Systems (FCS) as described in the Executive Summary paragraph entitled FCS Overview.

4. The term "Program Manager, FCS (PM, FCS) refers to the Government's Program Manager, Future Combat Systems (PM, FCS), and their designated staff.

5. The term "Program Manager, LSI" or "PM, LSI" refers to the Boeing Program Manager and their designated staff.

6. The term "Office of the Program Manager" refers to the PM, FCS and PM, LSI and their designated staff.

7. The term "Parties" or "Party" refers to Boeing or Contractor and TACOM or Government.

8. The term "Statement of Work" or "SOW" refers to the tasks to be accomplished by Boeing, and its subcontractors, in the performance of this Agreement, as defined in Attachment 1, SDD SOW.

9. The term "User" refers to the TRADOC (Training and Doctrine Command) Systems Manager (TSM) Future Combat Systems (FCS). The TSM FCS is the user representative voice in all discussions related to FCS.

10. The term "Initial Operational Capability" or "IOC" means within the Integrated Master Schedule (IMS), an FCS-equipped maneuver battalion has completed hand-off and fielding of all materiel required by the Army's concept, soldiers are trained to standard, and required support is in place. In addition, Materiel Release of the FCS System of Systems (SoS), in accordance with the Army Release, Fielding and Transfer Program (AR 700-142) dated May 1, 1995, has been achieved. Boeing's required effort to support IOC is represented by this SDD Agreement and subsequent contracts.

11. The term "Integrated Product Team" or "IPT" refers to a multidisciplinary group of people who are collectively responsible for completing particular program objectives as described in their respective IPT Charter.

12. The term "IPT Leader" (LSI) and "IPT Co-leader" (Government) refers to the co-equal technical leaders of their respective IPT. Refer to Article IV, Management of the Program.

13. The term "Integrated Master Plan" or "IMP" refers to an event driven program plan, which organizes the work effort by establishing Program Events and associated Significant Accomplishments.

14. The term "Integrated Master Schedule" or "IMS" refers to an integrated schedule, of time-phased tasks, that supports the Program Events and Significant Accomplishments of the IMP.

15. The term "In-Process Review" or "IPR" refers to a predetermined agreed upon event to assess the status of program cost, schedule, and performance objectives.

16. The term "Integrated Product and Process Development" or "IPPD" refers to a management technique that simultaneously integrates all essential acquisition activities through the use of multidisciplinary teams to optimize the design, development, demonstration, evaluation, manufacturing and supportability process. IPPD facilitates meeting cost, schedule, performance, and supportability objectives from systems concept through production, including field support. One of the key tenets is multidisciplinary teamwork through IPTs.

17. The term "Advanced Collaborative Environment" or "ACE" refers to the shared data, tools, models, simulations, and the ability to access data and information based on logical business rules throughout the Future Combat Systems enterprise.

18. The term "Complementary Programs" means those items, data, software, programs or systems that are required to meet the functionality and performance of the FCS UA Increment I Capabilities Specification that are neither developed nor provided as part of the Lead System Integrator (LSI) effort, and any product that is needed to accomplish the SoS integration that will be provided through the Complementary Program related processes. The definition of Complementary Programs includes Associated Programs, which are those programs outside the UA that FCS must interface with. Complementary programs will require an exchange of hardware, software, information and/or collaborative interaction between the LSI and other Government agencies and contractors for design, integration, test, production planning or program planning purposes. Complementary Programs consist of property (including software and data) or materiel furnished to the LSI through LSI agreements with the specific contractors. Government Furnished Property (GFP) consists of property or material furnished to Boeing directly from the Government without oversight of the LSI. Non-Line of Sight Launch System and Intelligent Munitions System are identified in the ORD as FCS Core Programs but are considered Complementary Programs for the purposes of this Agreement.

19. The term "non-traditional defense contractor" means an entity that has not, for a period of at least one year prior to the date of the transaction (other than a contract, grant or cooperative agreement) for a prototype project under the authority of 10 USC 2371, Section 803 is entered into, or performed with respect to -
    a. Any contract that is subject to full coverage under the cost accounting standards prescribed pursuant to section 26 of the Office of Federal Procurement Policy Act (41 U.S.C. 422) and the regulations implementing such section; or
    b. Any other contract in excess of $500,000 to carry out prototype projects or to perform basic, applied, or advanced research projects for a Federal agency, that is subject to the Federal Acquisition Regulation.

20. The term UA "Board of Directors" refers to a group assembled at the discretion of the Program Executive Officer (PEO), Ground Combat Systems (GCS) consisting of Army and Office of Secretary of Defense (OSD) officials to include other PEOs, RDEC Directors, Army Materiel Command functional leaders, TRADOC, ATEC, DCMA, individuals with special expertise and LSI executive leadership to assist the PEO GCS in his responsibilities for planning, control and oversight to ensure achievement of key Program objectives.

21. The term "Program Generated Adjustment (PGA)" as referenced within the Agreement Articles, means Boeing is entitled to monetary and/or other consideration for Grants Officer-directed and/or mutually agreed upon changes to this Agreement. The Grants Officer, at its sole option, may direct that the modification implementing the adjustment (a) maintain the overall schedule and estimated cost by removing requirements from the Agreement that reduce cost and/or schedule by an amount equal to the increased cost and/or schedule caused by the event giving rise to the Program Generated Adjustment, and/or (b) increase estimated cost and/or schedule, as appropriate, to account for the impact of the change. Unless directed otherwise by the Grants Officer, any request by Boeing for a Program Generated Adjustment will maintain the overall schedule and estimated cost and include recommendations of statement of work requirements to be modified, reduced, or deleted in order to perform within the existing Agreement schedule and cost boundaries. Adjustments implemented under (a) above will not cause any revision to the amount of Fee available for this Agreement. Any

reference to an Equitable Adjustment under this Agreement in a FAR or DFARS clause is hereby replaced with the term "Program Generated Adjustment", as defined herein.

22. The term "Family of Systems (FoS)" refers to the FCS ORD definition of the FCS Family of Systems as consisting of advanced, networked air and ground based maneuver, maneuver support and sustainment systems that include manned and unmanned platforms and is networked via a C4ISR architecture, including networked communications, network operations, sensors, battle command systems, training, and manned and unmanned reconnaissance and surveillance capabilities.

23. The term "System of Systems" (SoS) refers to the FCS ORD definition of SoS as a network of systems integrated to perform one common mission, to include the networking of existing systems, systems already under development, and new systems to be developed to meet the needs of the Unit of Action."

24. The term "Full Operational Capability" (FOC) refers to the fielding of an FCS equipped UA able to effectively execute the O&O Plan.

25. The term "Terms and Conditions" refers to the terms and conditions of this Agreement, which are contained within the Articles and referenced clauses, unless formally modified by modification to the Agreement.

26. The term "Spiral In" refers to taking capabilities (currently outside of the FCS program) and inserting them into the FCS equipped future force.

27. The term "Spiral Out" refers to taking capabilities (currently inside of the FCS program) and inserting them into other programs to improve near term capabilities.

28. The term "Spiral Forward Systems" refers to the following FCS core systems: (1) Unmanned Aerial Vehicle (UAV) Class II, (2) Armed Robotic Vehicle (ARV)-Assault and ARV-Recon, (3) Loitering Attack Missile (LAM), (4) Intelligent Munitions System, (5) UAV Class III, (6) UAV Class IVb, and (7) FCS Maintenance and Recovery Vehicle (FMRV).

29. The terms "IPT Control Board (ICB)," "Configuration Control Board (CCB)" and "Program Configuration Control Board (PCCB)" are defined in the FCS Configuration and Data Management Plan (D786-10008-1) available on the ACE.

ARTICLE II: TERM

A. The Term of the Agreement

The performance period of this Agreement commences upon the Agreement Effective Date and continues for one hundred three (103) months. The Initial Production Decision (IPD) is estimated to be sixty six (66) months from date of award unless terminated earlier in accordance with the Limitation of Funds provision, Article VI, Obligation and Incremental Funding Schedule or the Termination provision, Article II. If all funds are expended prior to the end of the term, the parties have no obligation to continue performance. Articles in this Agreement, which by their express terms or by necessary implication, apply for periods of time other than as specified in this Article, must be given effect, notwithstanding this Article.

B. Termination Provisions

In the event of a termination of this Agreement, it is agreed that disposition of intellectual property developed under this Agreement shall be in accordance with provisions set forth in Article XVII, Patent Rights and XVIII, Data and Software Rights. The Government and Boeing will negotiate in good faith a reasonable and timely adjustment of all outstanding issues between the parties as a result of termination.

C. Termination Notification

1. Should the Government terminate work, or substantially reduce work under the Agreement worth twenty-five percent (25%) or more of the total Agreement amount, Boeing will provide appropriate notices, in accordance with Section 1372 of Pub. L. 103-160 and Section 824 of Pub. L. 104-201, (1) to all potentially affected employees or their official representatives; (2) to the State dislocated worker unit or entity designated by the State to carry out rapid response activities under section 134(a)(2)(A) of the Workforce Investment Act of 1998 (29 U.S.C. 2864(a)(2)(A)); (3) to the chief elected official of the unit of general local government within which the adverse effect may occur; and (4) to each first-tier subcontractor with a subcontract of $500,000 or more; and will require that each such subcontractor provide notice to each of its subcontractors with a subcontract of $100,000 or more and impose a similar notice and flow down requirement to subcontractors with subcontracts of $100,000 or more.

2. This notice to the employee shall have the same effect as a notice of termination to the employee for the purposes of determining whether such employee is eligible to participate in employment and training activities carried out under title I of the Workforce Investment Act of 1998 (29 USC secs. 2801 et seq. generally; for full classification, consult USC Service Tables volumes), except in a case in which the employer has specified that the termination of, or substantial reduction in, the contract is not likely to result in plant closure or mass layoff as defined in 29 USC 2101.

D. Lower Tier Agreements

Boeing shall notify its first-tier subcontractors with subcontracts valued at $500,000 or more and require them to include the notification requirement in subparagraph C. above to subcontractors with subcontracts valued at greater than $100,000 or more.

E. Extending the Term

The parties may extend, by mutual written agreement, the term of this Agreement if funding availability and opportunities reasonably warrant. Any extension shall be formalized through modification of the Agreement by the Grants Officer and the Boeing Contracts Manager.

F. The following FAR/DFARS clauses apply:

52.249-6	Termination (Cost-Reimbursement) (9/96) Tailoring: Except that disputes between the parties will be handled under this Agreement as identified in Article XV: Disputes.

ARTICLE III: DELIVERABLE SCHEDULE

A. Deliverable Schedule – Data and Software

1. Boeing shall submit or otherwise provide the deliverables (including Software) listed in Attachment 2, Deliverables List as part of its LSI responsibilities to support the SDD phase. Submittal of deliverables will be via the Advanced Collaborative Environment (ACE). Deliverables will be marked in accordance with Article XVIII, Data and Software Rights.

2. The ACE workflow will be the process used for approving data listed in Attachment 2 that requires approval (i.e., Block 8 contains an "A").
   a. Sixty (60) calendar days prior to its due date, the individual(s) who has the authority to approve the data for the Government will be identified. The Government will provide this information to Boeing who will enter it into the ACE workflow. At thirty (30) days prior to the deliverable due date, if this individual has not been identified, Boeing will notify the Grants Officer, or his designated representative, so that the Government may provide the name of the Government individual that has approval authority.
   b. Boeing will notify the Government approval official, via the ACE workflow process, that the deliverable is available for final review and approval. Twenty (20) calendar days after the Government approval official has received notification, unless otherwise specified in Attachment 2, the deliverable will be deemed approved by the Government if neither comments nor disapproval are received.

3. "Data" and "Software", as defined in Article XVIII, Data and Software Rights, which are day-to-day IPT products (such as technical assessment results, analysis, distributed product descriptions, trade studies, and plans) that are first generated in the performance of this Agreement and which are made available to the Government via the ACE, and which are not listed in Attachment 2, will be subject to Government Purpose Rights (GPR) whether or not marked with the GPR legend unless greater restrictions are applicable thereto as specified in Article XVIII,B.6.

B. Deliverable Schedule – Hardware

At the completion of the Agreement all system prototypes and SILs shall either become deliverables to the Government or the Government may decide to have them transferred to a subsequent follow-on production contract with Boeing at the Government's discretion. All such deliverables shall be F.O.B. Origin. Any residual property (prototypes, etc.) will vest and undergo disposition in accordance with Article XII, Government Furnished Equipment, Property, Information, Facilities, and Services.

C. SDD Completion

1. Performance of this Agreement shall be deemed to have been completed thirty (30) calendar days after the successful accomplishment of the IMP events and SOW requirements or upon termination in accordance with Article II, Term, subparagraph A. or subparagraph F. or Article VI, Obligation and Incremental Funding Schedule, subparagraph D. Refer to Article I, B., for SOW requirements.

2. This Agreement shall remain open, administratively, until the following actions at a minimum have been settled:
   a. Closeout of subcontracts;
   b. Disposition of Government Property and Plant Clearance actions;
   c. Disposition of Classified Material;
   d. Final Patent Report;

e. Final Modification Identified;
f. Final Audits Conducted;
g. Final Payment Made.

D. The following FAR/DFARS clauses apply:

52.246-9	Inspection of Research and Development (Short Form) (April 1984) Tailoring: Unless otherwise agreed, records of inspection work performed by Boeing will be posted to the ACE.

ARTICLE IV: MANAGEMENT OF THE PROGRAM

A. Program IPT Structure

1. The following IPTs are the initial IPTs for the SDD phase:
¦ Program Manager IPT (level I)
¦ Advanced Collaborative Environment (ACE) IPT (level II)
¦ Complementary Programs IPT (COM) IPT (level II)
¦ Force Development IPT (FDV) IPT (level II)
¦ Integrated Simulation and Test (IST) IPT (level II)
¦ Logistics Requirements & Readiness IPT (LOG) (level II)
¦ SoS Engineering & Integration (SEI) IPT (level II)
¦ C4ISR Systems Integration (C4I) IPT (level II)
¦ Spiral Development & Technology Planning (SDT) IPT (level II)
¦ Lethality Systems Integration (LET) IPT (level II)
¦ Manned Ground Vehicles (MGV) Systems Integration IPT (level II)
¦ Soldier Systems Integration (SLD) IPT (level II)
¦ Unmanned Aerial Vehicles (UAV) Systems Integration IPT (level II)
¦ Supplier Management & Procurement (SMP) IPT (level II)
¦ Training (TRN) IPT (level II)
¦ Unmanned Ground vehicles (UGV) Systems Integration IPT (level II)

B. Management and Program Structure

1. Boeing will structure its performance so as to facilitate appropriate span of control consistent with the SOW, WBS, IMP and IMS. The Program Manager, LSI exercises program management and system integration responsibilities to include technology insertion, risk management, life cycle cost, and program evolution through each of the Government acquisition milestones. For purposes of this Agreement any body, regardless of its title, i.e., "Working Group", "Integrated Design Team," will be referred to as an "IPT."

2. Boeing will use its Integrated Product and Process Development (IPPD) process centering on customer focus, multidisciplinary teamwork and total life cycle planning to facilitate the creation, staffing, and operations of the jointly led Integrated Product Teams (IPT). This collaborative working relationship helps to ensure successful execution of program plans, within cost, schedule, performance, and supportability objectives. The IPPD process will ensure effective participation, including PM, FCS and User groups such as Integrated Concept Teams (ICTs), Battle Labs and TRADOC System Managers (TSMs), in key performance trade decisions that impact operational capabilities.

3. The PM, FCS will ensure that all key Government stakeholders are officially represented on an IPT where appropriate.

4. The ACE shall be used for IPT collaboration, workflows and approvals for IPT work products and formal deliverables.

C. Board of Directors

The Board of Directors may be convened during program performance at the discretion of the PEO, GCS in order to discuss top-level issues affecting, or that may affect, the program. The Board, in their advisory

capacity, will provide to the PEO, GCS, as required, advice and counsel so that the PEO may fulfill their responsibilities for program planning, control and oversight to ensure key objectives are achieved.

D. IPT Structure

1. The FCS program will be managed and led through the Office of the Program Manager, co-chaired by both the PM, FCS and PM, LSI. Reporting to the Office of the Program Manager are level II IPTs (as listed in paragraph A), which shall be jointly established and chartered by the PM, FCS and the PM, LSI. Boeing will lead each IPT, regardless of IPT level, with the Government providing appropriate Co-leaders, unless the PM, FCS and the PM, LSI agree otherwise.

2. Supporting level II IPTs will be sub-IPTs, and Working Groups (WG) or other organizations, which will be referred to as level III IPTs. Sub-IPTs and Working Groups will be established by level II IPT leaders with concurrence of the level II IPT Co-leader.

3. Lower level IPTs (IV, V, VI, etc.) are not capped but must be structured and chartered in accordance with Boeing's IPPD process. The Government reserves the right to participate on these lower level IPTs and to co-lead with the concurrence of the lower level IPT leader.

4. Boeing shall provide administrative support and coordination of the day-to-day business activities for all IPTs.

5. Each IPT Charter shall be concurred in by IPT Leadership. Charters will contain goals from the Statement of Work, deliverable products and schedules, processes, responsibilities, authority and budget. Subcontractor and Government employees will participate in IPTs.

6. Boeing will require that each IPT has an:
   a. IPT Charter and Team Execution Plan (TEP): These documents define the purpose, responsibilities, membership and chain of authority for the IPT.
   b. Input into the IMP/IMS that establishes the products and resources for the allocated actions of the IPT.

E. Management Reserve

Use of the management reserve pool within this Agreement that was created from the difference between the competitive subcontracts' Final Proposal Revision versus Most Probable Cost ($662 million), and adjustments to MGV subcontract funding ($250 million), will be subject to PM, LSI and PM, FCS approval.

F. Government Member IPT Responsibilities

1. The Government may, in its sole discretion, appoint members to each IPT. Government members of the IPT are empowered by the PM, FCS to express their views and interests and are responsible to the PM, FCS for their actions. Government members of the IPT will report regularly and frequently to their home office, their Government team Co-leader, and the PM, FCS to ensure a common Government view is maintained for the execution of the program. The Program Management Office may provide IPT representatives that are Support Contractor employees under contract to support the Program Management Office. Support Contractor employees acting in this capacity shall have first signed a Proprietary Information Agreements (PIA) with Boeing or shall provide to the Boeing Contracts Manager a copy of an existing Government FCS Non-Disclosure Statement (NDS) prohibiting the unauthorized disclosure of Boeing proprietary information. A representative will be

assigned to each IPT to report potential cost and schedule impacts to the Grants Officer. Such representative may be responsible for reviewing input and providing support to multiple IPTs. The Boeing and Government members of the IPTs do not have authority to make decisions that would result in a change to the Agreement. All required changes to the Agreement will be documented, in writing, via Agreement modification.

2. The parties agree that Government members of an IPT do not have authority to, and therefore shall not, direct the efforts of Boeing subcontractors, regardless of tier.

G. IPT Issue Resolution

1. It is the intent of the parties that IPT actions will be taken as a result of consensus between the IPT Leader and IPT Co-leader. In the event consensus cannot be achieved, then the issue must be raised to the next level of the IPT structure in accordance with the following process:
   a. An inability to reach consensus between the IPT Leader and IPT Co-leader of the IPT will result in the decision of the IPT Leader being followed until such time as the issue is resolved. This decision can be reviewed by appeal to the IPT to which they report. The Government IPT Co-leader can initiate a request to review the decision or issue where consensus is not achieved.
   b. The IPT Co-leader will submit a request for review of that decision, in writing, to the leaders of the IPT to which they report. The request for review will (i) describe the decision to be reviewed; (ii) identify the reason for the disagreement; and (iii) identify an alternative decision.
   c. The higher-level IPT Leader and IPT Co-leader will determine if they can reach a consensus decision themselves or if they need to involve their team to resolve the issue. All decisions by a higher-level IPT will be made within two (2) business days following receipt of a request to review a decision in order to facilitate effective program performance.
   d. Any decision can be appealed to the next higher-level IPT. The new request for review will be handled in accordance with the procedure described in paragraphs (a) through (c).
   e. The final decision-making authority for an issue raised by this procedure will be the Program Manager, LSI. Any decision by the PM, LSI that does not sustain an appeal shall be immediately provided to PM, FCS. Should the PM, FCS disagree, he may request the Grants Officer provide appropriate direction to Boeing. In this case, if the direction results in an increase to Boeing's cost or an impact to schedule, then Boeing will be entitled to a Program Generated Adjustment. The Program Generated Adjustment (as defined in Article I: Scope of the Agreement, subparagraph F.) will be in accordance with Article XIII, Modifications.

2. Issue resolution by elevation to next higher level IPT is not the preferred method. IPTs are empowered and expected to quickly resolve issues within the scope of their Charter. However, if a Lead or Co-lead decides that the issue is at an impasse, and the issue impacts cost, schedule or performance; it, shall be brought to the attention of the Office of the Program Manager within one business week of reaching the impasse.

H. Earned Value Management System

1. In the performance of this Agreement, Boeing will use its Earned Value Management System (EVMS) as documented in the Integrated Performance Management Manual (IPM Manual) per Advance Agreement (AA) on The Boeing Company EVM System, dated October 31, 2000, between The Boeing Company and the Government regarding the Single Boeing Company EVMS. The IPM Manual has been recognized by the Government as complying with the criteria provided in the Interim Defense Acquisition Procedure "Operation of the Defense Acquisition System" Tab C, Table 3 Contract Reporting Requirements dated 30 October 02.

2. If Boeing's EVMS is not recognized by the cognizant Administrative Agreements Officer (AAO) as complying with EVMS criteria (or Boeing does not have an existing cost/schedule control system that has been accepted by the Department of Defense), Boeing shall apply the system to the Agreement and shall be prepared to demonstrate to the AAO that the EVMS complies with the EVMS criteria referenced in paragraph 1 of this clause.

3. The Government shall require Integrated Baseline Reviews (IBR) and subsequent baseline quality reviews (BQR). IBR reviews shall be scheduled as early as practicable and should be conducted within 120 calendar days after (1) Agreement award, (2) the exercise of significant agreement options, or (3) the incorporation of major modifications. The objective of IBRs and BQRs is for the Government and Boeing to jointly assess areas, such as Boeing's planning, to ensure (1) complete coverage of the statement of work, (2) logical scheduling of the work activities to include integration of all major performers' (subcontractors) detailed activities into a singular and fully integrated performance measurement baseline that adheres to the program master plan, (3) adequate resourcing, and (4) identification of inherent risks. BQRs will be the logical extension to the IBR to ensure continued integrity of the Performance Measurement Baseline, and will be conducted at periodic intervals when deemed needed by the Government or Boeing throughout the Agreement's period of performance.

4. Boeing agrees to provide access to all pertinent records and data requested by the Grants Officer, AAO or other duly authorized Government representative. Access is to permit Government surveillance to ensure that the EVMS complies, and continues to comply, with the criteria referenced in paragraph 1 of this section.

5. Boeing shall require all subcontractors with subcontracts worth more than $5M to manage their portion of the program using an approved earned value system. For subcontracts greater than $5M, the subcontractor will use a Cost/Schedule Status Report (C/SSR) to report their EVMS information and for all subcontracts in excess of $50M, the subcontractor will use a Cost Performance Report (CPR) to report their EVMS information

I. Office Space and Administrative Support

1. The following three paragraphs apply only to (1) temporary, short-term accommodations of the parties' personnel at Government and Boeing facilities, and (2) long-term accommodation of a limited number of Boeing personnel at TRADOC and other Government facilities as required in the Agreement Statement of Work paragraph 3.1.1.1.2 and listed in Attachment 7.
   a. Due to the highly collaborative nature of the business relationship, the parties mutually agree that each party may be required, or may have to from time-to-time, provide to the other party the use of office space, furniture, equipment, services, miscellaneous office supplies, administrative support, etc. for the mutual benefit of the FCS program. Attachment 7, Office Space and Administrative Support lists the Army installations and minimum requisite support to be provided to Boeing; and further lists the Boeing locations and minimum requisite support to be provided to the Government.
   b. Office space and administrative support will be provided on a no-charge-for-use basis.
   c. Either party may immediately report to the Grants Officer or Boeing Contracts Manager, as the case may be, regarding inadequacies, defective space, furniture, equipment, etc., or non-availability of support, together with a recommended plan for obtaining the required support, listed in Attachment 7, Office Space and Administrative Support. The parties, via the Grants Officer and Boeing Contracts Manager, mutually agree to resolve any support issues as expeditiously as possible.

2. The following paragraph applies to requests for long-term accommodations of Government personnel at Boeings' and its subcontractors' facilities.

The number of accommodations is baselined as shown in Attachment 7, and any requirements above that baseline will require business case analysis and PCCB/CCB and Grants Officer prior approval. Approved requests will entitle Boeing to a program generated adjustment. Any reduction below the baseline may entitle the Government to a downward adjustment. Office space and administrative support will be provided in accordance with Boeing and their subcontractors' disclosure statements.

J. Work Breakdown Structure (WBS)

The agreed to WBS is the primary structure by which work is organized and managed, and costs tracked under this Agreement. The WBS will be updated to reflect jointly agreed-to changes, additions or deletions due to subcontract and Complementary Program definition and changes in scope of work due to subsequent Agreement modifications. The baseline WBS for the Agreement is the SDD WBS Structure, document D786-10158-1, released Revision B, dated 18 Nov 03, and the SDD WBS Dictionary, D786-10157-1, released Revision B, dated 18 Nov 03.

K. Class IV Unmanned Aerial Vehicle

1. Boeing is subcontracting the FCS Class IV UAV effort to Northup Grumman (NG). The subcontract has not been awarded yet. The projected value is $130.8 million. This value was used for the purpose of definitizing this Agreement. The Class IV UAV effort under the NG subcontract consists of two key elements: (1) Design and Development and (2) Integration. In addition to this pending subcontract, NG is currently on contract with the US Navy for similar Design and Development effort for the Navy's version of a Class IV UAV. To enhance joint interoperability and reduce costs, the Army and Navy may establish a joint program.

2. In the event the joint program described in Paragraph K.1 occurs, the Grants Officer will request a proposal to decrease the effort associated with Class IV UAV.

ARTICLE V: IDENTIFICATION OF WORK TO BE PERFORMED

1. The primary Agreement Contract Line Item Numbers (CLINs) are CLIN 0001 and CLIN 0002. These CLINs are summarized below and details of the CLINs and their sub-CLINs are contained in Attachments 13 (CLIN 0001) and 14 (CLIN 0002). New CLINs (e.g., CLIN 2001) issued under the authority of CLIN 0002 are also detailed in Attachment 14.

2. CLIN 0001: Performance of the FCS Increment I SDD phase as described in this Agreement.

3. CLIN 0002
   a. CLIN 0002 is not subject to Article VII, Fee. The intent of CLIN 0002 is to cover work that is not, or could not have been, reasonably anticipated to be covered under CLIN 0001, to include any effort for spiraling technology into the current force. Grants Officer authorized Work Directives will originate from within the Government. If the Government decides not to pursue that work, the decision will have no impact on Boeing's performance under CLIN 0001. All work performed under this CLIN will be initiated, as determined by the Grants Officer, as work that is only feasibly accomplished by Boeing, by virtue of the work it is performing under CLIN 0001. The work performed will not be feasible to compete and must be appropriate to be performed under a Section 845 Other Transaction Agreement.
   b. Grants Officer-issued Work Directives will specify the (1) particular tasks, (2) deliverables, (3) schedule, (4) the funds available for the work, and may include (5) the number of man-hours reimbursable. All effort expended under a Work Directive will be reimbursed on a Cost-Plus-Fixed-Fee (CPFF) basis. The Limitation of Funds clause at Article VI, Obligation and Incremental Funding Schedule, subparagraph D. applies.
      (1) Upon receipt of a Grants Officer-issued Work Directive, Boeing will submit a proposal to perform the work described in the Work Directive to the Grants Officer within 20 business days from after the effective date of effort under the Work Directive. Boeing will begin effort under the Work Directive as directed by the Grants Officer as soon as the Agreement is modified to provide the specific tasks, value, schedule and funding for the Work Directive.
      (2) In the event work under a Grants Officer-issued Work Directive must begin in an expeditious manner (e.g., "hot start") a single composite hourly rate, derived from a single location chosen by Boeing in order to develop the composite hourly rate, consisting of $148.00/hour estimated cost and $22.00/hour of fixed fee for a total of $170.00/hour. The composite hourly rate will be derived from a broad mix of labor categories (e.g., engineering, logistics, administrative, managerial, subcontracted, etc.) established in advance for the purpose of initiating such "hot start" effort under a Work Directive, and may be updated annually. When a Work Directive is based on a composite rate, Boeing will submit a proposal to adjust the amount of funds for the Work Directive based on a proposed estimate of cost and fixed fee to be negotiated. Boeing is required to submit the proposal to the Grants Officer within 20 business days after the effective date of the Work Directive. Boeing is encouraged to build the proposals using Alpha teaming with the Government, including DCMA and DCAA as appropriate.

ARTICLE VI: OBLIGATION AND INCREMENTAL FUNDING SCHEDULE

A. Obligation

1. The Government's liability to make payments to Boeing is limited to only those funds obligated under this Agreement or by modification to the Agreement. The Grants Officer may obligate funds to the Agreement incrementally. In no case shall the Government's financial liability exceed the amount obligated under this Agreement. The Government funding amount is that amount indicated in the "Total Government Funds Obligated to Date:" block on the title page of this Agreement and subsequent modifications, and is also cited in Attachment 12 to the Agreement.

2. The total negotiated amount for CLIN 0001 is $14,780,000,000.00.

B. Incremental Funding

1. The Government will provide funds under this Agreement on an incremental basis pursuant to the "Limitation of Funds" clause below, and as described in this section B., hereunder. A portion of the total estimated Agreement amount shall be obligated on the date of award.

2. By signing this Agreement, the Government undertakes to plan for, and provide available funding when and as required, per the schedules below. It is estimated that the incremental amounts are sufficient for the performance of work in each of the cited periods. Boeing shall so plan and execute the work required by this Agreement so as to expend and/or commit funds compatible with the schedule set forth in subparagraph C. below.

3. The Government intends, but cannot guarantee, that it will fully fund this Agreement.

4. The Government may provide, at its discretion, such funds on an incremental basis within each fiscal year. If the Government cannot provide funding when required, written notice shall be provided to Boeing to that effect, in a timely fashion, along with a projection of the extent of delay, and/or shortfall in funding, as applicable. Boeing, in turn, will notify subcontractors and adjust subcontracts, as appropriate.

C. Funding Schedules

CLIN 0001:

Period	Amount	Cumulative Amount
FY03 - Award through 30 Sep 2003	$131,456,470.00	$131,456,470.00
FY04 - 1 Oct 2003 through 31 Oct 2004	$1,325,900,000.00	$1,457,356,470.00
FY05 - 1 Nov 2004 through 31 Oct 2005	$2,632,900,000.00	$4,090,256,470.00
FY06 - 1 Nov 2005 through 31 Oct 2006	$3,467,600,000.00	$7,557,856,470.00
FY07 - 1 Nov 2006 through 31 Oct 2007	$3,155,600,000.00	$10,713,456,470.00
FY08 - 1 Nov 2007 through 31 Oct 2008	$1,950,500,000.00	$12,663,956,470.00
FY09 - 1 Nov 2008 through 31 Oct 2009	$1,012,800,000.00	$13,676,756,470.00
FY10 - 1 Nov 2009 through 31 Oct 2010	$807,500,000.00	$14,484,256,470.00
FY11 - 1 Nov 2010 through 31 Oct 2011	$295,743,530.00	$14,780,000,000.00
FY12 - 1 Nov 2011 through completion	$-0-	$14,780,000,000.00
Total:	$14,780,000,000.00	$14,780,000,000.00

D. The following FAR/DFARS clauses apply:

52.232-22	Limitation of Funds (4/84)

ARTICLE VII: FEE

The fee arrangement for this Agreement includes a 10% fixed fee, as identified in the CLIN values, and a total of 5% incentive fee, to be earned in accordance with this Article. The Government shall pay Boeing a fixed fee, in accordance with Article IX, "Payment," for performing this Agreement. The incentive fee will target performance of selected program milestones and is distributed as follows:

.50%	PDR
.50%	CDR
1.75%	IPD 1
1.75%	IPD 2
.50%	SoS Integration & Verification

Each of the fixed incentives for events consists of three sub-events. The fee distribution for sub-events is as follows:

Performance	50%
Cost	20%
Schedule	30%

A. FIXED FEE

1. The Government shall pay Boeing a fixed fee, in accordance with Article IX, "Payment," for performing this Agreement, in the amounts specified below.

(a)	FY 04	$	115,105,739.00
(b)	FY 05	$	233,373,141.00
(c)	FY 06	$	309,183,508.00
(d)	FY 07	$	286,602,609.00
(e)	FY 08	$	157,005,115.00
(f)	FY 09	$	71,839,928.00
(g)	FY10	$	73,339,969.00
(h)	FY11	$	21,104,431.00
TOTAL:		$	1,267,554,440.00

B. PERFORMANCE/COST/SCHEDULE INCENTIVE FEE

1. The FCS SDD Incentive Fee is designed to address the unique partnership between the U.S. Army and Boeing, and acknowledge our shared destiny by providing strategic incentives for Boeing to successfully complete SDD, and move the program into production. The Incentive Fee addresses the complexities of this program, by establishing long-term incentives that allow for the parties to work closely together throughout SDD, while providing Boeing the opportunity to reap the benefits of successful transition into the production phase of the program.

2. The Incentive Fee also affirms the FCS partnership that is essential to program success, by promoting collaborative program execution and metrics, and recognizing the relationship of contributing industrial partners to a successful FCS program.

3. The parties to this Agreement acknowledge that key objectives of the SDD program are to prove out technologies and systems integration, and to move the program forward into production, at an

affordable cost, and on schedule. To this end the Government desires to incentivize Boeing for successfully meeting these objectives within certain performance, cost, and schedule constraints.

4. The parties further acknowledge that FCS is a dynamic program and subject to change, therefore, as a minimum, one year prior to the scheduled completion of an incentive fee event the Government and Boeing will reassess the criteria for each incentive fee event, to determine if it still has merit, requires alteration, or if additional criteria should be added. If the parties cannot reach mutual agreement, this determination will be subject to Article XV, Disputes.

5. Each incentive fee event listed below shall consist of various sub-events covering performance, cost, and schedule. Each sub-event is an all or none arrangement, in that any and all criteria within the sub-event must be met; is independent; and is not contingent upon other incentive fee events or sub-events.

6. All sub-events pertaining to Schedule identified in this clause are based on the dates located in the Acquisition Program Baseline (APB) (Incentive events One and Two), or the Integrated Master Schedule (IMS), (Incentive events Three, Four, and Five). Should an APB date corresponding to Events One and Two be revised, scheduled sub-event dates would change accordingly. Should Events Three, Four, and Five be incorporated into the APB, the APB scheduled dates shall control. If Boeing fails to successfully complete a sub-event in accordance with the related APB or IMS dates, any later change to these dates shall not be applied retroactively for purposes of determining fee for that sub-event.

7. Program Management Performance/Cost/Schedule – Incentive Event One

This first incentive fee event corresponds to measurable criteria associated with System of Systems Preliminary Design Review (PDR). The SoS PDR is conducted to confirm that the design approach (as an integrated composite of people, product, and process solutions) at the SoS level (system, subsystem, and component) satisfies the functional baseline; and demonstrates a particular focus on operation as a System of Systems network via C4ISR architecture within the context of the Unit of Action (UA). Risks are mitigated with closure plans for remaining risks demonstrating required progress. As a result of successful completion of the PDR, the "Design-to" baseline is approved. It will also authorize the project to proceed to detailed design.

The Government shall pay Boeing $31,688,000.00 for meeting Performance criteria, as follows:

a. Performance - PDR Completion. Successful performance for PDR completion is defined as the closeout of the final action(s) resulting from the formal PDR review, as designated in the Integrated Master Plan (IMP).

The Government shall pay Boeing $12,675,000.00 for meeting Cost criteria, as follows:

b. Cost - Management of Life Cycle Cost. The LSI's Cost as an Independent Variable (CAIV) management process, which addresses all phases of the FCS program, i.e., Development, Production and Support, as defined in the FCS LSI Life Cycle Cost Containment (LCCC) plan, CDRL A015, will be demonstrated to be in place and providing tangible results. Successful performance of the criteria will be demonstrated by the following:

(i) An Army approved System Life Cycle Cost Estimate has been developed, per CDRL A016.

(ii) Affordability/cost involvement in the Trade Study process; cost goals/targets considered in all significant design decisions.
(iii) The LSI has demonstrated the Affordability Initiative Process defined in the LCCC plan. This will be accomplished through specific examples of each of the five initiative categories defined in Section 5.0 of the LCC Containment Plan.
(iv) Cost targets will be sub-allocated to the IPTs at the levels defined in the LCCC plan.
(v) The Army will have received at least two quarterly reports from the LSI's CAIV tracking process.

The Government shall pay Boeing $19,013,000.00 for meeting Schedule criteria, as follows:

c. Schedule - The criteria in paragraphs (a) and (b) above are successfully completed within the schedule window defined in the Acquisition Program Baseline (APB).

8. Program Management Performance/Cost/Schedule – Incentive Event Two

This second incentive fee event corresponds to measurable criteria associated with the System of Systems Critical Design Review (CDR). The SoS CDR is conducted to demonstrate that the detailed designs (as an integrated composite of applicable people, product, and process solutions) at the SoS level (system, subsystem, and component) are complete, meet requirements, and the system and subsystem are ready for fabrication, coding, assembly, and integration of qualification units, and demonstrates a particular focus on operation as a System of Systems network via C4ISR architecture within the context of the UA. As a result of successful completion of the SoS CDR, the "Build-to" baseline, production, and verification plans are approved. Approved drawings are released and authorized for fabrication. Completion also authorizes coding of deliverable software and system qualification testing and integration. All open issues should be resolved with closure actions and schedules.

The Government shall pay Boeing $31,688,000 for meeting Performance criteria, as follows:

a. Performance - CDR Completion. Successful performance for CDR completion is defined as the closeout of the final action resulting from the formal CDR review, as designated in the Integrated Master Plan (IMP).

The Government shall pay Boeing $12,675,000.00 for meeting Cost criteria, as follows:

b. Cost - Management of Life Cycle Cost. The LSI's Cost as an Independent Variable (CAIV) management process, which addresses all phases of the FCS program, i.e., Development, Production and Support, as defined in the FCS LSI Life Cycle Cost Containment (LCCC) plan, CDRL A015, will be demonstrated to be in place and providing tangible results. Successful performance of the criteria will be demonstrated by the following:

(i) Affordability/cost involvement in the Trade Study process; cost goals/targets considered in all significant design decisions.
(ii) The LSI has demonstrated the Affordability Initiative Process defined in the LCCC plan. This will be accomplished through specific examples of each of the five initiative categories defined in Section 5.0 of the LCC Containment Plan.

The Government shall pay Boeing $19,013,000.00 for meeting Schedule criteria, as follows:

c. Schedule - The criteria in paragraphs (a) and (b), above are successfully completed within the schedule window defined in the APB.

9. Program Management Performance/Cost/Schedule – Incentive Event Three

This third incentive fee event corresponds to Initial Production Decision One (IPD 1). The objective of IPD 1 is to obtain a favorable production decision for the following FCS platforms: Infantry Carrier Vehicle (ICV), Manned Combat System (MCS), Non-Line of Sight - Cannon (NLOS-C), Command and Control Vehicle (C2V), and Unmanned Aerial Vehicle (UAV). Data from System Development and Demonstration testing will be used to support the IPD1, and assure that the system demonstrates a particular focus on operation as a System of Systems network via C4ISR architecture within the context of the UA.

The Government shall pay Boeing $110,908,000.00 for meeting Performance criteria, as follows:

a. Performance – An FCS design that demonstrates to the IPD1 decision authority that the FCS is ready for the initiation of production.

The Government shall pay Boeing $44,363,000.00 for meeting Cost criteria, as follows:

b. Cost - Management of Life Cycle Cost. The LSI's Cost as an Independent Variable (CAIV) management process, which addresses all phases of the FCS program, i.e., Development, Production and Support, as defined in the FCS LSI Life Cycle Cost Containment (LCCC) plan, CDRL A015, will be demonstrated to be in place and providing tangible results. Successful performance of the criteria will be demonstrated by the following:

(i) Affordability/cost involvement in the Trade Study process; cost goals/targets considered in all significant design decisions.
(ii) The LSI has demonstrated the Affordability Initiative Process defined in the LCCC plan. This will be accomplished through specific examples of each of the five initiative categories defined in Section 5.0 of the LCC Containment Plan.

The Government shall pay Boeing $66,545,000.00 for meeting Schedule criteria, as follows:

c. Schedule - The criteria in paragraphs (a) and (b), above are successfully completed within the schedule window defined in the IMS (See paragraph 6 above).

10. Program Management Performance/Cost/Schedule - Incentive Event Four

This fourth incentive fee event corresponds to measurable criteria associated with Initial Production Decision Two (IPD2). The objective of IPD2 is to obtain a favorable production decision for the following FCS platforms: Reconnaissance and Surveillance Vehicle (RSV), Non-Line of Sight - Mortar (NLOS-M), Medical Vehicle (MV) and all Unmanned Ground Vehicles. Data from System Development and Demonstration testing will be used to support the IPD2, and assure that the system demonstrates a particular focus on operation as a System of Systems network via C4ISR architecture within the context of the UA.

The Government shall pay Boeing $110,908,000.00 for meeting Performance criteria, as follows:

a. Performance – An FCS design that demonstrates to the IPD 2 decision authority that the FCS is ready for the initiation of production.

The Government shall pay Boeing $44,363,000.00 for meeting Cost criteria, as follows:

b.(1) Cost - Management of Life Cycle Cost. The LSI's Cost as an Independent Variable (CAIV) management process, which addresses all phases of the FCS program, i.e., Development, Production and Support, as defined in the FCS LSI Life Cycle Cost Containment (LCCC) plan, CDRL A015, will be demonstrated to be in place and providing tangible results. Successful performance of the criteria will be demonstrated by the following:

(i) Affordability/cost involvement in the Trade Study process; cost goals/targets considered in all significant design decisions.
(ii) The LSI has demonstrated the Affordability Initiative Process defined in the LCCC plan. This will be accomplished through specific examples of each of the five initiative categories defined in Section 5.0 of the LCC Containment Plan.

b.(2) CAIV criteria. The total Future Combat Systems (less Non-Line of Sight Launch System) recurring production costs that are incurred in the support of IOC are at or below the Army estimated position (the goal, as stated in the LCCC plan). This goal will be updated at major milestones to include PDR and CDR, with input from Boeing). The assumptions, definition of recurring production cost, and process for review and possible updates related to this goal are contained within the FCS Life Cycle Cost Containment Plan, CDRL A015. Successful achievement of this goal will be determined by extracting and summing the recurring production costs from the production contracts signed after both IPDs are complete and then comparing this total to the above goal.

The Government shall pay Boeing $66,545,000.00 for meeting Schedule criteria, as follows:

c. Schedule - The criteria in paragraphs (a) and (b) are successfully completed within the schedule window defined in the IMS (See paragraph 6 above).

11. Program Management Performance/Cost/Schedule - Incentive Event Five

This fifth incentive fee event corresponds to measurable criteria associated with the System of Systems Integration and Verification phase 5.1 and System of Systems Integration and Verification complete, with a particular focus on operation as a System of Systems network via C4ISR architecture within the context of the UA.

The Government shall pay Boeing $31,688,000.00 for meeting Performance criteria, as follows:

a. Performance - System of Systems Integration and Verification phase 5.1 and System of Systems Integration and Verification complete. Successful completion of this criterion is demonstrated by meeting the significant accomplishments designated in the IMP.

The Government shall pay Boeing $12,675,000.00 for meeting Cost criteria, as follows:

b.(1) Cost - Management of Life Cycle Cost. The LSI's Cost as an Independent Variable (CAIV) management process, which addresses all phases of the FCS program, i.e., Development, Production and Support, as defined in the FCS LSI Life Cycle Cost Containment (LCCC) plan, CDRL A015, will be demonstrated to be in place and providing tangible results. Successful performance of the criteria will be demonstrated by the following:

(i) Affordability/cost involvement in the Trade Study process; cost goals/targets considered in all significant design decisions.

(ii) The LSI has demonstrated the Affordability Initiative Process defined in the LCCC plan. This will be accomplished through specific examples of each of the five initiative categories defined Section 5.0 of the LCC Containment Plan.

b.(2) CAIV criteria.

The total Future Combat Systems (less Non-Line of Sight, Launch System) recurring production costs that are incurred in the support of FOC are at or below the Army estimated position. This goal will be updated at major milestones to include PDR and CDR, with input from Boeing. Successful achievement will be determined by extracting and summing the recurring production costs from the first three production contracts signed after both IPDs and LUT 3 are complete, and then comparing this total to the above goal.

Additionally, the total Future Combat Systems (less Non-Line of Sight, Launch System) Average Unit Procurement Cost (AUPC) for the 15 UAs of Increment I must be at or below the Army estimate identified in accordance with the Army Cost Analysis Manual, which will be reviewed at major milestones to include PDR and CDR, with input from Boeing. Successful achievement will be determined by comparing the government's AUPC estimate, as of award of the third production contract, to the Army AUPC estimate identified in accordance with the Army Cost Analysis Manual.

The assumptions, definition of recurring production cost and the AUPC, and a process for review and possible updates are contained within the FCS Life Cycle Cost Containment Plan, CDRL A015.

The Government shall pay Boeing $19,013,000.00 for meeting Schedule criteria, as follows:

c. Schedule - The criteria in paragraph (a) and (b), above are successfully within the schedule window defined in the IMS (See paragraph 6 above).

12. Within thirty (30) days of successful completion of an incentive event, the Government will issue an Agreement modification authorizing payment of the incentive fee. Boeing may submit a voucher for the incentive fee immediately upon receipt of this modification from the Grants Officer authorizing payment.

13. In the event an incentive fee is not earned, the fee amount is not subject to carry over to following incentive periods. Any unearned fee may be used in any way that the Government determines is in its best interest.

14. During the performance of this Agreement, the parties may mutually agree to reallocate any incentive fee associated with future events. This reallocation may be made to acquire additional performance under this Agreement, or to acquire FCS effort under another contractual instrument, if the funding is appropriate for the effort involved.

ARTICLE VIII: MAKE/BUY, COMPETITION AND DIRECTED SUBCONTRACTS

A. Make/Buy

1. The Government reserves the right to participate in all program decisions, to include Make/Buy, competitive selection decisions, and if considered in the program's interest to direct placement of subcontracts. Any decision by the Government that results in an increase to Boeing's cost or an impact to schedule for performance, will entitle Boeing to a Program Generated Adjustment (as defined in Article I: Scope of the Agreement, subparagraph F) in accordance with Article XIII, Modifications. While the Government will generally not interfere with Boeing's internal processes, the Government reserves the right to disapprove any Make/Buy decision under Boeing's processes regarding systems, subsystems or components. Government approval includes, but is not limited to, all tactical and/or prototype FCS hardware and software at all levels except modeling and simulation.

2. The Army Acquisition Executive (AAE), or his designee, shall approve all Make/Buy decisions for FCS related hardware or software at the system or subsystem level.

3. The PM, FCS, or designee, shall have approval of the Make/Buy decisions for all lower level items. However, lower level decisions made by the Boeing IPT Leader, if agreed to by the IPT Co-leader, will require no additional approval. If agreement is not obtained at the IPT level, then the process at Article IV, subparagraph G. shall apply.

4. Procurement of the Systems of System – Common Operating Environment (SoSCOE) software is subject to the following process:

   Boeing has been granted approval by the Army Acquisition Executive to manage and control the SoSCOE, with the following conditions:
   a. SoSCOE shall be developed as Open System Architecture.
   b. Boeing shall not introduce any proprietary components unless explicitly approved by the Government. Each component will be reviewed within the SoSCOE sub-IPT and, if necessary, to introduce a proprietary component, then Government concurrence is required to proceed.
   c. The Government shall have approval of all Make/Buy components of SoSCOE. The process to achieve that approval is defined in the process flow diagram titled, "SoSCOE Make/Buy Process" posted on ACE and incorporated by reference.
   d. Boeing shall develop and submit for Government approval critical interface definitions.
   e. Boeing shall pursue aggressive risk management and mitigation for SoSCOE.
   f. Boeing will lead a working group or sub-IPT consisting of itself, industrial partners, and the Government in defining the following:
      (1) The SoSCOE Architecture and Component Partitioning;
      (2) SoSCOE standards and ICDs;
      (3) SoSCOE API specifications and compliance tests;
      (4) Managing the component competition, as required;
      (5) Component acceptance testing and SoSCOE integration;
      (6) Critical interface definitions;
      (7) This group will be chartered and be an ongoing effort throughout this phase.

B. Competition

1. Boeing is authorized to use best commercial practices under this Agreement. If in Boeing's judgment FCS program goals may be jeopardized, then relief of flow down provisions shall be identified, in writing, to the Grants Officer via the Boeing Contracts Manager. The Grants Officer shall approve,

or disapprove, any relief from normal flow down requirements within 10 business days from receipt of request. If the Grants Officer does not either approve, or disapprove, Boeing's request within ten (10) business days, Boeing's request shall be deemed to have been approved.

2. During performance under the CTD Agreement, MDA972-02-9-0005, Boeing developed, and delivered to the Government, a best value competitive process to select major systems and subsystems, to include access to all source selection data, which the Government approved under the CTD Agreement. The Government and Boeing mutually agree that Boeing will follow the approved competitive process plan during performance of the SDD Agreement. Boeing shall have the right to subcontract for engineering and consulting services that assist it in its role as LSI, without prior Government approval.

C. Directed Subcontracts

In the event the Government disagrees with a selection made by Boeing as the result of a competition, the Government may direct the subcontract award. Also, if existing technologies, systems and major subsystems already in development, by or for the Government, represent in the Government's view the best approach to achieving capability in the Operational Requirements Document (ORD), the Grants Officer may direct their use and Boeing will not be required to compete that item. Any decision by the Government that requires Boeing to use a directed subcontractor that results in an increase to Boeing's cost or an impact to schedule for performance, will entitle Boeing to a Program Generated Adjustment (as defined in Article I: Scope of the Agreement, subparagraph F.) in accordance with Article XIII, Modifications. Directing a subcontract may only be authorized by the Grants Officer. Attachment 9, Directed Subcontracts, lists those directed subcontracts.

D. Competitive Subcontract Safeguards

Boeing shall establish written procedures to assure that Boeing has no unfair competitive advantage in conducting FCS subcontract competitions. Boeing shall require all subcontractors involved in the source selection for competitive FCS subcontracts whose circumstances might create an actual or perceived unfair competitive advantage to incorporate appropriate protection procedures.

E. The following FAR/DFARS clauses apply:

52.244-6	Subcontracts for Commercial Items (4/03)

ARTICLE IX: PAYMENT AND PAYMENT RELATED ITEMS

A. Payment

(Paragraph A.1 was applicable only to the definitization period from 30 May 03 through 26 Nov 03. This language is retained to document the historic record.)

1. Subsequent to definitization, scheduled for 180 days after award, the overall reimbursement structure of this Agreement will be Cost-Plus-Award-Fee (CPAF), for CLIN 0001, and Cost-Plus-Fixed-Fee (CPFF), for CLIN 0002. Prior to definitization, CLIN 0001 provides for cost plus base and incentive fee. The incentive fee for CLIN 0001 will be paid provisionally as described in Article I, B. In consideration for performing Agreement activities, Boeing shall voucher and receive Government payments, subject to the "Limitation of Funds" clause (e.g., Boeing must notify the Government when costs expected to be incurred in the next 60 days, when added to all previously incurred costs, will exceed 75% of the total amount so far allotted to the Agreement by the Government), for all allowable incurred costs, in accordance with this Article and, subsequent to definitization, Article VII, Fee, as applicable.

2. The overall Agreement reimbursement structure after definitization will be Cost-Plus-Fixed/Incentive-Fee (CPFF/IF), for CLIN 0001, and Cost-Plus-Fixed-Fee (CPFF), for CLIN 0002 and its related CLINs, (e.g. 2001). In consideration for performing Agreement activities, Boeing shall submit vouchers and receive Government payments, subject to the "Limitation of Funds" clause (e.g., Boeing must notify the Government when costs expected to be incurred in the next 60 days, when added to all previously incurred costs, will exceed 75% of the total amount so far allotted to the Agreement by the Government), for all allowable incurred costs, in accordance with this Article and, subsequent to definitization, Article VII, Fee, as applicable.

3. Boeing shall submit a consolidated voucher for all applicable CLINs (e.g.; 0001, 2001, 2002, etc.) within a payment period.

4. The DCMA Administrative Agreements Officer (AAO) will ensure DFAS payments for each voucher under CLIN 0001, CLIN 0002 and its related CLINs (e.g., 2001) are correctly disbursed from the appropriate ACRN account.

5. Boeing shall use the Standard Form 1034, public voucher, for purposes of reimbursement.

B. CLIN 0001

(Paragraphs B.1 and B.2 were applicable only to the definitization period from 30 May 03 through 26 Nov 03. This language is retained to document the historic record.)

1. For CLIN 0001, Boeing shall voucher at Cost and applicable Base Fee. Calculation of Base Fee will be based upon the ratio of cumulative costs incurred, to date, to the total estimated costs.

2. For CLIN 0001, Boeing shall voucher the Incentive Fee on a pro-rata basis over the 180 days in accordance with Article I, B. At the completion of an Incentive Fee element, Boeing is authorized to voucher the balance of the fee associated with that element not previously vouchered.

3. Post definitization, Cost and applicable Fixed Fee and earned Incentive Fee shall be invoiced as a consolidated voucher. The voucher shall discretely identify Cost and applicable Fixed Fee and Incentive Fee. Calculation of Fixed Fee will be based upon the ratio of cumulative costs incurred, to

date, to the total estimated costs. Calculation of Incentive Fee shall be as described in Article VII, Fee. Calculation of Fee amounts shall be explained within the voucher.

4. Boeing vouchers will identify sub-CLIN and the appropriate ACRN using an allocation methodology of applying oldest money first.

C. CLIN 0002

1. For CLIN 0002 and its related CLINs (e.g., 2001, 2002, etc.), Boeing shall submit a consolidated voucher at Cost and applicable Fixed Fee. Calculation of Fixed Fee will be based upon the ratio of cumulative costs incurred, to date, to the total estimated costs. The voucher shall discretely identify Cost and applicable Fixed Fee.

2. Boeing vouchers will identify CLIN and the appropriate ACRN. The Government agrees to assist Boeing in identifying costs, by appropriate ACRN, by providing the requisite information with each Work Directive. Requisite information to be provided by Work Directive includes at a minimum (1) Work Directive Number, (2) corresponding CLIN and (3) obligated funding amount.

D. Voucher Content

1. For any given voucher, the Costs claimed for reimbursement shall be consistent with the accounting standards cited in Article X, Financial Management, subparagraph B.

2. The following information will be included on each voucher:
   a. Boeing name and address
   b. Voucher date, number and time period covered by the voucher
   c. Agreement number
   d. Amount claimed (*see Note for (d)*
   e. Taxpayer Identification Number, if required
   f. EFT banking information, if required
   g. Payment Office
   h. CLIN and/or sub-CLIN as appropriate
   i. 2-digit ACRN

Note for (d): Supporting cost details to substantiate the amount claimed, if not provided within the voucher itself, must be traceable to the voucher and available upon request to authorized Government representatives (Grants Officer, DCAA, DCMA, etc.).

3. The information above for each voucher is provided so that the Government Payment Office, Defense Finance and Accounting Service (DFAS) will not have to independently assign or determine the CLIN/sub-CLIN and ACRN from which funds will be disbursed.

E. Payment Process

1. Boeing may submit interim vouchers biweekly to DFAS identified below. Electronic voucher submittal is encouraged, provided that the format and transmission method are mutually acceptable, and otherwise consistent with this Article.

2. DFAS shall pay vouchers as submitted by Boeing.

3. Payment will be made by the following DFAS office within fourteen (14) calendar days following receipt of a proper payment request:

   Defense Finance and Accounting Service (DFAS) -- Columbus Center (HQ0339)
   DFAS-CO/West Entitlement Operations
   P.O. Box 182381
   Columbus, OH 43218-2381

4. Boeing will provide a copy of all vouchers to both the DCMA AAO and the Grants Officer as routine distribution.

5. Final (completion-type) vouchers for any discretely priced CLIN or sub-CLIN shall be submitted to DCMA for review, approval, and forwarding to the payment office.

F. Accounting/Appropriation Data for Payment Office

1. To ease financial administration and in order to provide a single reference location, all accounting and appropriation data, including Accounting Classification Reference Numbers (ACRN), Accounting/Appropriation Data for Payment Office, etc., is located in Attachment 12, Accounting/Appropriation Data for Payment Office.

2. Attachment 12 also contains cumulative totals of the financial obligations made under, and cumulative funds allotted to, this Agreement.

G. Payment-Related Clauses

1. Interest: All amounts that become payable by Boeing to the Government under this Agreement shall bear simple interest from the date due until paid, unless paid within thirty (30) days of becoming due. The interest rate shall be the interest rate established by the Secretary of the Treasury (as provided in 41 USC 611), which is applicable to the period in which the amount becomes due, and then at the rate applicable for each six (6)-month period as fixed by the Secretary until the amount is paid. Interest charges may be reduced following the procedures in FAR 32.614-2.

2. Payments by Electronic Funds Transfer – Central Contractor Registration (CCR): All payments by the Government under this Agreement shall be made by electronic funds transfer (EFT) using Boeing's EFT information contained within the CCR database. If Boeing's EFT information is incorrect, then the Government need not make payment to Boeing until correct EFT information is entered into the CCR database; and any voucher request under this Agreement shall be deemed not to be a proper voucher for the purpose of prompt payment. If the Government makes an uncompleted or erroneous transfer because it uses Boeing's EFT information incorrectly, the Government is responsible for making a correct payment, including any prompt payment penalty due, and recovering any erroneously directed funds; if Boeing is responsible for an uncompleted or erroneous transfer because Boeing's EFT information was incorrect (or if Boeing revised the information within thirty (30) days of Government release of the EFT payment transaction instruction to the Federal Reserve System) and the funds are no longer under the control of the Government payment office, Boeing is responsible for recovery of any erroneously directed funds. If the funds remain under the control of the Government payment office, the Government shall not make payment until such time as Boeing's EFT information is corrected within the CCR database. Government payments shall be deemed to have been made in a timely manner in accordance with the prompt payment terms of the Agreement if, in the EFT payment transaction instruction to the Federal Reserve System, the date specified for payment is on or before the prompt payment due date, provided the specified payment date is a valid

date under the rules of the Federal Reserve System. Boeing may assign the proceeds of this Agreement provided Boeing requires as a condition of any such assignment that the assignee register in the CCR database and be paid by EFT in accordance with this Agreement. The Government is not liable for errors resulting from changes to EFT information made by Boeing's financial agent. The Government shall provide Boeing the available payment information suitable for transmission as of the date of release of the EFT instruction to the Federal Reserve System.

3. Required Central Contractor Registration: Boeing is responsible for the accuracy and completeness of the data within the Central Contractor Registration (CCR) database, and for any liability resulting from the Government's reliance on inaccurate or incomplete data. Boeing is required to confirm on an annual basis that its information in the CCR database is accurate and complete.

4. Certification of Final Indirect Costs: (a) For the purposes of this certificate, Boeing and its subcontractors, will submit the standard FAR certificate of final indirect costs to the cognizant Government activity. If a subcontractor is not otherwise required to submit the standard FAR certificate for final indirect costs, then it shall submit the certificate below; (b) Subcontractors (as applicable) shall -- (1) certify, in below format, any proposal to establish or modify final indirect cost rates; and (2) have the certificate signed by an individual of the subcontractor's organization at a level no lower than a vice president or chief financial officer of the business segment of the subcontractor that submits the proposal. (c) Failure to execute and submit the certification described may result in final indirect cost rates being unilaterally established by the Grants Officer or Administrative Agreements Officer. The Grants Officer may request a copy of Boeing's, or its subcontractors, Certificate of Final Indirect Costs from the cognizant Government agency assigned.

Certificate of Final Indirect Costs

This is to certify that I have reviewed this proposal to establish final indirect cost rates and to the best of my knowledge and belief, all costs included in this proposal (identify proposal and date) to establish final indirect cost rates for (identify period covered by rate) are allowable in accordance with the cost principles of the Federal Acquisition Regulation (FAR) and its supplements, or in the case of a non-traditional defense contractor in accordance with Generally Accepted Accounting Principles (GAAP), applicable to the contracts to which the final indirect cost rates apply.

Firm: _____
Signature: _____
Name of Certifying Official: _____
Title: _____
Date of Execution: _____

5. Assignment of Claims: Boeing may assign its right to be paid amounts due or to become due as a result of the performance of this contract to a bank, trust company, or other financing institution, upon receipt of approval from the Grants Officer, which will not be unreasonably withheld.

I. The following FAR/DFARS clauses apply:

52.216-7	Allowable Cost and Payment (12/02) Tailoring: In paragraph (a)(1), the "authorized representative" for receipt of vouchers will be designated by the Grants Officer at the Start of Work meeting. In paragraph (a)(3), the fill-in is the "14th" day. Also, paragraphs (a)(3) and (g)

	notwithstanding, in the event electronic direct billing authorization is withdrawn by the Defense Contract Audit Agency (DCAA), any Government pre-payment audit will be performed by the cognizant Government agency of a specific Boeing payment request within five (5) business days following their receipt of the payment request, unless the Grants Officer authorizes an extension. The Government reserves the right to perform post-payment audits of Boeing vouchers at its discretion. In addition, the paragraphs (d)(4) and (d)(6) references to the Disputes clause, refer to Article XV: Disputes, under this Agreement. The Government intends that audit or other management oversight activities not interrupt or delay payment. The normal approach will be to allow payments to proceed while collaboratively working together to determine and correct any issue. If in the event that a systemic or process issue is considered to be of a magnitude that it would create the unacceptable situation of providing advance payments, then the Grants Officer may, at his unilateral discretion, delay or reduce payments until the issue is corrected.
52.216-8	Fixed Fee (3/97) Tailoring: This clause applies to CLIN 0001, 0002 and its related CLINs.
52.232-25	Prompt Payment (2/02) Alt 1 (2/02) Tailoring: Paragraphs a.B.ii.2.A to D is not applicable to this Agreement.

ARTICLE X: FINANCIAL MANAGEMENT

A. Government Audit of Records

1. As used in this Article, "records" include books, documents, accounting procedures and practices, and other data, regardless of the type and regardless of whether such items are in written form, in the form of computer data, or in any other form.

2. Boeing's relevant financial records are subject to examination or audit on behalf of TACOM by the Government for a period not to exceed three (3) years after final payment has been made under this Agreement. Boeing shall provide the Grants Officer, or Government designee, direct access to sufficient records and information to ensure full accountability for all funds paid, or proposed to be paid to it, under this Agreement. The Grants Officer will require annual audits of Boeing and its cost-reimbursement based subcontracts. A final audit will be conducted at the end of the SDD program; the final audit shall not duplicate or re-examine the results of prior year audits except to verify that any outstanding issues or newly determined issues have been resolved. Such audit, examination, or access shall be performed during business hours on business days, upon prior written notice, and shall be subject to the security requirements of the audited party. This article shall not be construed to require any party, or entity, or subordinate element of such party or entity that participates in the performance of this Agreement, to create or maintain any record that is not otherwise maintained in the ordinary course of business or pursuant to a provision of law.

3. The Comptroller General shall have access to the records described in this Article until three (3) years after the date of final payment is made by the Government under this Agreement. Boeing shall flow down this provision as indicated at subparagraph C. below. The Comptroller General, at its discretion, shall have access to and the right to examine records of any party to the Agreement or any entity that participates in the performance of this Agreement that directly pertain to, and involve transactions relating to, the Agreement. Excepted from this requirement is any party to this Agreement or any entity that participates in the performance of the Agreement, or any subordinate element of such party or entity, that has not entered into any other agreement (contract, grant, cooperative agreement, or "other transaction") that provides for audit access by a Government entity in the year prior to the date of the Agreement. The only records of a party, other entity, or subordinate element referred to in this paragraph that the Comptroller General may examine are records of the same type as the records the Government has had the right to examine under the audit clauses of the previous agreements that were entered into by that particular party, entity, or subordinate element. This clause shall not be construed to require any party, or entity, or subordinate element of such party or entity that participates in the performance of this Agreement, to create or maintain any record that is not otherwise maintained in the ordinary course of business or pursuant to a provision of law.

B. Accounting Practices

1. Prior to the submission of vouchers to the Government, Boeing shall have and maintain an accounting system: which complies with Generally Accepted Accounting Principles (GAAP) or Cost Accounting Standards (CAS), whichever is applicable to Boeing under this Agreement; and which also complies with the requirements of this Agreement; and which further ensures that appropriate arrangements have been made for receiving, distributing and accounting for Federal funds.
   a. The contract cost principles in 48 CFR 31 and 48 CFR 231 (in the Federal Acquisition Regulation (FAR) and Defense Federal Acquisition Regulation Supplement (DFARS) shall apply to determine the allowability of costs charged to the Government.

b. Further, the allowability of any expenditures incurred in the performance of any subcontract award will be subject to those Federal cost principles or accounting standards applicable to the particular type of organization concerned (e.g., full-, modified-, or no CAS coverage).

2. Boeing agrees to an adjustment of the Agreement cost allowance, as appropriate, if Boeing or a subcontractor fails to comply with this Article, subparagraph B.1, or fails to follow an applicable cost accounting practice consistently and such failure results in any increased costs paid by the United States Government. Such adjustment shall provide for no more than the recovery of the increased costs to the United States, together with the interest rate established by the Secretary of the Treasury as provided in 41 USC 611 for such period, from the time the payment by the Government was made to the time the adjustment is effected.

3. Within thirty (30) calendar days after award of each CAS-covered subcontract at the first and second tiers only, Boeing will submit the following information to Boeing's cognizant AAO, copy furnished to the Grants Officer, for transmittal to the subcontractor's cognizant Contract Administration Office:

(a) Subcontract number;
(b) Subcontractor's name and address;
(c) Dollar amount and date of award;
(d) Cognizant IPT;*
(e) Name of Contractor making the award.

* Requirement is effective from 26 Nov 03.

C. Lower Tier Agreements

Boeing shall include in all negotiated subcontracts which Boeing enters into the substance of this Article, except as described in paragraph B.3 above, and shall require such inclusion in all other subcontracts, at any tier, including the obligation to comply with all Federal cost principles, if applicable, in effect on the subcontractor's award date.

D. The following FAR/DFARS clauses apply:

52.215-15	Pension Adjustments and Asset Reversions (12/98)
52.215-18	Revision or Adjustment of Plans for Postretirement Benefits (PRB) Other than Pensions (10/97)

ARTICLE XI: SECURITY

A. Program Security

This program shall be provided protection as required by the appropriate Security requirements required by DD Form 254, Contract Security Classification Specification, (see Attachment 3). The highest level of classification involved in the performance of this SDD Agreement is Top Secret. It is the Government's position that the highest security classification of any deliverable as a result of this Agreement is Top Secret. This Agreement document is unclassified.

B. Protection and Disclosure of Information – Public Release

1. Except for FCS Program information previously approved for public release by the Government under the FCS Program, Boeing shall not release any information, outside of Boeing and its subcontractors, to include Associate Contractors, at any tier, regarding the work performed under this Agreement without first obtaining approval for Public Release as identified in the DD254. All such requests will first go to the Grants Officer who, after appropriate review, will make a determination of the suitability to disseminate program information publicly. Subcontractors and Associate Contractors shall submit such requests through Boeing.

2. Boeing will use computer and communications equipment that meets the requirements identified in the DD254 or Program Security Guide.

C. Lower Tier Agreements

Boeing shall include subparagraph B. above in all subcontracts which Boeing enters and shall require such inclusion in all other subcontracts, regardless of tier.

D. Shipment of Controlled Materials

Unless otherwise directed by the Grants Officer, Boeing shall coordinate and send advance notice of shipment to the consignee transportation officer for all shipments of classified material, protected sensitive, and protected controlled material; explosives and poisons, classes A and B; radioactive materials requiring the use of a III bar label; or when a truckload/carload shipment of supplies weighing 20,000 pounds or more, or a shipment of less weight that occupies the full visible capacity of a railway car or motor vehicle, is given to any carrier for transportation to a domestic destination (other than a port for export).

E. The following FAR/DFARS clauses apply:

252.204-7005	Oral Attestation of Security Responsibilities (11/01)

ARTICLE XII: GOVERNMENT-FURNISHED EQUIPMENT, PROPERTY, INFORMATION, FACILITIES, AND SERVICES

A. General

1. The Government-furnished equipment, property, information, facilities and services collectively referred to as GFX are identified in Attachment 4 to this Agreement. The items that the Government intends to provide from Complementary Programs are listed in Attachment 4a, and become GFX upon execution of the individual MOAs. The items that the Government intends to provide from Technology Transfer Agreements (TTAs) are listed in Attachment 4b, and become GFX upon execution of the individual TTAs. The parties agree that all GFX provided under this Agreement shall be provided rent free for the period of performance specified. All costs for shipping GFX are the responsibility of Boeing and may be charged to the Agreement per Boeings' disclosed practices.

2. The Government's responsibility for providing GFX is limited to $681 million. The Government will use these funds to provide ammunition, unique instrumentation, infrastructure, ATEC Test Integration Network (ATIN), test engineering support, and test range support, as outlined in Attachment 4, subject to the above funding limitation. Should GFX expenses exceed $681 million, the parties will use the CAIV trade process to address any increased GFX requirements. Any items proposed for deletion from the GFX Attachments as a result of the Government limitation of responsibility shall be reviewed at appropriate CCB level to verify the need for the item. For any request for relief submitted under FAR 52.245-5 (a)(4), Boeing must demonstrate that the GFX in question is (1) not suitable for its original intended purpose, and (2) the GFX is critical to FCS; "critical" being defined as necessary to ensure that program performance and schedule goals are achieved.

B. GFX Added During SDD Performance

The parties mutually agree to work together to identify and obtain, in a timely fashion, GFX requirements identified after Agreement award. The parties further agree to use the process described in general terms below to obtain additional GFX requirements for the benefit of the FCS program:

a. Identify requirements on GFX request form (available in ACE)
b. Validate requirement via IPT Leader and Co-leader signature
c. Obtain cognizant Government owner concurrence to provide items*
d. Forward request to the Grants Officer for review/approval/notification to Boeing and periodic bilateral incorporation into the Agreement

* Where Boeing can identify the Government official with responsibility for the desired GFX, Boeing may request rent-free use or transfer of accountability for such GFX directly from the responsible official. In this instance, Boeing will furnish the Grants Officer a copy of any authorization granted. In those instances where Boeing cannot identify the responsible Government official, or cannot obtain rent-free use, Boeing may submit the request to the Grants Officer. The Grants Officer will then determine the Government official responsible for the desired GFX and request rent-free use on Boeing's behalf, or arrange to provide consideration to the GFX owner.

C. MOAs Incorporated by Reference

This Agreement incorporates by reference any and all MOAs governing release of Software listed on Attachment 4 by a Government agency and concurred in by Boeing that are executed by the PEO, GCS and the Government agency for use in the FCS Program.

D. The following FAR/DFARS clauses apply:

52.245-5	Government Property (Cost-Reimbursement, Time-and-Material or Labor-Hour Contracts) (1/86)--(DoD - Deviation, per DAR Tracking Number 99-O0008, 13 July 99, until FAR is revised)(6/03) Tailoring: (1) Property records will be accessible via the ACE; annual reporting of DOD accountable property will be submitted on DD Form 1662. (2) Paragraph (h), change from "the Changes clause" to "Article XIII: Modifications of this Agreement."

ARTICLE XIII: MODIFICATIONS

A. General

1. At any time during the term of the Agreement progress or results may indicate that a change in the Agreement would be beneficial to program objectives. Recommendations for modifications, including justifications to support any changes to the Agreement, will be documented in a letter and submitted by Boeing to the Grants Officer Representative with a copy to the Grants Officer. This documentation letter will detail the (1) technical, (2) chronological, and (3) financial impact of the proposed modification. All of the available Agreement funds will be obligated to the Agreement. Therefore, any requested modification must also identify what work is being modified, reduced or deleted to accommodate the proposed change. Any subsequent modification is subject to mutual agreement, in writing, signed by authorized representatives of both parties. The Government is not obligated to pay for any proposed change until the Agreement is formally revised by the Grants Officer and the Boeing Contracts Manager and made part of this Agreement. Boeing is not obligated to initiate work for any proposed change until such time as a bilateral modification is executed by representatives of both parties. The Government will reimburse Boeing for proposal preparation costs for proposed changes resulting from either Program Generated Adjustments as defined in Article I or CLIN 0002 proposals as defined in Article V, in accordance with Boeing's approved disclosure statement.

2. Modifications, other than those identified in subparagraph 3 below, will normally be bilateral. In the event the Grants Officer directs a unilateral modification, within the general scope of the Agreement, Boeing will identify a ceiling price for the impact of the directed effort and will have the opportunity to propose a Program Generated Adjustment (as defined in Article I: Scope of the Agreement, subparagraph F.) in accordance with Article XIII, Modifications. In the event the modification involves new work, the Grants Officer will advise Boeing of the availability of additional funding for the new work or if the new work needs to be accomplished within existing funding constraints. If the Grants Officer determines a Program Generated Adjustment is warranted, the Grants Officer and Boeing Contracts Manager will, in a timely fashion, modify the Agreement accordingly. Boeing will proceed with the directed work based on the Grants Officer direction, provided there are adequate funds on the Agreement to provide for the required work. If Boeing disagrees with the Grants Officer's determination of whether or not a Program Generated Adjustment is warranted, then the determination will be subject to Article XV, Disputes.

3. For minor or administrative Agreement modifications (e.g., changes in the paying office or appropriation data, incremental funding actions, changes to Government or Boeing personnel identified in the Agreement, etc.) no signature is required by Boeing. Modifications will not be required for changes to controlled documents provided the affected IPT Leader and Co-leader have concurred in or approved the change document in writing.

4. The Government will be responsible for effecting all modifications to this Agreement.

B. Cost or Pricing Information in Support of Modifications

1. The cost or pricing information submitted by Boeing prior to Agreement award did not require Truth in Negotiations Act (TINA) certification. The same level of cost or pricing detail must be provided for deletions or reductions of work as is provided for changes or additions. Cost or pricing information submitted after Agreement award to support Agreement modifications shall likewise not require TINA certification.

2. The kind, level of detail, and format of cost or pricing information to support Agreement modifications is identified below:
   a. If the price is controlled under law by periodic rulings, reviews, or similar actions of a governmental body, attach a copy of the controlling document, unless it was previously submitted to the contracting office.
   b. For a commercial item, Boeing shall provide, at a minimum, information on prices at which the same item or similar items have previously been sold, leased or licensed or has been offered for sale, lease or license that is adequate for evaluating the reasonableness of the price of the modification. Such information may include:
      (1) For catalog items, a copy of or identification of the catalog and its date, or the appropriate pages for the offered items, or a statement that the catalog is on file in the buying office to which the proposal is being submitted. Provide a copy or describe current discount policies and price lists (published or unpublished), e.g., wholesale, original equipment manufacturer, or reseller. Also explain the basis of each offered price and its relationship to the established catalog price, including how the proposed price relates to the price of recent sales in quantities similar to the proposed quantities.
      (2) For market-priced items, the source and date or period of the market quotation or other basis for market price, the base amount, and applicable discounts. In addition, describe the nature of the market.
   c. Boeing grants the Grants Officer, or an authorized Government representative, the right to examine, at any time the books, records, documents, or other directly pertinent records to verify the reasonableness of price for (a) or (b) above. For items priced using catalog or market prices, or law or regulation, access does not extend to cost or profit information or other data relevant solely to Boeing's determination of the prices to be offered in the catalog or marketplace.
   d. If neither a. nor b. applies, then Boeing shall submit data in accordance with Table 15-2 of FAR 15.408. This data shall not require TINA certification.
   e. When the proposal is submitted to the Grants Officer, also submit one copy each to the AAO and the cognizant DCAA auditor.

C. The following FAR/DFARS clauses apply:

52.242-15	Stop-Work Order (8/89) Alternate I (4/84) Tailoring: In paragraph (b)(2), change from "30 days" to "90 days".
52.243-7	Notification of Changes (4/84) Tailoring: The "Notice" under paragraph (b) shall be sent directly to the Grants Officer with a copy furnished to the AAO. Also, the negotiable fill-ins for notification and response timeframes in paragraphs (b) and (d) respectively are hereby defined as "15 calendar days" in both of the two fill-ins.

ARTICLE XIV: AGREEMENT ADMINISTRATION

1. The senior program executives are as identified below:

BOEING: Dennis A. Muilenburg, Program Manager

GOVERNMENT: BG Donald F. Schenk, PM, Future Combat Systems
Roland Asoklis, Deputy PM, Future Combat Systems
COL(P) John Bartley, Deputy for Program Integration

2. Administrative and contractual matters under this Agreement shall be referred to the following representatives of the parties:

BOEING: Sean Garcia, Director, Contracts, Pricing & Export-FCS, 314-232-2077
Maureen S. Johnson, Deputy Director, Contracts, Pricing & Export-FCS, 714-372-0500

TACOM: Pamela Demeulenaere, Grants Officer, 586-574-7251
Fred Bultman, Alternate Grants Officer, 586- 574-7861

3. Items delegated to the Administrative Agreements Officer shall be referred to:

DCMA Boeing St. Louis: Pamela S. Burton, AAO, 314-233-9105
Matthew Danter, DCMA FCS Lead Systems Integrator, 314-233-6859

4. Each party may change its representatives named in this Article by written notification to the other party. The Government will effect the change as stated in Article XIII, Modifications.

5. The Grants Officer may designate one or more technical or administrative representatives to act on the Grants Officer's behalf, within specified areas of governmental responsibility and/or for specific functions. Each such designation shall be in writing, and a copy provided to the Boeing Contracts Manager and DCMA. Revocation may be made at any time. Under no circumstances will such representative have authority to make any commitments or changes to this Agreement, or act beyond the specified scope of their authority.

ARTICLE XV: DISPUTES

A. General

The parties shall communicate with one another in good faith and in a timely and cooperative manner when raising issues under this Article.

B. Dispute Resolution Procedures

1. Any disagreement, claim or dispute between TACOM and Boeing concerning questions of fact or law arising from or in connection with this Agreement, and, whether or not involving an alleged breach of this Agreement, may be raised only under this Article.

2. Whenever disputes, disagreements, or misunderstandings arise, the parties shall attempt to resolve the issue(s) involved by discussion and mutual agreement as soon as practicable. In no event shall a dispute, disagreement or misunderstanding which arose more than twelve (12) months prior to the notification made under subparagraph B.3 of this Article constitute the basis for relief under this Article unless the Head of Contracting Activity (HCA) for TACOM, in the interests of justice, waives this requirement.

3. Failing resolution by mutual agreement, the aggrieved party, either the Government or Boeing as the case may be, shall document the dispute, disagreement, or misunderstanding by notifying the other party (through the TACOM Grants Officer or Boeing Contracts Manager, as the case may be) in writing of the relevant facts, identify unresolved issues, and specify the clarification or remedy sought. Within five (5) business days after providing notice to the other party, the aggrieved party may, in writing, request a formal decision by the Grants Officer, TACOM, who shall, in turn, render a decision within forty-five (45) calendar days from receipt of the aggrieved party's case. At the request of the aggrieved party, the Principal Assistant Responsible for Contracting (PARC) and a senior executive designated by Boeing will review the Grants Officer's decision. The request for review of the Grants Officer's decision that is in dispute will be made within thirty (30) calendar days after the Grants Officer's decision has been issued. The TACOM PARC, and Boeing's senior executive shall conduct a review of the matter(s) in dispute and render a decision in writing within thirty (30) calendar days of receipt of a request to review. Any such joint decision is final and binding. In the event a joint decision cannot be reached within thirty (30) calendar days, the TACOM PARC will issue a final decision. Such decision is not subject to further administrative review and, to the extent permitted by law, shall be final and binding. If Boeing disagrees with such decision, Boeing may bring a claim in a court of competent jurisdiction as authorized by 28 USC 1491.

4. Pending final dispute resolution as provided within this Article, Boeing shall otherwise proceed diligently with performance of the Agreement and comply with any directions of the Grants Officer. If an Agreement modification is appropriate in order to implement a final binding dispute decision, the modification will address how the issue of Interest is to be handled, if applicable, and may include appropriate liability release language that represents a full and complete settlement of the issue with no further recourse.

ARTICLE XVI: INTELLECTUAL PROPERTY RIGHTS

Notwithstanding inspection and acceptance by the Government of data or software delivered under this Agreement, and notwithstanding any provision of this Agreement concerning the conclusiveness of acceptance, the Government shall have the right to require Boeing to correct (or update) any such data or software found deficient (or outdated), within three (3) years of the delivery of such data or software. Such correction, or update, shall be at Government expense funded under this Agreement or, if the Agreement is closed, funded under a separate contractual instrument.

ARTICLE XVII: PATENT RIGHTS

The following FAR/DFARS clauses apply:

52.227-1	Authorization and Consent (7/95) Alternate I (4/84)
52.227-2	Notice and Assistance Regarding Patent and Copyright Infringement (8/96)
52.227-10	Filing of Patent Applications-Classified Subject Matter (4/84)
52.227-12	Patent Rights - Retention by the Contractor (Long Form) (1/97)

ARTICLE XVIII: DATA AND SOFTWARE RIGHTS

A. Definitions

1. "Data", as used in this Article, means recorded information, regardless of form or method of recording, of a scientific or technical nature, which includes but is not limited to, trade secrets and mask works. The term does not include financial, administrative, cost, pricing or management information and does not include subject inventions included under Article XVII, Patent Rights.

2. "Software", as used in this Article, means computer software documentation, computer programs, object code listings, source code, and related materials that would enable the software to be reproduced, recreated or recompiled.

3. "Government Purpose Rights", as used in this Article, means rights to use, modify, duplicate, release, perform, display, or disclose Data or Software, in whole or in part and in any manner, for Government purposes only, and to have or permit others to do so for Government purposes only. Government purposes include competitive procurements but do not include any commercial purpose or use. The Government Purpose Rights granted herein are without expiration.

4. "Limited Rights", as used in this Article, means the rights to use, modify, reproduce, release, perform, display, or disclose Data, in whole or in part, within the Government. The Government may not, without the written permission of the party asserting Limited Rights, release or disclose the Data outside the Government, use the Data for manufacture, or authorize the Data to be used by another party, except that the Government may reproduce, release or disclose such Data or authorize the use or reproduction of the Data by persons outside the Government if reproduction, release, disclosure, or use is:
   a. Necessary for emergency repair and overhaul; or
   b. A release or disclosure of Data (other than detailed manufacturing or process data) to, or use of such Data by, a foreign government that is in the interest of the Government and is required for evaluation or informational purposes;
   c. Subject to a prohibition on the further reproduction, release, disclosure, or use of the Data; and
   d. Boeing or its subcontractors asserting the restriction is notified of such reproduction, release, disclosure, or use.
   e. However, such express limitation shall not apply to any Government Systems Engineering and Technical Assistance (SETA) contractors under contract to the Government for the purpose of providing systems engineering and technical assistance services and/or administrative support services; provided that, the parties to whom these Data are disclosed shall have a legitimate need-to-know, and are under contract subject to DFARS clause 252.227-7025 entitled, "Limitations on the Use or Disclosure of Government-Furnished Information Marked with Restrictive Legends".

5 "Special License Rights", as used in this Article, applies only to Data or Software developed at private expense prior to the date, or outside the scope, of this Agreement. This designation may not apply to a required deliverable under this Agreement unless agreed to by the Government, e.g., for commercial Software or Data pertaining to commercial items. If the Government requests the Data or Software, asserted by Boeing, or a subcontractor, as subject to Special License Rights, a specific written agreement identifying use, purpose and access must be executed prior to the Data or Software being provided to the Government and made a part of Attachment 6, Data or Software to be Furnished with Restrictions. If the Government and Boeing, or a subcontractor, do not agree to satisfactory terms, then the Data or Software shall not be provided to the Government.

6. "Restricted Rights", as used in this Article, applies only to noncommercial Software and means the Government's rights to --
   a. Use a computer program with one computer at one time. The program may not be accessed by more than one terminal or central processing unit or time shared unless otherwise permitted by this Agreement;
   b. Transfer a computer program to another Government agency without the further permission of Boeing if the transferor destroys all copies of the program and related computer software documentation in its possession and notifies the licensor of the transfer. Transferred programs remain subject to the provisions of this Article;
   c. Make the minimum number of copies of the Software required for safekeeping (archive), backup, or modification purposes;
   d. Modify Software provided that the Government may --
      (A) Use the modified Software only as provided in this Article; and
      (B) Not release or disclose the modified Software except as provided in this Article;
   e. Permit contractors or subcontractors performing service contracts (as defined by 37.101 of the Federal Acquisition Regulation) in support of this or a related contract to use Software to diagnose and correct deficiencies in a computer program, to modify Software to enable a computer program to be combined with, adapted to, or merged with other computer programs or when necessary to respond to urgent tactical situations, provided that --
      (1) The Government notifies the party that has granted Restricted Rights that a release or disclosure to particular contractors or subcontractors was made;
      (2) Such contractors or subcontractors are subject to the use and non-disclosure agreement at 227.7103-7 of the Defense Federal Acquisition Regulation Supplement (DFARS) or are Government contractors receiving access to the Software for performance of a Government contract that contains the clause at DFARS 252.227-7025, "Limitations on the Use or Disclosure of Government-Furnished Information Marked with Restrictive Legends";
      (3) The Government shall not permit the recipient to decompile, disassemble, or reverse engineer the Software, or use Software decompiled, disassembled, or reverse engineered by the Government pursuant to paragraph(iv) of this clause, for any other purpose; and
      (4) Such use is subject to the limitation in paragraph 6.(i) of this Article; and

   f. Permit contractors or subcontractors performing emergency repairs or overhaul of items or components of items procured under this or a related contract to use the Software when necessary to perform the repairs or overhaul, or to modify the Software to reflect the repairs or overhaul made, provided that --
      (1) The intended recipient is subject to the use and non-disclosure agreement at DFARS 227.7103-7 or is a Government contractor receiving access to the software for performance of a Government contract that contains the clause at DFARS 252.227-7025, "Limitations on the Use or Disclosure of Government-Furnished Information Marked with Restrictive Legends"; and
      (2) The Government shall not permit the recipient to decompile, disassemble, or reverse engineer the software, or use software decompiled, disassembled, or reverse engineered by the Government pursuant to this clause, for any other purpose.
7. "Unlimited rights", as used in this Article, means rights to use, modify, reproduce, perform, display, release, or disclose Data or Software, in any manner, and for any purpose whatsoever, and to have or authorize others to do so.

B. Allocation of Principal Rights

1. This Agreement shall be performed with Government funding.

2. Boeing agrees to retain and maintain in good condition until three (3) years after completion or termination of this Agreement, all Data or Software developed under this Agreement necessary to achieve Practical application (as defined in Article XVII, Patent Rights) of deliverable items, components and processes. In the event of exercise of the Government's March-in Rights as set forth under Article XVII, Patent Rights or subparagraph B.3 of this Article, Boeing agrees, upon written request from the Government to deliver to the Government, Data and Software developed under this Agreement necessary to achieve Practical application of deliverable items, components and processes within sixty (60) calendar days from the date of the written request. The Government agrees to pay the costs of delivering such Data and Software and agrees these delivery costs are not covered by payments to Boeing under this Agreement.

3. Boeing agrees that, with respect to Data and Software developed under this Agreement necessary to achieve Practical application of deliverable items, components and processes, TACOM has the right to require Boeing to deliver all such Data and Software to TACOM in accordance with its reasonable directions if TACOM determines that:
   a. Such action is necessary because Boeing or assignee has not taken effective steps within three (3) years after completion or termination of this Agreement, consistent with the intent of this Agreement, to achieve Practical application of deliverable items, components and processes;
   b. Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by Boeing, assignee, or their licensees within three (3) years after completion or termination of this Agreement; or
   c. Such action is necessary to meet requirements for public use and such requirements are not reasonably satisfied by Boeing, assignee, or licensees within three (3) years after completion or termination of this Agreement.

4. With respect to all Data and Software delivered under this Agreement, the Government will subject to subparagraph B.6, receive Government Purpose Rights, or if subparagraph B.5 applies, Unlimited Rights. In the event of the Government's exercise of its right under subparagraph B.3 of this Article, the Government shall, subject to subparagraph B.6, receive Government Purpose Rights in all such Data or Software. With respect to all Data and Software previously delivered to the Government with Government Purpose Rights, the Government shall receive those same rights for the Data or Software.

5. The Government shall have Unlimited Rights in Data or Software that are:

   a. Otherwise publicly available or have been released or disclosed by Boeing, or a subcontractor, without restrictions on further use, release or disclosure, other than a release or disclosure resulting from the sale, transfer, or other assignment of interest in the Data or Software to another party or the sale or transfer of some or all of a business entity or its assets to another party;
   b. Data or Software in which the Government has obtained Unlimited Rights under another Government Agreement/contract or as a result of negotiations; or
   c. Data or Software delivered to the Government, under this or any other Government Agreement/contract or subcontract thereunder, with --
      (1) Government Purpose Rights or Limited Rights and the restrictive condition(s) has/have expired; or
      (2) Government Purpose Rights and Boeing's, or a subcontractor's, exclusive right to use such Data for commercial purposes has expired.

6. Attachment 6, Data or Software to be Furnished with Restrictions, lists Data or Software of Boeing, and its subcontractors, which will be furnished to the Government with rights that are more restrictive than Government Purpose Rights. This list is subject to the subparagraph D. of this Article. Any

subcontract that includes Data or Software to be included in Attachment 6 must be approved by the Government prior to Boeing entering into the subcontract. The list may be amended, subject to approval of the Government, based upon new information or inadvertent omissions. The cognizant IPT Leader and IPT Co-leader must first approve any such requested amendment to Attachment 6. Amendments to Attachment 6 will be considered approved if the Government, via the Grants Officer, does not disapprove, in writing, within five (5) business days for Software that will not be incorporated into FCS systems and within ten (10) business days for Software that will be incorporated into FCS systems following receipt of the requested amendment. No Data or Software shall be delivered under this Agreement with rights, which are more restrictive than Government Purpose Rights unless included in Attachment 6. Boeing and TACOM mutually agree to formally modify the subject Agreement at certain block points; vice each time a request of this nature is submitted to TACOM for approval, in order to facilitate efficient Agreement performance.

7. Except for Data subject to Unlimited Rights or Special License Rights, the Government shall have Limited Rights in Data required to be delivered to the Government under this Agreement and are listed in Attachment 6:
   a. Pertaining to items, components, or processes developed exclusively at private expense and marked with the Limited Rights legend prescribed in this Article, or
   b. Created exclusively at private expense in the performance of an Agreement/contract that does not require the development, manufacture, construction, or production of items, components, or processes.

8. Except for Software subject to Unlimited Rights or Special License Rights, the Government shall have Restricted Rights in Software required to be delivered to the Government under this Agreement that were developed exclusively at private expense and are listed in Attachment 6.

9. The Government will receive a copyright license in any Data or Software item deliverables that are copyrighted. The license will permit the Government to copy, modify, and/or distribute the Data or Software item deliverables in any manner consistent with the restrictions in this Article on the Government's use and disclosure of the Data or Software in the deliverables.

10. Limited or proprietary information disclosed to Boeing or its subcontractors shall be controlled and protected in accordance with a Proprietary Information Agreement (PIA) or other appropriate instrument acceptable to the parties involved with the disclosure.

C. Marking of Data or Software

1. Any Data or Software delivered or provided pursuant to subparagraph B.4 above shall be marked with the following legend:

   "GOVERNMENT PURPOSE RIGHTS"

   "The Government is granted Government Purpose Rights to this Data or Software. Use, duplication, or disclosure is subject to the restrictions as stated in Agreement DAAE07-03-9-F001 between The Boeing Company and the Government."

2. Any Data or Software delivered or provided pursuant to subparagraph B.5 above shall be unmarked or marked with the following legend:

"UNLIMITED RIGHTS"

"The Government is granted Unlimited Rights to this Data or Software. Use, duplication, or disclosure is subject to the restrictions as stated in Agreement DAAE07-03-9-F001 between The Boeing Company and the Government."

3. Any Data or Software delivered or provided pursuant to subparagraphs B.7, B.8, or A.5 shall be marked with one of the following legends:

(Refer to B.7) **"LIMITED RIGHTS"**

"The Government is granted Limited Rights to this Data. Use, duplication, or disclosure is subject to the restrictions as stated in Agreement DAAE07-03-9-F001 between The Boeing Company and the Government."

(Refer to B.8) **"RESTRICTED RIGHTS"**

"The Government is granted Restricted Rights to this Software. Use, duplication, or disclosure is subject to the restrictions as stated in Agreement DAAE07-03-9-F001 between The Boeing Company and the Government."

(Refer to A.5) **"SPECIAL LICENSE RIGHTS"**

"The Government is granted Special License Rights to this Data or Software. Use, duplication, or disclosure is subject to the restrictions of a Special Data or Software Use Agreement as provided for in Agreement DAAE07-03-9-F001 between The Boeing Company and the Government."

D. Validation of Asserted Restrictions – Data and Software

1. Boeing shall maintain records sufficient to justify the validity of any markings that assert restrictions on Data or Software delivered or required to be delivered under this Agreement and shall be prepared to furnish to the Grants Officer a written justification for such restrictive markings in response to a request by the Grants Officer for such information.

2. Boeing agrees that the Grants Officer may transact matters under this clause directly with subcontractors or suppliers, at any tier, who assert restrictions on Data or Software. Neither this clause, nor any action taken by the Government under this clause, creates or implies privity of contract between the Government and Boeing's subcontractors or suppliers.

3. Requests for Information:
   a. The Grant's Officer may request Boeing to provide sufficient information to evaluate Boeing's asserted restrictions.
   b. Based upon the information provided the Grants Officer may --
      (1) If Boeing (or the applicable subcontractor) agrees that the asserted restriction is not valid;
         (a) Strike or correct the unjustified marking at Boeing's expense; or
         (b) Return the Data or Software to Boeing for correction at Boeing's expense, or
      (2) Conclude that the asserted restriction is appropriate for this Agreement, and notify Boeing in writing.
   c. Boeing's failure to provide a timely response to a Grants Officer's request for information shall constitute reasonable grounds for questioning the validity of an asserted restriction.

4. Government Right to Challenge and Validate Asserted Restrictions:
   a. The Government has the right to challenge any restrictions asserted by Boeing on Data or Software delivered or provided for system or hardware performance under this Agreement. Except for Data or Software that is publicly available, or has been furnished to the Government

without restrictions, or has been otherwise made available without restrictions, the Government may exercise this right only within the later of three (3) years after the date(s) the Data or Software is delivered or provided to the Government, or three (3) years following final payment.

b. Only a Grants Officer's final decision or a court of competent jurisdiction that sustain the validity of an asserted restriction constitute validation of the restriction.

5. Challenge Procedures:
   a. A challenge must be in writing and shall --
      (1) State the specific grounds for challenging the asserted restriction;
      (2) Require Boeing to respond within sixty (60) days; and
      (3) Require Boeing to provide justification for the assertion, in sufficient detail to enable the Grants Officer to determine the validity of the asserted restrictions.
   b. The Grants Officer shall extend the time for response if Boeing submits a written request with appropriate justification.
   c. The Grants Officer may request additional supporting documentation if, in the Grants Officer's opinion, Boeing's explanation does not provide sufficient evidence to justify the validity of the asserted restrictions.
   d. Notwithstanding challenge by the Grants Officer, the parties may agree on the disposition of an asserted restriction at any time prior to a Grants Officer's final decision or, if Boeing has appealed that decision at any time prior to a decision by a court of competent jurisdiction.
   e. If Boeing fails to respond to the Grants Officer's request for information, the Grants Officer shall issue a final decision, in accordance with Artiele XV,: Disputes of this Agreement, pertaining to the validity of the asserted restriction.
   f. If the Grants Officer determines that the asserted restriction has --
      (1) Not been justified, the Grants Officer shall issue promptly a final decision subject to Article XV, Disputes denying the validity of the asserted restriction; or
      (2) Been justified, the Grants Officer shall issue promptly a final decision validating the asserted restriction.

6. The Government agrees, notwithstanding a Grants Officer final decision denying validity of the asserted restriction, that it will honor the asserted restriction for a period of ninety (90) days, after which if there is no formal challenge to the decision, the Government may strike the restriction, remove the legends and there is no liability incurred by this action.

E. Lower Tier Agreements

Boeing shall include this Article, suitably modified to identify the parties, in all subcontracts regardless of tier, including Boeing business units, who will be furnishing Data or Software to be provided to the Government in the performance of this Agreement. Boeing will not, as part of the consideration for awarding the subcontract, obtain rights in the subcontractor's Data or Software.

ARTICLE XIX: FOREIGN ACCESS TO TECHNOLOGY

A. Definition

1. "Foreign Firm or Institution" means a firm or institution organized or existing under the laws of a country other than the United States, its territories, or possessions. The term includes, for purposes of this Agreement, any agency or instrumentality of a foreign government; and firms, institutions or business organizations that are owned or substantially controlled by foreign governments, firms, institutions, or individuals.

2. "Foreign Person" means any natural person who is not a lawful permanent resident as defined by 8 U.S.C. 1101(a)(20) or who is not a protected individual as defined by 8 U.S.C. 1324b(a)(3). It also means any foreign corporation, business association, partnership, trust, society or any other entity or group that is not incorporated or organized to do business in the United States, as well as international organizations, foreign governments and any agency or subdivision of foreign governments (e.g., diplomatic missions).

B. Export Compliance

1. Boeing shall comply with all U.S. export control laws and regulations, including the International Traffic in Arms Regulations (ITAR), 22 CFR Parts 120 through 130, and the Export Administration Regulations (EAR), 15 CFR Parts 730 through 799, in the performance of this Agreement.

2. Pursuant to ITAR §125.4(b)(3), Boeing may disclose classified and unclassified export-controlled technical data to foreign persons when the following conditions apply:
   a. The technical data does not disclose details of the design, development, production, or manufacture of any defense article as limited by §125.4(b)(3).
   b. The disclosure supports the programmatic objectives of the U.S. Army's PEO, GCS and the PM, FCS and relates to technical specifications, design architecture, functional requirements, performance models, purchase orders, and statements of work (SOW).
   c. The PM, FCS Security Office, Deputy Assistant Secretary of the Army (DASA) Defense Exports and Cooperation (DE&C) and Boeing will develop agreed upon processes to define requirements for review and approval of data exported under this exemption.

3. Pursuant to ITAR §125.4(b)(1), Boeing may disclose classified and unclassified export-controlled technical data to foreign persons when the following conditions apply:
   a. DASA DE&C provides written direction to Boeing to disclose ITAR-controlled technical data to a Foreign Person. The PM, FCS may request Boeing to provide copies of the data/information that will be disclosed to the Foreign Person as part of the affirmation process with DASA DE&C.
   b. If the PM, FCS directs Boeing to provide export-controlled technical data to a Foreign Person that is beyond the scope authorized under ITAR Section 125.4(b)(3), then Boeing will, pursuant to ITAR section 125.4(b)(1), document the request and submit a written request to the PM, FCS who will certify the conditions specified by Boeing exist. The PM, FCS will provide the certification to DASA DE&C who may affirm the use of the exemption, in writing to Boeing, provided the conditions certified by the PM, FCS satisfies the ITAR

4. All technical data that is exported under ITAR Sections 125.4(b)(1) or 125.4(b)(3) must be reviewed and approved by the US Army in accordance with approved disclosure guidelines for FCS.

5. Before authorizing CUI disclosures, the PM, FCS Disclosure Authority shall ensure that the contract or agreement contains the requisite access, use, and distribution clauses required before disclosing CUI with another government, international organization, or foreign contractor (Source: SAAL-RP memo, 27 May 2000, Subject: Authority to Disclose Technical Controlled Unclassified Information (CUI)).

C. Lower Tier Agreements

Boeing shall include this Article, suitably modified, to identify the parties, in all subcontracts.

ARTICLE XX: CIVIL RIGHTS ACT

This Agreement is subject to the requirements of Title VI of the Civil Rights Act of 1964 as amended (42 U.S.C. 2000-d) relating to nondiscrimination in employment.

ARTICLE XXI: BOEING INFORMATION

Taxpayer Identification Number: 430400674
DUNS: 016544780
CAGE Code: 69236

ARTICLE XXII: ORDER OF PRECEDENCE

In the event of any inconsistency between the Articles of this Agreement and language set forth in the Attachments thereto, the inconsistency shall be resolved by giving precedence in the following order: (1) Until definitization, if there is any inconsistency between Article I. B. and anything else, then Article I. B. will take precedence; (2) The Articles of this Agreement; (3) SOW; (4) other Attachments to the Agreement. In the event there is any conflict between a clause contained in full text in the Agreement and a referenced clause, the full text clause shall take precedence.

ARTICLE XXIII: EXECUTION

This Agreement constitutes the entire agreement of the parties and supersedes all prior and contemporaneous agreements, understandings, negotiations and discussions among the parties, whether oral or written, with respect to the subject matter hereof. This Agreement may be revised only by written consent of the Boeing Contracts Manager and the TACOM Grants Officer, or as provided in Article XIII, Modifications. This Agreement or modifications to the Agreement may be executed by the parties using a faxed signature or scanned original from the other party and these documents will be deemed as original.

ARTICLE XXIV: LIABILITY AND INSURANCE

A. Liability and Insurance

1. Boeing shall maintain the types of insurance listed in FAR 28.307-2(a), (b), and (c) with the minimum amounts of liability indicated, or commercial equivalent.

B. The following FAR/DFARS clauses apply:

52.228-7	Insurance-Liability to Third Persons (3/96)
52.246-24	Limitation of Liability - High-Value Items (2/97)
52.246-25	Limitation of Liability - Services (2/97)
252.228-7002	Aircraft Flight Risk (9/96) Tailoring: Aircraft in this clause also relates to "Unmanned Air Vehicles" (UAV). Paragraph (d)(4), change from "the Disputes clause of this contract" to "Article XV: Disputes of this Agreement."

ARTICLE XXV: ORDERING FROM GOVERNMENT SUPPLY SOURCES

1. The Grants Officer authorizes Boeing to use Government Federal Supply Schedule Contracts in the performance of this Agreement.

2. This authorization is issued in accordance with provisions of 48 CFR subpart 51.1 "Contractor Use of Government Supply Sources" and can be used only to acquire goods and services required specifically for performance under this Agreement.

3. The Grants Officer will provide the Boeing Contracts Manager a copy of the authorization letter within ten (10) business days of Agreement award.

4. For each order placed to a Federal Supply Schedule vendor (1) a copy of the authorization letter must accompany the order, unless a copy was previously furnished to the vendor, and (2) the following statement must appear on the order:

   "This order is placed under written authorization from the U.S. Army Tank-Automotive and Armaments Command (TACOM) dated [Date of Agreement Award]. In the event of any inconsistency between the terms and conditions of this order and those of your Federal Supply Schedule Contract, the latter will govern."

5. Boeing is also provided authorization for subcontractor's to use Government Federal Supply Schedule Contracts.

6. Boeing's ordering authorization may be unilaterally withdrawn, or suspended, by the Grants Officer, in whole or in part, by providing written notice to the Boeing Contracts Manager.

ARTICLE XXVI: STATEMENT OF WORK CLARIFICATIONS

A. Performance Risk

1. The SOW includes effort valued at $263 million that the parties may later determine, based on overall program affordability, should be reduced or removed from the Agreement.

2. Boeing will use its' best efforts to perform the SOW at the original estimated cost. If, however, during performance of the Agreement, Boeing concludes that affordability constraints prevent Boeing from performing the SOW in whole or in part, the parties agree that effort up to the amount of $263 million will be eliminated from the Agreement, without negative impact to Boeing, using CAIV trade-off candidates and presented to the PCCB for resolution.

B. SOW Language Subject to PCCB Approval:

1. The draft Integrated Master Plan dated 14 November 2003 is part of the negotiated Agreement baseline and is scheduled for PCCB approval on 9 December 2003.

2. The SOW language and new CDRL items identified below may be added to the Agreement after PCCB approval, appropriate CAIV trade/PGA action, and Grants Officer authorization. Boeing shall conduct a PCCB for these changes within 90 calendar days of the effective date of modification PZ0007.

a. New SOW 3.1.1.4 Configuration/Data Management. The LSI shall provide configuration and data management (CDM) through the FCS ACE IAW the CDM Plan. The LSI will develop and manage processes and policies implemented in related program CDM organizations, including managing the FCS data repository, and providing oversight of configuration management policies and processes employed by other LSI organizations and suppliers. The LSI shall manage the FCS interface control documents relating to SoS internal and external interoperability. It is the intent of the Department of Army to conform its information resources to standardized metadata and categorization configurations so that Army users can identify, catalog, search, and share information, and, thereby, support Network Centric Warfare capabilities. To that effect the contractor shall capture all data content for the architecture products of the Future Combat Systems (FCS) in accordance with the structures of the DoD Core Architecture Data Model (CADM). Specifically, the contractor shall provide all architecture deliverables in the form of XML documents created using the XML tags defined by OASD(NII)A&I and available at the DoD Metadata Registry and Clearinghouse (ref: http://diides.ncr.disa.mil/xmlrce/uscr/index.cfm). All the XML deliverables shall be validated in accordance with the XML Schema Definition (XSD) also maintained by OASD(NII). The contractor shall, in coordination with the Army's Architecture Executives (e.g. TRADOC, ASA(ALT) and CIO/G-6), ensure that all delivered XML architecture products for FCS can be readily imported into the appropriate data repositories (e.g., the DoD Architecture Repository System-DARS). (A011, A063) [WBS 1.1.1.2.4, 1.1.2.1.3.3]

b. New SOW 3.1.2 - Simulation and Modeling for Acquisition, Requirements, and Training (SMART) Management

The LSI shall develop and implement a SMART program for the effective development, use, and integration of Live, Virtual, and Constructive (LVC) M&S capabilities in support of the full range of M&S domains. The LSI in conjunction with the PM, FCS UA SMART Management Office shall establish a SMART Management Team, consisting of LSI IPTs, and Government representatives, to provide the overarching, program-wide management, coordination and guidance for implementing processes relating to SMART and for the development and use of models and simulations in support of the FCS program. This SMART management team will ensure the proper policies; procedures, tools, and training are in place to ensure an integrated, coherent management approach to SMART across all elements of the program. The LSI shall provide source data to the Government to support the Government's update and maintenance of their UA SMART Simulation Support Plan (SSP). The LSI shall approve and coordinate changes to IPT and supplier Simulation Support Plans. The SMART Management Team shall develop and maintain a measurement plan and process as part of the SSP to establish SMART metrics to include audits and assessments. The LSI shall collect metrics from the SMART suppliers and develop an annual report showing the use of M&S across the program.

3.1.2.1 SMART Lifecycle Activities. The LSI shall, in collaboration with Government agencies, IPT leads, and suppliers, manage, coordinate, and facilitate development of the SoS and FoS M&S capabilities for use in all M&S supported activities IAW the Simulation Support Plan.

3.1.2.2 The LSI shall conduct FCS program SMART product requirements, and M&S implementation reviews. The reviews shall ensure development and maintenance of the FCS program SMART solutions are integrated across the FCS program to meet FCS M&S requirements and demands. The LSI in conjunction with the S&T IPT and PM, FCS SMART Management Office shall coordinate with the Army Science and Technology (S&T) community to identify SMART S&T requirements to reduce risk for future FCS increments.

3.1.2.3 The LSI, in collaboration with other IPTs, TRADOC, AMC and other Army organizations, shall develop requirements for LVC M&S capabilities for SoS trade studies, SoS force effectiveness and performance assessment, requirements validation, design analysis, test design, demonstrations and tests, training, and operational uses. As a part of the requirements process, the SMART Management Team shall develop an approved list of common models, simulations, or simulation components for use across the program.

3.1.2.4 The LSI in conjunction with the PM, FCS SMART Management Office shall serve as the enterprise level integrator to ensure FCS M&S efforts that address requirements, design, training, manufacturing, production, and operational uses are not duplicated among the efforts of the LSI, subcontractors, and Government. The LSI shall also ensure reuse and recommend commonality of M&S tools to include AMC RDECOM facilities and capabilities for materiel research, development and evaluations, and TRADOC Battle Lab and school facilities conducting experimentation efforts focused on Unit of Action DOTMLPF requirements development and demonstration.

3.1.2.5 The LSI shall ensure M&S representations are consistent among the Government, LSI, and suppliers. The SMART Management Team shall develop a plan to identify resources required to maintain and support delivered SMART capabilities. The LSI as a part of the SSP shall develop a phased SMART integration plan that includes initial development and a roadmap/plan for SMART upgrades to support both Increment 1 and subsequent increments. The plan shall ensure LVC M&S capabilities developed for SDD support, to the maximum extent possible, planned future increment processes and functions (e.g., training, post deployment software support, supportability, and interoperability). This plan shall incorporate maximum reuse of M&S components across functional teams and throughout the life cycle of the program. The LSI shall not develop models, simulation, or architectural artifacts for which there exist effective and efficient alternatives without prior approval from the Grants Officer.

3.1.2.6 The Team shall ensure that any models, simulations, architectures, and documentation (including source code) necessary for full functional use, maintenance and upgrade of the M&S developed under this Agreement will be accessible through ACE and become Government property at Agreement completion, in accordance with 3.1.1.7.2. [WBS 1.1.1.4]

3.1.2.7 The LSI shall monitor development of simulation federation architecture design alternatives for LVC SoS and FoS simulations. The LSI shall approve and oversee the use of this modeling and simulation capability across SoS and FoS development, testing, and other User Representative support as needed to evaluate FCS performance for selected designs per the Simulation Support Plan. [WBS 1.1.1.4.3]

3.1.2.8 The LSI shall coordinate the maintenance and use of scenarios in support of Force Effectiveness evaluation and FCS design specific performance evaluation. The LSI shall provide existing analysis data in support of TRADOC scenario development efforts. The LSI shall ensure that all Environment (scenario, terrain, atmospheric, and oceanographic) and Behavior (employment and TTP) data sets for analysis are approved by TRADOC (specifically HQ TRADOC ICW TRAC and UAMBL) and that Army Materiel Systems Analysis Activity (AMSAA) certifies all performance data used for formal decisions. The Team shall ensure that a library of scenario results is developed and maintained in ACE for comparison as the design evolves. (A030) [WBS 1.1.1.4.2]

3.1.2.9 The LSI shall facilitate coordination and integration of each system's variant models, emulations, and simulations into the SoSIL, other SILs, and test environments to support development and integration with other elements of the SoS and to ensure both SoS and FoS level demonstration and test objectives are met.

3.1.2.10 The LSI shall ensure that simulation interfaces are validated prior to SoS level integrated test and evaluation. [WBS 1.1.1.4.3]

3.1.2.11 The LSI shall define and develop modeling and simulation requirements for the Distributed Product Description (DPD). These requirements shall address system/subsystem reference models for each system's variants, including physical, dynamic, behavior, other models and data to support ongoing analysis, experimentation, doctrine development, design, test and evaluation.

3.1.2.12 The LSI shall be responsible for SoS/FoS M&S configuration management per the CM Plan, including operation of the FoS level SMART configuration control board. The LSI shall maintain the SMART product database, SMART product configuration management database, and SMART problem-reporting database.

3.1.2.13 The LSI shall establish procedures to verify and validate models and simulations used for the FCS analysis, experimentation, doctrine, design, development, test and evaluation, training, and operational uses in compliance DA PAM 5-11 and the LSI developed FCS Simulation, Validation and Verification Plan; provide verification/validation data to support Government validation and accreditation of models and simulations; and conduct validation and verification of simulations that will support a virtual Operational Test prior to IPD. (A031) [WBS 1.1.1.4.3.3]

c. SOW 3.1.4.5.1 Boeing shall require its subcontractors to flow this requirement for earned value reporting to all lower tier subcontractors having subcontracts greater than $5M to submit a C/SSR, and greater than $50M to submit a CPR. Any tier subcontractor over $5M and less than $25M may request a waiver from the earned value reporting due to low risk and cost impact. Such waivers will be submitted through Boeing to the Grants Officer for coordination and approval.

d. New CDRL Items:

A064 Program Protection Plan
A065 Program Protection Plan Report
A066 Operations Security Plan
A067 Cost as an Independent Variable (CAIV) Plan
A068 Transportability Report
A069 Cooperative Opportunities Document
A070 Manpower Estimate Report
A071 Core Logistics Analysis/Source of Repair Analysis
A072 Information Assurance Strategy
A073 Simulation Support Plan Data Inputs
A074 Product Support Management Plan

A075 FoS w/ Interfaces System Security Authorization Agreement (SABI)
A076 FoS w/ Interfaces System Security Plan (TSABI)
A077 System Security Authorization Agreements (SSAAs) Report
A078 Common Criteria – Protection Profile
A079 Top Secret and Below Integration (TSABI) Guarding Solution System Security Authorization Agreement (DoDIIS)
A080 Telecommunications Security Requirements Document (TSRD)
A081 SoS Key Management Plan

ARTICLE XXVII: SMALL BUSINESS SUBCONTRACTING PLAN

A. Goals

Boeing's Small Business Plan goals for the FCS Program are set forth below:

	FCS SDD Goals (% of Boeing Subcontracted Dollars)
Small Business	17.5%
Small Disadvantaged Business	3.5%
Woman Owned Small Business	2.5%
Historically Underutilized Business Zone Small Business	0.3%
Veteran Owned Small Business	1.5%
Service Disabled Veteran Owned Small Business	0.2%

Note: These goals are based on dollars going to small business through and including the third tier of subcontracts.

B. Subcontracting Reporting

Boeing will provide a summary of its subcontracted effort with small businesses on a semi-annual basis, and at SDD Agreement completion, consistent with the information required by Standard Form 294, Subcontracting Report for Individual Contracts. Boeing will report all subcontracted effort to small businesses to include awards to small businesses from its first, second, and third tier large business subcontracts. Dollars reported as Small Business awards will only be counted once. Boeing format for reporting requirements is acceptable.

C. Lower Tier Agreements

Boeing shall include the Small Business Plan goals as a requirement of all first, second, and third tier large business subcontracts.

ARTICLE XXVIII: ADVANCE AND PRE-AWARD COST AGREEMENTS

1. In order to reduce schedule risk to the Program, it is recognized that Boeing has initiated effort, beginning 21 March 2003, covered under this Agreement prior to Agreement award. Upon Agreement award to Boeing, those allowable and allocable costs incurred up to $9.7M by Boeing in pursuit of effort called for under this Agreement, will be recognized as allowable and allocable to the SDD Agreement to the extent they would have been allocable and allowable had they been incurred subsequent to award of the SDD Agreement. This effort consists of tasks in support of the transition from CTD to SDD such that Boeing can immediately perform SDD work upon award of this Agreement.

2. The Advance Agreement regarding potential pension cost allocation changes signed 29 September 2003 between Boeing Integrated Defense Systems and the DCMA Divisional ACO is incorporated by reference. The AAO's letter of 31 October 2003 regarding potential pension cost allocation changes is incorporated by reference.

ARTICLE XXIX: COMPLEMENTARY PROGRAMS

1. The LSI's efforts with respect to Complementary Programs is set forth in Attachment 1, SDD Statement of Work paragraph 3.1.4.4. A listing of Complementary Programs is at Attachment 11.

2. The Government is responsible for managing the Complementary Program contracts and contractors. PM, FCS will facilitate cooperation between the Government Program Management teams to ensure cooperation from the Complementary Program contractors with Boeing to satisfy the needs of the FCS program. PM, FCS will facilitate the LSI with Complementary Programs SOW requirements by entering into Program Executive Office (PEO) Memoranda of Agreement (MOA) and Program Management (PM) Subordinate Memoranda of Agreement (SMOA) with each Complementary Program.

3. All equipment, property, information, facilities and services provided by Complementary Programs are considered GFX and shall be identified and administered in accordance with Article XII, Government-Furnished Equipment, Property, Information, Facilities, and Services.

4. Boeing may be entitled to a Program Generated Adjustment as it pertains to Complementary Systems within the definition in Article I, when a product or piece of information from a Complementary Program fails to be suitable (including timely availability) for its intended use and there is a negative impact to the program. Any such adjustment will be in accordance with Article XIII, Modifications.

5. For any product, hardware, software or data, that needs to be provided from a complementary program that is not available, then a Program Generated Adjustment, as identified in paragraph 4 above, will be proposed to overcome the problem.

ARTICLE XXX: SDD TECHNICAL BASELINE

1. The SDD Technical Baseline is the FCS UA Increment I Capabilities Specification. Initially, all 14 April 2003 JROC ORD requirements will be incorporated in the FCS UA Increment I Capabilities Specification as either products being developed as part of Increment I or as requirements for spiral forward systems for future implementation. The spiral forward systems identified in Appendix C of the FCS UA Increment I Capabilities Specification are not a part of the initial technical baseline for Agreement performance but may be considered for future inclusion based on affordability and technical readiness decisions. For those items designated as Increment I products, the below trade processes will be used to determine the specific requirements for Increment I.

2. The Increment I Capabilities Specification will contain two separate sections:

   a. The technical baseline for this System Development and Demonstration (SDD) phase including growth provisions of SOW 3.1.1.10.4 that document a SDD design that will accommodate the remainder of the Increment I spiral forward systems and technology integration upgrades necessary to reach the FCS UA Objective Capabilities Specification Requirements.

   b. Separate section identifying and providing the guidelines for development of the objective capabilities that may be fielded during the Increment I timeframe (anticipated 2018-2020). This Increment I Objective Capability portion of the specification will not be included as a delivered design until it has been properly resourced and an Agreement modification implemented.

3. At the request of the Grants Officer, proposals for analyses, trade studies, and affordability assessments will be provided for spiral technologies.

4. The Prime Item Development Specifications will be baselined and placed under formal Configuration Management prior to SoSFR and become part of the Technical Baseline. Distributed Systems Specifications (DSS) will be managed in accordance with the configuration management (CM) process. All Configuration Item Specifications necessary to implement the sustainment and repair concept are included in the technical baseline and will be updated at CDR.

5. The SoS Architectures, including all distributed system architectures and SoS Software Architecture, will be released and placed under CM after SoSRR and become part of the Technical Baseline.

6. Any change to the FCS UA Increment I Capabilities Specification that ultimately impacts a KPP ORD requirement will require an Agreement modification. All other changes will be handled through the program approved CM process.

7. Verification of the Technical Baseline will be accomplished as identified in the LSI's Integrated Test and Evaluation Plan (ITEP), D786-10074-1. The verification criteria of the ITEP will be superceded by Section 4 of the FCS UA Increment I Capabilities Specification when approved.

8. The FCS UA Increment I Capabilities Specification will be defined and baselined using the following process:

   (a) If only an objective requirement in the JROC ORD now exists, the Specification will use either the objective capability or a "TBD" for threshold, and that requirement will be adjudicated through the trade study process.
   (b) If the FCS UA Increment I Capabilities Specification does not, at minimum, meet the JROC ORD threshold capability, the requirement in question will either

(i) Be brought into alignment with the JROC ORD and placed in the FCS UA Increment I Capabilities Specification or:
(ii) Be identified as a trade study candidate and placed in the trade study candidate pool.

(c) If the FCS UA Increment I Capabilities Specification meets the JROC ORD yet
(i) One or more subsystems fail to meet threshold requirements of the JROC ORD, or
(ii) Technical considerations prohibit compliance with program affordability constraints, or;
(iii) Achieving the JROC ORD requires technology which is not achievable within Increment 1, or:
(iv) Available GFE does not support achievement of the JROC ORD, or
(v) Other discrepancies as mutually agreed,
then the requirement in question will be identified as a trade study candidate and placed in the trade study candidate pool.

(d) The trade study process will be implemented as follows:
(i) The requirement will be adjudicated through the approved Trade/CAIV joint process (with participation of PM, FCS, LSI and TRADOC at a minimum).
(ii) If the process determines that a change is necessary to the SoS Increment I Specification, a recommendation will be made to update both the SoS Increment I Specification and the JROC ORD simultaneously.
(iii) The FCS UA Increment I Capabilities Specification update will not be delayed awaiting ORD updates.
(iv) Once the discrepancies have been resolved through approved process, the FCS UA Increment I Capabilities Specification will have contractual precedence.

9. After completion of Para 8 above, the LSI will continue to identify and perform trade studies IAW the program approved Trade Study Process (per SOW 3.1.1.6) for the purpose of system maturation and refinement of system capabilities, including alignment of the Increment I FCS UA Capabilities Specification, DSS', and PCDs.

Note: Spiral forward systems are listed In Article LF "Definitions" under "Spiral Forward Systems."

ARTICLE XXXI: FAR/DFARS CLAUSES

A. Commonly Used Terms

Terms contained within a FAR or DFARS clause including, but not limited to, (1) Schedule, (2) Contracting Officer, (3) Contract, (4) Disputes clause, (5) Administrative Contracting Officer, etc. are interpreted to mean (1) Agreement, (2) Grants Officer, (3) Agreement, (4) Article XV Disputes, (5) Administrative Agreements Officer, respectively. Any other commonly used terms not expressly included in this paragraph, contained within a FAR/DFARS clause, shall also be interpreted in terms of an OTA, Section 845 as the FCS acquisition instrument and not in terms of a FAR procurement contract.

B. Clause Incorporated by Reference

This Agreement incorporates one or more clauses by reference, with the same force and effect as if they were given in full text, except if there is a conflict with a full text clause, in which case the full-text clause would govern. Upon request, the Grants Officer will make their full text available.

C. FAR Clauses Incorporated by Reference

52.223-3	Hazardous Material Identification and Material Safety Data (1/97) "To be provided to the Government during Agreement performance, as required."
52.223-5	Pollution Prevention and Right-to-Know Information (8/03)
52.223-7	Notice of Radioactive Materials (1/97) Tailoring: Paragraph (a), insert "30 calendar" as the fill-in.
52.225-8	Duty-Free Entry (2/2000)
52.249-14	Excusable Delays (4/84)

D. DFARS Clauses Incorporated by Reference

252.223-7002	Safety Precautions for Ammunition and Explosives (5/94)
252.223-7007	Safeguarding Sensitive Conventional Arms, Ammunition, and Explosives (9/99)
252.225-7032	Waiver of United Kingdom Levies (4/03)
252.225-7043	Antiterrorism/Force Protection for Defense Contractors Outside the United States (6/98)
252.228-7005	Accident Reporting and Investigation Involving Aircraft, Missiles, and Space Launch Vehicles (12/91)
252.235-7003	Frequency Authorization (12/91)

ARTICLE XXXII: DESIGN AND SOURCE CONSIDERATIONS

The following DFARS clauses, while not required for the SDD Agreement, will be mandatory under any subsequent contract for Long-Lead Items, Initial Production or Production unless Boeing requests a waiver for itself, or for any of its subcontractor(s), which is subsequently approved by the Grants Officer, provided the clause allows for such waiver request. Boeing shall consider the following clauses in its planning for transition to Production. Design limitations and supply chain management decisions required to comply with these clauses will be documented in sufficient detail, so that, in the event of any subsequent contract for Long-Lead Items, Initial Production or Production, clause compliance can be demonstrated. Potential waivers of any of these requirements need to be identified as early as possible to the Grants Officer to avoid potential schedule impacts.

252.225-7001	Buy American Act and Balance of Payments Program (4/03)
252.225-7002	Qualifying Country Sources as Subcontractors (4/03)
252.225-7014	Preference for Domestic Specialty Metals (4/03) Alt 1 (4/03)
252.225-7016	Restriction on Acquisition of Ball and Roller Bearings (4/03)
252.225-7022	Restriction on Acquisition of Polyacrylonitrile (PAN) Carbon Fiber (4/03)
252.225-7025	Restriction on Acquisition of Forgings (4/03)
252.225-7030	Restriction on Acquisition of Carbon, Alloy, and Armor Steel Plate (4/03)
252.225-7031	Secondary Arab Boycott of Israel (4/03)

ARTICLE XXXIII: TERMINATION LIABILITY

A. Special Termination Liability

1. "Special termination costs," as used in this article, means only costs in the following categories:
   a. Severance pay: Severance pay, also commonly referred to as dismissal wages, is a payment in addition to regular salaries and wages by contractors to workers whose employment is being involuntarily terminated. Payments for early retirement incentive plans are not covered in this article.
   b. Severance pay to be allowable must meet the general allowability criteria in subdivision (a) of this subsection, and, depending upon whether the severance is normal or abnormal, criteria in subdivision (b) for normal severance pay or subdivision (c) for abnormal severance pay also apply. In addition, paragraph (c) of this subsection applies if the severance cost is for foreign nationals employed outside the United States.
      (1) Severance pay is allowable only to the extent that, in each case, it is required by
         (a) Law
         (b) Employer-employee agreement
         (c) Established policy that constitutes, in effect, an implied agreement on the Boeing's part; or
         (d) Circumstances of the particular employment

      Payments made in the event of employment with a replacement contractor where continuity of employment with credit for prior length of service is preserved under substantially equal conditions of employment, or continued employment by the contractor at another facility, subsidiary, affiliate, or parent company of the contractor are not severance pay and are unallowable.

   c. Actual normal turnover severance payments shall be allocated to all work performed in the contractor's plant, or where the contractor provides for accrual of pay for normal severances, that method will be acceptable if the amount of the accrual is reasonable in light of payments actually made for normal severances over a representative past period and if amounts accrued are allocated to all work performed in the Boeing's plant.

   d. Abnormal or mass severance pay is of such a conjectural nature that measurement of costs by means of an accrual will not achieve equity to both parties. Thus, accruals for this purpose are not allowable. However, the Government recognizes its obligation to participate, to the extent of its fair share, in any specific payment. Thus, allowability will be considered on a case-by-case basis.

2. "Reasonable costs continuing after termination" - Despite all reasonable efforts by the contractor, costs which cannot be discontinued immediately after the effective date of termination are generally allowable. However, any costs continuing after the effective date of the termination due to the negligent or willful failure of the contractor to discontinue the costs shall be unallowable.

3. "Settlement of expenses" - Settlement expenses, including the following, are generally allowable:
   a. Accounting, legal, clerical, and similar costs reasonably necessary for
      (1) The preparation and presentation, including supporting data, of settlement claims to the agreements officer; and
      (2) The termination and settlement of subcontracts
   b. Reasonable costs for the storage, transportation, protection, and disposition of property acquired or produced for the agreement.

c. Indirect costs related to salary and wages incurred as settlement expenses in (i) and (ii); normally, such indirect costs shall be limited to payroll taxes, fringe benefits, occupancy costs, and immediate supervision costs.

If settlement expenses are significant, a cost account or work order shall be established to separately identify and accumulate them.

d. Costs in paragraphs 4 (i) (ii) and (iii) of this article to which subcontractors may be entitled in the event of termination.

5. Notwithstanding the Limitation of Cost/Limitation of Funds article of this Agreement, the contractor shall not include in its estimate of costs incurred or to be incurred, any amount for special termination costs to which the contractor may be entitled in the event this Agreement is terminated for the convenience of the Government.

6. The contractor agrees to perform this Agreement in such a manner that Boeing claim for special termination costs will not exceed the amounts specified below:

Army Fiscal Year: ($ in millions)	2004	2005	2006	2007	2008	2009	2010	2011
Special Termination Liability:	$168.9	$376.7	$456.8	$418.8	$207.5	$127.9	$70.7	$0

7. The Government shall have no obligation to pay the contractor any amount for special termination costs in excess of these amounts. Periodic negotiations and adjustments of these amounts reserved for special termination cost will be accomplished as requested by the Grants Officer.

8. In the event of termination, this article shall not be construed as affecting the allowability of special termination costs in any manner other than limiting the maximum amount of the costs payable by the Government.

9. This article shall remain in full force and effect until CLIN 0001 of this Agreement is fully funded.

B. Full Termination Liability

PM, FCS and Boeing agree to pursue Full Termination Liability Cost coverage. PM, FCS agrees to pursue this request with the objective to have Department of the Army (DA) approval. If the requested clause is not approved for incorporation, the Government is not obligated to take any further action regarding this matter, nor can be held liable as a result of not incorporating such requested clause.

Attachment 1

Statement of Work

ATTACHMENT 1

STATEMENT OF WORK FOR THE FCS INCREMENT I SDD PROGRAM

1.0 OVERVIEW

This document defines the Government's requirement for work to be performed by The Boeing Company, in its role as the Future Combat Systems (FCS) Lead Systems Integrator (LSI), to execute the FCS Increment I (see Article XXX) Systems Development and Demonstration (SDD) Program tasks as described below. The role of the LSI is not simply that of a traditional Prime Contractor, but is more that of the Government's partner in ensuring implementation of FCS through engineering a system of systems solution, competitive selection of industry sources for development of the systems comprising the FCS Family of Systems, and integrating and testing these systems to satisfy the Increment I requirements. While this does not preclude the LSI from being a source of individual systems/subsystems development, such development participation requires prior approval of the Government or selection through the competitive procurement process (Article VIII of this Agreement), which includes Government approval. To accomplish this, the LSI/Army Program Manager FCS (PM FCS) partnership will work closely in a collaborative, cooperative environment with TRADOC, and other Army organizations designated to integrate the FCS Family of Systems (FoS) work with the larger Unit of Action (UA) System of Systems (SoS) and Future Force (FF) development efforts.

1.1 PROGRAM OBJECTIVES

The LSI has been selected by the Government to work in a collaborative environment with PM FCS, to ensure a successful development, production, fielding, and sustainment of the full complement of safe, reliable, suitable, and effective FCS materiel in accordance with (IAW) the FCS Operational Requirements Document (ORD) and the FCS UA Objective Capabilities Specification. The LSI is responsible for executing the FCS Increment I SDD program Statement of Work including support in integration of FCS SDD efforts with the Army's larger UA and Future Force Doctrine, Organization, Training, Materiel, Leader, Personnel (Soldiers), and Facilities (DOTMLPF) development work to ensure the UA equipped with the FCS can employ concepts in the UA Operational and Organizational (O&O) plan to achieve capabilities in the O&O and FCS ORD. This SDD Agreement phase addresses the first of successive anticipated increment system designs/developments leading to the envisioned FCS Future Force.

1.2 INCREMENT I SDD DESCRIPTION

The FCS SoS development effort is a complex integration task that implements a coordinated, comprehensive approach across the program elements of Training, Supportability, Networks, Systems, Interoperability, Force Development, and Testing. This high level, overarching integration ensures that the approved UA O&O plan, the Joint Requirements Oversight Committee (JROC) validated Mission Needs Statement (MNS), and the FCS Operational Requirements Document (ORD) guide the program approach to optimize force design, define requirements, ensure interoperability, demonstrate performance, reduce risk, and reach a balance of affordable performance throughout the life cycle. The LSI will define an incremental development plan for the evolution of the FCS into a stable, interoperable, producible,

supportable, and cost effective system that meets the Army FCS ORD through implementation of multiple capability increments. During this SDD Increment I, the LSI will design, integrate, build, support, and test the first capability increment (Increment I) of this incremental development plan. Some systems within the family of systems will achieve these capabilities prior to others and this will result in a phased completion of Increment I SDD. Refer to the FCS SDD Integrated Master Plan and Schedule (IMP/IMS) for detailed program listing and schedule.

1.3 SCOPE

This Statement of Work (SOW) defines the scope of work for the LSI relative to performing SoS management, engineering, procurement, integration, supportability, test, and evaluation during the FCS Increment I SDD phase. The defined scope of this FCS Increment I SDD includes the work necessary to ensure a successful IPD leading to Initial Production (IP) for all the FCS Family of Systems.

1.4 TECHNICAL PERFORMANCE REQUIREMENTS

FCS SoS performance requirements of the O&O and the ORD are used to derive the FCS UA Objective Capabilities Specification. The Increment I performance requirements are then derived from the FCS UA Objective Capabilities Specification and defined in the FCS UA Increment I Capabilities Specification at Agreement start and result in the configuration and capability baseline as defined in Article XXX of this Agreement. SoS Increment I capabilities and the implementing configuration are anticipated to evolve during SDD. Key Performance Parameters (KPPs) and ORD threshold requirements as allocated to Increment I in the FCS UA Increment I Capabilities Specification represent the minimum acceptable needs for the initial Increment I performance baseline. KPPs are non-tradable. Non-KPP ORD threshold requirements that are proposed to be traded will be worked in accordance with the trade process approved by the Government. Subsequent increments (for future procurement) will be defined during this SDD phase to ultimately result in a plan for achieving the full ORD objective capability. The Government will define metrics and criteria for the evaluation of each of the ORD requirements and to require the LSI to provide an Incremental Development Plan for achieving (singularly or in combination) each of the critical criteria in future increments.

1.5 SCHEDULE

The SDD program execution schedule is documented by the event-based Integrated Master Plan (IMP). The Integrated Master Schedule (IMS) is the management tool that schedules the program events and accomplishments found in the IMP.

2.0 APPLICABLE DOCUMENTS

The following documents as invoked in Section 3 provide guidance to and requirements for the LSI during SDD. Unless otherwise specified the version of each specific REFERENCE and COMPLIANCE document in effect at the time of usage shall apply. REFERENCE documents are to be used for guidance only. COMPLIANCE documents are a requirement. Second tier and lower documents (e.g., those documents cited or referenced within a first tier or lower document) cited in LSI COMPLIANCE documents are contractually binding unless specifically designated as a reference within the higher tier document.

REFERENCE Documents
Government Documents

1. FCS ORD (and Annexes) Chg3, 14 April 03 (including KPP designations)

2. System Threat Assessment Report (STAR), 24 Jan 03
3. Systems Training Plan (STRAP)
4. Army Software Blocking Plan
5. UA O&O Plan, Chg 2, 30 Jun 03
6. FCS Mission Need Statement, 23 Jan 03
7. DoD Architecture Framework 1.0
8. TRADOC Pamphlet 350-70-2, Multimedia Courseware Development Guide
9. Advanced Distributed Learning (ADL) Shareable Content Object Reference Model (SCORM)
10. Army FCS UA Systems Book 2.0
11. DoD 5000 Series Regulations
12. TRADOC Maneuver Sustainment Concept
13. TRADOC Pamphlet 525-3-0 Objective Force
14. TRADOC Pamphlet 525-3-92 Unit of Employment
15. TRADOC Pamphlet 525-4-0 Maneuver Sustainment
16. TRADOC Pamphlet 525-3-25 Maneuver Support
17. TRADOC Pamphlet 525-3-0.1 Battle Command (C4ISR)
18. TRADOC Pamphlet 525-3-04 Army Aviation
19. TRADOC Pamphlet 525-3-9 Fires & Effects
20. TRADOC Pamphlet 525-1-0 Soldier as a System
21. All TRADOC Future Force Concept Documents Published

LSI Documents

1. FCS Program Plan Summary (D786-10218-1)
2 SDD Integrated Master Schedule (IMS) (D786-10020-1)
3 FCS Incremental Development Plan (D786-10068-1)
4. Enterprise Production Plan (D786-10212-1)
5 Simulation Support Plan (D786-10002-1)
6. Other Transaction For Prototypes # MDA972-02-9-0005

COMPLIANCE Documents

Government Documents (As of date of award)

1. Joint Technical Architectures (JTA)
2. Joint Technical Architectures-Army (JTA-A)
3. Joint Architecture Unmanned Systems (JAUS)
3. Test and Evaluation Master Plan (TEMP), 8 May 2003
4. DA PAM 5-11, Verification, Validation, and Accreditation of Army Models and Simulation
5. TRADOC Regulation 350-70, Systems Approach to Training Management Processes and Products
6. Army Training Infrastructure Architecture Compliance Standards (ATIAS), Version 3.2, 19 April 2002
7. Special Access Programs AR-380-381
8. DoD 5100.76-M Physical Security of Sensitive Conventional Arms, Ammunition and Explosives
9. DoD Future Logistics Enterprise (FLE) - U.S. Army PBL Implementation Guide

LSI Documents

1. Systems Engineering Management Plan (SEMP) (D786-10007-1)
2. Software Development Plan (D786-10006-1)
3. FCS UA Increment I Capabilities Specification (S786-50000)
4. C4I Support Plan (C4I SP) (D786-10021-1)
5. Configuration/Data Management Plan (D786-10008-1)
6. SDD Competition Process Plan (D786-100065-1)

7. SDD Integrated Master Plan (IMP) (D786-10019-1)
8. Programmatic Environmental, Safety and Health Evaluation (PESHE) (D786-10030-1)
9. Complementary Programs Management Control Plan (A038) when approved
10. Supportability Strategy (D786-10025-1)
11. FCS Life Cycle Cost Containment Plan (D786-10012-1)
12. Program Risk Management Plan (D786-10015-1)
13 Systems Integration Laboratory (SIL) Development Plan. (When approved)
14 Program Protection Plan (D786-10099-1 Rev B)
15 SoS Architectures (various)
16. FoS Architectures (various)
17. System Integration Plan (SIP) (D786-10113-1)
18. System Verification Plan (SVP) (D786-10159-1)

3.0 LSI TASKS

The following subsections describe the work scope for the LSI during SDD divided into three major activities:

a. **Subsection 3.1** describes the SoS Engineering Integration and Program Management effort to manage the overarching requirements and SoS design analyses. It includes the definition and allocation of requirements and flowdown of process guidance to the Integrated Product Teams (IPTs) and any associated development subcontractors for networked FoS product design, development, integration, and verification activities.

b. **Subsection 3.2** describes implementation of the SoS requirements into the networked FoS analysis, design, development, integration, and test efforts at the individual FoS level.

c. **Subsection 3.3** describes the LSI activities to coordinate and perform integrated FoS and SoS demonstration and test planning, execution, and evaluation in accordance with test milestones defined in the Integrated Master Plan (IMP) and Integrated Master Schedule (IMS).

d. Data deliverables associated with selected SOW paragraphs are identified by references {Axxx} to specific FCS SDD program Agreement deliverable items per Attachment 2. References to the Work Breakdown Structure are indicated by [WBS x.x.x.x] to the sixth level as appropriate.

3.1 SOS ENGINEERING, INTEGRATION, AND PROGRAM MANAGEMENT

The LSI shall perform the necessary program and engineering management activities associated with planning and conducting the FCS SDD Increment I program IAW the Applicable Documents listed in paragraph 2.0, above. The LSI will ensure that the FCS design and processes support smooth transition to the objective capability as defined by the requirements documents and will assist TRADOC to integrate and synchronize the LSI FCS work with the larger UA and FF requirements as specified in the following subparagraphs. [WBS 1.1.1]

3.1.1 SoS Engineering and Integration Management

The LSI shall define, plan, and manage the systems engineering process IAW the SEMP and the Systems Integration Plan to transform the UA Increment I Capabilities Specification into a tested SoS Increment I solution suitable for IP initiation, conduct system reviews as defined in the SEMP and/or IMP, and prepare for the IPD. {A001, A029} [WBS 1.1.1.1, 1.1.1.2, 1.1.1.3, 1.1.1.7]

3.1.1.1 ***Future Force Requirements Integration.*** The LSI shall support TRADOC in refining and allocating UA Operational Requirements; refining operational interfaces with joint, interagency, and multinational (JIM) organizations and forces; and refining joint operational concepts for implementation into final design. This activity is to be sustained on three levels: Unit of Action (UA), Unit of Employment (UE), and Future Force (FF). The LSI will support refinement and maintain traceability of FCS requirements with operational concepts, force design, O&O, ORD, operational architectures, training and leader development, and operational interfaces with programs relevant to FCS (Attachment 11); perform Operational Analysis in support of force requirements; define and analyze future increment upgrades in terms of operational and force impacts; and force initialization, deployment, operations, support, and garrisoning requirements. The LSI will work collaboratively with TRADOC and Headquarters, Department of the Army (HQDA) to integrate FCS SDD work into the larger UA and FF development and demonstration effort in order to help the Army optimize force design and define/refine requirements in a continuous/consistent manner over time, including maintaining currency to the STAR. The LSI will support TRADOC/ UA Maneuver Battle Lab (UAMBL) in the horizontal integration and synchronization of FCS SDD efforts with TRADOC's larger FF/UA DOTMLPF domains. The LSI shall supply data in support of TRADOC documentation of operational requirements, findings, and conclusions that impact the FCS design, Operational and Organizational Concept, or requirements development, and shall ensure rapid dissemination to PM FCS and design engineers to ensure parallel work is effectively synchronized. The LSI will acquire insights from the experimentation, studies, and analysis conducted by the following TRADOC organizations: UAMBL, Combined Arms Center (CAC), Combined Arms Support Command (CASCOM), TRADOC Analysis Center (TRAC), and enhanced Objective Force Battle Labs (including support to UAMBL from other centers and schools as part of the Hub and Spoke concept). These insights acquired will be submitted to TRADOC to ensure their analytic validity and consistency with the UA developmental concepts. The LSI will also provide TRADOC with any insights from their FCS SDD work that could impact UA and FF operational considerations. {A002} [WBS 1.1.1.1, 1.1.1.1.2, 1.1.1.1.3, 1.1.1.1.4. 1.1.1.1.5]

3.1.1.1.1 *Force Integration & Analysis.* The LSI shall support TRADOC through PM FCS with UA level and FCS system of systems integration, interoperability, and force effectiveness trades necessary to achieve the allocation of ORD requirements to the FCS UA Objective Capabilities Specification. The LSI will support PM, FCS and TRADOC in modeling and simulation efforts for trade studies, assessment, evaluations of force effectiveness, and for User Representative testing and training to include the integration of Government and LSI modeling and simulation efforts. The LSI will also participate in TRADOC Integrated Concept Teams designed to synchronize and optimize all UA and FF DOTMLPF requirements. The LSI shall support planning, coordination, and execution of Unit of Action Maneuver Battle Lab (UAMBL) experimentation that impacts the FCS FoS design, and shall assist in refining Operational and Organizational concept and requirements development. The LSI shall document analyses, findings, and lessons learned. {A002, A030,} [WBS 1.1.1.1.3, 1.1.1.1.4, 1.1.1.1.5]

3.1.1.1. *TRADOC Site Representation.* The LSI shall provide onsite personnel distributed at TRADOC force development sites based on needs identified by the UAMBL and HQ TRADOC (see Agreement Attachment 7 – Office Space and Administrative Support). These personnel shall coordinate the translation of operational concepts and force requirements and rapidly disseminate continuous requirements development and refinement emerging from UAMBL experiments to coordinate and synchronize operational concepts, force requirements, materiel development, and analytical activities. The LSI shall ensure that UA requirements efforts are current with emerging insights gained from subsequent FCS CTD increments being conducted in parallel with Increment I SDD. [WBS 1.1.1.1.5]

3.1.1.1.3 *TRADOC Battle Lab Integration.* Based on Attachment 7 and SOW 3.1.4.6 below, the LSI shall provide TRADOC's networked Battle Labs and schools with access to the LSI virtual prototype

designs organized within the FCS ACE Distributed Product Description (DPD), to facilitate operational experimentation with latest baseline designs and also to enable rapid dissemination of User Representative feedback to designers as the UA is designed and developed in parallel with the FCS SDD. This work will be targeted at providing specific system and family of systems performance data through Army Materiel Systems Analysis Activity (AMSAA) to the TRADOC network of Battle Labs and schools. [WBS 1.1.1.5]

3.1.1.2 ***Interface Management.*** The LSI shall identify and manage the technical interface requirements among FCS FoS components and among the FCS FoS and complementary systems (including systems used "in-lieu of" systems listed in the ORD) as defined in Attachment 11 and Article XXIX. The LSI shall establish, monitor and maintain interfaces to systems external to FCS (legacy, higher echelon, Joint, Coalition, and other Government and Non-Government Agencies as defined in Attachment 11) and control internal FoS system-to-system interfaces. {A004} [WBS 1.1.2.1.3.2]

3.1.1.2.1 *Interoperability Management.* The LSI shall identify, update, and manage the interoperability requirements among the FCS FoS, Army, and joint, interagency, and multinational (JIM) organizations and forces listed in Attachment 11. This effort requires the LSI to monitor and control all FCS interfaces required to satisfy FCS interoperability requirements and includes participation in interface control working groups, development and maintenance of interface control documents, design of FCS interfaces, and verification that interfaces conform to approved Interface Control Documents. In coordination with TRADOC's FF and UA force development work, the LSI shall identify, update, and manage interoperability solutions to meet the User Representatives requirements among the FCS FoS as they relate to the Army's UA and FF developments work, and Army participation in development of JIM organizations, forces, and equipment, including addressing files, applications, standards, protocols and other relevant considerations. The LSI shall submit maintainability and reliability considerations for interoperability to TRADOC (through UAMBL to CASCOM). The LSI shall submit information exchange considerations to TRADOC (through UAMBL to the Architecture Integration Management Directorate). {A035} [WBS 1.1.2.1.2.11, 1.1.2.1.3.2]

3.1.1.3 ***SoS Architecture Development and Management.*** In close coordination with TRADOC, AMC, and other Army organizations, the LSI will develop, integrate, and manage FCS SoS level Operational, System, and Technical View architectures and support TRADOC development of Operational View architectures reflecting O&O Plan and ORD maturation to provide an evolutionary roadmap for SoS architectures using DoD Architecture Framework 1.0 as appropriate. The LSI will manage and update the FCS interface requirements to higher (DoD and JIM) and lower level architecture views, implementing JTA, JTA-A, and JAUS requirements into these views as required. The system design approach shall comply with the applicable portions of the Joint Technical Architecture-Army. PM FCS shall approve any proposed technical designs that deviate from the standards and practices delineated in the Joint Technical Architecture-Army during this Agreement. The LSI will provide FCS developed architecture products synchronized with and entered into the TRADOC Army Architecture Repository Management System, which must be CADM compliant. {A005, A006} [WBS 1.1.1.2.2, 1.1.1.2.2.1]

3.1.1.3.1 *System/Subsystem Design Description.* The LSI shall develop and maintain a System/Subsystem Design Description (SSDD) as a single document to capture system-level (e.g., electrical, software, mechanical) design concepts and decisions and used as the basis for further system and subsystem development. In addition to system-level architecturally significant contents, the LSI will include design decisions and constraints at appropriate system/subsystem levels as necessary and applicable to meeting system performance requirements and to coordinate interfaces across multiple developers/products (e.g., IPTs, suppliers/platforms, vehicles, sensors). {A007} [WBS 1.1.1.2.2.3]

3.1.1.3.2 FCS Specifications. The LSI shall update and manage the FCS UA Increment I Capabilities Specification reflecting the SDD Increment I compliant capability (as defined in Article XXX) including interfaces to Increment I complementary programs (Attachment 11). The LSI shall also develop and deliver a FCS UA Objective Capabilities Specification reflecting the full FCS ORD to provide overarching guidance for future incremental development planning (3.1.1.10). The LSI will develop, update, and manage all systems level performance specifications, Distributed System Specifications, Prime Item Development Specifications (PIDS), Procurement Control Drawings, and Software Specifications to reflect the Increment I capability only. {A003, A008, A009, A018, A044} [WBS 1.1.1.2.3.2, 1.1.2.1.3.6]

3.1.1.3.3 Requirements Analysis Management. In coordination with PM, FCS, TRADOC, the LSI shall translate operational requirements into systems requirements. This translation includes the development of systems and technical architectural views of the SoS, as well as the FoS that comprise the SoS. The LSI shall capture and appropriately allocate performance, functional, and other derived requirements to the specifications of 3.1.1.3.2. Further, the LSI shall develop and maintain dynamic traceability of requirements linking the ORD to the FCS UA Objective Capabilities Specification and lower tier specifications and system design, enabling identification of change impact. The LSI shall develop and maintain a comprehensive integrated requirements database to capture: continuous FCS requirements development over time to objective capability; FCS requirements, including key attributes related to safety and mission critical functions; traceability between the system level requirements and the Hardware Configuration Item (HWCI) and Computer Software Configuration Items (CSCI) requirements they are allocated to; and traceability between HWCI and CSCI requirements and design components that implement them. {A009, A018} [WBS 1.1.1.2.2; 1.1.1.2.2.1; 1.1.1.2.3.2; 1.1.2.1; 1.1.2.1.3.3; 1.1.1.2.2.3]

3.1.1.3.4 SoS Architecture Development Plan. The LSI shall develop a SoS Architecture Development Plan that defines the SoS Architecture processes, management, and organization to be utilized in the development of architectures. Timelines and milestones for development of the SoS Architectures will be as documented in the IMP and IMS. {A010} [WBS 1.1.1.2.2]

3.1.1.4 Configuration/Data Management. The LSI shall provide configuration and data management (CDM) through the FCS ACE IAW the CDM Plan. The LSI will develop and manage processes and policies implemented in related program CDM organizations, including ensuring that architecture data is synchronized with and entered into the TRADOC Army Architecture Repository Management System (AARMS), managing the FCS data repository, and providing oversight of configuration management policies and processes employed by other LSI organizations and suppliers. The LSI shall manage the FCS interface control documents relating to SoS internal and external interoperability. The LSI will coordinate configuration management of FCS SDD products to ensure an appropriate level of interoperability/consistency with TRADOC, Army Test and Evaluation Command (ATEC), and AMC configuration management policies and procedures for operational and SA-C architecture products. {A011, A063} [WBS 1.1.1.2.4, 1.1.2.1.3.3]

3.1.1.5 Manpower and Personnel Integration (MANPRINT). The LSI shall integrate MANPRINT into system designs to accommodate personnel health and safety, human factors, system safety, soldier survivability, skills/aptitude/development, training, and system manpower requirements. As a part of preliminary design, collaborate with appropriate AMC and other Army agencies, including the TRADOC System Manager (TSM) FCS, to resolve User Representative MANPRINT issues in the design and development of the FCS SoS. MANPRINT considerations and derived requirements must be maintained compatible with the capabilities and limitations of the User population. The LSI will provide policy and processes to ensure consistent incorporation of the MANPRINT program across all configurations. The LSI shall conduct MANPRINT design evaluation during system development, to

include requirement, specification, design, test, and assessment and provide a report on results of evaluation. {A012, A013} [WBS 1.1.1.2.4, 1.1.2.1.2.14]

3.1.1.6 ***Trade Study and Life Cycle Cost Containment Management.*** The LSI shall establish policies and procedures relating to the trade study process, including application of Cost as an Independent Variable (CAIV), coordination for studies that cross program elements, and recommendations for final resolution on any issues that affect SoS requirements. The LSI will use SoS trade studies to provide support for technology and design decisions through CDR. Elimination of SoS trade studies after CDR will not effect trade studies or design trades below the SoS level, subcontractor capability and funding, trade studies necessary to evaluate a spiral forward system or trade studies necessary to evaluate spiraling in new technology. The LSI will implement the FCS Life Cycle Cost Containment Plan defined in D786-10012-1 and IAW the Life Cycle Cost Estimation reporting milestones identified in the IMS. The LSI shall develop an overall plan consistent with the Containment Strategy to achieve program affordability, implementing CAIV to balance cost, performance, and schedule, including development of Total Ownership Cost estimates to track progress toward meeting containment requirements and reducing operations and support costs. The LSI will resolve User Representative operational performance issues in conjunction with TRADOC in the design and development of the FCS SoS as well as the individual systems that comprise the FCS FoS. The LSI will ensure FCS FoS and system trades are synchronized and integrated with the larger UA and FF development and demonstration effort. The LSI will provide trade study data to TRADOC to support TRADOC's decision process regarding adjustments to FCS operational requirements and effectiveness. The LSI will support best choice decisions with documented evaluation. Requirements not incorporated into design concepts for Increment I, shall be reassessed as required. The LSI will flow trade study policy and requirements down to the major FCS network and platform development subcontractors. The LSI shall participate in and provide oversight to the conduct of the subcontractors' trade study processes. {A014, A015, A016, A034} [WBS 1.1.1.2.2.4, 1.1.1.2.8]

3.1.1.7 ***Software Management.*** The LSI shall establish a Software Process and Management Team, consisting of LSI, Government, and supplier representatives, to provide the overarching program-wide software management, coordination and guidance for processes relating to software. This software management team will ensure that the proper policies, processes, procedures, tools, and training are in place to provide an integrated coherent software management approach across all elements of the program and implementation of an open software architecture across the FCS FoS. The software management team shall update and maintain the FCS Software Development Plan and approve and coordinate changes to IPT and supplier Software Development Plans. The software management team shall assist and verify that the IPTs and their software suppliers implement and maintain organizational software development practices that are certified to at least Level 3 of the Software Engineering Institute Capability Maturity Model for Software (SEI CMM). The software management team shall develop a plan to achieve SEI Capability Maturity Model Integration (CMMI-SW) Level 5 certification by the end of Increment I SDD. The software management team shall develop and maintain a software progress measurement plan to establish software metrics and a measurement process to include audits and assessments. Using the FCS ACE, the team shall collect metrics from the software suppliers and perform analyses to assist IPTs in software defect prevention and reduction as well as cost and schedule adherence. {A017} [WBS 1.1.1.3]

3.1.1.7.1 *Software Lifecycle Activities.* The LSI shall conduct SoS software requirements, architecture, and design reviews to ensure the development and maintenance of the FCS SoS/FoS software solutions are integrated across all of the UA Battlefield Functional Areas, UE, and Home Station Operating Center (HSOC) to meet FCS requirements and operational architecture demands. The LSI shall also participate in other software reviews to ensure FCS SoS/FoS integration. The LSI shall prepare, deliver for approval, and maintain the FCS SoS/FoS software architecture description document (SADD).

The SADD will address implementation and maintenance of an open architecture that enables industry to develop modular battlefield software enhancements to increase the operational effectiveness of the UA, UE and HSOC. The LSI shall develop a software transition plan to identify resources required to maintain and support delivered software. The LSI will develop a phased software integration plan that includes initial development and a roadmap/plan for software upgrades, including tactical, that support both Increment I, and subsequent increments, taking into consideration the Army Software Blocking Plan. {A017, A036} [WBS 1.1.1.3]

3.1.1.7.2 Software Configuration and Quality Management. The LSI is responsible for SoS/FoS software configuration management per the CDM Plan, including operation of the FoS level software configuration control board. The software management team maintains the software item database, software configuration management database, and software problem reporting database. The LSI shall ensure that all software developed or modified (including source code, firmware and supporting documentation) under this agreement shall be accessible through the FCS ACE and become Government property at the end of SDD. The LSI shall develop and maintain a software quality assurance plan. The team shall perform software quality product and process audits of LSI software activities and supplier software quality engineering. {A017} [WBS 1.1.1.3]

3.1.1.8 Performance Assurance. The LSI shall ensure SoS and FoS performance is effectively and efficiently achieved to specific documented criteria. The LSI will define SoS and FoS performance by such criteria as: Key Performance Parameters (KPPs), prioritized ORD threshold and objective requirements, Technical Performance Measures (TPMs), Measures of Effectiveness (MOEs), system security, producibility, parts/materials/processes, and affordability. The LSI shall conduct performance test and analysis at the small unit (company) level to establish integrated SoS effectiveness measures across the UA Battlefield Functional Areas (BFA). The LSI will conduct SoS level analysis to evaluate UA Force Effectiveness compared to the SoS specifications. {A020} [WBS 1.1.1.2.5, 1.1.1.2.6]

3.1.1.9 SoS Verification. The LSI shall conduct a verification program to support the decision to proceed with IP, and provide verification data for Government evaluation of SoS performance by the Joint Interoperability Test Command and Army Test and Evaluation Command. {A021, A022, A029} [WBS 1.1.1.2.7]

3.1.1.10 FCS Technology Development and Growth Management.

3.1.1.10.1 Future Increments Strategy. The LSI will define future Increments concepts and corresponding capabilities as required by CLIN 0002 Work Directives. [WBS 1.1.1.2.10]

3.1.1.10.2 System and Technology Insertion into Increment I. Through separate CLIN 0002 Work Directives, the LSI shall develop a maturation scheduling strategy, technology development analysis plan, transition plans, business case analyses and experimentation plan, and perform analysis, risk identification, and planning for programmatic integration of critical technologies, post FOC baseline, to meet the objective values of the FCS UA Increment I Capabilities Specification and the values within the FCS UA Objective Capabilities Specification. This data shall be accessible through the FCS ACE [WBS 1.1.1.2.10]

3.1.1.10.3 Growth Strategy. The LSI shall define, document and maintain a Growth Strategy for integrating, scheduling, measuring and controlling the evolution of the FCS System of Systems architecture, development, test, and fielding of UAs that meet both the objective requirement of the FCS UA Increment I Capabilities Specification and the FCS UA Objective Capabilities Specification. The Growth Strategy shall be consistent with the FCS Technology Development Strategy. This Growth

Strategy will incorporate potential technology and systems suppliers to the FCS program including LSI, Government entities representing DARPA and AMC, TRADOC, suppliers, and complementary programs and other services and Government Agencies associated with growth beyond the threshold values within the FCS UA Increment I Capabilities Specification. The LSI will include within the Growth Strategy the methodology and details for integrating capability throughout the FCS life cycle based on incremental upgrades and technology insertion, to include Increment I spiral forward systems within the FCS UA Objective Specification as described within the Technology Development Strategy. The LSI will also include in the Growth Strategy all software functionality upgrades beyond the threshold values of the Increment I capabilities specification and a strategy for how the upgrade(s) will be phased in. In addition, the strategy will identify significant change(s) to Increment I software that are required to implement post increment I software. The Growth Strategy shall provide for continuous commercial innovation and development of software that will increase UA operational effectiveness consistent with the UA O&O plan. {A024} [WBS 1.1.1.2.9]

3.1.1.10.4 Growth Provisions The LSI shall design the FCS to facilitate growth to full objective capabilities. The LSI shall include growth provisions and flexibility to accommodate future technologies and spiral forward systems to meet User requirements. The LSI shall specify and implement FCS FoS and associated FCS Systems of Systems and Unit of Action Architectures that include provision for design margin and growth consistent with the FCS Growth Strategy. The LSI shall conduct appropriate trade studies through CDR to determine needed design parameters enabling subsequent capability upgrades, including spiral forward systems, to be readily inserted without significant redesign and retrofit. The LSI shall analyze objective performance requirements associated with Increment I Thresholds, design the Increment I FCS with additional capacity (such as space, weight and power), and interfaces needed to facilitate objective capability enhancements, including spiral forward systems, without significant redesign or retrofit, and document these growth areas within the appropriate technical baseline documentation. The LSI shall, for the IMS, ensure that the technical baseline includes all documentation, planning, and engineering activities needed to facilitate the completion of the physical and network integration (e.g. space, weight, power, and networks allocations and interfaces) of the IMS into the UA. The LSI shall, for the NLOS-LS, ensure that the technical baseline includes all documentation, planning, and engineering activities needed to facilitate the completion the network integration (e.g. network allocations and interfaces) of the NLOS-LS into the UA. [WBS 1.1.1.2.9]

3.1.1.10.5 Critical Technology Management. The LSI will define and monitor current and planned technology maturation and insertion plans to meet the threshold values of the FCS UA Increment I Capabilities Specification. The LSI shall identify, evaluate, develop, and execute risk mitigation plans associated with maturation and integration of critical technologies into Increment I. The LSI shall perform assessments and evaluations for the Government in the development of Technology Transition Agreements required to complete the execution of risk mitigation plans. The LSI will review Government technology programs and advise the Government on their utility for FCS [WBS 1.1.1.2.9]

3.1.1.11 Spiraling Out Capabilities or Technologies to Current Forces. LSI documentation and processes will be structured to facilitate initiatives to spiral out FCS capabilities and technologies to the current force. Individual initiatives will be separately specified by Work Directive using CLIN 0002. [WBS 1.1.1.2.10]

3.1.1.12 SoS Logistics Management. The LSI shall provide the planning and management of all logistics functions to include the development of Performance Based Logistics IAW DoD 5000 series, DoD Future Logistics Enterprise (FLE) - U.S. Army PBL Implementation Guide, and the guidance of TRADOC Maneuver Sustainment Concept. In close coordination with the Army, the LSI shall conduct logistics planning, analyses, and testing and recommend technologies, processes, procedures, and

performance metrics to achieve logistics footprint and operational support cost reduction. The LSI shall coordinate with the Army to identify linkage to the DOD FLE when defining the logistics attributes in the design of the HSOC, the forward support battalion, and the forward base support capabilities. This shall include the evaluation of logistics and readiness requirements for integration across the FCS SoS to support the development and process and procedures to implement defined logistics solutions. The LSI shall submit maintainability and reliability considerations for interoperability to TRADOC (through UAMBL to CASCOM). Integration of the results of these planning and management activities shall begin with GCSS-A and MC4 during SDD and be completed during Low Rate Initial Production (LRIP) {A025, A027} [WBS 1.1.1.7]

3.1.1.13 Programmatic Environmental, Safety and Occupational Health Evaluation (PESHE). The LSI shall update the PESHE including integration of ESOH design considerations. The LSI shall comply with applicable Federal, State and Local regulations and statutes. {A028} [WBS 1.1.1.2.6.15]

3.1.2 Simulation and Modeling for Acquisition, Requirements, and Training (SMART)

The LSI shall manage, coordinate, and as required develop, in collaboration with the Government and suppliers, SoS and FoS performance level modeling and simulation (M&S) capability for use in analyzing requirements, evaluating design performance, and supporting system and SOS level testing IAW relevant sections of the Simulation Support Plan. The LSI, in close coordination with TRADOC, AMC and other Army organizations, shall develop requirements for constructive and virtual simulations for trade studies, SoS force effectiveness and performance assessment, requirement validation, design analysis, and test planning and design to support demonstrations and tests. The LSI shall serve as the enterprise level integrator to ensure FCS M&S efforts addressing requirements, design, training, manufacturing, and production are not being duplicated among the efforts of the LSI, subcontractors, and Government, and to leverage reuse and commonality of M&S tools to include AMC RDECOM facilities and capabilities for materiel research, development and evaluations, as well as TRADOC Battle Lab and school facilities conducting experimentation efforts focused on Unit of Action DOTMLPF requirements development and demonstration. The LSI will ensure integration and cross leveraging of M&S between appropriate program elements. The LSI will ensure M&S representations are consistent among the Government, LSI, and suppliers. The LSI will ensure that the modeling and simulation capability developed in support of SDD also supports planned future increment processes and functions (e.g., training, post deployment software support, supportability, and interoperability). However, the LSI shall not develop models, simulations or architectural artifacts for which there are effective and efficient alternatives existing within the Government as defined in the SIL Development Plan unless specifically authorized by the Government. Government M&S capabilities include, but are not limited to: OneSAF/OTB, CASTFOREM, Janus, VIC, STORM, OASIS, JDEP, and Virtual Proving Ground. The LSI shall maintain and update Government furnished models and simulations as required. The LSI shall ensure that any models, simulations, architectures, and documentation (including source code) necessary for full functional use, maintenance and upgrade of the M&S developed under this agreement will be accessible through the FCS ACE and become Government property at the end of SDD, in accordance with 3.1.1.7.2. [WBS 1.1.1.4]

3.1.2.1 Force Effectiveness Modeling. The LSI shall coordinate and support, among LSI, Government, Industry sources and User Representatives, Operational Analyses, including modeling of interfaces, designs, and testing as necessary to evaluate FCS Increment I Force Effectiveness. The LSI shall document and receive approval of Force Effectiveness SoS, FoS, and UA analysis results through an FCS ACE workflow (that includes: HQ TRADOC, TRAC and UAMBL). HQ TRADOC (ICW TRAC and UAMBL) shall approve both plans and results that in any way affect or represent the force effectiveness of either FCS FoS, SoS or the UA. The LSI will develop, provide analysis data in support of

TRADOC development of scenarios. The LSI shall coordinate the maintenance and utilization of scenarios in support of Force Effectiveness evaluation and FCS design specific performance evaluations. All Environment (scenario, terrain, and weather) and Behavior (employment and TTP) data sets for analysis will be approved by TRADOC (specifically HQ TRADOC ICW TRAC and UAMBL). Army Materiel Systems Analysis Activity (AMSAA) certifies performance data. The LSI shall develop and maintain a library of scenario results within the FCS ACE for comparison as the design evolves. {A030} [WBS 1.1.1.4.2]

3.1.2.2 ***SoS and FoS Modeling and Data Description.*** The LSI shall develop or acquire Government accredited system level modeling and simulation of the following: responsiveness, deployability, agility and versatility, lethality, survivability, sustainability, training, interoperability, availability, vulnerability, and information management. The LSI shall develop simulation federation architecture design alternatives for virtual (realtime) and constructive (non-realtime) SoS simulations. The LSI will coordinate the use of this modeling and simulation capability across SoS and FoS development, testing, and other User Representative support as needed to evaluate FCS performance for selected designs IAW the Simulation Support Plan. [WBS 1.1.1.4.3]

3.1.2.2.1 *System Modeling.* The LSI shall coordinate and manage the integration of each system's variant models, emulations, and simulations into the SoSIL, other SILs, and test environments to support development and integration with other elements of the SoS and to ensure both SoS and FoS level demonstration and test objectives are met. The LSI will ensure that individual system-to-system interfaces are validated prior to SoS level integrated test and evaluation. [WBS 1.1.1.4.3]

3.1.2.2.2 *Distributed Product Description (DPD).* The LSI shall develop and maintain a DPD consisting of system/subsystem reference models for each system's variants, including physical, dynamic, behavior, and other models as required to support ongoing analyses and integration tasks, to verify and analyze performance and other considerations with respect to requirements in the SoS specifications, and to ensure commonality and affordability of system elements within the context of the FoS. The LSI, working in conjunction with Army Materiel Systems Analysis Activity (AMSAA) and other AMC organizations, shall provide performance data for FCS systems translated into inputs for the Army operational simulations (e.g., this includes but is not limited to ONE Semi automated forces (ONESaf) Test Bed, CASTFOREM, JANUS). The DPD feature shall be available for Government access via the FCS ACE. [WBS 1.1.1.4.3, 1.1.1.4.5]

3.1.2.3 ***Simulation Development, Verification, Validation, and Accreditation and Support.*** The LSI will provide and implement the necessary Modeling and Simulations (M&S) processes and standards to coordinate simulations development and utilization in support of FoS design evaluation and SoS performance verification. The LSI shall verify and validate models and simulations used for the FCS design, development, and test and evaluation in compliance DA PAM 5-11 and the LSI developed FCS Simulation Validation and Verification Plan, provide verification/validation data to support Government accreditation of models and simulations, and conduct validation and verification of simulations that will support a virtual Operational Test prior to IPD. {A031} [WBS 1.1.1.4.3]

.1.3 SoS Integration Laboratory

The LSI shall design, develop, use, and maintain a SoS Integration Laboratory (SoSIL) with data and analysis results accessible through the FCS ACE, IAW the System Integration Laboratory (SIL) development and maintenance plan for the program life cycle, for use in SoS development, integration, and test. The LSI will provide detailed design, interface, and utilization information in separate documents available for Government review and comment. The LSI shall establish system simulators at

supplier sites as appropriate and provide a framework and detailed interface definitions to integrate simulators across the dispersed sources/User Representatives, including interfacing with complementary programs hardware, software, and SILs, in both industry and Government, IAW SoS test plans. The LSI shall provide interfaces to the DoD Joint Distributed Engineering Plant for interoperability testing, to the AMC RDECOM Laboratories, and to Army technical test capabilities (specific Government site locations requiring interfaces will be as mutually agreed to between the Government and the LSI). The LSI, shall facilitate through the DREN (Defense Research Engineering Network) a link for RDECOM's Laboratories, ATEC facilities, and TRADOC Battle Labs and schools to the LSI SILs and SoSIL to enable concurrent engineering design development and evaluation with User Representative continuous and consistent requirements determination and development to occur between LSI and Government virtual development and prototyping facilities and to avoid duplication of Government capabilities and events. The LSI shall furnish all emerging performance data to AMSAA for validation. {A032} [WBS 1.1.2.1.4.1]

3.1.4 System of Systems Program Management and Control

The LSI shall provide integrated program management, program control, agreement and subcontracts management, data management, and operations management associated with the LSI overarching management of the FCS SoS activities. The LSI shall conduct subcontract procurement activities in an open competitive environment IAW the Competition Process Plan to allow the selection of the best of industry or Government sources for major FCS products. The LSI shall support PM FCS in program contingency planning (e.g., funding changes, threat evolution, requirements changes). The LSI shall use Integrated Process and Product Development (IPPD) as defined in Article IV of this OTA. The LSI shall report management performance metrics at program management reviews. [WBS 1.1.1.6]

3.1.4.1 Program Management. The LSI shall provide the executive level leadership to implement and control FCS program cost, schedule, and performance activities through Agreement closeout. The LSI will conduct monthly PM FCS program status and management reviews and quarterly FCS SDD reviews to the FCS Board of Directors. The LSI will be the primary focal point to the Government FCS Program Management Office, conducting, coordinating, integrating, and administering all aspects of LSI program management IAW the SDD IMP and IMS and using the FCS Program Plan as guidance, leading to a successful Increment I IPD decision and completion of SDD efforts. The LSI will perform technical level management and administration for the development of SDD products. The LSI shall maintain on the ACE a current FCS roster, identifying members by IPT and by Working Group. [WBS 1.1.1.6.4]

3.1.4.1.1 Program Reviews. The LSI will conduct reviews IAW the FCS Program Plan Summary and IMP/IMS to assess SoS program/technical maturity. [WBS 1.1.1.6.3]

3.1.4.1.2 Program Risk Management. The LSI shall execute program risk management by identifying, assessing, and ensuring mitigation of program risks, with separate identification of risks associated with the SoS COE. Each risk identified shall include an assessment of technical, cost, schedule, and programmatic risks IAW the Risk Management Plan. {A033} [WBS 1.1.1.6.4.2]

3.1.4.1.3 Program Documentation and Briefing Support. The LSI shall coordinate generation of information requirements for IPD and other programmatic support, including providing data for PM FCS program briefings and participating on Government Working IPTs. [WBS 1.1.1.6.3]

3.1.4.1. Program Protection. The LSI shall provide for security of both classified and unclassified information, data, hardware, and software generated for the program. The LSI shall comply

with and provide security procedures and processes to satisfy the security requirements identified in the DD Form-254, which specifies requirements for Top Secret-Special Compartmented Information (TS-SCI), Communications Security (COMSEC), National Industrial Security Program Operating Manual (NISPOM), NISPOM Supplement, NISPOM Overprint, Program Security Guides, Security Classification Guideline, DoD 5100.76-M, and AR-380-381 (Special Access Programs); and the Program Protection Plan. [WBS 1.1.1.6.4.4]

3.1.4.1.5 *Data Management.* The LSI shall coordinate, monitor, and deliver contractually required data items on the FCS ACE unless otherwise specified. [WBS 1.1.1.6.1.3]

3.1.4.1.6 Integrated Product Team Training. The LSI shall conduct IPT training for Level II and III IPTs within 30 days of their IPT Charter being established. The LSI will establish an IPT training program for individuals who are assigned to an established IPT after the initial training period. The IPT training shall address as a minimum the IPT's charter and structure; conflict resolution; cost, schedule, and performance baselines; Agreement modification process; and common practices. [WBS 1.1.1.6.4.6; 1.1.1.5.6]

3.1.4.2 ***Subcontractor Management.*** The LSI shall maintain competition throughout the life cycle at the subcontract level IAW the Competition Process Plan. The LSI will ensure utilization of Best Commercial Practices and Best Public-Private Partnerships to reduce cycle times and cost. The LSI will proactively participate in the FCS supply base Make or Buy plans, evaluation criteria, and decision-making processes. The LSI shall manage subcontractor activities to facilitate on-time delivery of quality products consistent with the contractual, cost, technical, and schedule constraints, and ensure coordinated and consistent direction aligned with program objectives. The LSI will coordinate with the suppliers through the LSI Integrated Product Teams (IPTs) and the assigned onsite Major Subcontract Managers (MSM) concerning subcontractors' scopes of work, data deliveries, and funding. The Competition Process Plan shall be available for Government review on the FCS ACE. [WBS 1.1.1.6.1.2]

3.1.4.3 ***Agreement Management.*** The LSI shall administer and comply with this Agreement. [WBS 1.1.1.6.1]

3.1.4.3.1 *Export & Import Compliance.* The LSI shall comply with applicable regulations and statutes regarding exports and imports. [WBS 1.1.1.6.1]

3.1.4.4 ***Program Management Coordination with Complementary Programs.*** The LSI shall ensure that the FCS systems developed under this Agreement incorporate the Complementary Programs listed in Attachment 11 needed to fulfill the requirements call out in the SoS Specification; and meet the Army's requirement for successful UA Increment I FOC, including those UE, Legacy, Interim, Joint, International and Multinational interfaces needed to make the UA operational. The LSI shall develop and implement a Complementary Programs Management Control Plan that shall include the process for identifying and managing Complementary Programs. The Plan shall include coordination and interfaces with the UA Supportability Strategy, Fielding Team activities and Material Fielding Agreements prepared by the Logistics Requirements and Readiness IPT. {A038, A061} [WBS 1.1.1.6.5; WBS 1.1.2.1.2.11]

3.1.4.4.1 *Complementary Programs Database.* The LSI shall develop a database of the Complementary Programs needed to establish interfaces and meet the FCS UA Increment I Capabilities Specification requirements in accordance with the CDRL. {A061} [WBS 1.1.1.6.5]

3.1.4.4.2 *Complementary Program Schedules.* The LSI shall integrate the complementary program schedules into the overall FCS program IMP/IMS. The LSI shall provide System of Systems

recommendations for the SDD FCS Increment I phase Complementary Program integration from analysis of IPT inputs and EVMS data.

3.1.4.4.3. Memoranda of Agreement (MOAs). The PM FCS, with LSI support, will work with PEO GCS in establishing Memoranda of Agreement (MOAs) with the Complementary Programs' Government Program Executive Offices (PEOs) and Subordinate MOAs (SMOAs) with the Program Managers of Army Material Command (AMC) item managers, Research Development Engineering Centers (RDECs), and other Government Agencies to help ensure the definition and management of program interfaces between FCS and complementary programs are adequate to effect required FCS performance. The LSI, with PM FCS support to the extent possible, will, concurrent with Government MOA and SMOA development, establish and manage Associate Contractor Agreements (ACAs), as necessary, with the prime contractors, subcontractors, and/or Original Equipment Manufacturers of identified FCS complementary programs. Complementary programs ACAs shall reference detailed Material Fielding Agreements (MFAs) which shall be developed during SDD by the Material Fielding sub-IPT in coordination with the responsible complementary program office personnel.

3.1.4.4.4 Complementary Programs Risk Mitigation. The LSI shall identify issues and recommend risk mitigation efforts associated with complementary programs development and integration. [WBS 1.1.1.6.5; 1.1.1.6.4.2]

3.1.4.4.5 Complementary Programs Funding. The development cost of the Complementary Programs technologies required for the successful execution of the FCS SDD Program is not funded through this FCS SDD Agreement, except for the following aspects of specific Complementary Programs:

		Cost Included in LSI Procurement	
Complementary Program	Technology	Specific Configuration Changes Dependent Upon Completing Current Development	Hardware Required for Prototype Testing
CP387, Ground Standoff Mine Detection System (GSTAMIDS)	Ground Sensors, Procurement Package 12	X	X
CP143, Emitter Mapping (Prophet 2/3)		X	X
CP334, Class IV EO/IR (aka Advanced Electro-Optical / Infrared and ASTAMIDS – (Air Standoff Minefield Detection System)	Air Sensors, Procurement Package 14		X

Complementary Program	Technology	Specific Configuration Changes Dependent Upon Completing Current Development	Hardware Required for Prototype Testing
CP49 Class 4A SIGNITPayload (Tactical SIGINT Payload)			X
CP403, Joint Tactical Radio System (JTRS) Cluster 1	Ground and Air Communications, Procurement Packages 24 and 25		X
CP176 Joint Tactical Radio System (JTRS) Cluster 5			X
CP17, ATCIA	Manned Ground Vehicle	X	
CP80, CTIA	Manned Ground Vehicle	X	
CP264, One SAF Objective System RDTE	Manned Ground Vehicle	X	
CP184, Lightweight 120mm Cannon for Mounted Combat System	Manned Ground Vehicle (MGV) Mounted Combat System (MCS)	X	

[WBS 1.1.1.6.5, 1.1.2.1.2.11]

3.1.4.5 ***Business Management.*** The LSI shall implement the necessary business management functions to ensure all budget and schedule constraints are met during SDD and shall provide necessary schedule, financial, and other program progress reporting for all CLINs under this Agreement. {A039, A040, A041} [WBS 1.1.1.6.2]

3.1.4.5.1 *Earned Value Management.* The LSI shall implement an earned value management approach to ensure program leadership properly manages the use of LSI and subcontractor resources (dollars and manpower) and meets or exceeds all program schedule and technical requirements. This management system includes applying effective management control systems as set forth in Article IV of this Agreement that provide disciplined cost and schedule and technical performance data in a timely manner for program management decision making. [WBS 1.1.1.6.2]

3.1.4.5.2 *Integrated Planning/Scheduling.* The LSI shall ensure adequate plans are developed to support successful execution of all work projects and programs. This planning and scheduling shall be effected in a single Integrated Master Plan (IMP) and Integrated Master Schedule (IMS), including demonstration, maintenance, and analysis of critical path for both prime and subcontracts. {A043} [WBS 1.1.1.6.2]

3.1.4.5.3 *Government Furnished Property (GFP) Management.* The LSI shall manage GFP in accordance with the terms and conditions of the Agreement. [WBS 1.1.2.1.3.4]

3.1.4.6 ***FCS Advanced Collaborative Environment (ACE).*** The LSI shall provide a well organized, intuitive, and rapid electronic collaborative access to a single integrated source of management information, product information, and technical data IAW the FCS Advanced Collaborative Environment (ACE) Implementation Plan. The LSI shall develop, track and routinely report metrics for the FCS ACE to monitor the utility, the support, and the User Representative satisfaction with the interface. The FCS ACE shall be developed to serve as the primary FCS program management decision support system. In addition, the LSI will develop, maintain, and mature the FCS ACE to serve as the primary means of creating, sharing, reporting, collecting, recording, accessing and approving program information between the LSI, authorized FCS major/critical subcontractors, and authorized U.S. Government personnel connected with the FCS program. The LSI shall develop a Distributed Product Description within the FCS ACE organized by the JTA-A views (Operational, Technical, System, System of System) as described in the Simulation Support Plan. The LSI will provide the FCS ACE application development, deployment, software and hardware support, training, infrastructure and sustainment as required. The LSI shall develop and deploy interfaces to selected Government data environments to include the Army Test Incident Reporting System (ATIRS) and Vision hosted by ATEC, and AARMS hosted by TRADOC. The FCS ACE shall support an emerging Interoperable Modeling and Simulation Environment (IMSE) by serving as the single authoritative source of data, and mapping product information to M&S data. The FCS ACE shall accommodate the exchange of information between the system engineers and User Representatives to enhance LSI design work as envisioned in SMART activities. For validation of design information by AMSAA prior to use in modeling, the LSI shall ensure that the FCS ACE provides a means to logically trace this design information to performance requirements. Nothing in this paragraph (3.1.4.6) shall require the LSI to provide infrastructure to Government sites. {A045, A062} [WBS 1.1.1.5]

3.1.4.7 ***Production Operations Planning & Product Assurance.*** The LSI shall develop an Enterprise Production Plan for production transition from SDD to IP and then to Full Rate Production (FRP). This planning will include identification of necessary IP Long Lead items, as well as IP-phase deliverable product quantities. The LSI shall provide product assurance and quality support at all levels of product development and manufacture. The LSI will ensure that production planning supports program objectives, risk mitigation, lean manufacturing, commonality, best practices, breakout opportunities, logistics production, and production readiness, and will ensure related facility planning supports program requirements throughout the program lifecycle. All long lead, initial production, and full rate production planning data will be IAW the Enterprise Production Plan which outlines the strategy, plan, and approach to manage and mitigate risk leading to IP. {A046} [WBS 1.1.1.8]

3.1.4.7.1 *Production Operations Planning.* The LSI shall provide management, oversight, and support to ensure accomplishment of production development, readiness, and supportability planning throughout the program lifecycle. The LSI shall determine and report on industrial capabilities. The LSI will provide management, oversight, and support to ensure facility development, readiness, and supportability planning meets program requirements for cost, schedule, risk, rate, and technology insertion at all levels of manufacture for hardware platforms, common subsystems, and major/critical systems/components. {A047} [WBS 1.1.1.8.1, 1.1.1.8.3, 1.1.1.8.4]

3.1.4.7.2 *Product Assurance & Quality.* The LSI will use its product assurance and quality standards to ensure delivery of hardware platforms, common subsystems, software, and major/critical systems/components that meet program requirements and are available to support testing and demonstration during the SDD phase. [WBS 1.1.1.8.2]

3.1.4.7.3 *Production Design Updates.* Subject to Article XIII (Modifications), the LSI shall accept hardware and/or software design/code changes made during parallel FCS IP design activities to support

ongoing SDD hardware and/or software efforts and incremental development planning. The LSI shall likewise assess completed design/code updates made to hardware and/or software in ongoing SDD efforts for incorporation into the next occurring IP effort. The LSI shall post design changes to the FCS ACE after approval of changes via the FCS change control process IAW the CM Plan. [WBS1.1.1.2.4.1]

3.1.4.8. Home Station Operation Center (HSOC). The LSI shall develop and document the requirements and design for the FCS HSOC. HSOC requirements analysis and design definition activities shall define a networked, in-garrison, battle command planning capability, and interoperability requirements for seamless operations with FCS training and logistics systems. The LSI shall perform the systems engineering, design engineering, site surveys and configuration designs to identify the facility design criteria, the detailed list of equipment, communications connectivity, information protection, war fighter-machine interface, software configuration items, modes of operations, training and supportability provisions and the installation sites. The LSI shall maximize use of FCS embedded hardware and software functionality to satisfy HSOC requirements. The LSI shall also develop a detailed HSOC implementation and procurement plan. The detailed implementation plan shall identify cost, schedules, unique site installation requirements, implementation risk, and recommended facility modification suppliers. The LSI shall coordinate with appropriate customer organizations to assure expectations are being met. {A019} [WBS 1.1.1.2.3.1, 1.1.2.4.2; 1.1.2.4.2.2; 1.1.2.4.4.1]

3.2 FoS ENGINEERING, DEVELOPMENT, AND INTEGRATION

The LSI is responsible for the engineering, development, and integration, including all associated subcontractor performance of FoS units. The LSI shall ensure that a "pit stop engineering" like design approach is an integral and concurrent part of the design activities for the FCS FoS. This design approach includes: generation and application of a "pit stop engineering and maintenance" type efficiencies into the design philosophy and standards of excellence, training of the Integrated Product Design Teams on the "pit stop" design approach and illustrative examples, use of 3-D design simulations (e.g. SMART) of scaled and full scale digital mock-ups, and the conduct of periodic interactive design reviews to apply standards of excellence and gauge progress. Using a "pit stop" approach, the LSI will design to minimize logistics activities emphasizing MANPRINT considerations and supportability/maintainability issues in the battlefield environment. This philosophy takes into consideration ease of maintainability at the lowest possible level ensuring that all unit service/repair actions can be performed quickly in the battlefield environment. This philosophy shall also include embedded training to facilitate ease of use by the operator and maintainer. The LSI shall flow down FCS UA Increment I Capabilities Specification interface, performance, and affordability requirements by ensuring provision for these requirements in the engineering, products, and services required to design, build, procure, and test real or virtual prototypes for the integrated Family of Systems. The LSI shall integrate complementary systems necessary to provide the required capabilities. The LSI will provide for competitive procurement and management of systems and subsystems to ensure best of industry and Government involvement in the development of the FoS elements. [WBS 1.1.2]

3.2.1 FoS Analysis and Integration

The LSI shall conduct performance, design, and affordability analyses/trades, and requirements flow down within the context of the FoS to maintain baseline performance, functional, physical, and logical integration. This includes MANPRINT at both the individual and integrated FoS levels. {A014} [WBS 1.1.2.1]

3.2.1.1 ***FoS Integration and Trades Analysis.*** In close coordination with PM, FCS and TRADOC, the LSI shall perform performance analyses and trades across the FoS to ensure integrated Manned/Unmanned Platforms/Vehicles (MUPVs) and the supporting C4ISR network meet SoS requirements. The LSI shall analyze requirements/design to balance system operational performance characteristics (e.g., responsiveness, deployability, agility and versatility, lethality, survivability, sustainability, training, interoperability, availability, and vulnerability) to establish required performance and affordability parameters. The LSI will work with TRADOC to ensure trade decisions consider the larger impact of UA and other FF requirements development. Cost as an Independent Variable (CAIV), producibility, testability, and safety shall be included in the analysis/trades process. The LSI shall support efforts with ongoing Government analysis of a SoS supportability model to identify potential trades to reduce logistics footprint and life cycle costs. The LSI shall ensure that changes to performance requirements, such as reliability, availability, maintainability, and testability (RAM-T), resulting from trade studies are approved through the established configuration management process. {A014, A034} [WBS 1.1.2.1.3.1]

3.2.1.2 ***Technical Baseline Management and Control.*** The LSI shall perform tasks to manage and control the FoS technical baseline, including definition and conduct of FoS level trade studies, interface control for both software and hardware across the Family of Systems and from FCS FoS to complementary systems. Configuration Management shall be performed IAW with SoS CM guidance, including CM custodial responsibility for FCS to complementary programs ICDs as defined in complementary programs Government MOAs. The LSI shall create and maintain the Master Equipment List (MEL) and FoS architectures and specifications. The LSI shall manage and maintain a performance baseline of system and subsystem attributes necessary for SoS/FoS analysis, modeling, and simulation, consistent with the Army FCS UA Systems Book. {A011, A014, A018, A034} [WBS 1.1.2.1.3]

3.2.2 Distributed Network Development and Integration

The LSI shall define, design, procure, build, integrate, and test a Networked Battle Command System across the FoS IAW the Software Development Plan (SDP), SoS specifications, C4ISP, TEMP, and applicable segment and subsystem specifications. The LSI will ensure the FCS ACE supports movement of data in and out of SILs to facilitate this Networked Battle Command/C4ISR capability. {A017, A037} [WBS 1.1.2.2, 1.1.2.1.3.8.9]

3.2.2.1 ***Distributed Network Analysis and Integration.*** The LSI shall conduct performance and design analyses including all FoS elements with the integrated Networked Battle Command/C4ISR capability to maintain baseline performance, functional, and logical integration. The LSI will perform network performance analyses and trade studies, develop the network configuration, and manage the Distributed Network architectures and requirements including the interfaces to systems and platforms external to FCS and internal FoS system-to-system interfaces. {A018} [WBS 1.1.2.2.2]

3.2.2.2 ***Distributed Network SIL.*** The LSI shall develop, utilize, and maintain the Distributed Network SIL to support analysis and testing of network functions IAW the SIL development plan. The DREN will use the actual Networked Battle Command system being developed to the maximum extent possible. {A032} [WBS 1.1.2.1.4.5]

3.2.2.2.1 ***System Development, Integration and Simulation.*** The LSI shall use Networked Battle Command/C4ISR element emulation, simulation, and hardware in the loop techniques to design, develop and integrate the diverse components of the integrated Networked Battle Command/C4ISR system and to verify that the proposed design meets the FCS SoS and Networked Battle Command/C4ISR Segment Specifications. [WBS 1.1.2.1.4.5, 1.1.2.2.4]

3.2.2.3 ***System of Systems Common Operating Environment.*** The LSI shall define, develop, procure, fabricate, integrate, and test the System of Systems Common Operating Environment (SoS COE) information management backbone and application interface structure for implementation of the distributed network. The LSI shall develop the information assurance applications and services that are common across the network, and perform information assurance risk assessments and mitigation. The LSI shall lead in an Application Program Interface working group consisting of itself, industry partners, and Government as co-lead to address and resolve all SoS COE services and interfaces. The LSI shall define and manage the implementation and configuration, including the interfaces of the SoS COE. The LSI shall develop a SoSCOE subcomponent migration plan that addresses the targeted technology for integration into the incremental versions of FCS. The LSI shall establish a performance evaluation matrix to support procurement and testing of the SoS COE components. The LSI shall integrate and test the SoS COE system with platform/vehicle systems/subsystems. The LSI shall develop or acquire, and deliver (via the FCS ACE) all databases, data sets, and software required to operate the SOS COE, to include ontologies and task integration networks, and make the SoS COE fully functional under operating conditions. {A007, A018} [WBS 1.1.2.2.4]

3.2.2.4 ***Communication.*** The LSI shall define, develop, procure, fabricate, integrate, and test the networked communications. {A007, A018} [WBS 1.1.2.2.6]

3.2.2.5 ***Intelligence, Surveillance and Reconnaissance (ISR).*** The LSI shall define, develop, procure, fabricate, integrate, and test the distributed ISR elements and application software, including soldier interfaces, common sensor interface, Level 1 fusion with organic and non-organic sensor feeds, and Sensor Data Management for the FCS. The LSI shall develop or acquire, and deliver (via the FCS ACE) all databases and data sets required to operate the aforementioned software, to include all parameters employed by target recognition and fusion algorithms, and make it fully functional under operating conditions. {A007, A018} [WBS 1.1.2.2.5, 1.2.1.3.8.9]

3.2.2.6 ***Command and Control.*** The LSI shall define, develop, procure, fabricate, integrate, and test the distributed command and control application software, including soldier interfaces, mission planning, situational awareness and understanding, and battle management for the FCS UA. The LSI shall develop or acquire, and deliver all databases and data sets needed to operate the aforementioned software, to include default icons, topographic and cartographic data, and make it fully functional under operating conditions. {A007, A018 } [WBS 1.1.2.2.3, 1.1.2.1.3.8.9]

3.2.2.7 ***Training Applications - Network.*** The LSI shall define, develop, procure, fabricate, integrate, and test the common and unique training applications for the Distributed Network. {A018} [WBS 1.1.2.2.10; 1.1.2.1.3.8.8]

3.2.2.8 ***Supportability Applications.*** The LSI shall define, develop, procure, fabricate, integrate, and test an integrated Logistics Decision Support System (LDSS), Interactive Electronic Technical Manuals (IETMs), and a Platform Soldier-Mission Readiness System (PS-MRS) to support each MUPV system type. The LSI will define and recommend the interfaces necessary to incorporate appropriate in-lieu-of systems supportability requirements and information interchange applications IAW the Supportability Strategy. {A018} [WBS 1.1.2.2.11]

3.2.2.9 ***Network Integration, Test, and Evaluation.*** Using the Distributed Network SIL, the LSI shall integrate network supporting applications onto the network information management backbone and evaluate their individual and integrated network performance IAW the SoS/FoS distributed network requirements. The LSI generates the formal test plans (including plans for utilization of the Army's Central Test Support Facility) and procedures for verifying network performance against requirements.

The LSI will execute the network level verification tests and analyze/report the results. The LSI shall identify and implement corrective actions and perform retests as required. {A042, A048} [WBS 1.1.2.2.2]

3.2.2.10 ***Distributed Network Site Representation.*** The LSI shall provide onsite personnel distributed at C4ISR development sites as listed in Agreement Attachment 7 – Office Space and Administrative Support. These personnel shall coordinate the systems and technical architectural views with the operational views, coordinate and oversee sensor R&D and sensor integration efforts being performed in coordination with PM NV/RSTA and NVESD, and perform liaison with PM FCS, PEO C3T, PEO IEW&S and RDEC, to coordinate complementary programs within the PEOs, coordinate the procurement of "special access" systems (DCGS-A, SAR/MTI and UGS) being managed/procured by Ft Monmouth Program Management offices. [WBS 1.1.2.2.1; 1.1.2.1.3.8.9]

3.2.3 Manned/Unmanned Platform/Vehicle (MUPV) System Development and Integration

The LSI shall define and procure, from best of industry and Government sources per the SDD Competition Process Plan, the design, development, fabrication, integration, assembly, checkout, and verification test and evaluation of virtual and real prototypes for each MUPV system. The LSI shall ensure the design of each primary MUPV system (and applicable variants) meets the requirements provided in the appropriate systems specifications. The LSI shall conduct analyses that balance life cycle cost considerations with requirements in the FCS UA Increment I Capabilities Specification while providing an open architecture approach to maintain commonality across applicable subsystems. The LSI will manage the selected industry sources to ensure FCS FoS level requirements are met and that interfaces between MUPV systems, Networked Battle Command/C4ISR networking nodes, and supportability and training systems are met. The LSI shall perform any required system-to-system integration necessary to validate individual system interfaces prior to SoS level test and evaluation. {A014, A034} [WBS 1.1.2.1.3]

3.2.3.1 ***MUPV System Analysis and Integration.*** The LSI shall conduct performance and design analyses in the context of the FoS MUPV systems to maintain baseline performance, functional, and logical integration. The LSI shall perform system performance analyses and trade studies. The LSI shall establish and manage the system architectures and requirements including interfaces. {A014, A034} [WBS 1.1.2.1.2]

3.2.3.2 ***System Integration Laboratories.*** The LSI shall define, develop, procure, fabricate, integrate, utilize, and maintain SILs as required to support analysis and testing of MUPV system/subsystem functions IAW the SIL development plan. {A032} [WBS 1.1.2.1.4.7 through WBS 1.1.2.1.4.19]

3.2.3.3 ***MUPV Subsystems Development and Test.*** The LSI shall define, develop, procure, fabricate, integrate, support, and test MUPV subsystems. [WBS1.1.2.1.3.8 and 1.1.2.1.1]

3.2.3.3.1 *Analysis and Integration.* The LSI shall conduct analyses evaluating life cycle affordability considerations with requirements in the FCS UA Increment I Capabilities Specification to ensure affordability of subsystem elements. The LSI shall identify, develop and procure subsystems and common subsystems that result in Life Cycle Cost savings commensurate with ongoing developments, competitive procurements, supportability, schedule, future production, and performance considerations. The LSI shall ensure subsystem designs account for integration with their FoS end item systems to meet system level performance requirements. {A014, A034} [WBS 1.1.2.1.3.8.1 & WBS 1.1.2.1.1 & 1.1.1.2.2.4]

3.2.3.3.2 Design and Development. The LSI, based on the analyses of 3.2.3.3.1, shall procure prototype common and mission equipment hardware/software end items. The LSI shall develop preliminary and detailed design packages for the integrated common and mission equipment end items, focused on a producible, reliable, sustainable, maintainable, affordable design. The LSI shall define, document, and manage subsystem interfaces and maintain an open architecture design. The LSI shall obtain subsystem prototypes, models, and/or simulations as necessary to support development as well as the tests and demonstrations of 3.2.3.3.3. The LSI shall obtain system models and data necessary to support Government and LSI analysis, and training and decision support applications. The LSI shall procure adequate test hardware to enable required testing to be conducted prior to IPD. {A007, A018} [WBS 1.1.2.1.3.8.1 (MGV), WBS 1.1.2.1.3.8.3 (UAV), WBS 1.1.2.1.3.8.4 (UGV)]

3.2.3.3.3 Prototype, Modeling, and Simulation Testing and Demonstration. The LSI shall validate defined functionality and performance characteristics of common and mission equipment subsystem prototypes through tests commensurate with specification requirements. In the event a physical prototype is not required for SDD, the LSI shall conduct appropriate functional and performance demonstration through modeling and simulation of the end item to validate functionality and performance requirements. The LSI will ensure the FCS ACE supports movement of data in and out of SILs to facilitate development of the MUPV control software and system. [WBS 1.1.2.1.2; &1.1.2.1.3.8 & 1.1.2.3.9]

3.2.3.4 MUPV System Integration, Test, and Evaluation. The LSI shall develop and demonstrate a detailed production ready design for each MUPV system variant identified in support of the FCS Increment I capability, including the use of models, emulations, and where necessary, emulated hardware or software as required to provide the necessary data/demonstrations needed to verify readiness for IP. The LSI shall ensure functional, physical, and logical integration of each unique system developed including the distributed network, common equipment, and mission equipment. The LSI shall ensure the system performs within integrated (system-to-system) FoS specification requirements through verification of defined functionality and performance characteristics. To the extent practical, the LSI will ensure prototypes can be refurbished for future testing. [WBS 1.1.2.1.3.8.1, 1.1.2.1.3.8.3; 1.1.2.1.3.8.4]

3.2.3.5 Training Applications – (MUPV). The LSI shall define, develop, procure, fabricate, integrate, support, and test the common and unique training applications for the MUPV systems. {A018} [WBS 1.1.2.1.3.8.8; 1.1.2.2.10]

3.2.4 Supportability

The LSI shall develop and document integrated "factory to foxhole" management, products, and services required to design, develop, assemble, integrate, field, sustain and upgrade (through spiral development) and test the supportability processes and supporting automated applications within the FCS SoS. The LSI shall prepare a UA Supportability Strategy that describes an end-to-end automated sustainment capability that integrates supply chain requirements of the UA, UE, and Enterprise Army. The LSI shall perform analyses to aid in life cycle product support decision making to include developing and implementing metrics, performance standards, warranty requirements, and incentives. The LSI shall describe supportability product design/interfaces as required to address Army supportability implementation beyond the FoS and/or SoS levels for consistency with the existing and emerging U.S. Army supportability infrastructure. The LSI shall implement supportability architectures and requirements IAW the FCS UA Objective Capabilities Specification and UA Supportability Strategy during the design, development, fabrication, and test of MUPV systems to achieve the transportability, deployability, and operational availability goals, to reduce life cycle sustainment burdens, and to establish the basis for Performance Based Logistics (PBL). The LSI shall define the Performance Based Logistics (PBL) business processes, develop the PBL performance metrics and standards, design the data

management and analysis process, and update the PBL concept for sustainment in accordance with the UA Supportability Strategy. The LSI shall conduct analyses and provide recommendations on the implementation of PBL that considers public, private, and partnership capabilities, to include industrial base considerations. The LSI shall perform the duties of the Product Support Integrator (PSI) for FCS during SDD (e.g., logistics planning, modeling and simulations in order to mitigate risk and verify the reduced FCS logistics burden and increased readiness and availability). The LSI shall integrate the products and services generated by the Product Support Provider (PSP), the LSI or its subcontractors, in order to meet SoS requirements for the UA. The LSI shall provide update of PBL implementation analysis at PDR, CDR, and annually thereafter. Implementation and integration of these product designs and processes shall begin with Low Rate Initial Production (LRIP). {A025, A027} [WBS 1.1.2.4]

3.2.4.1 ***Logistics Analysis and Engineering.*** The LSI shall utilize a progressive assurance approach to plan, implement, and manage a supportability and RAM-T program IAW the FCS UA Increment I Capabilities Specification and Supportability Strategy. The LSI shall ensure that the suppliers provide progressive assurance that all RAM-T requirements (hardware and software) are satisfied. LSI shall ensure that suppliers use best commercial engineering approaches to design RAM-T into the platforms and systems early in the design process. The LSI shall establish supportability metrics necessary to gauge the maturation and completion of supportability designs. Supportability metrics shall be tracked to performance under this agreement and shall include as a minimum Operational, Availability, Operations and Support Costs and Footprints. The LSI shall perform logistics support analyses, power management analysis, and engineering design analyses for MUPV systems, common and unique support equipment, and source and level of repair for SoS implementation. The LSI shall plan, develop, implement, coordinate, verify, and validate technical operational and maintenance procedures for each system. The LSI shall develop prototype embedded Class V Interactive Electronic Technical Manuals (IETMs) to support each SDD system type. The LSI shall conduct reliability growth testing, environmental stress screening, and other reliability assurance efforts as appropriate. The LSI shall provide results of RAM-T analyses at each major Increment I SDD program review. {A026, A049} [WBS 1.1.2.1.4.2, 1.1.2.4.2]

3.2.4.2 ***Logistics Product Integration.*** The LSI shall integrate supportability products into the SoS elements including diagnostics/prognostics functions. The LSI shall conduct Maneuver Sustainment analyses in accordance with the FCS Supportability Strategy. The LSI shall define Maneuver Sustainment functions common to applicable variants and mission unique products for each variant. The LSI shall identify medical items for integration into medical and combat vehicles. The LSI shall conduct logistics technical reviews at the system, vehicle, and component levels. {A025} [WBS 1.1.2.4.3]

3.2.4.2.1 *Supportability Strategy Development.* The Supportability Strategy shall define the planning, programming, and execution of the support program that meets operational support performance requirements in the most cost effective manner over the total life cycle of the FCS SoS. The supportability strategy facilitates development and integration of the following key integrated logistics support tenants: logistics management information; transportability and deployability; maintenance operations; manpower and personnel; product support management - including performance based logistics and ammunition; facilities; technical data; training and training support; fielding planning; computer resource support and reliability, availability and maintainability. The Supportability Strategy will incorporate supportability strategies of all system and equipment in the UA listed in Attachment I1 of the Agreement. (A025)

3.2.4.3 ***Supportability Data Management.*** The LSI shall develop and provide a database management system that provides access to complete life cycle data for logistics support, including access to supplier data through the FCS ACE. The database shall include performance specification baselines for

future FCS procurements contained in the DPD. The LSI shall ensure data requirements are mapped to sources (to include the diagnostic/prognostic devices utilized in FCS) and cross-walked from there to the supporting applications to include PS-MRS, LDSS, the IETMs, etc. {A051} [WBS 1.1.2.4.3.2]

3.2.4.4 ***Supply Chain Management (SCM).*** Within the construct of PBL, the LSI shall develop and implement a plan, including access to supplier data through the FCS ACE, for the collection of data supporting the integration of all SCM functions associated with FCS systems to ensure that they meet supportability related performance requirements. {A052} [WBS 1.1.2.4.3.4]

3.2.4.5 ***Supportability Test and Demonstration.*** The LSI shall conduct equipment testing and demonstrations for SoS and FoS supportability performance verification. The LSI shall validate Maneuver Sustainment, PBL, and other applicable support concepts during testing and demonstrations. The LSI shall ensure sensor collection of data for logistics decision support system software is adequate to support logistics modeling verification and validation efforts as well as operational PBL. {A026} [WBS 1.1.2.4.1]

3.2.4.6 ***Fielding.*** The LSI shall field all FCS Increment I SDD equipment and coordinate the fielding of all other UA systems to meet testing and training requirements. The LSI shall develop plans to support the fielding of Increment I FCS into the UA including IOC and FOC. The LSI shall conduct fielding analyses and recommend the most suitable fielding methodology for the Increment I of FCS into the UA. {A050} [WBS 1.1.2.4.4]

3.2.5 Training Systems

The LSI shall assist TRADOC in their UA Training Developments responsibilities by providing horizontal integration with FCS SDD work to TRADOC's larger UA and FF developments work. The LSI shall provide the management plans, products, verification and validation, and services required to ensure design, development, fabrication, integration, support and test of a UA training program and a FCS FoS and SoS training system capable of meeting FCS UA Increment I Capabilities Specification and System Training Plan (STRAP) objectives consistent with the Army's concept for FF and UA training. The LSI shall perform training management and planning in accordance with established policy, processes, and procedures. The LSI shall develop, document, and allocate an integrated set of training functional, performance, test, and affordability requirements. The LSI shall design the FCS training system as an integral part of the overall SoS design to meet Increment I requirements and provide for future incremental upgrades. The LSI shall develop and deliver a Training Management Plan that addresses the full range of training support products, architectures, infrastructures, and training development, and the management tools required to provide Increment I capabilities in the institution, operational, unit, and self development domains IAW ATIAS. The LSI shall identify, assess, and mitigate training risks as part of the SDD risk reduction effort and coordinate these risk reduction efforts with the SoS Engineering Technical Risk Manager. The LSI will support the distributed network and platform product development efforts as required to implement/include embedded and standalone training designs within FoS products as necessary to ensure these designs meet SoS specification requirements. The LSI shall establish training product design/interfaces to ensure effective integration with the Army's larger UA and FF training concept and infrastructure IAW the LSI's SoS Architecture. {A053} [WBS 1.1.2.5]

3.2.5.1 ***FCS Training Systems Engineering.*** The LSI will ensure training engineering design analyses are performed at FCS SoS and FoS levels and integrated with TRADOC's larger UA training developments, taking into consideration training for individual, maintenance, crew, unit, leader, and staff teams. The LSI shall determine and document training materials not limited to: operator, maintainer, Training Aids, Devices, Simulators, Simulations (TADSS). The LSI will assist TRADOC in their role in

developing doctrine, tactics, and training products, as required to support the UA O&O and the Army's FF training concept under development, to include interoperability with complementary programs. The LSI shall perform individual system training analysis and will assist TRADOC in conducting collective task analyses IAW TRADOC Regulation 350-70, Systems Approach to Training Management and Processes, TRADOC Pamphlet 350-70-2, Multimedia Courseware Development Guide, and Advanced Distributed Learning Shareable Content Object Reference Model. The LSI shall develop and implement training architectures and requirements IAW the FCS UA Increment I Capabilities Specification. The LSI shall provide configuration and data management for FCS training products. The LSI shall perform system training analysis to identify potential common components and reuse between embedded training, mission planning, mission rehearsal, as well as other system hardware and software. {A014, A034, A054} [WBS 1.1.2.5.1]

3.2.5.2 ***Training Systems Integration Laboratory.*** In support of the SoSIL, the LSI shall develop, utilize, and maintain a training SIL as required to support analysis and testing of training functions and ensure this SIL provides integrated functionality with the SoSIL for both SoS and FoS interfaces. {A032} [WBS 1.1.2.1.4.6]

3.2.5.3 ***Training Product Development/Integration.*** The LSI shall, IAW TRADOC Regulation 350-70, Systems Approach to Training Management and Processes, develop and integrate FCS training products for UA training developments and FCS SoS and FoS elements, including simulator development, manned systems training, unmanned systems training, training facilities, training support packages, and system training plan. The LSI shall provide FCS FoS and SoS training performance analysis and system training data through the integrated UA level. {A055} [WBS 1.1.2.5.2, 1.1.2.5.2.5]

3.2.5.4 ***Developmental and Operational Test – Training.*** The LSI shall provide training for Developmental and Operational Testing for FoS and SoS performance verification. The LSI shall coordinate with AMC and TRADOC to define and develop training plans and products to be provided in support of test and evaluation activities. {A053, A054, A055} [WBS 1.1.2.5, 1.1.3.2]

3.2.5.5 ***Training Facilities.*** The LSI shall assess, survey, recommend modifications or additions, and document the analysis of training facilities, support equipment, training articles, threat training systems and simulators, and simulation models/test beds, training areas, and ranges as necessary to support the training of UA equipped with FCS. {A057} [WBS 1.1.2.5.2.4]

3.2.5.6 ***Tactical Engagement Simulation System.*** The LSI shall conduct a trade study in coordination with TRADOC to review the range of options available for using a Tactical Engagement Simulation System (TESS). The LSI will use the results of this study to develop short and long range plans to employ TESS within the UA. The LSI will ensure that TESS is fully interoperable with existing Combat Training Centers (CTC) and legacy training systems. {A014, A034} [WBS 1.1.2.5.1, 1.1.2.5.1.1]

3.2.5.7 ***Common Components/Services.*** The LSI shall conduct trade studies to review the use and implementation of FCS components/services in FCS applications (e.g., Network Battle Command C4ISR, M&S, Training, etc.), FCS common components, and FCS Training common components. The LSI will use the results of these studies to develop short and long range plans for the FCS equipped UA and as a guide for implementation. {A014, A034} [WBS 1.1.2.5.1, 1.1.2.5.1.1]

3.2.5.8 ***Training Site Representation.*** The LSI shall provide onsite personnel distributed as listed in Agreement Attachment 7 – Office Space and Administrative Support. These personnel shall coordinate with the Army G-1 and UAMBL in the refinement of Manpower, Personnel and Training artifacts (MPT, TAD, MER, BOIPFD/QQPRI). [WBS 1.1.2.1.3.8, 1.1.2.5.1.5.3]

3.3 SoS INTEGRATED TEST & EVALUATION

The LSI shall perform FCS FoS integrated test and evaluation in the SoS environment to verify SoS and system level performance in support of the IP decision process. This verification shall be in accordance with the FCS UA Increment I Capabilities Specification requirements allocated to the SDD Increment I design and include verification of interoperability requirements and interfaces IAW approved interface control documents. This activity includes facilities, resources, test phases, planning, execution, evaluation, and reporting as described below and IAW the TEMP. The LSI shall ensure a contiguous thread of M&S support throughout testing. M&S includes representations of components, systems, forces (UA, UE, Joint, and opposing), and threats; scenario generators; environmental simulators; synthetic stimuli; and event controllers. The LSI will ensure M&S serves as input or nodes on the SILs and SoSIL and wraparounds or players in Limited User Test (LUT), Follow-on Development Test and Evaluation (FDTE), and the Initial Operational Test (IOT) implementing the Standard Simulator Database (SSDB) Interchange Format (SIF). The LSI will use M&S to augment Technical testing where available and appropriate. Where Government M&S are not available or appropriate, the LSI shall procure or develop applicable M&S (see 3.1.2). The LSI shall develop and supply all validation and verification data and artifacts necessary for ATEC accreditation before any M&S is used to support testing. All Environment (scenario, terrain, and weather) and Behavior (employment and TTP) data sets for analysis will be approved by TRADOC (specifically HQ TRADOC ICW TRAC and UAMBL). Army Materiel Systems Analysis Activity (AMSAA) certifies performance data. [WBS 1.1.3]

3.3.1 Test Planning and Execution

The LSI shall define and manage the phases of technical testing required to support the FCS Incremental Development Plan and ATEC System Evaluation. The LSI will participate in the combined test planning activities and provide the necessary test planning, test design, test integration, test execution, test assessment, test reporting, and test analysis. The LSI shall provide and/or obtain the necessary test resources/facilities, including use of modeling and simulation capabilities as discussed in 3.1.2, 3.1.3, and 3.3, to perform tests. The LSI shall develop and update the Integrated Test and Evaluation Plan (ITEP) and provide updates for the Test and Evaluation Master Plan (TEMP) which describe the overall combined testing strategy and definition of the spectrum of integrated simulation, test, and evaluation activities associated with FCS. (A058) [WBS 1.1.3.1, 1.1.3.2]

3.3.1.1 ***Test Planning and Design.*** The LSI shall ensure adequate test planning and testing to support an iterative design and test process using the FCS ACE to distribute test data results IAW the ITEP and the TEMP. The LSI shall define the specific test phases corresponding to FoS development schedules with staggering/overlapping of testing to accommodate the different levels and parallelism of development planned, e.g., prototype vs. modeling/simulation, subsystems vs. integrated system capability. The LSI shall use these test phase definitions in the development of test plans/scheduling/coordination and test designs for the testing to be performed. The LSI shall plan pre-field and field tests, and plan integrated mission tests. The LSI will ensure test plan consistency with the TEMP and support the Army's Combined Test Organization to ensure close coordination with the Army test community. (A058) [WBS 1.1.3.2.1]

3.3.1.2 ***Test Integration and Execution.*** The LSI shall prepare test procedures and range documentation. The LSI shall execute SoS and system testing in accordance with the test plans and designs of 3.3.1.1 and the incremental integration process as FoS capabilities become available for test. [WBS 1.1.3.2.2]

3.3.1.2.1 *Test Support Package (TSP).* The LSI shall provide and administer TSPs capable of sustaining test and evaluation efforts. The TSPs shall be delivered to the appropriate test sites at least 30-days prior to start of each test. The LSI shall conduct maintenance and provide all repair parts, tools, test fixtures, and facilities except those the Government chooses to provide in response to the System Support Package Component List (SSPCL). {A059} [WBS 1.1.2.4.1.3]

3.3.1.2.2 *Logistics Testing.* The LSI shall provide technical analyses and operations support to all logistics demonstrations and simulations, maintenance training, and system verification, validation, and integration tests to ensure that requirements for RAM-T and supportability are met. [WBS 1.1.2.4.1.4]

3.3.1.2.3 *Ballistic Survivability.* The LSI shall support Ballistic Survivability testing by providing test planning, test operations, assistance in damage assessment, repair assistance, and procedures review. [WBS 1.1.3.2.1, 1.1.3.2.2]

3.3.1.3 ***Test Assessment and Reporting.*** The LSI shall perform requirements analysis, prepare test assessment and data collection plans, and prepare test assessment/data/corrective action reports. The LSI shall prepare the test resources validation/verification plan. The LSI shall establish a test site data management center, collect/reduce/control test data, and perform data authentication. The LSI shall assess the adequacy and quality of tests performed and report raw results of the testing at the conclusion of each test executed. The LSI will reschedule testing where such assessment warrants. The LSI shall provide the Government all requested data from component, system, and SoS level testing in a form usable by the Army Test and Evaluation Command (ATEC) to support Government independent technical and operational evaluation. The LSI shall develop and maintain a Data Acquisition System accessible through the FCS ACE to support data collection efforts during test operations. Data shall include reports that document significant test incidents in standard Army Test Incident Report System (ATIRS) format and shall be entered into the ATIRS. The LSI will allow and support Government observation and validation of component, system, and SoS testing. {A060} [WBS 1.1.3.2.3]

3.3.1.4 ***Test Analysis.*** The LSI shall provide data and analysis of test results to demonstrate that performance requirements are met or an appropriate performance growth model that demonstrates performance progression. The LSI shall jointly review shortfalls with the Government to determine if design changes and/or retesting is required. {A060} [WBS 1.1.3.2.4]

3.3.1.5 ***Failure Reporting Analysis and Corrective Action System (FRACAS).*** The LSI shall establish and manage a FRACAS process to support resolution of test incidents through the corrective action process. The LSI shall write test incident reports for tests conducted at non-Government test locations and provide these data to the Government. The LSI will provide data for reliability and maintainability scoring conferences. {A060} [WBS 1.1.3.2.4, 1.1.3.2.3.2]

3.3.2 Test Facilities and Resources

The LSI will partner with the Army to define applicable Government test facilities. The LSI shall plan and conduct testing to take full advantage of the existing investment in DoD ranges, facilities, and other resources (e.g., Aberdeen Proving Ground (APG), Yuma Proving Ground (YPG)) wherever practical. The LSI shall supplement the use of existing facilities with the design, development, modification, implementation, integration, and documentation of other required test facilities, support equipment, test articles, threat systems and simulators, test targets/expendables, and simulation models/test beds as necessary to perform the tests defined in 3.3.1.1. The LSI shall maintain the LSI's facilities and resources that are required to support the combined Development Test and Evaluation (DT&E) and Operational Test and Evaluation (OT&E) objectives, to include the equipment needed to perform software

maintenance and modification. The LSI shall conduct validation and verification assessments of test facilities/support equipment. [WBS 1.1.3.2.5]

3.3.2.1 ***Test Support Equipment.*** The LSI shall design, develop, procure, utilize, and maintain test support equipment for use in the SoSIL. [WBS 1.1.3.2.5.2]

3.3.3 Operational/User Test Support

The LSI shall provide for Government Operational/User testing the equipment operations support, planning, maintenance, and training necessary to execute and complete Government Operational/User testing. This also includes participation in the planning, conduct, and monitoring of Battle Lab exercises. The LSI shall obtain approval from TRADOC prior to integrating doctrine and tactics training during tests. The LSI shall provide training to the Army for Army use of the SoSIL for OT&E. The LSI will participate in writing operational test plans and reports and participate in Operational Test Readiness Reviews (OTRRs) and ATEC System Team (AST) meetings. The LSI will provide data and information to support the Government in writing of: Test Incident Reports for tests performed at ATEC test sites, collection and reduction of data using FCS specific instrumentation and data collection, and gathering data and information required for the issuance of Safety Releases. The LSI shall participate in hardware and software testing and provide data as necessary to satisfy safety concerns and hazards that have been defined, including SIL as well as field tests. [WBS 1.1.3.2.5.6]

Attachment 2

Contract Data Requirements List

CDRL PREFACE

1. All deliverables via ACE workflow, unless otherwise noted on the CDRL.
2. Contractor format acceptable, unless otherwise noted on the CDRL.
3. All Data Item Descriptions (DIDs) for guidance only.
4. NORs shall be entered into the TRADOC AARMS.
5. ECPs shall be delivered via ACE and approved via the CCB process.

ABBREVIATIONS

AAA	After Agreement Award
DCR	Design Concept Review
IBR	Integrated Baseline Review (Contractual)
IPD	Initial Production Decision
LRIP	Low Rate Initial Production
LUT	Limited User Test
SoSRR	System of Systems Requirement Review
SoSPDR	System of Systems Preliminary Design Review
SoSCDR	System of Systems Critical Design Review
SoSSFR	System of Systems Functional Review
SoSIA	System of Systems Integration Assessment

ASREQ	As Required
ANNLY	Annually
SEMIA	Semi-Annually
MTHLY	Monthly
WEKLY	Weekly
QRTLY	Quarterly
NLT	Not Later Than
DA	Days After
DPT	Days Prior To
MPT	Months Prior To

DELIVERABLES LIST (CDRL)

A001 Systems Engineering Management Plan
A002 TRADOC Objective Force Integration Support Documentation
A003 FCS UA Increment I Capabilities Specification
A004 SoS/FoS Interface Control
A005 SoS Architecture
A006 FoS Architecture
A007 System/Subsystem Design Description (SSDD)
A008 C4ISR Segment Specification
A009 Prime Item Development Specifications (PIDS)
A010 SoS Architecture Development Plan and Architecture View 1 (AV-1) Overview and Summary
A011 Configuration / Data Management Plan (CDMP)
A012 Manpower Requirements Criteria
A013 Human Systems Integration Report
A014 Trade Study Plan
A015 Life Cycle Cost Containment Plan
A016 Life Cycle Cost Estimate
A017 Software Development Plans
A018 Software Artifacts
A019 Home Station Operation Center Plan
A020 SoS Performance Assurance Report
A021 SoS Verification Plan
A022 SoS Verification Report
A023 Moved to WD00001
A024 FCS Growth Strategy
A025 Supportability Strategy
A026 RAM-T Program Plan
A027 Performance Based Logistics Implementation Plan
A028 Programmatic Environment, Safety and Occupational Health Evaluation (PESHE)
A029 System Integration Plan
A030 Force Effectiveness Modeling Report
A031 FCS Simulation Verification and Validation Plan
A032 System Integration Laboratories Development Plan
A033 Risk Management Plan
A034 Trade Study Report
A035 Interoperability Analysis Report
A036 Software Architecture Description Document
A037 C4I Support Plan
A038 Complementary Programs Management Control Plan
A039 Contract Funds Status Report
A040 Contract Cost Data Report
A041 Cost Performance Report
A042 FoS Distributed Network Test Plans
A043 Integrated Master Schedule
A044 FCS UA Objective Capabilities Specification
A045 FCS ACE Implementation Plan
A046 Enterprise Production Plan
A047 Industrial Capabilities Assessment

A048 FoS Distributed Network Test Reports
A049 Interactive Electronic Technical Manuals
A050 FCS Materiel Fielding Support Plan
A051 Supportability Data Management Plan
A052 Supply Chain Management Plan (SCMP)
A053 Training Management Plan
A054 Training Data Products Report
A055 Training Support Package
A056 Reserved
A057 Training Facilities Survey Report
A058 LSI FCS Test Program Update to the PM FCS Test and Evaluation Master Plan (TEMP)
A059 System Support Package Component List (SSPCL)
A060 Integrated Test Report
A061 Complementary Programs Database
A062 FCS ACE Metrics-Report
A063 Engineering Change Proposal (ECP)/ Advanced Drawing Change Notices

DELIVERABLES LIST (HARDWARE)

At completion all residual Government property (e.g., prototype hardware and software, test hardware and software, software Integration Laboratory hardware/software, etc.) used in the performance of this Agreement will be dispostioned to the Government in accordance with FAR Part 45 unless specified elsewhere in the Agreement.

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A001	2. Title of Data Item: System Engineering Management Plan		3. Subtitle:		
4. Authority (Data Acquisition Document No.) See remarks.		5. Agreement Reference Attachment 1, 3.1.1		6. Requiring Office AMSTA-AQ-ABF	
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency ASREQ	10. As of Date 15 DPT SoSRR. ASREQ	11. Date of First Submission 15 DPT SoSRR, ASREQ	12. Date of Subsequent Submission ASREQ

13. REMARKS

1. Updates to the SEMP (D786-10007-1) will be made as required to maintain the document to current LSI system engineering management practices.

2. Government will provide approval/comments within 30 days of notice that data has been posted to ACE.

G. PREPARED BY Frederick H. Bultman	H. DATE 26-11-2003	I. APPROVED BY	J. DATE

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001		B. Exhibit Attachment 2		C. Category Other	
D. System/Item. Future Combat Systems				E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A002	2. Title of Data Item: TRADOC Objective Force Integration Support Documentation			3. Subtitle:	
4. Authority (Data Acquisition Document No.) DI-MISC-80508			5. Agreement Reference Attachment 1, 3.1.1.1, 3.1.1.1.1		6. Requiring Office AMSTA-AQ-ABF
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency 5 TIME,	10. As of Date 15 DPT SoSRR	11. Date of First Submission 15 DPT SoSRR	12. Date of Subsequent Submission SoSDCR, SoSFR, SoSPDR, SoSCDR

Block 1:
This submittal may consist of multiple reports based on the individual items listed. Each report shall be a standalone document with a dash number assigned to the Data Item number (i.e., A002-n, where n starts with 1) to distinguish one subject matter report from another. Assignment of the dash numbers shall be arbitrary but shall be sequentially assigned and controlled through LSI data management. A list of the dash number assignments shall be available under ACE.

Block 11:

Initial 15 DPT SoSRR, then 15 DPT SoSDCR, 15 DPT SoSFR, 15 DPT SoSPDR, and 15 DPT SoSCDR

Page 1 of 2

1. Data Item No. A002 (Cont.)	2. Title of Data Item: TRADOC Objective Force Integration Support Documentation	3. Subtitle:

13. REMARKS

1. Document the results and operational lessons learned in accordance with SOW paragraphs 3.1.1.1 and 3.1.1.1.1 Objective Force Requirements and Force Integration & Analysis, accumulated from assisting TRADOC/UAMBL but not limited to, the following areas:
   a. [DOCTRINE] UA doctrine requirements integration; refining UA operational concepts to develop UA and FCS doctrinal products; initiation of UA field manuals; identification of new required UA-specific publications; development of program directives for UA doctrinal publications; defining proponent, select combined arms, multi-service, and as directed, multi-national FCS doctrine implications; standardization of UA doctrine that crosses functional lines; review of other doctrine for accuracy and horizontal integration; quality control of UA publications; periodic review of publications for consistency/impact to FCS SDD and UA developmental work.
   b. [ORGANIZATION] Refining organizational concepts in the UA O&O Plan; development of personnel requirements; determining major FCS equipment requirements; determining the breakout of UA organizational elements; summarizing relevant information for equipment assignment, mobility, and concept of operations; obtaining approval for the UA Table of Organization and Equipment (TOE); developing the FCS FoS Basis of Issue Plan; recommending new manpower requirements criteria; Total Army Analysis process.
   c. [TRAINING] Developing individual training plans, course administrative data, and programs of instruction; developing training systems (training management plan, products, verification/validation, and services required to design, develop, assemble, integrate, and test a UA training plan/program); developing, utilizing, and maintaining a training system laboratory to support analysis and testing of training functions; integrating training products based on STRAP into the FoS elements; providing SoS performance analysis for training at the integrated SoS level; FoS and SoS performance verification test and demonstration for training.
   d. [MATERIEL] Refining materiel requirements documents; refinement of FCS ORD/Capabilities Development Document and KPPs for Milestone C; refinement of STRAP; refinement of Critical Operational Issues and Criteria in TEMP; refinement of FCS STAR; SMART process.
   e. [LEADER] Defining the Leader Development Support System and requirements.
   f. [PERSONNEL] Ensuring the Soldier is central in the development and design of the FCS FoS and that all personnel requirements/documentation, such as the Manpower Estimate Report, properly reflect TRADOC's requirements. Intent is to reduce the level of human specification.
   g. [FACILITIES] Determining new or unique facilities requirements to support FCS fielding and maintenance.
   h. [UE and OF BATTLE COMMAND REQUIREMENTS INTEGRATION] documentation of UE and OF Networked Battle Command development impact on FCS design.
   i. [OF MANEUVER SUPPORT REQUIREMENTS INTEGRATION] Documenting emerging OF Maneuver Support requirements impact on FCS design.
   j. [OF MANEUVER SUSTAINMENT REQUIREMENTS INTEGRATION] Document emerging OF Maneuver Sustainment requirements impact on FCS design.

Include TRADOC in the approval process.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

Page 2 of 2

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other	
D. System/Item. Future Combat Systems			D. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A003	2. Title of Data Item: FCS UA Increment I Capabilities Specification		3. Subtitle:	
4. Authority (Data Acquisition Document No.) MIL-STD-961D w/Change 1		5. Agreement Reference Attachment 1, 3.1.1.3.2		6. Requiring Office AMSTA-AQ-ABF
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency 1TIME, ASREQ	10. As of Date 10 DPT SoSRR	11. Date of First Submission 10 DPT SoSRR
12. Date of Subsequent Submission ASREQ				

13. REMARKS

1. Provide updates to the FCS UA Increment I Capabilities Specification (S786-50000) as required.
2. .A minimum of 90% of all JROC ORD requirement discrepancies will be resolved prior to the SoSRR. Any remaining discrepancies (beyond the 90%) will have a corresponding plan of action and anticipated resolution date.
3. An 0-6 level review panel of TRADOC/PM representatives will evaluate the end product (SoS Increment I Specification) and all discrepancy resolution plans NLT 2 weeks prior to the SoSRR.

G. PREPARED BY Frederick H. Bultman	H. DATE 26-11-2003	I. APPROVED BY	J. DATE

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No. 0001	B. Exhibit Attachment 2	C. Category Other	
D. System/Item. Future Combat Systems		E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A004	2. Title of Data Item: SoS/FoS Interface Control	3. Subtitle: Interface Control Documents, Interface Specification	
4. Authority (Data Acquisition Document No.) DI-CMAN-81248A, DI-SESS-81632		5. Agreement Reference Attachment 1, 3.1.1.2	6. Requiring Office AMSTA-AQ-ABF

7. Transmtl Mthd	8. APP Code	9. Frequency	10. As of Date	11. Date of First Submission	12. Date of Subsequent Submission
ACE	A	2 TIMES, ASREQ	30DPT SoSPDR	30 DPT SoSPDR,	60 DPT SoSCDR, ASREQ

13. REMARKS

Block 1:

1. Defines the required FCS technical interface requirements among FCS FoS components and among the FCS FoS and complementary systems via configuration controlled ICDs and Interface Specifications. Each of these interface control documents shall be a standalone document with a dash number assigned to the Data Item number (i.e., A004-n, where n starts with 1) to distinguish one interface control document delivery from another. Assignment of the dash numbers shall be shall be sequentially assigned and controlled through LSI data management. A list of the dash number assignments shall be available under ACE. Interface documentation will consists of two part documents for both hardware and software.

Blocks 11 and 12:

1. Initial draft part I documents will be made available as required at SoSCDR, SoSFR, Baselined part I documents will be delivered at SoSPDR.
2. Initial draft part II documents will be made available as required at SoSPDR. Baselined part II documents will be delivered at SoSCDR.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A005	2. Title of Data Item: SoS Architecture Update		3. Subtitle: Operational and System Views of the Architecture		
4. Authority (Data Acquisition Document No.) DI-CMAN-80639C, DI-CMAN-80642C		5. Agreement Reference Attachment 1, 3.1.1.3		6. Requiring Office AMSTA-AQ-ABF	
7. Transmtl Mthd	8. APP Code	9. Frequency	10. As of Date	11. Date of First Submission	12. Date of Subsequent Submission
ACE	A	ASREQ	See Remarks	See Remarks	ASREQ

13. REMARKS

1. SoS Architecture updates shall be in Army Core Architecture Data Model (CADM) compliant format.

2. Defines the SoS Architecture across all elements of the SoS and FoS Increment I SDD. This shall include architectural decisions including, but not limited to, those significant aspects of the integrated capabilities achieved across the manned systems, unmanned systems, sustainment systems, training systems, command and control, and Complementary Systems.

3. The Architecture shall be developed in UML; requisite data shall be provided to the US Army in Core Architecture Data Model, and documented in the SoS Architecture Description Document.

4. Include TRADOC in the approval process.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001		F. Contractor The Boeing Company
1. Data Item No. A006	2. Title of Data Item: FoS Architecture		3. Subtitle: FoS System Views		
4. Authority (Data Acquisition Document No.) DI-CMAN-80639C, DI-CMAN-80642C		5. Agreement Reference Attachment 1, 3.1.1.3			6. Requiring Office AMSTA-AQ-ABF
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency ITIME, ASREQ	10. As of Date 30 DPT SoSFR	11. Date of First Submission 30 DPT SoSFR	12. Date of Subsequent Submission ASREQ

13. REMARKS

.1. FoS Architecture shall be in Army Core Architecture Data Model (CADM) compliant format.

2. Defines the FoS Architecture across all elements of the FoS Increment I SDD. This shall include architectural decisions including, but not limited to, those significant aspects of the integrated capabilities achieved across the manned systems, unmanned systems, sustainment systems, training systems, command and control, and Complementary Systems.

3. The Architecture shall be developed in UML and documented in the FoS Architecture Description Document.

4. The Architecture shall be approved by the CCB based on review and recommendation from the Architecture Steering Group (ASG) including representation from the LSI, Government Program Office and HQDA designated user representative.

5. Include TRADOC in the approval cycle.

G. PREPARED BY Frederick H. Bultman	H. DATE 26-11-2003	I. APPROVED BY	J. DATE

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A007	2. Title of Data Item: System/Subsystem Design Description (SSDD)		3. Subtitle:		
2. Authority (Data Acquisition Document No.) DI-IPSC-81432A		5. Agreement Reference Attachment 1, 3.1.1.3.1, 3.2.2.3, 3.2.2.4, 3.2.2.5, 3.2.2.6, 3.2.3.3.2		6. Requiring Office AMSTA-AQ-ABF	
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency 2 TIMES	10. As of Date 60 DPT SoSPDR	11. Date of First Submission 60 DPT SoSPDR	12. Date of Subsequent Submission 60 DPT SoSCDR

13. REMARKS
Block 10 and 11:

Draft shall be submitted at 60 DPT SoSPDR.

Block 12:

Final shall be submitted at 60 DPT SoSCDR.

Remarks:

1. Define system/subsystem (e.g., electrical, software, mechanical) design concepts and decisions used as the basis for further system/subsystem development. Include descriptions of design decisions, databases, data sets, and other design data including but not limited to those significant architectural aspects supporting manned and unmanned platforms, ISR, and Command & Control subsystems data.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001		F. Contractor The Boeing Company
1. Data Item No. A008	2. Title of Data Item: C4ISR Segment Specification		3. Subtitle:		
4. Authority (Data Acquisition Document No.) See Remarks		5. Agreement Reference Attachment 1, 3.1.1.3.2			6. Requiring Office AMSTA-AQ-ABF
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency ASREQ	10. As of Date ASREQ	11. Date of First Submission ASREQ	12. Date of Subsequent Submission ASREQ
13. REMARKS 1. Update the C4ISR Segment Specification (S786-50100) as a result of Configuration Control Board (CCB) action. The changes will be posted to DOORS within 30 days of the CCB action.					
G. PREPARED BY Frederick H. Bultman	H. DATE 26-11-2003		I. APPROVED BY		J. DATE

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A009	2. Title of Data Item: Prime Item Development Specification (PIDS)		3. Subtitle:		
4. Authority (Data Acquisition Document No.) MIL-STD-961D w/ Change 1			5. Agreement Reference Attachment 1, 3.1.1.3.2, 3.1.1.3.3		6. Requiring Office AMSTA-AQ-ABF
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency ASREQ	10. As of Date ASREQ	11. Date of First Submission ASREQ	12. Date of Subsequent Submission ASREQ
13. REMARKS					
G. PREPARED BY Frederick H. Bultman	H. DATE 26-11-2003		I. APPROVED BY	J. DATE	

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A010	2. Title of Data Item: SoS Architecture Development Plan and Architecture View 1 (AV-1) Overview and Summary		3. Subtitle:		
4. Authority (Data Acquisition Document No.) DI-MISC-80508		5. Agreement Reference Attachment 1, 3.1.1.3.4		6. Requiring Office AMSTA-AQ-ABF	
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency 1TIME, ASREQ	10. As of Date 30 DPT SoSFR	11. Date of First Submission 30 DPT SoSFR	12. Date of Subsequent Submission ASREQ

13. REMARKS

1. Defines planned updates to the FCS Architecture across all elements of the SoS and FoS Increment I SDD.
2. Uncontrolled draft copies available at SoSRR.
3. Include TRADOC in the approval process.

G. PREPARED BY Frederick H. Bultman	H. DATE 26-11-2003	I. APPROVED BY	J. DATE

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A011	2. Title of Data Item: Configuration/Data Management Plan (CDMP)		3. Subtitle:		
4. Authority (Data Acquisition Document No.) See Remarks.		5. Agreement Reference Attachment 1, 3.1.1.4, 3.2.1.2		6. Requiring Office AMSTA-AQ-ABF	
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency ASREQ	10. As of Date ASREQ	11. Date of First Submission ASREQ	12. Date of Subsequent Submission ASREQ
13. REMARKS 1. Update the CDMP (D786-10008-1) as required to reflect changes in the configuration management process. The CDMP shall include all FCS SoS product data and interfaces.					
G. PREPARED BY Frederick H. Bultman	H. DATE 26-11-2003		I. APPROVED BY	J. DATE	

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No.	B. Exhibit	C. Category	
0001	Attachment 2	Other	
D. System/Item.		E. Agreement/PR NO.	F. Contractor
Future Combat Systems		DAAE07-03-9-F001	The Boeing Company

1. Data Item No.	2. Title of Data Item:	3. Subtitle:
A012	Manpower Requirements Criteria	

4. Authority (Data Acquisition Document No.)	5. Agreement Reference	6. Requiring Office
DI-ILSS-81165A	Attachment 1, 3.1.1.5	AMSTA-AQ-ABF

7. Transmtl Mthd	8. APP Code	9. Frequency	10. As of Date	11. Date of First Submission	12. Date of Subsequent Submission
ACE	A	4 TIMES, ASREQ	30 DPT SoSRR	30 DPT SoSRR	SoSPDR, SoSCDR, LRIP, ASREQ

13. REMARKS

BLOCK 10 and 11:

Draft report shall be submitted 30 DPT SoSRR.

Block 12:

Updated reports shall be submitted 30 DPT SoSPDR, 30 DPT SoSCDR, and 30 DPT LRIP, then subsequent updates as required.

Remarks:

1. Ensure criteria are developed to define computation of the quantitative wartime manpower requirements needed for UA performance and to determine essential wartime position and man-hour summary requirements.
2. Include TRADOC in the approval process.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001		B. Exhibit Attachment 2		C. Category Other	
D. System/Item. Future Combat Systems				E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A013	2. Title of Data Item: Human Systems Integration Report			3. Subtitle:	
4. Authority (Data Acquisition Document No.) DI-MISC-80508			5. Agreement Reference Attachment 1, 3.1.1.5		6. Requiring Office AMSTA-AQ-ABF
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency 3 TIMES, ASREQ	10. As of Date 30 DTP SoSPDR	11. Date of First Submission 30 DPT SoSPDR	12. Date of Subsequent Submission SoSCDR, LRIP, ASREQ

13. REMARKS

Block 10, 11and 12:

Initial report shall be submitted at 30 DPT SoSPDR, with subsequent updates, 30 DPT SoSCDR, 30 DPT LRIP, then as required.

Remarks:

1. Report shall detail MANPRINT design evaluation during system development, to include requirement, specification, design, test, and assessment. Ensures MANPRINT design efforts are integrated into system design to accommodate personnel health and safety, human factors, system safety, soldier survivability, skills/aptitude/development, training, and system manpower requirements.
2. Include TRADOC in the approval process.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

Page 1 of 1

DAAE07-03-9-F001
PZ0007
Attachment 2

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2			C. Category Other	
D. System/Item. Future Combat Systems				e. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A014	2. Title of Data Item: Trade Study Plan			3. Subtitle:	
4. Authority (Data Acquisition Document No.) DI-ILSS-81021			5. Agreement Reference Attachment 1, 3.1.1.6,3.2.1,3.2.1.1, 3.2.1.2, 3.2.3, 3.2.3.1, 3.2.3.3.1, 3.2.5.1, 3.2.5.6, 3.2.5.7		6. Requiring Office AMSTA-AQ-ABF
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency SEMIA	10. As of Date 15 DPT SoSRR	11. Date of First Submission 15DPT SoSRR	12. Date of Subsequent Submission 60 DPT SoSCDR, SEMIA

13. REMARKS
Blocks 9, 10, 11, and 12:

Initial plan to be submitted 15 DPT SoSRR and updates provided every 6 months or as required thereafter until 60 DPT SoSCDR.

Remarks:

1. Define planned trades, policies, procedures, and processes including CAIV to support and document best choice design decisions to include but not limited to the following: TESS trades, common component trades, requirements trades, technology trades, and life cycle cost trades.
2. HQ TRADOC will be the final User authority for all operational trade decisions.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No. 0001		B. Exhibit Attachment 2		C. Category Other	
D. System/Item. Future Combat Systems				E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A015		2. Title of Data Item: Life Cycle Cost Containment Plan		3. Subtitle:	
4. Authority (Data Acquisition Document No.) N/A			5. Agreement Reference Attachment 1, 3.1.1.6		6. Requiring Office AMSTA-AQ-ABF
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency 1 TIME, SEMIA, ASREQ	10. As of Date 15 DA SoSRR	11. Date of First Submission 15 DA SoSRR	12. Date of Subsequent Submission SEMIA, ASREQ

13. REMARKS

Blocks 9, 10, 11, and 12:

Initial update 15 DA SoSRR and subsequent updates every 6 months or sooner if required.

Remarks:

1. LCC containment plan (D786-10012-1) shall be updated to reflect changes in the LCC containment process.

G. PREPARED BY Frederick H. Bultman	H. DATE 26-11-2003	I. APPROVED BY	J. DATE

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST					
A. Agreement Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A016	2. Title of Data Item: Life Cycle Cost Estimate		3. Subtitle:		
4. Authority (Data Acquisition Document No.) DI-MISC-80508		5. Agreement Reference Attachment 1, 3.1.1.6		6. Requiring Office AMSTA-AQ-ABF	
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency ASREQ	10. As of Date 45 DA SoSRR	11. Date of First Submission 45 DA SoSRR	12. Date of Subsequent Submission ASREQ
13. REMARKS 1. LCC estimate per LCC Containment Plan (A015) and update as required.					
G. PREPARED BY Frederick H. Bultman	H. DATE 26-11-2003		I. APPROVED BY	J. DATE	

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No.	B. Exhibit	C. Category	
0001	Attachment 2	Other	
D. System/Item.		E. Agreement/PR NO.	F. Contractor
Future Combat Systems		DAAE07-03-9-F001	The Boeing Company
1. Data Item No.	2. Title of Data Item:	3. Subtitle:	
A017	Software Development Plans		
4. Authority (Data Acquisition Document No.)		5. Agreement Reference	6. Requiring Office
DI-MISC-80508		Attachment 1, 3.1.1.7, 3.1.1.7.1, 3.1.1.7.2, 3.2.2	AMSTA-AQ-ABF

7. Transmtl Mthd	8. APP Code	9. Frequency	10. As of Date	11. Date of First Submission	12. Date of Subsequent Submission
ACE	A	See Remarks	See Remarks	See Remarks	See Remarks

13. REMARKS
Block 1:

Each plan may be a standalone or combined with other plans if appropriate. The documents shall be assigned a dashed data item number as noted below to distinguish one plan from another.

Blocks 9, 10, 11and 12

Define policy and processes, in appropriate software development plans, to ensure consistent software development across all elements of SoS and FoS Increment I SDD. These plans shall include:

A017-01 - Software Development Plan (D786-10006-1 - update as mutually agreed between LSI and PM FCS)
A017-02 - Software Configuration Management Plan (draft 60 days AAA, update as mutually agreed between LSI and PM FCS)
A017-03 - Phased Software Integration Plan (draft 100 days AAA, update as mutually agreed between LSI and PM FCS)
A017-04 - Software Measurement Plan (draft 60 days AAA, update as mutually agreed between LSI and PM FCS)
A017-05 - Software Transition Plan (draft at CDR. Final 6 months prior to IPD)
A017-06 - COTS and other Software Reuse Management Plan (draft 150 days AAA)
A017-07 - Software Quality Assurance Plan (draft 60 days AAA)
A017-08 - SEI CMMI Level 5 Evolution Plan (draft 300 days AAA)

Drafts (or updates for existing plans) shall be delivered as indicated in paragraph 1 above and subsequent updates made as required thereafter. Comments to drafts shall be incorporated in an update at mutually agreed upon date.

Each document with have a dash sequence number assigned to the Data Item sub-number (i.e., A017-02-n, where n starts with 1) to distinguish one document delivery from another as the documents are updated over time. Assignment of the dash numbers shall be shall be sequential starting with 01. A list of the dash number assignments shall be available on ACE.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

Page 1 of 1

DAAE07-03-9-F001
PZ0007
Attachment 2

AGREEMENT DATA REQUIREMENTS LIST					
A. Agreement Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A018	2. Title of Data Item: Software Artifacts		3. Subtitle: Software Process, Requirements, Design, Test, and Design Artifacts		
4. Authority (Data Acquisition Document No.) EIA/IEEE –J-STD-016		5. Agreement Reference Attachment 1, 3.1.1.3.2, 3.1.1.3.3, 3.2.1.2, 3.2.2.1, 3.2.2.3, 3.2.2.4, 3.2.2.5, 3.2.2.6, 3.2.2.7, 3.2.2.8, 3.2.3.3.2, 3.2.3.5		6. Requiring Office AMSTA-AQ-ABF	
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency ASREQ	10. As of Date ASREQ	11. Date of First Submission ASREQ	12. Date of Subsequent Submission ASREQ

1. Data Item No. A018 (Cont.)	2. Title of Data Item: Software Artifacts	3. Subtitle: Software Process, Requirements, Design, Test, and Design Artifacts

13. REMARKS

Block 1:

All standalone artifacts/documents shall be assigned a dashed data item number A018-n where n starts with 01) to distinguish one plan delivery from another. Assignment of dash numbers shall be arbitrary but shall be sequentially assigned and controlled though LSI data management. A list of the dash number assignments shall be available under ACE.

Block 8:

Approval required for the Software Requirements Specification, Software Interface Requirements Specification, Software Architecture Description Document, Software Test Plan, and the Software Test Report only. Approval required for all supplier Software Development Plans.

Block 13. Remarks:

1. Documents all software efforts, requirements analysis and decisions, design analysis and decisions, test planning, processes, and reporting for all elements across the SoS and FoS Increment I software in SDD. These artifacts shall be at the appropriate configuration levels as mutually agreed by the LSI and PM FCS but no less than CSCI level. Artifacts may be combined as agreed by the LSI and PM FCS.

These artifacts shall include but not limited to the following:
Meeting minutes, reuse analyses, software development folders, peer review and other development evaluation reports, audit reports, problem reports, metric reports, metric analysis, approved process tailoring/improvements, supplier SDPs, briefings, schedules, requirements specifications, design documents and models, interface specifications and documents, test plans and reports, source code listings, executable software, instruction manuals, programmer's manuals, and selection rationale.

2. All standalone artifacts/documents shall be assigned a dashed data item number A018-n where n starts with 1) to distinguish one plan delivery from another. Assignment of dash numbers shall be arbitrary but shall be sequentially assigned and controlled though LSI data management. A list of the dash number assignments shall be available under ACE using A018 as the data item number.

3. Artifacts may be in contractor format using block 4 as a guide.

4. Artifacts and updates shall be delivered to the FCS ACE and approved via the ACE workflow process. Official approval is not required for meeting minutes and agendas, briefings, peer review and other evaluation reports, audit reports, and problem reports."

Rationale

This change is in the best interest of the Government for the following reasons. These changes reduce ambiguity in the CDRL and unnecessary processing and approvals of artifacts.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

Page 2 of 2

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A019	2. Title of Data Item: Home Station Operation Center Plan		3. Subtitle:		
4. Authority (Data Acquisition Document No.) DI-MISC-80508		5. Agreement Reference Attachment 1, 3.1.4.8		6. Requiring Office AMSTA-AQ-ABF	
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency 1TIME, ASREQ	10. As of Date 60 DPT SoSFR	11. Date of First Submission 60 DPT SoSFR	12. Date of Subsequent Submission ASREQ

13. REMARKS

1. Define the requirements and design for the FCS HSOC that include a networked, in-garrison, battle command planning capability and interoperability requirements for seamless operations with FCS training and logistics systems.

2. Define a detailed HSOC implementation and procurement plan that shall include cost, schedules, site installation requirements, implementation risks, and recommended facility modifications and potential suppliers.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

Page 1 of 1

DAAE07-03-9-F001
PZ0007
Attachment 2

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No.	B. Exhibit	C. Category
0001	Attachment 2	Other

D. System/Item.	E. Agreement/PR NO.	F. Contractor
Future Combat Systems	DAAE07-03-9-F001	The Boeing Company

1. Data Item No.	2. Title of Data Item:	3. Subtitle:
A020	SoS Performance Assurance Report	

4. Authority (Data Acquisition Document No.)	5. Agreement Reference	6. Requiring Office
DI-MISC-80508	Attachment 1, 3.1.1.8	AMSTA-AQ-ABF

7. Transmtl Mthd	8. APP Code	9. Frequency	10. As of Date	11. Date of First Submission	12. Date of Subsequent Submission
ACE	A	See Remarks	See Remarks	Initial SoS IA + 60	See Remarks

13. REMARKS

Block 9:

Evaluation reports to be provided NLT 60 days after completion of test events and/or other evaluations of SoS performance as appropriate

Remarks:

1. Documents the results of periodic SoS performance assurance evaluations per Block 5 (including EMI/EMC/EMF, mass properties, parts, materials, processes).
2. Include TRADOC in the approval process.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No. 0001		B. Exhibit Attachment 2		C. Category Other	
D. System/Item. Future Combat Systems				E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A021		2. Title of Data Item: SoS Verification Plan		3. Subtitle:	
4. Authority (Data Acquisition Document No.) DI-MNTY-81188			5. Agreement Reference Attachment 1, 3.1.1.8, 3.1.1.9		6. Requiring Office AMSTA-AQ-ABF
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency 1TIME, ASREQ	10. As of Date 15 DPT SoSRR	11. Date of First Submission 15DPT SoSRR	12. Date of Subsequent Submission ASREQ

13. REMARKS

1. Updates the SoS verification plan (D786-10038-1) of the SoS Increment I design (including approach to verifying compliance of all FCS SoS Specification requirements).
2. Include TRADOC in the approval process.

G. PREPARED BY Frederick H. Bultman	H. DATE 26-11-2003	I. APPROVED BY	J. DATE

Page 1 of 1

DAAE07-03-9-F001
PZ0007
Attachment 2

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001		F. Contractor The Boeing Company
1. Data Item No. A022	2. Title of Data Item: SoS Verification Report		3. Subtitle:		
4. Authority (Data Acquisition Document No.) DI-MISC-80508			5. Agreement Reference Attachment 1, 3.1.1.9		6. Requiring Office AMSTA-AQ-ABF
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency See remarks	10. As of Date See Remarks	11. Date of First Submission See Remarks	12. Date of Subsequent Submission See Remarks

13. REMARKS

Block 9, 10, 11 and 12:

Report shall be submitted 60 days after completion of each FCS integration phase.

Remarks:

1. Report shall document the requirements traceability flow-down and flow-up and verification closure data and results for the SoS Specification requirements.
2. Include TRADOC in the approval process.

G. PREPARED BY Frederick H. Bultman	H. DATE 26-11-2003	I. APPROVED BY	J. DATE

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			D. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A024	2. Title of Data Item: FCS Growth Strategy		3. Subtitle:		
4. Authority (Data Acquisition Document No.) See remarks		5. Agreement Reference Attachment 1, 3.1.1.10.3		6. Requiring Office AMSTA-AQ-ABF	
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency 4 TIMES, ASREQ	10. As of Date 30 DA SoSRR	11. Date of First Submission 30 DA SoSRR	12. Date of Subsequent Submission SoSFR, SoSPDR, SoSCDR, ASREQ

13. REMARKS

Draft due 30 DA SoSRR, final 30 DA SoSFR with subsequent updates required 30 DA SoSPDR, and 30 DA SoSCDR, then ASREQ.
Documents Growth Strategy for achieving the Increment I Objective Capability

G. PREPARED BY Frederick H. Bultman	H. DATE 26-11-2003	I. APPROVED BY	J. DATE

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A025	2. Title of Data Item: Supportability Strategy		3. Subtitle:		
4. Authority (Data Acquisition Document No.) DI-MISC-80508		5. Agreement Reference Attachment 1, 3.1.1.12, 3.2.4, 3.2.4.2, 3.2.4.2.1		6. Requiring Office AMSTA-AQ-ABF	
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency 4 TIMES, ANNLY	10. As of Date 15 DPT SoSRR	11. Date of First Submission 15 DPT SoSRR	12. Date of Subsequent Submission SoSFR, SoSPDR, SoSCDR, ANNLY

13. REMARKS

Block 9, and 12:

Plan shall be updated 60 DPT SoSFR, 60 DPT SoSPDR, 60 DPT SoSCDR, then annually thereafter.

Remarks:

1. Provide updates to the FCS Supportability Strategy Plan (D786-10025-1) developed in the CTD phase. Include TRADOC in the approval process.

After delivery the data shall be coordinated for Army/OSD Level Signature Approval.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

Page 1 of 1

DAAE07-03-9-F001
PZ0007
Attachment 2

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001		F. Contractor The Boeing Company
1. Data Item No. A026	2. Title of Data Item: RAM-T Program Plan		3. Subtitle:		
4. Authority (Data Acquisition Document No.) DI-MISC-80508			5. Agreement Reference Attachment 1, 3.2.4.1, 3.2.4.5		6. Requiring Office AMSTA-AQ-ABF
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency ANNLY	10. As of Date 60 DPT SoSFR	11. Date of First Submission 60 DPT SoSFR	12. Date of Subsequent Submission ANNLY

13. REMARKS

1. Establish FCS RAM-T allocated requirements and integrate suppliers' information into the SoS RAM-T Case to demonstrate progress towards meeting RAM-T goals. Metrics shall include as a minimum: Operational Availability, Operations and Support Costs and Footprint.
2. Include TRADOC in the approval process.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No. 0001	B. Exhibit Attachment 2	C. Category Other	
D. System/Item. Future Combat Systems		E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A027	2. Title of Data Item: Performance Based Logistics Implementation Plan	3. Subtitle:	
4. Authority (Data Acquisition Document No.) DI-MISC-80508	5. Agreement Reference Attachment 1, 3.1.1.12, 3.2.4		6. Requiring Office AMSTA-AQ-ABF

7. Transmtl Mthd	8. APP Code	9. Frequency	10. As of Date	11. Date of First Submission	12. Date of Subsequent Submission
ACE	A	3 TIMES, ANNLY	60 DPT SoSFR	60 DPT SoSFR	SoSPDR, SoSCDR, ANNLY

13. REMARKS

Blocks 9, 10, 11, and 12: Initial submittal will be submitted 60 DPT SoSFR, with subsequent submittals 60 DPT SoSPDR, 60 DPT SoSCDR, then annually thereafter.

Remarks:

1. Document the PBL development process: team; strategy; agreements; metrics; PSI selection; monitoring; and reviewing & updating strategy, including integrating the supplier efforts & development/analysis/selection of product support services.

2. Include CASCOM and TRADOC in the approval process.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001		B. Exhibit Attachment 2		C. Category Other	
D. System/Item. Future Combat Systems				E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A028	2. Title of Data Item: Programmatic Environment, Safety and Occupational Health Evaluation (PESHE)			3. Subtitle:	
4. Authority (Data Acquisition Document No.) DI-MISC-80508			5. Agreement Reference Attachment 1, 3.1.1.13, 3.1.1.5		6. Requiring Office AMSTA-AQ-ABF
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency 8 TIMES, ASREQ	10. As of Date 90 AAA	11. Date of First Submission 90 AAA	12. Date of Subsequent Submission SoS DCR, SoSPDR, SoSCDR, LRIP, IPD, SoSI&V Ph #5.1, SDD Closeout, ASREQ

13. REMARKS

Block 9, 10, 11, and 12:

Plan shall be updated 30 DPT DCR, 30 DPT SoSPDR, 30 DPT SoSCDR, 30 DPT LRIP, 30 DPT IPD, 30 DPT SoSI&V Ph #5.1, 30 DPT SDD Closeout, the as required.

Remarks:

1. Update to PESHE (D786-10030-1) including integration of ESOH design considerations and delivery of the required reports, analyses and data IAW the existing Programmatic Environment, Safety and Occupational Health Evaluation (PESHE) and its referenced documents. These requirements include:
   a. System Safety/Health Program Plans
   b. Safety Assessment Reports (initial and updates)
   c. Hazard Tracking and Hazardous Materials Management Databases
   d. Preliminary Hazards Lists
   e. Hazard Reports documenting hazard analysis results and findings
   f. Data in support of major Program Reviews and Events
   g. Data in support of the FCS Environmental Management System
   h. Data to support ESOH Compliance Assessment of SDD suppliers, T&E/training/fielding installations, and Complementary Systems
   i. Data to support National Environmental Policy Act analyses for FCS core systems and FCS/UA Complementary Systems
   j. Data to support Safety/Health Releases
   k. Data to support Materiel Release
   l. Data as required to support the residual hazard risk acceptance process

2. Integrate the reports, analyses and data into the PESHE as attachments, annexes and/or references.

After delivery the data shall be coordinated for Army/OSD Level Signature Approval.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A029	2. Title of Data Item: System Integration Plan		3. Subtitle:		
4. Authority (Data Acquisition Document No.) DI-MISC-80508		5. Agreement Reference Attachment 1, 3.1.1, 3.1.1.9		6. Requiring Office AMSTA-AQ-ABF	
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency ASREQ	10. As of Date 15 DPT SoSRR	11. Date of First Submission 15 DPT SoSRR	12. Date of Subsequent Submission ASREQ
13. REMARKS 1 Updates to the system integration plan (D786-10113-1) including integration initiatives, methodologies, objectives, responsibilities, processes, tools, and resources.					
G. PREPARED BY Frederick H. Bultman	H. DATE 26-11-2003		I. APPROVED BY	J. DATE	

Page 1 of 1

DAAE07-03-9-F001
PZ0007
Attachment 2

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No. 0001	B. Exhibit Attachment 2	C. Category Other	
D. System/Item. Future Combat Systems		E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A030	2. Title of Data Item: Force Effectiveness Modeling Report	3. Subtitle:	
4. Authority (Data Acquisition Document No.) DI-MISC-80508		5. Agreement Reference Attachment 1, 3.1.1.1.1, 3.1.2.1	6. Requiring Office AMSTA-AQ-ABF

7. Transmtl Mthd	8. APP Code	9. Frequency	10. As of Date	11. Date of First Submission	12. Date of Subsequent Submission
ACE	A	ASREQ	ASREQ	ASREQ	ASREQ

13. REMARKS

1. Documents insights obtained from LSI FCS SoS effectiveness analysis that impacts TRADOC's UA/OF development and design work. Includes lessons learned from TRADOC UA/OF experimentation, studies, and analysis that impacts the FCS SoS and FoS solutions and designs; SMART collaboration sessions between TRADOC and LSI; and emerging FCS SoS/FoS design capabilities to support TRADOC UA/OF operational experimentation and analysis.
2. Include TRADOC in the approval process.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

Page 1 of 1

DAAE07-03-9-F001
PZ0007
Attachment 2

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2			C. Category Other	
D. System/Item. Future Combat Systems				E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A031	2. Title of Data Item: FCS Simulation Verification & Validation Plan			3. Subtitle:	
4. Authority (Data Acquisition Document No.) Army Accreditation Plan, DI-MISC-80508			5. Agreement Reference Attachment 1, 3.1.2.3		6. Requiring Office AMSTA-AQ-ABF
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency ASREQ	10. As of Date 30 DPT DCR	11. Date of First Submission 30 DPT DCR	12. Date of Subsequent Submission ASREQ

13. REMARKS

1. Documents the proposed steps for validation and verification of the SDD Increment I simulations to support Government accreditation design.
2. Plan will be consistent with Army Accreditation Plan.
3. Include TRADOC in the approval process.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No. 0001		B. Exhibit Attachment 2		C. Category Other	
D. System/Item. Future Combat Systems				E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A032	2. Title of Data Item: System Integration Laboratories Development Plan			3. Subtitle:	
4. Authority (Data Acquisition Document No.) DI-MISC-80508			5. Agreement Reference Attachment 1, 3.1.3, 3.2.2.2, 3.2.3.2, 3.2.5.2		6. Requiring Office AMSTA-AQ-ABF
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency 1TIME, ASREQ	10. As of Date 60 DPT SoSCDR	11. Date of First Submission 60 DPTSoSCDR	12. Date of Subsequent Submission ASREQ

13. REMARKS

1. Detail the policies, processes, procedures for design, development, use, and maintenance of the FCS System Integration Laboratories (SILs), to include but not necessarily limited to separate annexes for detailed design, interface, and utilization information. This detail shall also include the results of joint LSI/Government investigation of current Government M&S capabilities and the assessment of the utility of these for use in SDD in place of developing new M&S capabilities.
2. Include TRADOC in the approval process. Approval of this document shall constitute approval of assessment regarding availability of M&S capabilities from the Government in support of SDD.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No. 0001	B. Exhibit Attachment 2	C. Category Other	
D. System/Item. Future Combat Systems		E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A033	2. Title of Data Item: Risk Management Plan	3. Subtitle:	
4. Authority (Data Acquisition Document No.) See Remarks	5. Agreement Reference Attachment 1, 3.1.4.1.2	6. Requiring Office AMSTA-AQ-ABF	

7. Transmtl Mtlhd	8. APP Code	9. Frequency	10. As of Date	11. Date of First Submission	12. Date of Subsequent Submission
ACE	A	5 TIMES, ASREQ	10 DPT SoSRR	10 DPT SoSRR	SOSPDR, SoSCDR, IPD, ASREQ

13. REMARKS

Block 9, and 12:

Plan shall be updated 60 DPT IBR, 60 DPT SoSPDR, and 60 DPT SoSCDR, 60 DPT IPD.

Remarks:

Update the Risk Management Plan (D786-10015-1) consistent with the existing Risk Management Plan. After delivery the data shall be coordinated for Army/OSD Level Signature Approval.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

Page 1 of 1

DAAE07-03-9-F001
PZ0007
Attachment 2

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001		F. Contractor The Boeing Company
1. Data Item No. A034	2. Title of Data Item: Trade Study Report		3. Subtitle:		
4. Authority (Data Acquisition Document No.) DI-ILSS-81021			5. Agreement Reference Attachment 1, 3.1.1.6, 3.2.1.1, 3.2.1.2, 3.2.3, 3.2.3.1, 3.2.3.3.1, 3.2.5.1, 3.2.5.6, 3.2.5.7		6. Requiring Office AMSTA-AQ-ABF
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency SEMIA	10. As of Date 60 DPT SoSPDR	11. Date of First Submission 60 DPT SoSPDR	12. Date of Subsequent Submission 60 DPT SoSCDR, then SEMIA

13. REMARKS

Block 1:

If desired, contractor may submit multiple versions of this document - one for each trade or set of trades, or may combine all trades into one document submittal. If multiple versions are submitted, each separate version shall be a standalone document with a dash number assigned to the Data Item number (i.e., A034-n, where n starts with 01) to distinguish one plan delivery from another. Assignment of the dash numbers shall be arbitrary but shall be sequentially assigned and controlled through LSI data management. A list of the dash number assignments shall be available under ACE.

Blocks 9, 10, 11, and 12:

Initial report to be submitted 60 DPT SoSPDR and updates provided every 6 months or as required thereafter until 60 DPT SoSCDR. After SoSCDR, reports shall be submitted as required to reflect new trades resulting from or causing subsequent design change decisions.

Remarks:

1. Documents results of trades and decisions made relative to requirements and design for FCS Increment I.
2. Include TRADOC in the approval process.

G. PREPARED BY Frederick H. Bultman	H. DATE 26-11-2003	I. APPROVED BY	J. DATE

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001		F. Contractor The Boeing Company
1. Data Item No. A035	2. Title of Data Item: Interoperability Analysis Report		3. Subtitle:		
4. Authority (Data Acquisition Document No.) DI-MISC-80508		5. Agreement Reference Attachment 1, 3.1.1.2.1			6. Requiring Office AMSTA-AQ-ABF
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency ASREQ	10. As of Date ASREQ	11. Date of First Submission ASREQ	12. Date of Subsequent Submission ASREQ
13. REMARKS 1. Documents analysis data from interoperability studies in support of PM, FCS and TRADOC. 2. Include TRADOC in the approval process.					
G. PREPARED BY Frederick H. Bultman	H. DATE 26-11-2003			I. APPROVED BY	J. DATE

Page 1 of 1

DAAE07-03-9-F001
PZ0007
Attachment 2

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001		F. Contractor The Boeing Company
1. Data Item No. A036	2. Title of Data Item: Software Architecture Description Document		3. Subtitle: Software Architecture Views		
4. Authority (Data Acquisition Document No.) ANSI/IEEE –1471-2000		5. Agreement Reference Attachment 1, 3.1.1.7.1			6. Requiring Office AMSTA-AQ-ABF
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency 1 TIME, ASREQ	10. As of Date 30 DPT DCR	11. Date of First Submission 30 DPT DCR	12. Date of Subsequent Submission ASREQ

13. REMARKS

1. Defines the SoS Software Architecture across all elements of the FCS Software Segments imbedded in the SoS and FoS Increment 1 SDD. This shall include architectural decisions including, but not limited to, those significant aspects of the integrated capabilities achieved across the manned systems, unmanned systems, sustainment systems, training systems, command and control, and Complementary Systems.
2. The SoS Software Architecture shall be developed in UML and documented as an Appendix within the SoS Architecture Description Document (A005).
3. The Architecture shall be approved by the CCB based on review and recommendation from the Architecture Steering Group (ASG) including representation from the LSI, Government Program Office and HQDA designated user representative.
4. Include TRADOC in the approval process.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2			C. Category Other	
D. System/Item. Future Combat Systems				E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A037	2. Title of Data Item: C4I Support Plan			3. Subtitle:	
4. Authority (Data Acquisition Document No.) DI-MISC-80508		5. Agreement Reference Attachment 1, 3.2.2			6. Requiring Office AMSTA-AQ-ABF
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency ANNLY thru 2006, ASREQ	10. As of Date 60 Days AAA	11. Date of First Submission 60 Days AAA	12. Date of Subsequent Submission ANNLY, ASREQ

13. REMARKS

Block 9, and 12:

Update the C4ISP each year, to be delivered the last working day of July. The exception is in the years 2006/2007. The July 2006 version will be used as the baseline for MS C (IPD), and then updated as required through July 2007.

Remarks:

1. Provide updates to the C4I Support Plan (D786-10021-1 through 4)

2. After delivery the data shall be coordinated for Army/OSD Level Signature Approval.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

DAAE07-03-9-F001
PZ0007
Attachment 2

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2			C. Category Other	
D. System/Item. Future Combat Systems				E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A038	2. Title of Data Item: Complementary Programs Management Control Plan			3. Subtitle:	
4. Authority (Data Acquisition Document No.) DI-MISC-80508				5. Agreement Reference Attachment 1, 3.1.4.4, Article XXIX, Attachment 11	6. Requiring Office AMSTA-AQ-ABF
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency 2 TIMES	10. As of Date 10 DPT SoSRR	11. Date of First Submission 10 DPT SoSRR	12. Date of Subsequent Submission 30 DPT SoSFR

13. REMARKS

1. Define the management control processes (including risk identification and mitigation) to be used to identify, manage, and ensure interoperability and synchronization of complementary Systems with the FCS FoS, and schedule integration consistent with FoS development needs. Plan shall also include coordination and interfaces with the UA Supportability Strategy, Fielding Team activities and Materiel Fielding Agreements prepared by the Supportability IPT and Materiel Fielding sub-IPT.
2. Include TRADOC in the approval process.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. All CLINs	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001		F. Contractor The Boeing Company
1. Data Item No. A039	2. Title of Data Item: Contract Funds Status Report		3. Subtitle:		
4. Authority (Data Acquisition Document No.) DI-MGMT-81468		5. Agreement Reference Attachment 1, 3.1.4.5.			6. Requiring Office AMSTA-AQ-ABF
7. Transmtl Mthd ACE	8. APP Code N/A	9. Frequency QRTLY	10. As of Date 25th	11. Date of First Submission See Remarks	12. Date of Subsequent Submission See Remarks

13. REMARKS

Blocks 9, 10, 11, and 12:

1. Report shall be submitted on the 25th of the month following the close of the preceding Government fiscal quarter (25 October, 25 January, 25 April, and 25 July).
2. Report shall contain data current as of last day of the preceding LSI fiscal accounting month.
3. Initial report to be submitted 25 July 2003.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

Page 1 of 1

DAAE07-03-9-F001
PZ0007
Attachment 2

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A040	2. Title of Data Item: Contractor Cost Data Report		3. Subtitle:		
4. Authority (Data Acquisition Document No.) Cost Data Reporting Plan A-03-A-C			5. Agreement Reference Attachment 1, 3.1.4.5	6. Requiring Office AMSTA-AQ-ABF	
7. Transmtl Mthd Encrypted e-mail	8. APP Code N/A	9. Frequency As required by Block 4	10. As of Date As required by Block 4	11. Date of First Submission As required by Block 4	12. Date of Subsequent Submission As required by Block 4
13. REMARKS 1. Prepare and submit CCDR DD1921, DD1921-1, DD2630-2, and DD2630-3 IAW the CCDR Plan approved by OSD on 4 April 2003.					
G. PREPARED BY Frederick H. Bultman	H. DATE 26-11-2003		I. APPROVED BY	J. DATE	

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No. All CLINs		B. Exhibit Attachment 2		C. Category Other	
D. System/Item. Future Combat Systems				E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A041		2. Title of Data Item: Cost Performance Report		3. Subtitle:	
4. Authority (Data Acquisition Document No.) DI-MGMT-81466			5. Agreement Reference Attachment 1, 3.1.4.5		6. Requiring Office AMSTA-AQ-ABF
7. Transmtl Mthd ACE	8. APP Code N/A	9. Frequency MTHLY	10. As of Date 25th	11. Date of First Submission See Remarks	12. Date of Subsequent Submission See Remarks

13. REMARKS

Blocks 9, 10, 11, and 12:

1. First submittal will be no later than the 25th of the month following the close of the second accounting period after Agreement award. Subsequent submissions will continue no later than the 25th of each of the succeeding months.

Remarks:

1. Report shall include data as of last day in the preceding LSI accounting month.
2. Variance reporting will be established by mutual agreement between the LSI and the Government. Variance reporting will focus on the significant cost, schedule, and critical path drivers with analysis of technical and risk impacts when appropriate.
3. The level of detail will be determined by mutual agreement between the LSI and the Government.

G. PREPARED BY Frederick H. Bultman	H. DATE 26-11-2003	I. APPROVED BY	J. DATE

Page 1 of 1

DAAE07-03-9-F001
PZ0007
Attachment 2

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A042	2. Title of Data Item: FoS Distributed Network Test Plan		3. Subtitle:		
4. Authority (Data Acquisition Document No.) DI-NDTI-80808, DI-MISC-80912			5. Agreement Reference Attachment 1, 3.2.2.9		6. Requiring Office AMSTA-AQ-ABF
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency 1 TIME, ASREQ	10. As of Date 60 DPT SoSCDR	11. Date of First Submission 60 DPT SoSCDR	12. Date of Subsequent Submission ASREQ

13. REMARKS

Define plans required to perform virtual and physical prototype testing at the FoS Distributed Network system/subsystem level.

G. PREPARED BY Frederick H. Bultman	H. DATE 26-11-2003	I. APPROVED BY	J. DATE

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No. 0001	B. Exhibit Attachment 2	C. Category Other	
D. System/Item. Future Combat Systems		E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A043	2. Title of Data Item: Integrated Master Schedule	3. Subtitle:	
4. Authority (Data Acquisition Document No.) DI-MISC-80004, DI-MISC-81183A	5. Agreement Reference Attachment 1, 3.1.4.5.2	6. Requiring Office AMSTA-AQ-ABF	

7. Transmtl Mthd	8. APP Code	9. Frequency	10. As of Date	11. Date of First Submission	12. Date of Subsequent Submission
ACE	A	MTHLY/WEKLY	30 DA IBR	30 DA IBR	MTHLY and WEKLY

13. REMARKS

Block 10 and 11:

Completion of IMS (D786-10019-1) for full SDD program 30 DA IBR. Requires approval.
Block 8:Monthly and Weekly submittals do not require approval.
Block 9 and 12:
Full statused IMS schedule shall be delivered monthly.
IMS Status Metrics, Summary Analysis, and Late Item Exceptions shall be delivered weekly.
Remarks:
Contractor schedules shall be consistent with existing IMS format.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

Page 1 of 1

DAAE07-03-9-F001
PZ0007
Attachment 2

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A044	2. Title of Data Item: FCS UA Objective Capabilities Specification		3. Subtitle: The report form and format may be contractor format, however should be consistent with FCS UA Increment I Capabilities Specification S786-50000 (A003).		
4. Authority (Data Acquisition Document No.) MIL-STD-961D w/ Change 1		5. Agreement Reference Attachment 1, 3.1.1.3.2		6. Requiring Office AMSTA-AQ-ABF	
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency 1 TIME, ASREQ	10. As of Date 10DPT SoSRR	11. Date of First Submission 10 DPT SoSRR	12. Date of Subsequent Submission ASREQ

13. REMARKS

Block 3:

The report form and format should be consistent with the FCS UA Increment I Capabilities Specification S786-50000 (A003) using Block 4 as a guide.

Remarks:

1. All JROC ORD requirements will be reconciled. That reconciliation can take two (2) forms:
   a. Establishment of fully coordinated threshold (either JROC compliant or approved through the trade study process)
   b. Establishment of a threshold range contingent upon the outcome of a trade study that has yet to be performed, including:
      (1) Appropriate justification as to why the Trade Study could not be performed prior to SRR
      (2) Identification of all necessary resources to complete the action.
2. Include TRADOC in the approval process.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No. 0001		B. Exhibit Attachment 2	C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001		F. Contractor The Boeing Company
1. Data Item No. A045	2. Title of Data Item: FCS ACE Implementation Plan		3. Subtitle:		
4. Authority (Data Acquisition Document No.) DI-MISC-80508			5. Agreement Reference Attachment 1, 3.1.4.6		6. Requiring Office AMSTA-AQ-ABF
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency 1TIME, ASREQ	10. As of Date 30 DPT SoSRR	11. Date of First Submission 30 DPT SoSRR	12. Date of Subsequent Submission ASREQ

13. REMARKS

1. Define new applications and interfaces to be implemented and the associated milestones to support SDD Increment I data exchange requirements including but not limited to the integration of SILs, ATIRS, Vision, SMART.
2. Include TRADOC in the approval process.

G. PREPARED BY Frederick H. Bultman	H. DATE 26-11-2003	I. APPROVED BY	J. DATE

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A046	2. Title of Data Item: Enterprise Production Plan		3. Subtitle:		
4. Authority (Data Acquisition Document No.) DI-MISC-80508		5. Agreement Reference Attachment 1, 3.1.4.7		6. Requiring Office AMSTA-AQ-ABF	
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency 1TIME, ASREQD	10. As of Date 60 DA SoSPDR	11. Date of First Submission 60 DA SoSPDR	12. Date of Subsequent Submission ASREQ

13. REMARKS

1. Enterprise Production Plan (D786-10212-1) processes and methodologies used by the LSI to ensure that program suppliers comprehend and accomplish the requirements specified in the supplier SOW. Indicate the support available from the LSI for completion of these tasks and management activities to be performed by the LSI to mitigate production risk and ensure on-time delivery. Emphasis shall be placed on the processes supporting the transition to LRIP including go-ahead for LRIP Long Lead Items and production.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

Page 1 of 1

DAAE07-03-9-F001
PZ0007
Attachment 2

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A047	2. Title of Data Item: Industrial Capabilities Assessment		3. Subtitle:		
4. Authority (Data Acquisition Document No.) DI-MISC-80508		5. Agreement Reference Attachment 1, 3.1.4.7.1		6. Requiring Office AMSTA-AQ-ABF	
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency 2 TIMES, ASREQ	10. As of Date 30 DPT SoSFR	11. Date of First Submission 30 DPT SoSFR	12. Date of Subsequent Submission IPD# 1, ASREQ

13. REMARKS

Block 9, 10, 11, and 12:

Plan shall be updated 60 DPT IPD#1, then as required.

Remarks:

1. Industrial capabilities assessment to meet FCS future production requirements.

G. PREPARED BY Frederick H. Bultman	H. DATE 26-11-2003	I. APPROVED BY	J. DATE

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A048	2. Title of Data Item: FoS Distributed Network Test Report		3. Subtitle:		
4. Authority (Data Acquisition Document No.) DI-NDTI-80808,		5. Agreement Reference Attachment 1, 3.2.2.9		6. Requiring Office AMSTA-AQ-ABF	
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency See Remarks	10. As of Date See Remarks	11. Date of First Submission See Remarks	12. Date of Subsequent Submission See Remarks

13. REMARKS

Block 9, 10, 11 and 12:

Each set of test results shall be delivered NLT 60 days after completion of respective tests.

Remarks:

1. Publish test data and results including results from SIL testing, Limited User Tests, and Operational Tests at the system and subsystem level. Test results shall include roll-up of testing performed at Government and supplier locations. Draft reports will be posted within 30 days of test completion. Final report will be posted within 30 days after receipt of comments.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

Page 1 of 1

DAAE07-03-9-F001
PZ0007
Attachment 2

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A049	2. Title of Data Item: Interactive Electronic Technical Manuals		3. Subtitle:		
4. Authority (Data Acquisition Document No.) DI-NDTI-81284, MIL-STD-400518			5. Agreement Reference Attachment 1, 3.2.4.1.		6. Requiring Office AMSTA-AQ-ABF
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency ANNLY	10. As of Date 60 DPT SoSFR	11. Date of First Submission 60 DPT SoSFR	12. Date of Subsequent Submission ANNLY
13. REMARKS 1. Integrates supplier technical data with LSI logistics data into fully executable embedded class V IETMs. 2. IETM delivery to be timed to support demonstrations, test and program V&V schedules in conjunction with PSMRS. IETMS will be delivered within PSMRS as a package.					
G. PREPARED BY Frederick H. Bultman	H. DATE 26-11-2003		I. APPROVED BY	J. DATE	

Page 1 of 1

DAAE07-03-9-F001
PZ0007
Attachment 2

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001		F. Contractor The Boeing Company
1. Data Item No. A050	2. Title of Data Item: FCS Materiel Fielding Support Plan		3. Subtitle:		
4. Authority (Data Acquisition Document No.) DI-MISC-80508		5. Agreement Reference Attachment 1, 3.2.4.6			6. Requiring Office AMSTA-AQ-ABF
7. Transmit Mthd ACE	8. APP Code A	9. Frequency 4 TIMES, ANNLY	10. As of Date 15 DPT SoSRR	11. Date of First Submission 15 DPT SoSRR	12. Date of Subsequent Submission SoSFR, SoSPDR, SoSCDR, ANNLY

13. REMARKS

Block 9, 10, 11, and 12:

Initial submittal will be submitted 15DPT SoSRR with subsequent submittals 60 DPT SoSFR, 60 DPT SoSPDR, 60 DPT SoSCDR, and then annually thereafter.

Remarks:
1. Updates to the existing FCS Materiel Fielding Support Plan (D786-10044-1).
2. Include TRADOC in the approval process.

After delivery the data shall be coordinated for Army/OSD Level Signature Approval.

G. PREPARED BY Frederick H. Bultman	H. DATE 26-11-2003	I. APPROVED BY	J. DATE

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001		F. Contractor The Boeing Company
1. Data Item No. A051	2. Title of Data Item: Supportability Data Management Plan		3. Subtitle:		
4. Authority (Data Acquisition Document No.) DI-MISC-80508			5. Agreement Reference Attachment 1, 3.2.4.3		6. Requiring Office AMSTA-AQ-ABF
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency 1 TIME, ANNLY	10. As of Date 60 DPT SoSPDR	11. Date of First Submission 60 DPT SoSPDR	12. Date of Subsequent Submission ANNLY
13. REMARKS 1. Describes the development and implementation of a database management system for the complete life cycle data for logistics support containing data such as engineering drawings, IETM data, test reports, models, etc.					
G. PREPARED BY Frederick H. Bultman	H. DATE 26-11-2003		I. APPROVED BY		J. DATE

Page 1 of 1

DAAE07-03-9-F001
PZ0007
Attachment 2

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A052	2. Title of Data Item: Supply Chain Management Plan		3. Subtitle:		
4. Authority (Data Acquisition Document No.) DI-MISC-80508		5. Agreement Reference Attachment 1, 3.2.4.4		6. Requiring Office AMSTA-AQ-ABF	
7. Transintl Mthd ACE	8. APP Code A	9. Frequency 1 TIME, ANNLY	10. As of Date 60 DPT SoSPDR	11. Date of First Submission 60 DPT SoSPDR	12. Date of Subsequent Submission ANNLY
13. REMARKS 1. Describes the integration of supply chain management practices into the performance based logistics concept to optimize the performance of logistics functions so the end customer receives optimum support.					
G. PREPARED BY Frederick H. Bultman	H. DATE 26-11-2003		I. APPROVED BY	J. DATE	

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A053	2. Title of Data Item: Training Management Plan		3. Subtitle:		
4. Authority (Data Acquisition Document No.) DI-MISC-80508		5. Agreement Reference Attachment 1, 3.2.5, 3.2.5.4		6. Requiring Office AMSTA-AQ-ABF	
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency 3 TIMES, SEMIA	10. As of Date 30 DPT SoSRR	11. Date of First Submission 30 DPT SoSRR	12. Date of Subsequent Submission SoSPDR, SoSCDR, SEMIA

13. REMARKS

Block 9, 10, 11, and 12:

Plan shall be updated 30 DPT SoSRR with subsequent submittals, 60 DPT SoSPDR, 60 DPT SoSCDR and, then semiannually thereafter.

Remarks:

1. Define policy and processes to ensure consistent incorporation of the training products across all configurations. Plan shall provide for training design evaluation during system development, to include requirement, specification, design, test, and assessment.
2. Include TRADOC in the approval process.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

Page 1 of 1

DAAE07-03-9-F001
PZ0007
Attachment 2

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A054	2. Title of Data Item: Training Data Products Report		3. Subtitle:		
4. Authority (Data Acquisition Document No.) MIL-PRF-2961B		5. Agreement Reference Attachment 1, 3.2.5.1, 3.2.5.4		6. Requiring Office AMSTA-AQ-ABF	
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency 4 TIMES, SEMIA	10. As of Date 30 DPT SoSRR	11. Date of First Submission 30 DPT SoSRR	12. Date of Subsequent Submission SoSDCR, SoSPDR, SoSCDR, SEMIA

13. REMARKS

Block 9, 10, 11, and 12:

Initial Submittal shall be30 DPT SoSRR, with subsequent submittals30 DPT DCR, 60 DPT SoSPDR, 60 DPT SoSCDR, then semiannually thereafter.

Remarks:

1. Document reports delivery of training aids, devices, simulators, simulations, individual system level and collective task analyses, training architectures and requirements.
2. Include TRADOC in the approval process.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

Page 1 of 1

AGREEMENT DATA REQUIREMENTS LIST

A. Agreement Line Item No.	B. Exhibit	C. Category	
0001	Attachment 2	Other	
D. System/Item.		E. Agreement/PR NO.	F. Contractor
Future Combat Systems		DAAE07-03-9-F001	The Boeing Company
1. Data Item No.	2. Title of Data Item:	3. Subtitle:	
A055	Training Support Package		
4. Authority (Data Acquisition Document No.)	5. Agreement Reference	6. Requiring Office	
TRADOC REG 350-70, DI-NDTI-80872	Attachment 1, 3.2.5.3, 3.2.5.4	AMSTA-AQ-ABF	

7. Transmtl Mthd	8. APP Code	9. Frequency	10. As of Date	11. Date of First Submission	12. Date of Subsequent Submission
ACE	A	3 TIMES, SEMIA	60 DPT SoSFR	60 DPT SoSFR	SoSPDR, SoSCDR, SEMIA

13. REMARKS

Block 9and 12:

Plan shall be updated , 60 DPT SoSPDR, and 60 DPT SoSCDR, then semi-annually thereafter.

Remarks:

1. TSPs will be developed and delivered IAW the LSI TSP PCD (786-30126) and TRADOC Regulation 350-70.
2. Include TRADOC in approval process.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bulman	26-11-2003		

Page 1 of 1

DAAE07-03-9-F001
PZ0007
Attachment 2

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001		B. Exhibit Attachment 2		C. Category Other	
D. System/Item. Future Combat Systems				E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A057		2. Title of Data Item: Training Facilities Survey Report		3. Subtitle:	
4. Authority (Data Acquisition Document No.) DI-NDTI-80872, DI-MISC-80508			5. Agreement Reference Attachment 1, 3.2.5.5		6. Requiring Office AMSTA-AQ-ABF
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency 4 TIMES, SEMIA	10. As of Date 30 DPT SoSRR	11. Date of First Submission 30 DPT SoSRR	12. Date of Subsequent Submission SoSDCR, SoSPDR, SoSCDR, SEMIA

13. REMARKS

Block 9and 12:

Plan shall be updated 30 DPT SoSDCR, 60 DPT SoSPDR, and 60 DPT SoSCDR, semi-annually thereafter.

Remarks:

1. Describes results of training facilities surveyed including but not limited to assessment, recommended modifications and additions, support equipment, training articles, threat training systems and simulators, and simulation models/test beds, training areas and ranges. Initial submission will consist of plan and methodology for conducting Training Facilities Surveys.
2. Include TRADOC in the approval process.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

Page 1 of 1

DAAE07-03-9-F001
PZ0007
Attachment 2

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No. 0001	B. Exhibit Attachment 2	C. Category Other	
D. System/Item. Future Combat Systems		E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A058	2. Title of Data Item: LSI FCS Test Program Update to the PM FCS Test and Evaluation Master Plan (TEMP)	3. Subtitle:	
4. Authority (Data Acquisition Document No.) DI-MISC-80508		5. Agreement Reference Attachment 1, 3.3.1, 3.3.1.1	6. Requiring Office AMSTA-AQ-ABF

7. Transmtl Mthd	8. APP Code	9. Frequency	10. As of Date	11. Date of First Submission	12. Date of Subsequent Submission
ACE	A	4 TIMES, ASREQ	60 DPT SoSFR	60 DPT SoSFR	SoSPDR, SoSCDR, IPD#1 & ASREQ

13. REMARKS

Block 9and 12:

Plan shall be updated, 60 DPT SoSPDR, and 60 DPT SoSCDR, 60DPT IPD #1, and as required thereafter.

Remarks:

1. Provides LSI recommended updated / new program test planning information - in support of Government TEMP updates.
2. Input shall be consistent with Department of the Army TEMP Guidelines.
3. The Boeing-SAIC Team as the Army's Lead System Integrator (LSI) develops and provides IS&T implementation plans to the PM FCS for the integration and testing of the FCS Unit of Action and its platforms through this report. The PM FCS incorporates this information directly into the FCS Test and Evaluation Master Plan (TEMP) during its periodic updates. The updated TEMP, including the LSI's input, is the Government's top- level test and evaluation management document.
4. After delivery the data shall be coordinated for Army/OSD Level Signature Approval.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A059	2. Title of Data Item: System Support Package Component List (SSPCL)		3. Subtitle:		
4. Authority (Data Acquisition Document No.) DI-ILSS-80532, DI-ILSS-80557		5. Agreement Reference Attachment 1, 3.3.1.2.1		6. Requiring Office AMSTA-AQ-ABF	
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency ASREQ	10. As of Date 60 DPT LUT #1	11. Date of First Submission 60 DPT LUT #1	12. Date of Subsequent Submission 60 DPT LUT#2, 60 DPT LUT#3 ASREQ
13. REMARKS Block 9, 10, 11, and 12: These dates are 60 DPT LUT1, LUT2 and LUT3. Remarks: 1. Identifies recommended resources and services required to conduct system support testing.					
G. PREPARED BY Frederick H. Bultman	H. DATE 26-11-2003		I. APPROVED BY	J. DATE	

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No. 0001		B. Exhibit Attachment 2		C. Category Other	
D. System/Item. Future Combat Systems				E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A060		2. Title of Data Item: Integrated Test Report		3. Subtitle:	
4. Authority (Data Acquisition Document No.) DI-MISC-80508			5. Agreement Reference Attachment 1, 3.3.1.3, 3.3.1.4, 3.3.1.5		6. Requiring Office AMSTA-AQ-ABF
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency ASREQ	10. As of Date ASREQ	11. Date of First Submission NLT 60 Days after each SoS Test Event	12. Date of Subsequent Submission ASREQ

13. REMARKS

Block 4:
Test reports shall be in contractor format using the DID as guidance.
Test Incident Reports (TIRs)/Corrective Action Reports (CARs) shall be prepared in standard ATIRS format.

G. PREPARED BY Frederick H. Bultman	H. DATE 26-11-2003	I. APPROVED BY	J. DATE

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No. 0001	B. Exhibit Attachment 2	C. Category Other	
D. System/Item. Future Combat Systems		E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A061	2. Title of Data Item: Complementary Programs Database	3. Subtitle:	
4. Authority (Data Acquisition Document No.) DI-MISC-80508	5. Agreement Reference Attachment 1, 3.1.4.4, 3.1.4.4.1, Article XXIX, Attachment 11	6. Requiring Office AMSTA-AQ-ABF	

7. Transmtl Mthd	8. APP Code	9. Frequency	10. As of Date	11. Date of First Submission	12. Date of Subsequent Submission
ACE	A	3 TIMES, ASREQ	10 DPT SoSRR	10 DPT SoSRR	SoSFR, ASREQ

13. REMARKS

Block 9 and 12:

Draft database shall be submitted 10 DPT SoSRR with subsequent submittals 15 DPT SoSFR, then as required.

Remarks:

1. For each Complementary Program, define the following data elements: Lead IPT, CPIDS, IPT Name, Bin, Item Description/Function, Specific Hardware/Software/Data Required, e.g. End items, software, brackets, cables, A-Kit, B-Kit, etc, including Item National Stock Numbers and Item Nomenclature/Line Item Number, if applicable, Quantity, When Required (date), Duration to Retain (end date), Where Required (location), Program Event(s) Supported, Mechanism for Delivery, Contractor Source, UFR POM Value; Yes or No, ROM Value, Impact to Program if item not obtained on schedule, Impact to Program if item not obtained at all, IPT Government POC, Phone, E-mail, Government Agency Conducted to Discuss Suitability and Availability of Item(s) (Yes/ No), Written Permission Received to Use Item(s) (Yes/No), Estimated Government Manpower Required (only work years not paid for through this agreement)
2. Database shall be delivered to the FCS ACE or other mutually agreed upon repository.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bultman	26-11-2003		

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No. 0001	B. Exhibit Attachment 2	C. Category Other	
D. System/Item. Future Combat Systems		E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A062	2. Title of Data Item: FCS ACE Metrics Report	3. Subtitle:	
4. Authority (Data Acquisition Document No.) DI-MISC-80508		5. Agreement Reference Attachment 1, 3.1.4.6	6. Requiring Office AMSTA-AQ-ABF

7. Transmtl Mthd	8. APP Code	9. Frequency	10. As of Date	11. Date of First Submission	12. Date of Subsequent Submission
ACE	A	QRTLY	90 Days AAA	90 Days AAA	QRTLY

13. REMARKS

1. Define develop, track and report metrics for the FCS ACE to monitor the utility, the support, and the user satisfaction. Shall also maintain a current roster, including members, on the ACE for all chartered organizations.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
Frederick H. Bulunan	26-11-2003		

Page 1 of 1

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2			C. Category Other	
D. System/Item. Future Combat Systems				E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A063	2. Title of Data Item: Engineering Change Proposal (ECP)/ Advanced Drawing Change Notices			3. Subtitle:	
4. Authority (Data Acquisition Document No.)			5. Agreement Reference Attachment 1, 3.1.1.4		6. Requiring Office AMSTA-AQ-ABF
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency ASREQ	10. As of Date ASREQ	11. Date of First Submission ASREQ	12. Date of Subsequent Submission ASREQ
13. REMARKS Submit ECPs consistent with the CDMP, D786-10008-1.					
G. PREPARED BY Frederick H. Bultman	H. DATE 26-11-2003			I. APPROVED BY	J. DATE

Page 1 of 1

Attachment 3

DD Form 254

DEPARTMENT OF DEFENSE

CONTRACT SECURITY CLASSIFICATION SPECIFICATION

(The requirements of the DoD National Industrial Security Program Operating Manual apply to all security aspects of this effort.)

1. CLEARANCE AND SAFEGUARDING
a. FACILITY CLEARANCE REQUIRED: Top Secret
b. LEVEL OF SAFEGUARDING REQUIRED: Top Secret

2. THIS SPECIFICATION IS FOR: (X and complete as applicable)

X	a. PRIME CONTRACT NUMBER: DAAE07-03-9-F001	
	b. SUBCONTRACT NUMBER	
	c. SOLICITATION OR OTHER NUMBER	DUE DATE (YYMMDD)

3. THIS SPECIFICATION IS: (X and complete as applicable)

	a. ORIGINAL (Complete date in all cases)		DATE (YYYYMMDD): 20030515
X	b. REVISED (Supersedes all previous specs)	Revision No. 01	DATE (YYYYMMDD): 20031029
	c. FINAL (Complete item 5 in all cases)		DATE (YYYYMMDD):

4. IS THIS A FOLLOW-ON CONTRACT? YES X NO. If yes, complete the following:
Classified material received or generated under Preceding Contract Number) M0M873-02-C-0005 is transferred to this follow-on contract.

5. IS THIS A FINAL DD 254? YES X NO. If yes, complete the following:
In response to the contractor's request dated , retention of the identified classified material is authorized for the period of

6. CONTRACTOR (Include Commercial and Government Entity (CAGE) Code)

a. NAME, ADDRESS, AND ZIP CODE	b. CAGE CODE	c. COGNIZANT SECURITY OFFICE (Name, Address, and Zip Code)
McDonnell Douglas Corporation aka The Boeing Co. JS McDonnell Blvd. & Airport Rd. Building 100 St. Louis, MO 63134	28980	Defense Security Service Central Region, Midwest Sector 610 S. Canal Street, Room 908 Chicago, IL 60607-4599

7. SUBCONTRACTOR

a. NAME, ADDRESS, AND ZIP CODE	b. CAGE CODE	c. COGNIZANT SECURITY OFFICE (Name, Address, and Zip Code)

8. ACTUAL PERFORMANCE

a. NAME, ADDRESS, AND ZIP CODE	b. CAGE CODE	c. COGNIZANT SECURITY OFFICE (Name, Address, and Zip Code)
McDonnell Douglas Corporation aka The Boeing Co. JS McDonnell Blvd. & Airport Rd. Building 100 St. Louis, MO 63134	28980	Defense Security Service Central Region, Midwest Sector 610 S. Canal Street, Room 908 Chicago, IL 60607-4599

DAAE07-03-9-F001
PZ0007
Attachment 3

9. GENERAL IDENTIFICATION OF THIS PROCUREMENT
As the Future Combat Systems' (FCS) Lead System Integrator (LSI) execute the FCS Increment I Systems Development and Demonstration (SDD) Phase as delineated in this and other contractual / agreement documents.

10. THIS CONTRACT WILL REQUIRE ACCESS TO:	YES	NO	11. IN PERFORMING THIS CONTRACT, THE CONTRACTOR WILL:	YES	NO
a. COMMUNICATION SECURITY (COMSEC) INFORMATION	X		a. HAVE ACCESS TO CLASSIFIED INFORMATION ONLY AT ANOTHER CONTRACTOR'S FACILITY OR A GOVERNMENT ACTIVITY		X
b. RESTRICTED DATA		X	b. RECEIVE CLASSIFIED DOCUMENTS ONLY		X
c. CRITICAL NUCLEAR WEAPON DESIGN INFORMATION		X	c. RECEIVE AND GENERATE CLASSIFIED MATERIAL	X	
d. FORMERLY RESTRICTED DATA		X	d. FABRICATE, MODIFY, OR STORE CLASSIFIED HARDWARE	X	
e. INTELLIGENCE INFORMATION:			e. PERFORM SERVICES ONLY		X
(1) Sensitive Compartmented Information (SCI)	X		f. HAVE ACCESS TO U.S. CLASSIFIED INFORMATION OUTSIDE THE U.S., PUERTO RICO, U.S. POSSESSIONS AND TRUST TERRITORIES	X	
(2) Non-SCI	X		g. BE AUTHORIZED TO USE THE SERVICES OF DEFENSE TECHNICAL INFORMATION CENTER (DTIC) OR OTHER SECONDARY DISTRIBUTION CENTER	X	
f. SPECIAL ACCESS INFORMATION	X		h. REQUIRE A COMSEC ACCOUNT	X	
g. NATO INFORMATION	X		i. HAVE TEMPEST REQUIREMENTS	X	
h. FOREIGN GOVERNMENT INFORMATION	X		j. HAVE OPERATIONS SECURITY (OPSEC) REQUIREMENTS	X	
i. LIMITED DISSEMINATION INFORMATION		X	k. BE AUTHORIZED TO USE THE DEFENSE COURIER SERVICE	X	
j. FOR OFFICIAL USE ONLY INFORMATION	X		l. OTHER (Specify) Follow and Implement: 1. AIS Processing Requirements (See Block 13) 2. Program Protection Plan (PPP) Requirements	X	
k. OTHER (Specify) Controlled Unclassified Information (CUI)	X				

12. PUBLIC RELEASE. Any information (classified or unclassified) pertaining to this contract shall not be released for public dissemination except as provided by the Industrial Security Program Operating Manual or unless it has been approved for public release by appropriate U.S. Government authority. Proposed public releases shall be submitted for approval prior to release

☐ Direct X Through (Specify):

NO PUBLIC RELEASE OF SAP OR SCI INFORMATION IS AUTHORIZED.
Grants Officer at U.S. Army TACOM, ATTN: AMSTA-AQ-ABF, Mail Step 321, ATTN: FCS Grants Officer, 6501 E. 11 Mile Road, Warren, MI 48397-5000.

Requests for release of SCI will be through the SCI Contract Monitor: Beverly Gibson at U.S. Army CECOM, ATTN: Beverly Gibson,

to the Directorate for Freedom of Information and Security Review, Office of the Assistant Secretary of Defense (Public Affairs)* for review.
*In the case of non-DoD User Agencies, requests for disclosure shall be submitted to that agency.

13. SECURITY GUIDANCE. The security classification guidance needed for this classified effort is identified below. If any difficulty is encountered in applying this guidance or if any other contributing factor indicates a need for changes in this guidance, the contractor is authorized and encouraged to provide recommended changes; to challenge the guidance or the classification assigned to any information or material furnished or generated under this contract; and to submit any questions for interpretation of this guidance to the official identified below. Pending final decision, the information involved shall be handled and protected at the highest level of classification assigned or recommended. (Fill in as appropriate for the classified effort. Attach, or forward under separate correspondence, any additional pages as needed to provide complete guidance.)

Estimated Completion Date: December 2011

Access to FCS information (not authorized for Public Release) by foreign interests (as defined by the NISPOM) is prohibited unless authorized by a valid export authorization.

Item 10.a - Access to classified COMSEC information requires a final US Government clearance at the appropriate level. Further disclosure of COMSEC information by a contractor, to include subcontracting, requires prior approval of the contracting activity.

The following attachments are made part of this DD Form 254:

Attachment "A" – CONTROLLED UNCLASSIFIED INFORMATION (Item 10.k.)
Attachment "B" – FOR OFFICIAL USE ONLY (Item 10.l.)
Attachment "C" – NON – SCI (Item 10.e (2))
Attachment "D" – SPECIAL ACCESS INFORMATION (Item 10.f.)
Attachment "E" – SENSITIVE COMPARTMENTED INFORMATION (Item 10.e (1))

CONCUR: _____/s/_____
Beverly Gibson
SCI Contract Monitor

CONCUR: _____/s/_____
Donald Venneman
CSE Operations Chief

DAAE07-03-9-F001
PZ0007
Attachment 3

CONTINUED

14. ADDITIONAL SECURITY REQUIREMENTS. Requirements, in addition to NISPOM requirements, are established for this contract. (If Yes, identify the pertinent contractual clauses in the contract document itself, or provide an appropriate statement which identifies the additional requirements. Provide a copy of the requirements to the cognizant security office. Use Item 13 if additional space is needed.) YES X NO

The contractor will abide by DCID's 1/19, 6/9, and 6/3 for all SCI material. Also, see the SCI Addendum identified as Attachment "E" to this DD Form 254. This program is also an Acknowledged SAP. The options identified and checked "ACKNOWLEDGED" in the NISPOM Overprint are now made mandatory. Also see Block 13 for additional requirements.

15. INSPECTIONS. Elements of this contract are outside the inspection responsibility of the cognizant security office. (If Yes, explain and identify specific areas or elements carved out and the activity responsible for inspections. Use Item 13 if additional space is needed.) X YES NO

For SCI, see the SCI Addendum identified as Attachment "E" to this DD Form 254. Otherwise, the Defense Security Service (DSS) has cognizance of this contract. However, the DSS representative must be briefed to the SAP. The Government Program Security Manager reserves the right to inspect the program facility. AR 380-19, NISPOM Overprint and AR 380-381 are documents governing the accreditation of contractor's AIS.

16. CERTIFICATION AND SIGNATURE. Security requirements stated herein are complete and adequate for safeguarding the classified information to be released or generated under this contract effort. All questions shall be referred to the official named below.

a. TYPED NAME OF CERTIFYING OFFICIAL	b. TITLE	c. TELEPHONE (Include Area Code)
Nancy A. Chaplin	Director, FCS G-2	586-574-3830

d. ADDRESS (Include Zip Code)	17. REQUIRED DISTRIBUTION
PEO-GCS ATTN: SFAE-GCS-FCS-WS / MS 515 6501 E. 11 MILE ROAD WARREN, MI 48397-5000	X a. CONTRACTOR b. SUBCONTRACTOR X c. COGNIZANT SECURITY OFFICE FOR PRIME AND SUBCONTRACTOR d. U.S. ACTIVITY RESPONSIBLE FOR OVERSEAS SECURITY ADMINISTRATION X e. ADMINISTRATIVE CONTRACTING OFFICER X f. OTHERS AS NECESSARY TMO, 902nd
e. SIGNATURE	

DD Form 254, DEC 99 *Previous editions are obsolete.*

DAAE07-03-9-F001
PZ0007
Attachment 3

DD Form 254 Reverse, DEC 99

CONTINUATION OF BLOCK 13 OF THE DD FORM 254

Item 10.g – NATO INFORMATION: Access to classified NATO information requires a final US Government clearance at the appropriate level and shall be handled in accordance with Chapter 10, Section 7 of the NISPOM. In addition, prior to accessing NATO information, the facility must be NATO Certified by the Defense Security Service. Subcontracting of NATO information requires prior approval of the Government FCS Security Office.

Item 10.h – FOREIGN GOVERNMENT INFORMATION: Access to classified Foreign Government Information (FGI) requires a U.S. Government clearance at the appropriate level, and shall be handled in accordance with Chapter 10, Section 3 of the NISPOM. Prior approval of the Government FCS Security Office is required before subcontracting.

Item 10.j – FOR OFFICIAL USE ONLY (FOUO) INFORMATION: "FOR OFFICIAL USE ONLY" (FOUO) is not a classification marking. It identifies unclassified DoD information that is exempt from public disclosure. FOUO is a category of Controlled Unclassified Information (CUI). It must not be given general circulation without receiving public release authority in accordance with Block 12 above. FOUO information will be marked, transmitted, safeguarded and disposed of in accordance with Attachment "B".

Item 10.k – CONTROLLED UNCLASSIFIED INFORMATION (CUI): See Attachment "A"

Item 11.c - Collateral classified information generated in support of this contract shall be classified in accordance with the source material used or the Security Classification Guide for Future Combat Systems, dated 29 October 2003, (provided under separate cover) and protected in accordance with the National Industrial Security Program Operating Manual (NISPOM), DoD 5220.22-M, the NISPOM COMSEC Supplement, the NISPOM Carrier Supplement, the Program Protection Plan, the FCS OPSEC Plan and this DD Form 254.

Item 11.d – FABRICATE, MODIFY OR STORE CLASSIFIED HARDWARE: This is not authorized for the facility identified in 6.a, but is checked "yes" for subcontracting purposes only, where necessary.

Item 11.f – ACCESS TO U.S. CLASSIFIED INFORMATION OUTSIDE THE U.S.: Access will be in consonance with the NISPOM and U.S. export laws in support of this effort. If further clarification is required, contact the Government FCS Security Office.

Item 11.g – DEFENSE TECHNICAL INFORMATION CENTER (DTIC): The contractor must prepare and forward DD Forms 1540 and 2345 to the COR for authorization before the services may be requested. Technical information on file at DTIC will be made available to the contractor if the contractor requires such information. The grants officer will certify the field of interest relating to the Agreement.

Item 11.h – REQUIRE A COMSEC ACCOUNT: Contractor is authorized the use of secure telephones (STU-III / STE) with fax, encryption equipment and keying material for classified program requirements.

Item 11.i – TEMPEST REQUIREMENTS: Prior to the implementation of any TEMPEST countermeasures or expenditure of funds, a TEMPEST vulnerability assessment will be conducted at locations processing SAP and/or SCI information. The DA Form 7453, Facility Technical Threat Assessment (FTTA) Worksheet will be provided under separate cover. These completed documents will be forwarded to the Government FCS Security Office for processing within 30 days of receipt.

Item 11.j – OPERATIONS SECURITY (OPSEC) REQUIREMENTS: The contractor will provide an annex to the FCS OPSEC Plan within 60 days of receipt of the government's FCS OPSEC Plan. This annex will address specific threats and protection countermeasures at facilities performing on FCS. This requirement will be flowed down to all subcontractors.

Item 11.l (1) – AUTOMATED INFORMATION SECURITY:

(a) For unclassified access to Government AIS or systems processing US Government information, see "PERSONNEL SECURITY REQUIREMENTS FOR ADP ACCESS" below;

(b) For processing Controlled Unclassified Information (CUI), consult Attachment "A";

(c) Processing of collateral classified information will be in consonance with the NISPOM;

(d) In order to processing SAP information on an AIS, consult attachment "D"; and

(e) If processing SCI Information on an AIS, consult Attachment "E".

PERSONNEL SECURITY REQUIREMENTS FOR ADP ACCESS:

Contractor personnel, to include subcontractors and consultants, meeting the requirements of an automated data processing position (ADP I or II), must satisfy certain personnel security standards regardless of whether or not the information processed by the automated information system (AIS) is classified. Criteria for security position sensitivity and ADP designation of positions is as follows:

I. Critical Sensitive (CS):

(1) Access to TOP SECRET information and/or
(2) Category I Automated Data Processing (ADP) Positions: Those positions in which the Incumbent is responsible for the planning, direction, and implementation of a computer security program; major responsibility for the direction, planning and design of a computer system, including the hardware and software; or, can access a system during the operation or maintenance in such a way, and with a relatively high risk for causing grave damage, or realize a significant personal gain.
(3) Investigation: Single Scope Background Investigation (SSBI) is required.

II. Non-Critical Sensitive (NCS):

(1) Access to SECRET or CONFIDENTIAL information and/or

(2) Category II Automated Data Processing (ADP) Positions: Those positions in which the incumbent is responsible for the direction, planning, design, operation, or maintenance of a computer system, and whose work is technically reviewed by higher authority (ADP-I)
(3) Investigation: National Agency Check or National Agency Check with Inquiries, is required.

Position sensitivity and ADP categories are determined by the employee's supervisor/manager. The investigation must be successfully completed prior to assigning an individual to any ADP I or II duties unless a waiver has been granted through GO channels. If hired within two years of a separation from the government, military or another defense contractor, a contractor's prior investigation may meet the investigative requirements of an ADP position.

Item 11.l (2) – PROGRAM PROTECTION PLAN (PPP) REQUIREMENTS: This plan is effective immediately and is mandatory for use by all FCS program participants, field activities and matrix support personnel at all FCS locations. This plan, or derivative plans developed by the LSI or the LSI's subcontractors, will cover all locations where CPI is researched, manufactured, stored, processed or tested, and a derivative DRAFT PPP will be forwarded to the FCS Security Office for approval within 30 days of receipt of the FCS PPP. A final derivative PPP will be provided to the FCS Security Office 30 days after receipt of comments and recommended changes to the draft derivative PPP. The derivative PPP will be reviewed annually, updated as necessary, and forwarded the FCS Security Office for approval. The plan will address all development or operational environments from concept to demilitarization. The threat analysis will cover both current and future considerations for intelligence collections and sabotage/terrorism in both peacetime and combat environments. The vulnerabilities identification and countermeasures development efforts will include traditional counterintelligence and security disciplines to assist in the protection of all CPI from unauthorized collection efforts. The CPI security risk assessment process will utilize robust system security engineering processes. The implementation of the comprehensive scope of the PPP will ensure adequate protection of CPI and it will also enable international cooperative efforts (when and if applicable). The derivative PPPs submitted will be marked, at a minimum, FOR OFFICIAL USE ONLY (FOUO) or consistent with the level of classified information disclosed.

Block 12 – PUBLIC RELEASE: One (1) paper copy and one (1) electronic copy on disk with full text and graphics must be provided at least eleven (11) working days prior to the requested release date. If all or part of the information was generated by another organization, their written release authorization must accompany the request.

Prior to subcontracting at the Top Secret, COMSEC, SCI, NON-SCI, NATO, FGI or SAP level, the contractor will obtain concurrence on the subcontract DD Form 254 from the Government FCS Security Office.

Reports of loss, compromise or suspected compromise shall be provided to the Government FCS Security Office within 24 hours of the incident, in addition to the reporting requirements outlined in the NISPOM.

COMPLETION OF AGREEMENT: The Government FCS Security Office will be contacted for instructions on destruction, retention or transfer of FCS classified, CUI and unclassified information (documents, media, hardware, software, vehicles, etc.). A final DD Form 254 will be issued providing detailed guidance.

DD 254 - ATTACHMENT "A"
Controlled Unclassified Information (CUI)

DD 254-ATTACHMENT "B"

Safeguarding " For Official Use Only (FOUO) Information

DD 254-ATTACHMENT "C"
Security Requirements for Intelligence Information

DD 254-ATTACHMENT "D"
Special Access Information

DD 254-ATTACHMENT "E"
SCI Information

These attachments are CUI and not emailable outside the TACOM LAN.

Attachment 4

GFX

SDD GFX Item Description/Part Number	Quantity	Need Date	IPT	Providing Agency	SDD Item #
Use of Government Facilities	N/A	Through 6/30/04	MGV	Doyle W Anderson, (763) 572-6455,doyle.anderson2dcma.mil	FCSS001755
Mine Blast testing and mine armor development engineering support for MGV variants	STO funded for FY04	N/A	MGV	ARL, Reed Skaggs, (410) 278-9329, rskaggs@arl.army.mil	FCSS001559
Blackjack	2	All SDD	Logistics	Deb Kramer, USAMRMC (301) 619-2694 deborah.kramer@us.army.mil	FCSS001009
AMP (Analysis of Mobility Platform) latest version w/updates	1	All SDD	Logistics	TRANSCOM Mary Meyer Campbell (618) 229-1369 mary.campbell@hq.transcom.mil	FCSS001012
TARGET (Transportability Analysis Reports Generator) latest version w/updates	1	All SDD	Logistics	MTMC-TEA Melvin Sutton (757) 599-1638 melvin.sutton@tea.army.mil or Doug Barber (757) 599-1663	FCSS001014
Visual Reliability Growth Model (VIS REL GROWTH) latest version w/updates	1	All SDD	Logistics	Clarke Fox clarke.fox@us.army.mil	FCSS001015
"FAWCET" spreadsheet developed by R. Hanayik, modified by R. Long	1	Provided	Logistics	N/A	FCSS001016
ASOAR (Achieving System Operational Availability Requirement Model) version 6.0 w/updates	3	All SDD	Logistics (2 ea.) UAV (1 ea.)	CECOM - Bernie Price, (732) 532-4187 or Peter Daniedes(732) 532-3896	FCSS001017
CASTFOREM	1	Provided	IS&T	TRADOC Analysis Center ATTN: ATRC-TD (Ms. Burns) (913) 684-5511/DSN 552	FCSS001018
Army Test Incident Reporting System (ATIRS) (Army Vision)	multiple users	9/03 - SDD	IS&T M&S	ATC Shelley Cobb (410) 278-7551 shelley.cobb@atc.army.mil or Jerry Mitchell (410) 278-7628 gerard.mitchell@apg.army.mil	FCSS001023
Access to AMSAA RAM data (individual requests must be very specific)	as needed	2/04 - SDD	Logistics	Clarke Fox clarke.fox@us.army.mil or Mike bridgman (703) 917-7248 mbridgman@lmi.org	FCSS001024
Optimum Stock Requirements Analysis Program (OSRAP) runs when requested by LSI	as needed	2/1/04 - SDD	Logistics	Clarke Fox clarke.fox@us.army.mil	FCSS001025
Selected Essential Item Stock for Availability Method (SESAME) latest version w/updates	2	2/04 - SDD	Logistics/UAV	AMSAA Clark Fox or Dr. David Martin (410) 278-6248 martin@amsaa.army.mil	FCSS001027
Arena based RAM Monte Carlo simulation model	1	2/04 - SDD	Logistics	Mike Cushing michael.cushing@us.army.mil or Clarke Fox clarke.fox@us.army.mil	FCSS001028
Reliability/RAM/Logistics Toolset, latest version w/updates	1	2/04 - SDD	Logistics	Dennis J. Anderson (505) 845-9837 djander@sandia.gov	FCSS001029
TARDEC OE Software (version 2.0.4-0) and related test software	1	through 1/04	C4ISR	Rakesh Patel (586) 574-5188 patelrak@tacom.army.mil	FCSS001046

SDD GFX Item Description/Part Number	Quantity	Need Date	IPT	Providing Agency	SDD Item #
Automated Air Load Planning (ALPS) latest version w/updates	1		Logistics	Lee DeArmond (703) 752-0756 lee.dearmond@us.army.mil	FCSS001054
ELIST (Enhanced Logistics Intratheater Support Tool) latest version w/updates	2	Feb 04 - PoP	Logistics	MTMC-TEA Melvin Sutton (757) 599-1638 melvin.sutton@tea.army.mil or Doug Barber (757) 599-1663	FCSS001055
Integrated Computerized Deployment System (ICODES) latest version w/updates	2	Feb 04 - PoP	Logistics	MTMC Steve Goodman (703) 428-2789 goodmans@mtmc.army.mil	FCSS001056
JFAST (Joint Flow and Analysis System for Transportation) latest version w/updatiges	2	Feb 04 - PoP	Logistics	TRANSCOM, Phil Boyer (618) 229-1826, phil.boyer@hq.transcom.mil	FCSS001057
Data Collection and Analysis Tool (DCAT) Version 2.0	1	2/05 - SDD	IS&T M&S	AMRDEC Greg Tackett (256) 842-9501 gtackett@redstone.army.mil or Karin Larsen karin.larsen@us.army.mil	FCSS001220
Extended Air Defense Simulation (EADSIM) Version 11.00	1	2/05 - SDD	IS&T M&S	Jim Watkins (256) 955-1681 jim.watkins@smdc.army.mil	FCSS001221
Extended Air Defense Test Bed (EADTB)	1	2/05 - SDD	IS&T M&S	Moody Parsons (256) 955-1419 george.parsons@smdc.army.mil or COL Greaney	FCSS001222
Enhanced Surface to Air Missile Simulator (ESAMS)	1	2/05 - SDD	IS&T M&S	Alfred Yee (937) 781-2891 yee_alfred@bah.com	FCSS001224
FireSim XXI (estimated release version 4.1.5c)	1	2/05 - SDD	IS&T M&S	DSABL John L. Horn (580) 442-3832 hornj@sill.army.mil or MAJ Chris Niederhauser (580) 442-3649 niederhausercd@sill.army.mil	FCSS001225
Generic Smart Indirect Fire Simulation (GENESIS)	1	2/05 - SDD	IS&T M&S	Alan Dinsmore or Bill Clay (410) 278-6885 william.clay@us.army.mil	FCSS001226
Ground Wars	1	2/05 - SDD	IS&T M&S	Gary Comstock (410) 278-0623 gary.russell.comstock@us.army.mil	FCSS001227
MATREX and all associated runtime and initiation data, databases, and supporting documentation	1	12/15/03 - SDD	IS&T M&S	RDECOM, CPT Steven Nerenberg (703) 617-8171 steven.nerenberg@us.army.mil	FCSS001231
NCBR Environmental Server	1	2/05 - SDD	IS&T M&S	SBCCOM, Dr. John White (714) 895-8944 john.white@sbccom.apgea.army.mil	FCSS001232
Radar-Directed Gun System Simulation (RADGUNS)	1	2/05 - SDD	IS&T M&S	Mike Bennett (937) 781-2820 or Alfred Yee (937) 781-2891 yee_alfred@bah.com	FCSS001235
Threat Oriented Suvivability Optimization Model (TOCOM)	1	12/15/03 - SDD	IS&T M&S	TARDEC, Daniel Hicks (586) 574-6467 hicksd@tacom.army.mil	FCSS001236
Vehicle Survivability Analysis Tool (VSAT)	1	12/15/03 - SDD	IS&T M&S	Dave Thomas (586) 574-8911 thomasdav@tacom.army.mil	FCSS001239
Vehicle Dynamics and Mobility Server (VDMS)	1	2/05 - SDD	IS&T M&S	Pat Nunez (586) 574-7816 nunezp@tacom.army.mil	FCSS001242
Blue Force Capability	1	2/05 - SDD	IS&T M&S	AMSAA Jin Kwon (410) 278-2787 jim.dwon@us.army.mil	FCSS001245
FCS Threats data for sensor systems	multi users	2/05 - SDD	IS&T M&S/C4ISR	TRAC WSMR David Kelly (505) 678-8025 kelleyd@trac.wsmr.army.mil	FCSS001246
M1097A2 High Mobility Multi-Purpose Wheeled Vehicle (HMMWV) or equivalent	1	10/6/05 - 11/4/05	C4ISR	Mike Harrigan (732) 747-4230 mike.harrigan@us.army.mil	FCSS001375

SDD CFX Item Description/Part Number	Quantity	Need Date	IPT	Providing Agency	SDD Item #
Improved Performance Research Integration Tool for Human Modeling - Imprint Human Model GOTS Software Modeling Tool	3	4/4/04 - 9/30/10 (for 2ea.) 10/1/03 - 9/07 (for 1 ea.)	C4ISR (2 ea.) UAV (1 ea.)	ARL - Human Research Engineering Directorate Celine Richer (410) 278-5032 (FAX) website HTTP://www.arl.army.mil/ARL-Directorates/HRED/rmb/imprint/imprint.htm	FCSS001439
eXperimental Unmanned Vehicle (XUV)	1	11/04 - 3/05	UGV	Jonathan Bornstein bornstei@arl.army.mil	FCSS001466
Reconfigurable Simulator Hardware and Software Resources from NLOS-CTD Program	1	1/04 - 12/07	MGV Common crew	PM Lethality owns it: UDLP-GSD has it physically Fasi Sharafi (973)724-5261 fasi.sharafi@us.army.mil	FCSS001481
VIS Intercom System	12	7/1/04 - 12/31/07	MGV Common crew	CECOM Christina Mundrane 732-427-2421/ Coming from Crusader orders	FCSS001482
Displays, Controls and Video Router Hardware from the Crusader Program	7 displays, 10 joysticks, 4 VCP bezels, 2 full up VCPs, 2 VCRs	1/1/04 - 12/31/07	MGV Common crew	PM Lethality owns it: UDLP-GSD has it physically Fasi Sharafi (973)724-5261 fasi.sharafi@us.army.mil	FCSS001484
Vetronics Technology Integration (VTI) requirements and design documentation	1	11/03 - 12/31/07	MGV Common crew	Terry Tierney (586) 574-8678 tierneyt@tacom.army.mil	FCSS001485
Displays, Controls and Video Router Hardware TDPs from the Crusader Program	1	12/03 - SDD	MGV Common crew	PM Lethality owns it: UDLP-GSD has it physically Fasi Sharafi (973)724-5261 fasi.sharafi@us.army.mil	FCSS001486
High-speed network resources to support the distributed SoSIL through use of the High Performance Computing Modernization Programs's Defense Research and Engineering Network (DREN)	Service delivery points - HB, CA; Vienna, VA; Santa Clara, CA; Minneapolis, MN; Mesa, AZ; Seattle, WA; Sterling Heights, MI; Houston, TX; Philadelphia, PA; St. Louis, MO, Albuquerque, NM	All SDD	IS&T	Michael Stanka, CTO (410) 278-0347	FCSS001488
Role Player Workstation (RPWS) version 3.5.5.9	1	2/10/05 - SDD	IS&T M&S	EPG John L. McRae (253) 966-2381 mcrae@epg.lewis.army.mil	FCSS001489

SDD GFX Item Description/Part Number	Quantity	Need Date	IPT	Providing Agency	SDD Item #
Access to Global Transportation Network (GTN)(access to interface specs and personnel)	1	11/03 - SDD	Logistics	Clyde Collard (618) 229-5032	FCSS001524
Data via interface with Integrated Logistics Analysis Program (ILAP)	1	12/03 - SDD	Logistics	Joseph Munson (804) 734-6653	FCSS001525
Access to Judge Advocate Warfighting System (JAWS)	1	3/04 - SDD	Logistics	LTC Wayne Austin (703) 696-0252 wayne.austin@hq.da.army.mil	FCSS001526
Transportation Coordinators Automated Integration Movement System II (TC-AIMS II)	1	3/04 - SDD	Logistics	Lee DeArmond (703) 752-0756 lee.dearmond@us.army.mil	FCSS001530
NLOS-C CMD1 Reconfigurable Simulator	1	1/1/04 - 12/31/07	MGV Common crew	PM Lethality owns it: UDLP-GSD has it physically Fasi Sharafi (973)724-5261 fasi.sharafi@us.army.mil	FCSS001536
All ammunition to support FCS Program requirements.	See Article XII	All SDD	IS&T	CTO	FCSS001537
LOGNET (now WEBLOG) links to Logistics Integrated Database	1	All SDD	Logistics	LOGSA, William Chaplow, (256)955-9685, william.chaplow@logsa.army.mil	FCSS001544
Modernized Integrated database (MIDB)	12 Licenses	NLT June 04	C4ISR	Sue Hilmer Michael Roberge (202) 231-3145	FCSS001545
Aggregate Level Command and Control (C2) Environment Server (ALCES) and all associated runtime and initiation data, databases, and supporting documentation	1	Jun 03 + Periodic Updates thru PoP	IS&T	CECOM Arnie Bard (732)427-4469 Gregory Ilaria 732-427-4209 Gregory.Ilaria@mail1.monmouth.army.mil	FCSS001546
Comprehensive Mine & Sensor Simulator (CMS2)	1	6/1/2003 + Periodic Updates thru PoP	IS&T	Dave Poole (703)704-2436	FCSS001547
Intelligence Modeling and Simulation for Evaluation (IMASE)	1	6/1/2003 + Periodic Updates thru PoP	IS&T	Intelligence Electronic Warfare Test Directorate- Jimmy Smith (714) 896-8944 smithjimmie@otc.army.mil	FCSS001548
Janus – and all associated databases, runtime and initialization data	1	Provided	IS&T	TRADOC Analysis Center ATTN: ATRC-TD (Ms. Burns) (913) 684-5511/DSN 552	FCSS001549
VIC - Vector in command – and all associated runtime and initialization data	1	Provided	IS&T	TRADOC Analysis Center ATTN: ATRC-TD (Ms. Burns) (913) 684-5511/DSN 552	FCSS001550
SUO/SAS Radio Terminal	25	1/04 through 9/08	C4ISR	PM FCS Networks, Ft. Monmouth, NJ 07703 Russell Langan, Chief Engineer, (732)427-4239	FCSS001551
Access to SIPRNET with Identified accounts at 4 Boeing sites TBD	1 drop each for 4 sites, 12 Users Accounts	NLT June 04	C4ISR	Beverly Gibson, Gerry Melendez (732) 427-2900	FCSS001552

SDD GFX Item Description/Part Number	Quantity	Need Date	IPT	Providing Agency	SDD Item #
Eagle and all associated databases, runtime and initialization data	1	Provided	IS&T	TRADOC Analysis Center ATTN: ATRC-TD (Ms. Burns) (913) 684-5511/DSN 552	FCSS001553
Caspian 2.0 scenario files	1	Provided	IS&T	TRADOC Analysis Center ATTN: ATRC-TD (Ms. Burns) (913) 684-5511/DSN 552	FCSS001555
Caspian 20 scenario files	1	Provided	IS&T	TRADOC Analysis Center ATTN: ATRC-TD (Ms. Burns) (913) 684-5511/DSN 552	FCSS001556
JCATS (version 4.1)	1	6/1/2003	IS&T	Daniel Swaney (757) 686-7647JCATS Program Manager (757) 686-7647 Fax: (757) 686-6068 DSN 668	FCSS001557
Briefing of SBCCOM tech base	Briefing	5/04 - 6/06	MGV NBC/ECS	Wayne Gulian (410) 436-5843 wayne.a.gulian@us.army.mil	FCSS001567
Briefing of Marine Toxic Industrial Chemicals studies	Briefing	5/04 - 6/06	MGV NBC/ECS	Wayne Gulian (410) 436-5843 wayne.a.gulian@us.army.mil	FCSS001569
Published and draft copies of Firing Tables for 155mm cannon and 120mm mortar systems	1 set (single copy of each FT)	11/03 - 12/07	MGV	Jim Matts (410) 278-3661 jmatts@pica.army.mil	FCSS001663
NATO Artillery Ballistics Kernel	1	9/04 - 12/09	MGV NLOS-C and NLOS-M	Jon Miller (410) 278-3816	FCSS001666
GFI from IAAPS Program	As Required	1/04 - SDD	MGV Surv.	TARDEC Charles Acir, (586) 574-6737, acirc@tacom.army.mil	FCSS001679
CDA Source Code from IAAPS	1	11/04 - 1/09	MGV Surv.	Charles Acir (586) 574-6737 acirc@tacom.army.mil	FCSS001680
Survivability Assets from Lancer Program at UDLP sites. Survivability management materials VAIL, fiberglass and aluminum panels. Technical data: pro-E data and other technical data and other related analyses based on availability.	1 Survivability mat'ls: vail, fiberglass and aluminum panels, 2 Pro Engineer tech. CAD data, 3 Surv. Analyses, 4 other related tech. data		MGV Surv.	Tony McKheen, (586) 574-8635, mckheent@tacom.army.mil	FCSS001686
CMWS Sensors	1	6/05 - 6/06	MGV Surv.	Charles Acir (586) 574-6737 acirc@tacom.army.mil	FCSS001688
NATO Artillery Ballistics Kernel	1	12/04 - 4/07	MGV ICV	Jon Miller (410) 278-3816	FCSS001709
Access to Battle Command Sustainment Support System (BCS3) (interface specs, access to personnel	1	11/03 - SDD	Logistics	LTC Joseph Grebe (703) 704-2924 joseph.grebe@atccs.belvoir.army.mil	FCSS001734
Cougaar (code and access to personnel)	1	11/03 - SDD	Logistics	Dr. Mark Greaves (703) 526-6623 mgreaves@darpa.mil	FCSS001736

SDD GFX Item Description/Part Number	Quantity	Need Date	IPT	Providing Agency	SDD Item #
UltraLog (code access to personnel)	1	11/03 - SDD	Logistics	Dr. Mark Greaves (703) 526-6623 mgreaves@darpa.mil	FCSS001739
4 dimensional weather simulation (4DWX) Version 1.2	1	2/10/05 - SDD	IS&T M&S	James F. Bowers (435) 831-5101 jbowers@dpg.army.mil	FCSS001749
Digitized Army USMTF/VMF Stimulator DAUVS) version 3.3.0 or later	1	2/10/05 - SDD	IS&T M&S	Rick Natonick EPG Ft. Hood Bldg. 91061 West Ft. Hood, TX 76544	FCSS001750
Digital Collection, Analysis, and Review System (DCARS) version 1.0 or later	1	12/15/03 - SDD	IS&T M&S	William J. Frederic (253) 966-5644	FCSS001751
STARSHIP version 5.1 or later	1	2/10/05 - SDD	IS&T M&S	Janet McDonald (520) 538-4958 janet.mcdonald@epg.army.mil	FCSS001752
Simulation Testing Operations Rehearsal Model (STORM) version 5.1 or later	1	2/05 - SDD	IS&T M&S	OTC Gayle Shull (254) 288-1459/1386 gayle.shull@otc.army.mil	FCSS001753
Use of Government test ranges (including the use of facilities, test equipment and test center personnel who will support the test) for all testing that the CTO determines should be conducted at a Government range.	See Article XII	All SDD	IS&T	CTO	N/A
FCS unique instrumentation, range infrastructure upgrades necessary to support the FCS program, the ATEC Integration Network as documented in part IV and Art. 8 of the FCS TEMP, and required validated threat representation for applicable test events as defined in approved threat support packages and other applicable documents.	See Article XII	All SDD	IS&T	CTO	N/A
Engineering test support from the Government test centers to support test efforts, the level of which shall be determined by the CTO.	See Article XII	All SDD	IS&T	CTO	N/A

Attachment 4A

Complementary and Associated Programs GFX

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
CP145	(DoD) Distributed Collaborative Tool Suite (DCTS)									
		143	SOSCOE interface (interoperability) Need reqmts docs, ICD, Program Schedule,	1 Copy	1-Jan-04	Documents/Data/Intellectual Property: The Boeing Company, Diana L. Wandler, ATTN: Data Management, P.O. Box 3707, MC 84-70, Seattle, WA 98124, (253) 773-6540, E-mail: Diana.l.wandler@boeing.com (Del Site A), Materiel: The Boeing Company, ATTN: Scott Stevens, P.O. Box 516, St. Louis, MO 63166, (314) 233-0222, E-mail: scott.k.stevens@boeing.com (Del Site B)	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		144	Design docs, user manuals or training manuals, security/accreditation docs	1 copy	1-Jan-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		145	Source code,	1 copy	1-Sep-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		146	Simulation/emulation	1 copy	1-Jan-05	Del Site A and b	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
CP260	Advanced Crew Served Weapon (ACSW)									
		243	ICDs/IDDs draft documents for the weapon, ammunition, and fire control interfaces, updates as available/refined in PDR/CDRs	1 Copy data items	1-Sep-03	TBD	Docs on CD, Hardware TBD.	MOA, SMOA, ACA	Soldier Weapons	Lethality
		419	Supportability Strategy, training/technical manuals and training data requirements/specifications as available.	1 copy data items	1-Dec-03	TBD	Docs on CD, Hardware TBD.	MOA, SMOA, ACA	Soldier Weapons	Lethality
		420	XM312s (check existing Lethality spreadsheet for exact dates expected) (Mounts to be provided by platform)	24 ea	FY05	TBD	Docs on CD, Hardware TBD.	MOA, SMOA, ACA	Soldier Weapons	Lethality
		421	XM307 weapons plus retain 12 ea. FY05 XM312s	12 ea.	FY06	TBD	Docs on CD, Hardware TBD.	MOA, SMOA, ACA	Soldier Weapons	Lethality

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
CP147	**Advanced Field Artillery Tactical Data System (AFATDS), version 6.3.2**									
		99	Reqt. Docs: ICD, Program Schedule, design docs (CDRL list and Data Accession List), user manuals, training manuals, security/accreditation docs	1 copy	1-Jan-04	Del Site A and B	DD1149, ACE	SMOA, ACA	PM I&E	C4ISR
		100	Simulation/emulation (this device is known as "SISTIM" and may be used to simulate both AFATDS and LFED (see Attachment 1.))	1 copy	1-Jan-05	Del Site A and B	DD1149, ACE	SMOA, ACA	PM I&E	C4ISR
		101	Purchase for 12 month duration: Prime Items in support of TFT S3/LUT1	2 ea	1-Jul-06	TFT3 and LUT1 Site TBD	DD1149, ACE	SMOA, ACA	PM I&E	C4ISR
		102	Purchase for 11 month duration: 2 ea Prime Items in support of TFT S3/LUT1	1 copy	1-Oct-07	TFT4 and LUT2 Site TBD	DD1149, ACE	SMOA, ACA	PM I&E	C4ISR
CP7	**Aerial Common Sensor**									
		195	SOSCOE interface (interoperability) Need reqmts docs, ICD, Program Schedule,	1 Copy	1-Jan-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		196	Design docs, user manuals or training manuals, security/accrediation docs	1 copy	1-Jan-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		197	Source code,	1 copy	1-Sep-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		198	Simulation/emulation	1 copy	1-Jan-05	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
CP149	**Air and Missile Defense Workstation (AMDWS)**									
		107	Applicable data include: AMDPCS ORD, various IDDs, SSDD, SW User's Manual, training manuals, technical bulletins, and various mission thread/interoperability documents. Requirements Docs (ICD, program schedule, design docs, User manuals/training manuals a	1 copy	1-Nov-03	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	TOCS/AMD CCS	C4ISR
		108	AMDWS workstations and AMDWS software (s/w baseline compatible with ABCS 6.3.1)	3 ea.	1-Jun-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	TOCS/AMD CCS	C4ISR
		110	Simulation/emulation	1 copy	1-Nov-03	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	TOCS/AMD CCS	C4ISR

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
CP151	Air Defense System Integrator (ADSI)									
		111	SOSCOE interface (interoperability) Need reqmts docs, design docs, user manuals/training manuals, security accreditation docs/CD, Program Schedule.	1 copy	1-Oct-03	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA		C4ISR
		114	Work stations and ADSI software	3 ea.	1-Aug-05	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA		C4ISR
CP334	Airborne Standoff Minefield Detection System (ASTAMIDS) and Class IV EO/IR - Adv EO/IR									
		3	Source Data for Simulators (Descriptive models (e.g. tabular data or curves based on design, in format and detail specified by Air Sensor Integrator)	1 set of docs	6/2004, update 3/2005, 3/2006, 3/2007	Del Site A and B	DD1149	MOA, SMOA, ACA	PM CCS and PM NV/RSTA	C4ISR
		13	ICD, Acceptance Data Package, Verification Data, Specs.	1 set of Docs	1-Aug-06	Del Site A and B	DD1149	MOA, SMOA, ACA	PM CCS and PM NV/RSTA	C4ISR
		410	SDD Emulators (Data required to support Air Sensor Integrator in development of Lab emulator below and software to run on the Integrator's emulator encompassing the functionality of the sensor)	6 SDD emulators	3/2005, update 2/2006 if required, 2/2007 if required	Del Site A and B	DD1149	MOA, SMOA, ACA	PM CCS and PM NV/RSTA	C4ISR
		425	SDD Prototypes Aug 2006 – 1 ea. Sep 2006 – 2ea. Oct 2006 – 2ea. Nov 2006 – 2ea.	7 ea.	Aug 2006 – 1ea. Sep 2006 – 2ea. Oct 2006 – 2ea. Nov 2006 – 2ea.	Del Site A and B	DD1149	MOA, SMOA, ACA	PM CCS and PM NV/RSTA	C4ISR
		481	See Extensive list at Attachment 9, Table 9A of the SMOA for the the detailed equipment and document lists and delivery timelines.	See Attch 9	See Attch 9	See Attch 9	DD1149	MOA, SMOA, ACA	PM CCS and PM NV/RSTA	C4ISR

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
CP157	**All Source Analysis System (ASAS), Heavy and Light**									
		115	Reqts docs: ICD, Program Schedule, design docs (CDRL list and Data Accession List), user manuals/training manuals, security/accreditation docs.	1 copy	1-Jan-04	Del Site A and B	Non-Standard Fielding MOA with PM, IE	SMOA, ACA	PM I&E	C4ISR
		118	Simulation/emulation	1 copy	1-Jan-05	Del Site A and B	Non-Standard Fielding MOA with PM, IE	SMOA, ACA	PM I&E	C4ISR
		345	Purchase for 12 month duration: Prime items in support of TFT S3/LUT1	2 ea.	1-Jul-06	TFT3 and LUT1 Site TBD	Non-Standard Fielding MOA with PM, IE	SMOA, ACA	PM I&E	C4ISR
		346	Purchase for 11 month duration: Prime Items in support of TFT S3/LUT1	2 ea.	1-Oct-07	TFT4 and LUT2 Site TBD	Non-Standard Fielding MOA with PM, IE	SMOA, ACA	PM I&E	C4ISR
CP413	**AN/PSS-14 Mine Detecting Set; Handheld Standoff Mine Detection System (HSTAMIDS)**									
		480	The AN/PSS-14 (HSTAMIDS) integrates a combination of technologies: Ground Penetrating Radar (GPR) and Improved Metal Detector. It employs Aided Target Recognition (AJTR) algorithms with audio alerts to the operator. The AN/PSS-14 will replace the current	AN/PSS-14 (HSTAMIDS) will be provided to the Unit of Employment as a one for one replacement for the AN/PSS-12 Metallic Mine Detector.	TBD	Based on FCS UA or UE fielding needs.	PM CCS production contract	MOA, SMOA		Unknown

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
CP15	Army Airborne Command and Control System (A2C2S)									
		422	Requirements docs (ICD, program schedule, design docs, user manuals/training manuals, and security accreditation docs).	1 copy	1-Oct-03	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA		C4ISR
		423	Simulation/emulation for A2C2S if one exists	1 copy	TBD	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA		C4ISR
CP17	Army Command Training Information Architecture (ATIA) and Army Command Training Information Architecture (ATIA-M)									
		284	Software drops, architecture, design and interface documentation.	1	Copy of ATIA in Sept 2003. Software drops required as they become available.	SSAIC, 12901 Science Drive, Room 1022, Orlando, FL 32826, Phone: (407) 243-3318, Fax: (407) 243-3440, E-mail: gordon.e.sayre.jr@saic.com (Del Site D)	DD1149, CD-ROM or FTP	MOA, SMOA, ACA	Confirmed by Govt. IPT Lead (Kent Brookins) and Commander, ATSC (COL Pennypacker)	Training
		444	Software drops required as they become available. (see special needs/remarks).	1 copy	As updated	Orlando, Del Site D	DD1149, CD-ROM or FTP	MOA, SMOA, ACA	Confirmed by Govt. IPT Lead (Kent Brookins) and Commander, ATSC (COL Pennypacker)	Training

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
CP360	Army Constructive Training Federation (ACTF) which includes WARSIM, TACSIM, JEWTPT, CBS, OneSAF and CSSTSS									
		292	Federation Object Model (FOM), Design, ICD, and interface documentation. (June 2004 version 1.0)	1 copy		SAIC, 12901 Science Drive, Room 1022, Orlando, FL 32826, Phone: (407) 243-3318, Fax: (407) 243-3440, E-mail: gordon.e.sayre.jr@saic.com (Del Site D)	CD ROM or FTP	MOA, SMOA, ACA	PM, Constructive Simulation	Training
CP85	Army Tactical Missile Systems (ATACMS).									
		471	SoSCOE (System of Systems Common Operating Environment) interface (interoperability), requirements documents, ICD, program schedule, design documents (CDRL list and Data Accession list), training material	1 copy	1-Nov-03	Del Site A and B	DD1149, ACE	SMOA	PM, PFRMS	Lethality
		472	Source code (message builder), simulation/emulation (SoSIL)	1 copy	1-Jan-04	Del Site A and B	DD1149, ACE	SMOA	PM, PFRMS	Lethality
CP162	Automated Deep Operations Coordination System (ADOCS)									
		119	List of Interface definitions with all interoperable systems, 1 each ACS executable software, Source Code for the Messaging CSCI, User/training manuals	1 copy	1-Jan-04	Del Site A and B	ACE	SMOA, ACA (Not planned at this time)	PEO IEWS/DIR JPSD	C4ISR
CP163	Automated Field Artillery/Fire Support & C3 System (German) (ADLER)									
		211	SOSCOE interface (interoperability) Need reqmts docs, ICD, Program Schedule,	1 Copy	1-Jan-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		212	Design docs, user manuals or training manuals, security/accreditation docs	1 copy	1-Jan-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		213	Source code,	1 copy	1-Sep-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
		214	Simulation/emulation	1 copy	1-Jan-05	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
CP38	**Aviation Combined Arms Tactical Trainer - Aviation Reconfigurable Manned Simulator (AVCATT-A)**									
		371	Software design documentation; interface data; access to software engineering environment (SEE) hardware and software on an as needed basis	1 copy	TBD	SAIC, 12901 Science Drive, Room 1022, Orlando, FL 32826, Phone: (407) 243-3318, Fax: (407) 243-3440, E-mail: gordon.e.sayre.jr@saic.com (Del Site D)	DD1149, CD-ROM or FTP	MOA, SMOA, ACA	PM CATT	Training
		372	OneSAF interface not available until FY07.	1 copy	FY07	Del Site D	DD1149, CD-ROM or FTP	MOA, SMOA, ACA	PM CATT	Training
CP166	**Aviation Mission Planning System/Joint Mission Planning Sys (AMPS/JMPS)**									
		46	Requirement documents, ICD, program schedule, design documents (CDRL list and Data Accession list), user manuals and/or training materials	1 copy unless otherwise indicated	1-Nov-03	Del Site A and B	CD	MOA, SMOA, ACA	PM, AME	C4ISR
		48	Source code,	1 copy	1-Nov-03	Del Site A an B	CD	MOA, SMOA, ACA	PM, AME	C4ISR
		297	2 ea Prime end Items software only required - PC based	2 ea.	6-Jul-03	TFT S3/LUT1 Location TBD	CD	MOA, SMOA, ACA	PM, AME	C4ISR
		298	2 ea Prime end Items software only required - PC based	2 ea.	7-Oct-03	TFT S4/LUT Location TBD	CD	MOA, SMOA, ACA	PM, AME	C4ISR
		301	JMPS: Requirements documents, ICD, program schedule, design documents, user manuals and/or training materials	1 copy	1-Nov-04	Del Site A and B	CD	MOA, SMOA, ACA	PM, AME	C4ISR
		302	JMPS: Source Code	1 copy	1-Nov-04	Del Site A and B	CD	MOA, SMOA, ACA	PM, AME	C4ISR
		440	Prime Items	2 ea.	1-Dec-07	TFT S4/LUT-2 Test Site	CD	MOA, SMOA, ACA	PM, AME	C4ISR

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IFT
CP179	Battle Command Sustainment Support System (BCS3) (formerly Combat Service Support Control System (CSSCS)									
		123	Reqmts docs, ICD, design docs, user manuals or training manuals	1 copy	1-Oct-03	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	PM, GCC2	C4ISR
		124	Source Code	1 copy	1-Sep-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	PM, GCC2	C4ISR
		126	Simulation/emulation	1 copy	1-Jan-05	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	PM, GCC2	C4ISR
CP167	Battlefield Artillery Target Equipment System (UK System) (BATES)									
		215	SOSCOE interface (interoperability) Need reqmts docs, ICD, Program Schedule	1 Copy	1-Jan-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		216	Design docs, user manuals or training manuals, security/accreditation docs	1 copy	1-Jan-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		217	Source code	1 copy	1-Sep-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		218	Simulation/emulation	1 copy	1-Jan-05	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
CP31	Black Hawk (UH-60)									
		98	Move from C4ISR to Supportability. Monitor Only. Revisit IF other than current force/Stryker force waveform is put on system, or if needed for DT/LUT.	No Stated Quan				MOA, SMOA		C4ISR
		294	1 Blackhawk needed for DT and LUT to test ORD 2952 (slingload carry of UGV)	1 ea.	TBD	LUT and DT location TBD		MOA, SMOA		C4ISR
CP173	Blue Force Tracking (BFT)									
		58	Contract Data Requirements List (CDRL) and Data Accession List (DAL) for review by LSI and determine necessary documentation such as : Current ICD, Program Schedule, Top Level Design docs, user manuals or training manuals, security/accreditation documen	1 Copy	1-Oct-03	Del Site A and B	DD1149 for Hardware, ACE or CD ROM for documentati on and SW	SMOA, ACA	FBCB2	C4ISR

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
		59	Work station/ simulation / emulator (see NOTE) with SW that emulates the appropriate feed into the Ops Center (e.g. CFLCC). Because there are several options, a TIM is required to determine the optimal solution. (SW should be compatible with ABCS 6.3.1	1 station	1-Feb-05	Del Site A and B	DD1149 for Hardware, ACE or CD ROM for documentation and SW	SMOA, ACA	FBCB2	C4ISR
		486	Source Code	1 Copy	1-Feb-05	Del Site A and B	DD1149 for Hardware, ACE or CD ROM for documentation and SW	SMOA, ACA	FBCB2	C4ISR
CP33	**Bridge Site Mobility**									
		252	Data Package with dimensional info.	1	15-Sep-03			MOA		MGV
CP175	**C4 Army System (C2 System for Spain) (SIMACET)**									
		223	SOSCOE interface (interoperability) Need reqmts docs, ICD, Program Schedule	1 Copy	1-Jan-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		224	Design docs, user manuals or training manuals, security/accreditation docs	1 copy	1-Jan-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		225	Source code	1 copy	1-Sep-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		226	Simulation/emulation	1 copy	1-Jan-05	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
CP43	Chinook (CH-47)									
		97	Move from C4ISR to Supportability. Monitor Only. Revisit IF other than current force/Stryker force waveform is put on system, or if needed for DT/LUT.					MOA		C4ISR
CP49	CLASS 4A **SIGINT Payload (Tactical SIGINT Payload)**									
		2	CDRL and Data Accession List (DAL) (LSI to review and provide specific requested documents)	1 set of documents	1-Jul-04	Del Site A and B	DD1149 (Hardware), ACE (Documentation)	MOA, SMOA, ACA	PEO IEWS/PM SW	C4ISR

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
		12	Class 3/4 payload Simulator	1 simulator w/docs	9/2005 (Ph.2) 10/2006 (Ph.3) 7/2007 (Ph. 4)	Del Site A and B	DD1149 (Hardware), ACE (Documentation)	MOA, SMOA, ACA	PEO IEWS/PM SW	C4ISR
		415	Class 3/4 payload emulator	1 emulator w/docs	10/2005 (Ph. 2) 10/2006 (Ph. 3) 8/2007 (Ph. 4)	Del Site A and B	DD1149 (Hardware), ACE (Documentation)	MOA, SMOA, ACA	PEO IEWS/PM SW	C4ISR
		417	Class 3/4 Prototypes under staggered delivery dates for Phase 4	4 prototypes	1 - (10/2006) 1 - (1/2007) 2 - (4/2007)	Del Site A and B	DD1149 (Hardware), ACE (Documentation)	MOA, SMOA, ACA	PEO IEWS/PM SW	C4ISR
CP336	Class IV SAR/MTI									
		426	Source Data for Simulators (Descriptive models (e.g. tabular data or curves based on design, in format and detail specified by Air Sensor Integrator)	1 set of docs	6/2004, update 3/2005, 3/2006, 3/2007	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	PEO IEWS/PM NV/RSTA	C4ISR
		427	ICD, Acceptance Data Package, Verification Data, Specs.	1 set of Docs	1-Aug-06	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	PEO IEWS/PM NV/RSTA	C4ISR
		429	SDD Emulators (Data required to support Air Sensor Integrator in development of Lab emulator below and software to run on the integrator's emulator encompassing the functionality of the sensor)	6 SDD emulators	3/2005, update 2/2006 if required, 2/2007 if required	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	PEO IEWS/PM NV/RSTA	C4ISR
		430	SDD Prototypes Aug 2006 – 1ea. Sep 2006 – 2ea. Oct 2006 – 2ea. Nov 2006 – 2ea.	7 ea.	Aug 2006 – 1ea. Sep 2006 – 2ea. Oct 2006 – 2ea. Nov 2006 – 2ea.	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	PEO IEWS/PM NV/RSTA	C4ISR
CP286	Comanche (RAH-66)									
		66	Comanche Program Schedule, CDRL list and Data Accession list	1 copy data items	1-Nov-03	Del Site A and B	CD for data items. Hardware: DD1149.	MOA, SMOA, ACA	PEO Aviation, PM Comanche	C4ISR

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
		295	ICNIA Simulator/Emulator (various tools available e.g., mobile hot bench, SILs, Comanche Portable Cockpit CPCs) need more details on required for what Task/purpose (requirements by phase and test objectives so hardware and software functionality can be	1 copy data items, hardware as indicated	1-Sep-04	Del Site A and B	CD for data items. Hardware: DD1149.	MOA, SMOA, ACA	PEO Aviation, PM Comanche	C4ISR
		296	RAH-66 Helicopters, operational. (need to determine if something other than aircraft can be used)	TBD	7-Apr-03	TFT S3/LUT1 Location TBD (Determine if ILO items can be used)	CD for data items. Hardware: DD1149.	MOA, SMOA, ACA	PEO Aviation, PM Comanche	C4ISR
		308	RAH-66 Helicopters, operational. (need to determine if something other than aircraft can be used)	TBD	8-May-03	TFT S4/LUT2 Location TBD (Determine if ILO items can be used)	CD for data items. Hardware: DD1149.	MOA, SMOA, ACA	PEO Aviation, PM Comanche	C4ISR
CP181	Command & Control Personal Computer (C2PC)									
		127	SOSCOE interface (interoperability) Need reqmts docs, ICD, Program Schedule	1 copy	1-Jan-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		128	Design docs, user manuals or training manuals	1 copy	1-Jan-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		129	Security/accreditation docs, source code	1 copy	1-Sep-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		130	Simulation/emulation	1 copy	1-Jan-05	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		349	Prime items	2 ea.	1-Jul-06	TFT3 and LUT1 Site TBD	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		350	Prime items	2 ea.	1-Oct-07	TFT4 and LUT2 Site TBD	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
CP80	Common Training Instrumentation Architecture (CTIA)									
		285	Software drops, architecture, design and interface documentation (CDRL list and Data Accession list).	1 copy	Copy of CTIA in Sept 2003. Software drops required as they become available.	SAIC, 12901 Science Drive, Room 1022, Orlando, FL 32826, Phone: (407) 243-3318, Fax: (407) 243-3440, E-mail: gordon.e.sayre.jr@saic.com (Del Site D)	DD1149, CD-ROM or FTP	MOA, SMOA, ACA	PM, TRADE	Training
		445	Software drops as they become available	1 copy	As available	Orlando, Del Site D	DD1149, CD-ROM or FTP	MOA, SMOA, ACA	PM, TRADE	Training

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
CP64	Constructive Simulation (TACSIM)									
		278	Design, ICD, and interface documentation.	1	4-Mar-03	Orlando, Del Site D	CD-ROM or FTP	MOA, SMOA		Training
CP357	Defense Message System - Army (DMS-A)									
		191	SOSCOE interface (interoperability) Need reqmts docs (ORD/ROC), ICD, Program Schedule,	1 Copy	1-Jan-04	Del Site A and B	DD1149, ACE	MOA, ACA		C4ISR
		192	Design docs (CDRL list and Data Accession list), user manuals or training manuals, security/accredidation docs	1 copy	1-Jan-04	Del Site A and B	DD1149, ACE	MOA, ACA		C4ISR
		193	Simulation/emulation – e.g. Mailstorm (message generator) Access to DMS-A laboratory and 2 AMHS systems	1 copy	1-Jan-05	Del Site A and B	DD1149, ACE	MOA, ACA		C4ISR
CP195	Digital Topographic Support System (DTSS)									
		199	Requirement documents, ICD, Design documents, user manuals or training manuals	1 Copy	1-Oct-03	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	PM, GCC2	C4ISR
		201	Source code,	1 copy	1-Sep-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	PM, GCC2	C4ISR
		202	Simulation/emulation	1 copy	1-Jan-05	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	PM, GCC2	C4ISR
CP197	Distributed Learning System (DLS)									
		281	Need requirements docs (ORD), Program Schedule, user manuals, and/or training materials, security/accreditation docs, architecture, design and interface documentation.	1 copy documentation	1-Nov-03	SAIC, 12901 Science Drive, Room 1022, Orlando, FL 32826, Phone: (407) 243-3318, Fax: (407) 243-3440, E-mail: gordon.e.sayre.jr@saic.com (Del Site D)	ACE or CD	MOA, ACA		Training
CP201	Engineer Vehicle (Bridging and Obstacle Neutralization)									
		253	Data Package with capability info.	1	15-Sep-03			MOA		MGV
CP102	Excalibur									

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
		249	Mechanical & Physical ICD # U01407B5 REVD and Fuze Setter ICD # U0140777 REVC, USER Manuals, Training Manuals, Excalibur TEMP, Munitions in accordance with the Coordinated Test Matrix.	TBD IAW TEMP	Sep FY 04	Yuma Proving Ground or other location as agreed in the Coordinated Test Matrix.	DD250 H/W delivery to test site	MOA, SMOA, ACA	CAS	Lethality
CP207	Family of Interoperable Operational Pictures (FIOP)									
		6						MOA		C4ISR
CP104	Family of Medium Tactical Vehicles (FMTV)									
		291	Data Package with dimensional info.	1	15-Sep-03					MGV/Sprt y
CP408	FCS platform to non-FCS Platform Combat ID									
		1						MOA		C4ISR
CP401	Firefinder Radar (AN/TPQ-36/37)									
		50	System Segment Specification (to be used to identify all relevant documentation associated with Requirements), CDRL list and Data Accession list, ICDs, software configuration items, ILSP, user manuals and/or training manuals	1 copy	1-Oct-03	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	NV/RSTA	C4ISR
		51	Message exchange CSCs or CSCIs (to include source code)	1 copy	1-Nov-03	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	NV/RSTA	C4ISR
		52	Q36 radar system (testing unit will provide)	1 ea.	1-Jul-06	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	NV/RSTA	C4ISR
CP211	Force XII Battle Command Brigade & Below (FBCB2)									
		70	Contract Data Requirements List (CDRL) and Data Accession List (DAL) for review by LSI and determine necessary documentation such as: Current ICD, Program Schedule, Top Level Design docs, user manuals or training manuals, security/accreditation document	1 copy	1-Oct-03	Del Site A and B	DD1149 for HW, ACE or CD ROM for documentation	SMOA, ACA	FBCB2	C4ISR

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
		71	Source code (see note) NOTE: Source code as it relates to the message builder. Source code should be received one month after the completion of the FCS SSR for that particular build (currently scheduled for Nov 2002)	1 copy	1-Nov-03	Del Site A and B	DD1149 for HW, ACE or CD ROM for documentation	SMOA, ACA	FBCB2	C4ISR
		72	Work station, simulation or emulator running FBCB2 SW version compatible with ABCS 6.3.1, System must have LAN connectivity and be capable of message stimuli, NOTE: Workstation, Simulation, or Emulator. In the event that all types are available, the LSI	1 station	1-Nov-03	Del Site A and B	DD1149 for HW, ACE or CD ROM for documentation	SMOA, ACA	FBCB2	C4ISR
CP213	Forward Area Air Defense Command and Control (FAADC2) System									
		131	SOSCOE interface (interopperability) Need reqmts docs, ICD, Program Schedule, design docs, user manuals/training manuals and security accreditation docs.	1 copy	1-Oct-03	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	PM TOCS/AMD CCS	C4ISR
		134	FAAD C31 workstations and FAAD C31 software	3 ea.	1-Aug-05	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	PM TOCS/AMD CCS	C4ISR
CP411	Forward Repair System (FRS)									
		277	Will determine specific requirements for FRS for LUTs and DT. If yes, we will determine the model type of platform.	1 copy data, h/w as indicated	TBD	To contractor performing integration function.	DD1149 for h/w, CD for docs	MOA, SMOA, ACA Loan from Government	PM, TV	Supportability
CP219	Global Broadcast System (GBS)									
		227	SOSCOE interface (interoperability) Need reqmts docs, ICD, Program Schedule	1 Copy	1-Jul-03	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		228	Design docs, user manuals or training manuals, security/accreditation docs	1 copy	1-Jan-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		229	Source code	1 copy		Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		230	Simulation/emulation	1 copy	1-Jun-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		333	Prime Items	2 ea.	1-Jul-06	TFT3 and LUT1 Site TBD	DD1149, ACE	MOA, SMOA, ACA?		C4ISR

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
		354	Prime Items	2 ea.	1-Oct-07	IPT4 and LUT2 Site TBD	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
CP118	Global Combat Service Support-Army (GCSS-A)									
		261	Need requirements docs (ORD/ROC), Program Schedule,	1 copy via CD	1-Oct-03	Del Site A and B	DD1149, ACE	MOA, ACA	Log automation	Supportability
CP223	Global Command & Control System - Army (GCCS-A)									
		147	Requirements documents, ICD, design documents, user manuals or training manuals	1 Copy	1-Oct-03	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	PM GCC2	C4ISR
		149	Source code	1 copy	1-Sep-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	PM GCC2	C4ISR
		150	Simulation/emulation	1 copy	1-Jan-05	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	PM GCC2	C4ISR
CP143	Ground Emitter Mapping (Prophet 2/3)									
		67	Support of UA RSV Emitter Support of FCS Ground Emitter Mapping requirements: Data Accession and CDRL lists. PM FCS/LSI to determine which of these documents are required, including any available draft requirements documents, ICD, design documents and use	1 set of documents	1-Nov-03	Del Site A and B	LSI ACE	MOA, SMOA, ACA	PEO IEWS/PM Prophet	C4ISR
		68	Support of UA and Prophet Block II/III Interoperability: Data Accession and CDRL lists. PM FCS/LSI to determine which of these documents are required, including any available draft requirements documents, ICD, design documents and user or training manuals	1 set of documents	1-Nov-03	Del Site A and B	LSI ACE	MOA, SMOA, ACA	PEO IEWS/PM Prophet	C4ISR
CP387	Ground Standoff Minefield Detection system (GSTAMIDS) FCS									
		479	See Attachment 7 of the SMOA, Table 7A for extensive list of items and documentation needed and timelines for delivery	See Attch 7	See Attch 7	See Attch 7	DD1149	MOA, SMOA, ACA	PEO Ammo/PM CCS	C4ISR

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
CP81	HEMTT (resupply, NLOS-LS, refuel, ammo, etc.)									
		270	(C4ISR/Lethality/Supportability) - Need reqmts docs, ICD, Program schedule, Design docs (CDRL list and Data Accession list), user manuals, and/or training materials. (LSI to determine scope of technical data and date required) Any changes required to cu	1 copy data	TBD	To contractor performing integration function.	DD1149 for hardware, CD for documentation	MOA, SMOA, ACA Loan from Government	PM, TV	Supportability
		360	HEMTT (resupply, NLOS-LS, refuel, ammo, etc.). HEMTT vehicle variant, technical/logistics program documentation as required (TMs, CDRLs, existing installation kit instructions, and information on hand)	1 copy data	1-Oct-04	To contractor performing integration function.	DD1149 for hardware, CD for documentation	MOA, SMOA, ACA Loan from Government	PM, TV	Supportability
		361	ICD	1 copy data	1-Feb-06	To contractor performing integration function.	DD1149 for hardware, CD for documentation	MOA, SMOA, ACA Loan from Government	PM, TV	Supportability
		374	HEMTT Vehicles	2 ea.	1-Apr-07	TFTS3/LUT1 test site	DD1149 for hardware, CD for documentation	MOA, SMOA, ACA Loan from Government	PM, TV	Supportability
		375	HEMTT Vehicles	2 ea.	1-May-08	TFTS4/LUT2 test site	DD1149 for hardware, CD for documentation	MOA, SMOA, ACA Loan from Government	PM, TV	Supportability
		484	Vehicles needed for integration of A-kits and B-kits.	2 ea.	1-Feb-06	To contractor performining integration function	DD1149 for hardware, CD for documentation	MOA, SMOA, ACA Loan from Government	PM, TV	Supportability
CP81	HEMTT Wrecker (in lieu of FMRV)									

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
		376	(C4ISR/Lethality/Supportability) - Need reqmts docs, ICD, Program schedule, Design docs (CDRL list and Data Accession list), user manuals, and/or training materials. (LSI to determine scope of technical data and date required) Any changes required to ca	1 copy data	TBD	To contractor performing integration function.	DD1149 for h/w, CD for docs	MOA, SMOA, ACA Loan from Government	PM, TV	Supportability
		377	HEMTT (resupply, NLOS-LS, refuel, ammo, etc.). HEMTT vehicle variant, technical/logistics program documentation as required (TMs, CDRLs, existing installation kit instructions, and information on hand)	1 copy data	1-Oct-04	To contractor performing integration function.	DD1149 for h/w, CD for docs	MOA, SMOA, ACA Loan from Government	PM, TV	Supportability
		378	ICD	1 copy data	1-Feb-06	To contractor performing integration function.	DD1149 for h/w, CD for docs	MOA, SMOA, ACA Loan from Government	PM, TV	Supportability
		379	HEMTT Wrecker Vehicles	2 ea.	1-Apr-07	TFTS3/LUT1 test site	DD1149 for h/w, CD for docs	MOA, SMOA, ACA Loan from Government	PM, TV	Supportability
		380	HEMTT Wrecker Vehicles.	2 ea	1-May-08	TFTS4/LUT2 test site	DD1149 for h/w, CD for docs	MOA, SMOA, ACA Loan from Government	PM, TV	Supportability
		485	Vehicles needed for integration of A-kits and B-kits.	2 ea.	1-Feb-06	To contractor performing integrating function	DD1149 for h/w, CD for docs	MOA, SMOA, ACA Loan from Government	PM, TV	Supportability
CP130	**High Mobility Engineer Excavator (HMEE)**									
		254	Data Package with capability info.	1	15-Sep-03			MOA		MGV
CP87	**HMMWV (C2V, support & ambulance)**									
		403	(C4ISR/Lethality/Supportability) - Need reqmts docs, ICD, Program schedule, Design docs (CDRL list and Data Accession list), user manuals, and/or training materials. (LSI to determine scope of technical data and date required) Any changes required to ca	1 copy data	TBD	To contractor performing integration function.	DD1149 for h/w, Cd for docs	MOA, SMOA, ACA Loan from Government	PM, TV	Supportability

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
		404	HMMWV (C4ISR A/B kits, NLOS-LS, etc.) technical/logistics program documentation as required (TMs, CDRLs, existing installation kit instructions, and information on hand)	1 copy data	1-Oct-04	To contractor performing integration function.	DD1149 for h/w, Cd for docs	MOA, SMOA, ACA Loan from Government	PM, TV	Supportability
		405	ICD	1 copy data	1-Feb-05	To contractor performing integration function.	DD1149 for h/w, Cd for docs	MOA, SMOA, ACA Loan from Government	PM, TV	Supportability
		406	C2 Vehicles needed for integration of A-kits and B-kits	2 ea.	1-Feb-06	To contractor performing integration function.	DD1149 for h/w, Cd for docs	MOA, SMOA, ACA Loan from Government	PM, TV	Supportability
		407	HMMWV (Supportability).	2 ea	1-Apr-06	TFTS3/LUT1 test site	DD1149 for h/w, Cd for docs	MOA, SMOA, ACA Loan from Government	PM, TV	Supportability
		408	HMMWV (Supportability).	2 ea.	1-Oct-07	TFTS4/LUT2 test site	DD1149 for h/w, Cd for docs	MOA, SMOA, ACA Loan from Government	PM, TV	Supportability
		483	HMMWV (C4ISR), M997A2 or C2 variant	20 ea.	1-Sep-07	C4ISR Connectivity Exercise TBD	DD1149 for h/w, Cd for docs	MOA, SMOA, ACA Loan from Government	PM, TV	Supportability
CP136	**IEW Tactical Proficiency Trainer RDTE**									
		282	Design, ICD, and interface documentation.	1	4-Mar-03	Orlando, Del Site D		MOA, SMOA, ACA		Training
CP237	**Integrated Meteorological System (IMETS)**									
		151	Reqts. Docs: ICD, Program Schedule, design docs (CDRL list and Data Accession list), user manuals/training manuals. Security/accreditation docs	1 Copy	1-Jan-04	Del Site A and B	DD1149, ACE	SMOA, ACA		C4ISR
		152	Simulation/emulation	1 copy	1-Jan-05	Del Site A and B	DD1149, ACE	SMOA, ACA		C4ISR
		153	Purchase for 12 month duration: Prime items in support of TFT S3/LUT1	2 ea.	1-Jul-06	TFT S3/LUT1 test site	DD1149, ACE	SMOA, ACA		C4ISR
		154	Purchase for 11 month duration: Prime items in support of TFT S4/LUT2 test site	2 ea.	1-Oct-07	TFT S4/LUT2 test site	DD1149, ACE	SMOA, ACA		C4ISR

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
CP241	Intelligence Analysis System (Marines) (IAS) (Marine Corps Air Ground Intelligence System MAGIS)									
		155	SOSCOE interface (interoperability) Need reqmts docs, ICD, Program Schedule,	1 Copy	1-Jan-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		156	Design docs, user manuals or training manuals, security/accreditation docs	1 copy	1-Jan-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		157	Source code,	1 copy	1-Sep-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		158	Simulation/emulation	1 copy	1-Jan-05	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
CP150	Intelligent Munition System (IMS)									
		439	See embedded extensive spreadsheet, Table 7A, in SMOA					MOA, SMOA, ACA		Lethality
CP377	ISR (Proffier)									
		175	CDRL and Data Accession List (DAL) (LSI to review and request specific documents to include reqmts docs, ICD, Program Schedule, Design docs, user manuals or training manuals, security/accreditation docs)	1 Copy	1-Nov-03	Del Site A and B	ACE	SMOA	PEO, IEWS	C4ISR
		176	System functional demo data/simulation test case/resultsdocumentation	1 copy	1-Nov-03	Del Site A and B	ACE	SMOA	PEO, IEWS	C4ISR
		177	Source Code Note: Source code as it relates to the message builder for all messages. Source code should be received one month after completion of the FCS SSR for that particular build (currently scheduled for Jan 04)	1 copy	1-Jul-04	Del Site A and B	ACE	SMOA	PEO, IEWS	C4ISR
		178	Workstation/Simulation/Emulator. Note: In the event that all types are available, the LSI is willing to accept the lowest version that totally represents the functionality of the system and can be integrated with our Systems Integration Lab (SIL) infras	1 ea.	1-Jul-04	Del Site A and B	ACE	SMOA	PEO, IEWS	C4ISR
		482	Final training and user manuals, post IOTE.	1 copy	1-Jul-04	Del Site A and B	ACE	SMOA	PEO, IEWS	C4ISR
CP89	Javelin P3I									

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
		250	ICD, requirements documents, program schedule, design documents (CDRL list and Data Accession lists), user manuals, and/or training materials	1 document	1-Nov-03	TBD	CD-ROM, ACE	MOA, SMOA, ACA	CCM	Lethality
		468	ICD for physical integration on ARV-A (L). ICD for C4ISR as it relates to fire control on ARV-A (L). ICD for carrying in an ICV Provided as a munition	TBD	TBD	TBD	CD-ROM, ACE	MOA, SMOA, ACA	CCM	Lethality
CP160	Joint Biological Point Detection System (JBPDS)									
		319	SOSCOE Interface (interoperability), ICD, requirements docs, program schedule, design docs (CDRL list and Data Accession lists), user manuals and/or training manuals, security/accreditation docs.	1 copy Data items	1-Jan-04	Del Site A and B	DD1149, ACE	MOA, SMOA	NBC CA	C4ISR
		320	Source code	1 copy data items	1-Sep-04	Del Site A and B	DD1149, ACE	MOA, SMOA	NBC CA	C4ISR
		321	Simulation/emulation	1 copy data items	1-Jan-05	Del Site A and B	DD1149, ACE	MOA, SMOA	NBC CA	C4ISR
CP164	Joint Chemical Agent Detector (JCAD)									
		309	SOSCOE Interface (interoperability), ICD, requirements docs, program schedule, design docs (CDRL list and Data Accession lists), user manuals and/or training manuals, accreditation/security docs.	1 copy Data items	1-Jan-04	Del Site A and B	CD for data items, hardware TBD	SMOA	PM NBC CA	C4ISR
		310	Source code (See Remarks)	1 copy data items	1-Sep-04	Del Site A and B	CD for data items, hardware TBD	SMOA	PM NBC CA	C4ISR
		311	Simulation/emulation	1 copy data items	1-Jan-05	Del Site A and B	CD for data items, hardware TBD	SMOA	PM NBC CA	C4ISR
CP253	Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System (JLENS)									

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
		457	Requirements documents, draft performance specification, program schedule, (CDRL list and Data Accession list)	1 copy	1-Jan-04	Del Site A and B	DD1149, ACE	SMOA		C4ISR
		458	simulation/emulation (SoSIL) (pending classification clearance)	1 copy	1-Jan-04	Del Site A and B	DD1149, ACE	SMOA		C4ISR
		459	ICD, design documents, training material	1 copy	no earlier than 2006	Del Site A and B	DD1149, ACE	SMOA		C4ISR
		460	Source code (message builder), (Fusion correlation, engagement data…)	1 copy	no earlier than 2006	Del Site A and B	DD1149, ACE	SMOA		C4ISR
CP168	**Joint Service Lightweight Stand-off Chemical Agent Detector (JSLSCAD)**									
		324	SOSCOE interface (interoperability), ICD, requirements docs, program schedule, design docs (CDRL list and Data Accession lists), user manuals and/or training manuals, security/accreditation docs	1 copy Data items	1-Jan-04	Del Site A and B	CD for data items, hardware TBD	SMOA	NBC CA	C4ISR
		325	Source code	1 copy data items	1-Sep-04	Del Site A and B	CD for data items, hardware TBD	SMOA	NBC CA	C4ISR
		326	Simulation/emulation	1 copy data items	1-Jan-05	Del Site A and B	CD for data items, hardware TBD	SMOA	NBC CA	C4ISR
CP265	**Joint Tactical Ground Station (JTAGS)/ Multi-Mission Mobile Processor (M3P)**									
		461	requirements documents, ICD (Link-16, IBS (TIBS/TDDS), program schedule, design documents (CDRL list and Data Accession list)	1 copy	1-Nov-03	Del Site A and B	DD1149, ACE	SMOA	JTAGS-Army; M3P-US Army/Air Force	C4ISR
CP403	**Joint Tactical Radio Systems (Cluster 1) RDTE (JTRS)**									
		20	Per AMSAA Handbook V1.6b. Requirements documents, ICD, Program Schedule	1 set of docs	1-Jul-03	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	WIN-T	C4ISR

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
		21	Design documents and user or training manuals	1 set of docs	1-Jan-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	WIN-T	C4ISR
		22	Brass boards	1 set of docs	1-Apr-05	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	WIN-T	C4ISR
		23	Acceptance data package.	1 set of docs	Remaining need dates TBD in SMOA	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	WIN-T	C4ISR
CP176	**Joint Tactical Radio Systems (Cluster 5)**									
		24	SUGV Cluster 5 – 1 Channel EDM 8 4/2005 Cluster 5 – 1 Channel EDM 8 3/2006 Cluster 5 – 1 Channel EDM 4 5/2006 Cluster 5 – 1 Channel EDM 3 6/2006 Cluster 5 – 1 Chann	39 ea.	Apr 2005 - Nov 2006	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	WIN-T	C4ISR
		25	Class 3 and 4 UAV Cluster 5 – 2 Channel EDM 6 3/2005 Cluster 5 – 2 Channel EDM 6 2/2006 Cluster 5 – 2 Channel EDM 2 3/2006 Cluster 5 – 2 Channel EDM 2 4/2006 Clu	34 ea.	Mar 2005 - May 2007	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	WIN-T	C4ISR
		26	Class 1 UAV Cluster 5 – 1 Channel EDM 8 3/2005 Cluster 5 – 1 Channel EDM 8 2/2006 Cluster 5 – 1 Channel EDM 2 5/2006 Cluster 5 – 1 Channel EDM 2 6/2006 Cluster 5 –	45 ea.	Mar 2005 - Sep 2007	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	WIN-T	C4ISR
		27	Note: EDM refers to Engineering Development Models per the JTRS Cluster 5 contract. Remaining data/hardware descriptions and need dates TBD	1 set of docs per CDRLs (See Attch 7a to SMOA)	Remaining need dates TBD in SMOA	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	WIN-T	C4ISR
CP99	**Joint Warning and Reporting Network (JWARN)**									

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
		85	SOSCOE interface (interoperability) ICD, program schedule, design documents	1 copy of S/W	1-Sep-03	Del Site A and B	CD for S/W; DD1149 for H/W, ACE for design Requirements	MOA, SMOA, ACA?	NBC CA	C4ISR
		86	Requirements documents (CDRL and Data Accession lists), program schedule, design documentation, user manuals and/or training manuals, security/accreditation docs	1 copy of S/W	1-Oct-03	Del Site A and B	CD for S/W; DD1149 for H/W, ACE for design Requirements	MOA, SMOA, ACA?	NBC CA	C4ISR
		87	Source code, simulation/emulation	1 copy of S/W	1-Nov-03	Del Site A and B	CD for S/W; DD1149 for H/W, ACE for design Requirements	MOA, SMOA, ACA?	NBC CA	C4ISR
		88	Prime items	2 each	1-Jul-06	TFT S3/LUT 1 test site	CD for S/W; DD1149 for H/W, ACE for design Requirements	MOA, SMOA, ACA?	NBC CA	C4ISR
		443	Prime items	2 each	1-Oct-07	TFT S4/LUT 2 test site	CD for S/W; DD1149 for H/W, ACE for design Requirements	MOA, SMOA, ACA?	NBC CA	C4ISR
CP271	**Land Force C2 Information System (Canadian System) (LFC2IS)**									
		159	SOSCOE interface (interoperability) Need reqmts docs, ICD, Program Schedule,	1 Copy	1-Jan-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		160	Design docs, user manuals or training manuals, security/accrediation docs	1 copy	1-Jan-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		161	Source code,	1 copy	1-Sep-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		162	Simulation/emulation	1 copy	1-Jan-05	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
CP188	**Land Warrior**									

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
		256	Land Warrior Block II/Stryker Interoperable (SI) (for interoperability with Current and Stryker Brigades using the SoSCOE (System of Systems Common Operating Environment) interoperability services interface, and for dismounted soldier unsupported by a veh	1 software	1-Nov-03	To contractor performing integration function	DD1149	MOA, SMOA, ACA	PEO Soldier, Soldier Warrior	Soldier
		257	Source code for messaging mechanisms (e.g., S/W components that interface to squad radio (Tactical Internet)). Land Warrior Graphical User Interface (GUI).	1 software	1-Sep-04	To contractor performing integration function	DD1149	MOA, SMOA, ACA	PEO Soldier, Soldier Warrior	Soldier
		258	Applicable test sets or emulation S/W and/or H/W for replicating the message exchange and network linkages between individual LW systems and LW to Stryker vehicle. OFW GUI.	1 software	1-Jan-05	To contractor performing integration function	DD1149	MOA, SMOA, ACA	PEO Soldier, Soldier Warrior	Soldier
		259	Land Warrior for Unit of Action integration: draft requirements documents and all other available draft documents (e.g., ICD, program schedule, design documents, C4ISP, user manuals and/or training materials, draft supportability strategy, etc).	1 software	1-Nov-03	To contractor performing integration function	DD1149	MOA, SMOA, ACA	PEO Soldier, Soldier Warrior	Soldier
		260	Available source code for C2 and middleware associated with formation of the COP and control of various FCS UA systems (e.g., UGV, UAV)	1 software	1-Jan-04	To contractor performing integration function	DD1149	MOA, SMOA, ACA	PEO Soldier, Soldier Warrior	Soldier
		411	Software for SoSIL (e.g., simulation, application, etc.)	1 software	1-Apr-04	To contractor performing integration function	DD1149	MOA, SMOA, ACA	PEO Soldier, Soldier Warrior	Soldier
		412	Emulators (i.e., laptops with some LW/OFW functionality) and associated simulation S/W to support TFT S3/LUT 1 [note: laptops will be provided by the LSI]	7 ea.	1-Jul-05	To contractor performing integration function or LUT 1 location.	DD1149	MOA, SMOA, ACA	PEO Soldier, Soldier Warrior	Soldier
		413	Limited functionality LW/OFW prototypes for integration of A-kits into MGV variants (i.e., ICV, C2V, etc.)	4 ea.	1-Feb-06	To contractor performing integration function or LUT 1 location.	DD1149	MOA, SMOA, ACA	PEO Soldier, Soldier Warrior	Soldier
		414	LW/OFW prototypes to support TFT S4/LUT2.	23 ea.	1-Jan-07	To contractor performing integration function or LUT 2 location.	DD1149	MOA, SMOA, ACA	PEO Soldier, Soldier Warrior	Soldier
CP86	Level 5 Distributed Common Ground System - Army (DCGS-A)									

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
		17	CDRL and Data Accession Lists	1 Copy	1-Jun-04	Del Site A and B	ACE	MOA, SMOA, ACA	DCGS-A	C4ISR
		18	SOSCOE interface (interoperability) Need reqmts docs, ICD, Program Schedule including: C4ISR Level 1 Sensor Fusion CCI, C4ISR Sensor Data Management CCI, Battle Command & Mission Execution CCI, Plan and Preparation CCI, Situational Understanding CCI, War	1 Copy	1-Oct-04	Del Site A and B	ACE	MOA, SMOA, ACA	DCGS-A	C4ISR
		19	DCGS-A Test Results	1 Copy	1-Jun-06	Del Site A and B	ACE	MOA, SMOA, ACA	DCGS-A	C4ISR
CP184	Lightweight 120mm Cannon for Mounted Combat System									
		241	Data from CTD ICD/IDD	1 document	Summer 04	TBD	CD-ROM, ACE	MOA, SMOA	ARDEC	Lethality
CP277	Lightweight Forward Entry Device w/Forward Observer Sys Software (LFED/FOS)									
		89	Reqts. Docs: ICD, Program Schedule, design docs (CDRL list and Data Accession list), user manuals, training manuals, security/accreditation docs	1 copy	1-Jan-04	Del Site A and B	DD1149, ACE	SMOA, ACA	PM I&E	C4ISR
		90	Simulation/emulation (this device is known as "SISTD4" and may be used to simulate both LFED and AFATDS (see Attachment 2.)	1 copy	1-Jan-05	Del Site A and B	DD1149, ACE	SMOA, ACA	PM I&E	C4ISR
		335	Purchase for 12 month duration: Prime items in support of TFT S3/LUT1	2 ea.	1-Jul-06	TFT3 and LUT1 Site TBD	DD1149, ACE	SMOA, ACA	PM I&E	C4ISR
		336	Purchase for 11 month duration: 2 ea Prime Items in support of TFT S3/LUT1	2 ea.	1-Oct-07	TFT4 and LUT2 Site TBD	DD1149, ACE	SMOA, ACA	PM I&E	C4ISR
CP186	Lightweight Laser Designator/Rangefinder (LLDR)									
		237	Sensor Link Protocol (Data Communications), requirements documents, supportability strategy, training and technical manuals, prototype DT/OT data, NEPA/NRC licenses.	1 Copy of docs	1-Nov-03	Del Site A and B	CD or ACE upload for documentation, DD1149 for hardware.	MOA, SMOA	PM SEQ	Lethality

CPID	CI Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
		238	One each item for SOSIL	1 ea.	1-Apr-04	Del Site A and B	CD or ACE upload for documentation, DD1149 for hardware.	MOA, SMOA	PM SEQ	Lethality
		239	Production item	1 ea.	1-Jul-05	Del Site A and B	CD or ACE upload for documentation, DD1149 for hardware.	MOA, SMOA	PM SEQ	Lethality
		240	Production item	4 ea.	1-Jan-07	Del Site A and B	CD or ACE upload for documentation, DD1149 for hardware.	MOA, SMOA	PM SEQ	Lethality
CP279	Low Level Air Picture Interface (German System) (LLAPI/FAST)									
		163	SOSCOE interface (interoperability) Need reqmts docs, ICD, Program Schedule,	1 Copy	1-Jan-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		164	Design docs, user manuals or training manuals, security/accreditation docs	1 copy	1-Jan-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		165	Source code,	1 copy	1-Sep-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		166	Simulation/emulation	1 copy	1-Jan-05	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
CP281	Maneuver Control System (MCS)									
		135	Requirement documents, ICD, Design documents, user manuals or training manuals	1 copy	1-Oct-03	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	PM, GCCC	C4ISR
		137	Source code,	1 copy	1-Sep-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	PM, GCCC	C4ISR
		138	Simulation/emulation	1 copy	1-Jan-05	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	PM, GCCC	C4ISR
		355	Prime Items	2 ea.	1-Jul-06	TFT3 and LUT1 Site TBD	DD1149, ACE	MOA, SMOA, ACA	PM, GCCC	C4ISR
		356	Prime Items	2 ea.	1-Oct-07	TFT4 and LUT2 Site TBD	DD1149, ACE	MOA, SMOA, ACA	PM, GCCC	C4ISR

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
CP196	**Medical Communications for Combat Casualty Care (MC4)**									
		265	Need requirements docs (ORD/ROC), ICDs, Program Schedule, design docs (CDRL list and Data Accession list), user manuals, and/or training materials, security/accreditation docs, TEMP, Block I Software with associated documentation to Supportability IPT (T,	2 copies	1-Nov-03	Del Site A and B	DD1149, ACE	MOA	Joint Program Office MIS / PM MC4	Supportability
		266	MC4 Block II Software and associated documentation. Coordinate Message generation source code requirements with (LDSS)	2 copies via CDs per MC4 Block release or SCP	4QCY05	Del Site A and B	DD1149, ACE	MOA	Joint Program Office MIS / PM MC4	Supportability
		267	MC4 Block III Software and associated documentation provided to C4ISR	2 copies via CDs per MC4 Block release or SCP	4QCY08	Del Site A and B	DD1149, ACE	MOA	Joint Program Office MIS / PM MC4	Supportability
CP285	**Medium Extended Air Defense System (MEADS)**									
		464	Requirements documents, draft performance specification, program schedule, (CDRL list and Data Accession list)	1 copy	1-Jan-04	Del Site A and B	DD1149, ACE	SMOA	PM LTPO	C4ISR
		465	Simulation/emulation (SoSIL) (pending classification clearance)	1 copy	1-Jan-04	Del Site A and B	DD1149, ACE	SMOA	PM LTPO	C4ISR
		466	ICD, design documents, training material	1 copy	No earlier than 2006	Del Site A and B	DD1149, ACE	SMOA	PM LTPO	C4ISR
		467	Source code (message builder), (Fusion correlation, engagement data…)	1 copy	No earlier than 2006	Del Site A and B	DD1149, ACE	SMOA	PM LTPO	C4ISR
CP206	**Mid Range Munition/Extended Range Munition (MRM)**									
		246	ICD/ACA for interoperability. Govt will qualify on platform	1 set of documents	MCS PDR	TBD	CD-ROM, ACE	MOA, SMOA	PM, MAS	Lethality
CP210	MILES XXI									
		286	Software drops, architecture, design and interface documentation.	1 plus any updates	4-Jan-03	Orlando, Del Site D	CD-ROM or FTP	MOA, SMOA		Training

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
CP392	MOFA - Artillery Fuze (MOFA, AMMO)									
		244	Monitor only. GFX quantities to support TEMP					MOA		Lethality
CP289	Mortar Fire Control System (MFCS)									
		81	SOSCOE interface (interoperability) Requirments docs, ICD, Program Schedule, Design docs, user manuals or training manuals, security/accreditation docs	1 copy	1-Jan-04	ASD, Minneapolis	DD1149, ACE	MOA, SMOA, ACA	CCS	C4ISR
		82	software execution files	1 copy	1-Sep-04	ASD, Minneapolis	DD1149, ACE	MOA, SMOA, ACA	CCS	C4ISR
		83	simulation/emulation	1 copy	1-Jan-05	ASD, Minneapolis	DD1149, ACE	MOA, SMOA, ACA	CCS	C4ISR
		333	Prime Items	2 ea.	1-Jul-06	TFT3 and LUT1 Site TBD	DD1149, ACE	MOA, SMOA, ACA	CCS	C4ISR
		334	Prime Items	2 ea.	1-Oct-07	TFT4 and LUT2 Site TBD	DD1149, ACE	MOA, SMOA, ACA	CCS	C4ISR
CP220	MOUT OIS									
		287	Software drops, architecture, design and interface documentation.	1 plus any updates	4-Jan-03	Orlando, Del Site D	CD-ROM or FTP	MOA, SMOA		Training
CP138	Movement Tracking System (MTS)									
		93	Need requirements docs (ORD), ICDs, Program Schedule, user manuals, and/or training materials, security/accreditation docs	1 copy	1-Jun-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA		C4ISR
		94	1 set of MTS hardware to support FCS Systems Integration Labs (SILs)	1 set	1-Feb-06	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA		C4ISR
CP293	Multiple-Launch Rocket System (MLRS-M270A1) & High Mobility Artillery Rocket System (HIMARS)									
		469	SoSCOE (System of Systems Common Operating Environment) interface (interoperability), requirements documents, ICD, program schedule, design documents (CDRL list and Data Accession list), training material	1 copy	1-Nov-03	Del Site A and B	DD1149, ACE	SMOA	PM PFRMS	C4ISR

CFID	CF Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
		470	Source code (message builder), simulation/emulation (SoSIL)	1 copy	1-Jan-04	Del Site A and B	DD1149, ACE	SMOA	PM PFRMS	C4ISR
CF295	Naval Fire Control System (NFCS)									
		167	NFCS/AFATDS ICD	1 Copy	1-Jan-04	Del Site A and B	Documentation Via CD	SMOA	NSWC, IWS-3C	C4ISR
		168	Security Classification Guide	1 copy	1-Jan-04	Del Site A and B	Documentation Via CD	SMOA	NSWC, IWS-3C	C4ISR
		169	User Manual	1 copy	1-Jan-04	Del Site A and B	Documentation Via CD	SMOA	NSWC, IWS-3C	C4ISR
CF248	Non-Lethal 155mm Cannon Munition									
		248	ICD/ACA for interoperability. Mechanical and Physical ICS. Fuze setter ICD. User Manual. Training Manuals. TEMP.	1 set of documents	NLOS-C PDR	Del Site A and B	CD-ROM, ACE	MOA, SMOA	PM CCS	Lethality
CF254	Non-Line-of-Sight Launch System (NLOS-LS)									
		242	ICDs/MPS/TEMP	TBD	As developed, updated	TBD	TBD	MOA, SMOA, ACA	NLOS-LS TF	Lethality
		473	ICD, requirements documents, program schedule, design documents (CDRL list and Data Accession lists), user manuals, and/or training materials	TBD	TBD	TBD	TBD	MOA, SMOA, ACA	NLOS-LS TF	Lethality
		474	Support to SoS level testing. 6 emulators/6 simulators/6 systems, IS&T requirement, C4ISR requirement, Supportability requirement, Training requirement, Platform integration requirement (Systems Engineering Integration IPT)	TBD	FY06/07/08	TBD	TBD	MOA, SMOA, ACA	NLOS-LS TF	Lethality
CF41	Nuclear, Biological, and Chemical Reconnaissance System (NBCRS)									
		203	SOSCOE interface (interoperability) Need reqmts docs, ICD, Program Schedule	1 Copy	1-Nov-03	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		204	Design docs, user manuals or training manuals, security/accreditation docs	1 copy	1-Nov-03	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
		205	Source code	1 copy	1-Sep-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		206	Simulation/emulation	1 copy	1-Jan-05	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
CP264	One Semi-Automate Forces (OneSAF) Objective System (RDTE)									
		283	OneSAF software drops, architecture specification, documentation, ICDs, reproduction rights. Need to start work imposition on OOS starting 4th QTR 2003. Copy of Block A was provided in 1st QTR FY03 by PM OneSAF at PEO STRI. Subsequent drops of ONESAF S/	1 (with yearly drops); to be further distributed throughout the LSI and supplier base	Start work Jun 03. Copy of Block A, Sep 03. Sub drops as available	S/W drops should be delivered to the SDD LSI Training IPT Lead in Orlando from the PEO STRI Training IPT representative. S/W will further be distributed to other IPTs and Key Suppliers for incorporation into SoSCOE and embedded training applications.	CD-ROM or FTP	MOA, SMOA, ACA	PM OneSAF, PM Constructive, PEO STRI	Training
CP341	ONE Tactical Engagement Simulation System (OneTESS)									
		290	Software drops, architecture, design and interface documentation (CDRL list and Data Accession list).	1 copy	1-Apr-04	SAIC, 12901 Science Drive, Room 1022, Orlando, FL 32826, Phone: (407) 243-3318, Fax: (407) 243-3440, E-mail: gordon.e.sayre.jr@saic.com (Del Site D)	DD1149 for emulator. CD or FTP for software and ICDs.	MOA, SMOA, ACA		Training
		446	Follow-on Software Drops as they become available	1 copy	See Information	Orlando, Del Site D	DD1149 for emulator. CD or FTP for software and ICDs.	MOA, SMOA, ACA		Training
CP361	Paladin Automatic Fire Control System									
		171	SOSCOE interface (interoperability) Need reqmts docs, ICD, Program Schedule,	1 Copy	1-Jan-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		172	Design docs, user manuals or training manuals, security/accredidation docs	1 copy	1-Jan-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		173	Source code,	1 copy	1-Sep-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		174	Simulation/emulation	1 copy	1-Jan-05	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
CP117	Palletized Loading System (PLS)									
		391	(C4ISR/Lethality/Supportability) - Need reqmts docs, ICD, Program schedule, Design docs (CDRL list and Data Accession list), user manuals, and/or training materials. (LSI to determine scope of technical data and date required) Any changes required to cu	1 copy data	TBD	To contractor performing integration function.	DD149 for h/w, CD for docs	MOA, SMOA, ACA, Loan from Govt.	PM, TV	C4ISR
		392	PLS vehicle variant, technical/logistics program documentation as required (TMs, CDRLs, existing installation kit instructions, and information on hand)	1 copy data	1-Oct-04	To contractor performing integration function.	DD149 for h/w, CD for docs	MOA, SMOA, ACA, Loan from Govt.	PM, TV	C4ISR
		393	ICD	1 copy data	1-Feb-05	To contractor performing integration function.	DD149 for h/w, CD for docs	MOA, SMOA, ACA, Loan from Govt.	PM, TV	C4ISR
		394	Vehicles needed for integration of A-kits and B-kits	2 ea.	1-Feb-06	To contractor performing integration function.	DD149 for h/w, CD for docs	MOA, SMOA, ACA, Loan from Govt.	PM, TV	C4ISR
		395	PLS Vehicles.	2 ea	1-Apr-07	TFTS3/LUT1 test site	DD149 for h/w, CD for docs	MOA, SMOA, ACA, Loan from Govt.	PM, TV	C4ISR
		396	PLS Vehicles.	2 ea.	1-May-08	TFTS4/LUT2 test site	DD149 for h/w, CD for docs	MOA, SMOA, ACA, Loan from Govt.	PM, TV	C4ISR
CP303	Patriot									
		462	Requirements documents, program schedule, design documents (CDRL list and Data Accession list), training material	1 copy	1-Nov-03	Del Site A and B	DD1149, ACE	SMOA		C4ISR
		463	Source code (Radio Interface Software)	1 copy	1-Jan-04	Del Site A and B	DD1149, ACE	SMOA		C4ISR
CP270	Phoenix Battlefield Sensor System (AN/TPQ47)									
		103	CDRL and Data Accession List (e.g., requirements documentation, ICD, Program Schedule)	1 copy	1-Oct-03	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA		C4ISR
		104	Source code to support JVMF, messaging	1 copy	1-Nov-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA		C4ISR
		105	User and training manuals	1 copy	1-Oct-05	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA		C4ISR
		339	Prime Items, AN/TPQ-47	2 ea.	1-Jan-08	TBD	DD1149, ACE	MOA, SMOA, ACA		C4ISR

CPID	CP Name	No.	Description	Quantity	Data Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
CP128	PLS Trailer									
		397	(C4ISR/Lethality/Supportability) - Need reqmts docs, ICD, Program schedule, Design docs (CDRL list and Data Accession list), user manuals, and/or training materials. (LSI to determine scope of technical data and date required) Any changes required to cu	1 copy data	TBD	To contractor performing integration function.	DD1149 for h/w, CD for docs	MOA, SMOA, Loan from Government	PM, TV	Supportability
		398	PLS TM variant, technical/logistics program documentation as required (TMs, CDRLs, existing installation kit instructions, and information on hand)	1 copy data	1-Oct-04	To contractor performing integration function.	DD1149 for h/w, CD for docs	MOA, SMOA, Loan from Government	PM, TV	Supportability
		399	ICD	1 copy data	1-Feb-05	To contractor performing integration function.	DD1149 for h/w, CD for docs	MOA, SMOA, Loan from Government	PM, TV	Supportability
		400	Trailers needed for integration of A-kits and B-kits	2 ea.	1-Feb-06	To contractor performing integration function.	DD1149 for h/w, CD for docs	MOA, SMOA, Loan from Government	PM, TV	Supportability
		401	PLS Trailers.	2 ea	1-Apr-07	TFTS3/LUT1 test site	DD1149 for h/w, CD for docs	MOA, SMOA, Loan from Government	PM, TV	Supportability
		402	PLS Trailers.	2 ea.	1-May-08	TFTS4/LUT2 test site	DD1149 for h/w, CD for docs	MOA, SMOA, Loan from Government	PM, TV	Supportability
CP284	Radiac Set AN (UDR-13)									
		314	SOSCOE Interface (interoperability), ICD, requirements docs, program schedule, design docs (CDRL list and Data Accession lists), user manuals and/or training manuals, security/accreditation docs.	1 copy Data items	1-Jan-04	Del Site A and B	CD for data items, hardware TBD.	SMOA, ACA	PM NBC CA	C4ISR
		315	Source code	1 copy data items	1-Sep-04	Del Site A and B	CD for data items, hardware TBD.	SMOA, ACA	PM NBC CA	C4ISR
		316	Simulation/emulation	1 copy data items	1-Jan-05	Del Site A and B	CD for data items, hardware TBD.	SMOA, ACA	PM NBC CA	C4ISR
CP119	Rapidly Emplaced Bridging System (REBS)									
		255	Data Package with dimensional info.	1	15-Sep-03			MOA		MGV

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
CP298	Secure Enroute Communications Package - Improved (SECOMP-I)									
		42	Requirements docs, ICD, design docs, user or training manuals,	1 set of docs	1-Nov-03	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	WIN-T	C4ISR
		45	Simulation/emulation, brassboards and prototypes	1 set of docs	1-Jan-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	WIN-T	C4ISR
		329	Updates	1 set of docs	1-Apr-05	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	WIN-T	C4ISR
		330	Updates	1 set of docs	1-Jun-07	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	WIN-T	C4ISR
CP315	Sentinel Phased Array Radar (AN/MPQ-64)									
		62	SOSCOE interface (interoperability) Need requirements docs (ORD/ROC), ICDs (FAADC2, IFF, SINCGARS, EPLRS), Program Schedule (ETRAC), design docs (ETRAC, CDRL list and Data Accession list), user manuals, and/or training materials, security/accreditation do	1 Copy	1-Nov-03	Del Site A and B	DD1149, ACE	MOA, SMOA	TOCS/AMD CCS	C4ISR
		63	Message generation source code	1 copy	1-Sep-04	Del Site A and B	DD1149, ACE	MOA, SMOA	TOCS/AMD CCS	C4ISR
		64	Message Simulation/emulation (e.g. potentially from FAADC2	1 copy	1-Jan-05	Del Site A and B	DD1149, ACE	MOA, SMOA	TOCS/AMD CCS	C4ISR
		65	Actual Sentinel provided by FORSCOM	1 ea.	1-Dec-06	LUT 1 Test Site	DD1149, ACE	MOA, SMOA	TOCS/AMD CCS	C4ISR
		452	Actual Sentinel provided by FORSCOM	1 ea.	1-Jan-08	LUT 2 Test Site	DD1149, ACE	MOA, SMOA	TOCS/AMD CCS	C4ISR
CP306	Soldier-Combined Arms Tactical Trainer (Soldier-CATT)									
		373	Software drops, architecture, design and interface documentation	1 copy plus updates	1-Jan-04	SAIC, 12901 Science Drive, Room 1022, Orlando, FL 32826, Phone: (407) 243-3318, Fax: (407) 243-3440, E-mail: gordon.e.styre.jr@saic.com (Del Site D)	CD-ROM or FTP	MOA, SMOA	PM CATT	Training
CP335	Tactical Airspace Integration System (TAIS)									

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
		179	Requirement documents, program schedule, design documents (CDRL list and Data Accession list), user manuals and/or training manuals	1 Copy	1-Nov-03	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	PM, Air Traffic Control Sys	C4ISR
		181	Source code - not available proprietary to GD Decision Systems (GDDS)	1 copy	1-Sep-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	PM, Air Traffic Control Sys	C4ISR
		182	Simulation/emulation (None exists)	1 Copy	1-Jan-05	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	PM, Air Traffic Control Sys	C4ISR
CP337	Tactical Combat Operations Systems (Marines C2) (TCO)									
		183	SOSCOE interface (interoperability) Need reqmts docs, ICD, Program Schedule,	1 Copy	1-Jul-03	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		184	Design docs, user manuals or training manuals, security/accreditation docs	1 copy	1-Oct-03	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		185	Source code,	1 copy	1-Nov-03	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
		186	Simulation/emulation	1 copy	1-Nov-03	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?		C4ISR
CP343	Tactical Exploitation System (TES)									
		187	SOSCOE interface (interoperability) – requirements documents, ICD, program schedule, design Documents (CDRL list and Data Accession list), User Manuals, Training Manuals, & Security/Accreditation Docs	1 Copy	1-Nov-03	Del Site A and B	DD1149, ACE	SMOA		C4ISR
		188	Source Code – sensor control; tracking software…layering.	1 copy	1-Sep-04	Del Site A and B	DD1149, ACE	SMOA		C4ISR
		190	Simulation/emulation (SoSIL)	1 copy	1-Jan-05	Del Site A and B	DD1149, ACE	SMOA		C4ISR
CP378	Theater Support Vessel (TSV)									
		231	Draft purchase description, program schedule, requirements docs, test data	1 Copy on CD	1-Jan-04	Del Site A and B	DD1149	MOA, SMOA		C4ISR
		232	ICD, design documentation, (CDRL list and Data Accession list), user manuals, and/or training materials	1 copy on CD	1-Feb-05	Del Site A and B	DD1149	MOA, SMOA		C4ISR
		431	Update provided when contract for TSV is awarded	1 copy on CD	FY2006	Del Site A and B	DD1149	MOA, SMOA		C4ISR

CPID	CP Name	No.	Description	Quantity	Date Required	Delivery Location	Method of Delivery	SMOA/ACA	Provider	Lead IPT
CP351	Theatre Battle Management Core System (Air Force) (TBMCS)									
		139	SOSCOE interface (interoperability) Need reqmts docs, ICD, Program Schedule.	1 Copy	1-Nov-03	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?	AFSC-ESC, HANSCOM AFB	C4ISR
		140	Design docs, user manuals or training manuals, security/accreditation docs	1 copy	1-Nov-03	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?	AFSC-ESC, HANSCOM AFB	C4ISR
		141	Source code,	1 copy	1-Sep-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?	AFSC-ESC, HANSCOM AFB	C4ISR
		142	Simulation/emulation	1 copy	1-Jan-05	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA?	AFSC-ESC, HANSCOM AFB	C4ISR
CP230	Tag Unique Ammo									
		245	TBD. Monitor as training strategies are developed					MOA		Lethality
CP356	Warfighter Information Network-Tactical (WIN-T)									
		28	Requirements documents, ICD, design documents and user or training manuals, simulators, emulators, brass boards and prototypes	1 set of docs	1-Jan-04	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	WIN-T	C4ISR
		37	Updates to above	1 set of docs	1-Apr-05	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	WIN-T	C4ISR
		38	Updates to above	1 set of documents	1-Jun-07	Del Site A and B	DD1149, ACE	MOA, SMOA, ACA	WIN-T	C4ISR
CP280	XM395 Precision Guided Mortar Munition (PGMM)									
		251	ICD/ACA for interop. Govt will qualify on platform Hardware IAW TEMP Available today: Performance specification, SCG and TEMP	1 copy	Documentation ~April FY06 Hardware IAW TEMP	TBD	CD-ROM, ACE	MOA, SMOA, ACA	CAS	MGV

Attachment 4B

Critical Technologies-GFX Request

CT Item #	CT Item Description	TTA Title	IPT	Need Date	Providing Agency	Intended User
CT3B2-158-1	IDS TRL-6 Demonstration Results – Red Team Report	Security Systems & Algorithms - Intrusion Detection-Waveform	C4ISR SEIT IA	7/14/2006	TWNA STO Mr. Stephen W. Lucas Stephen.w.lucas@us.army.mil (732) 427-2625	C4ISR SEIT IA (Mark Kovach)
CT3B2-158-2	Results of Evaluation of Intrusion Detection Algorithms against Metrics	Security Systems & Algorithms - Intrusion Detection-Waveform	C4ISR SEIT IA	4/16/2004	TWNA STO Mr. Stephen W. Lucas Stephen.w.lucas@us.army.mil (732) 427-2625	C4ISR SEIT IA (Mark Kovach)
CT3B2-158-3	Enhanced IDS Design details for IDS Addressing OSI Layer 2 Issues	Security Systems & Algorithms - Intrusion Detection-Waveform	C4ISR SEIT IA	2/15/2005	TWNA STO Mr. Stephen W. Lucas Stephen.w.lucas@us.army.mil (732) 427-2625	C4ISR SEIT IA (Mark Kovach)
CT3B2-158-4	Test Results or Prototyped Refined Algorithms	Security Systems & Algorithms - Intrusion Detection-Waveform	C4ISR SEIT IA	9/10/2004	TWNA STO Mr. Stephen W. Lucas Stephen.w.lucas@us.army.mil (732) 427-2625	C4ISR SEIT IA (Mark Kovach)
CT3B2-158-5	Testbed and Software Tools	Security Systems & Algorithms - Intrusion Detection-Waveform	C4ISR SEIT IA	1/31/2006	TWNA STO Mr. Stephen W. Lucas Stephen.w.lucas@us.army.mil (732) 427-2625	C4ISR SEIT IA (Mark Kovach)
CT3B2-158-6	Report Validating the Threat Against Waveforms	Security Systems & Algorithms - Intrusion Detection-Waveform	C4ISR SEIT IA	12/31/2003	TWNA STO Mr. Stephen W. Lucas Stephen.w.lucas@us.army.mil (732) 427-2625	C4ISR SEIT IA (Mark Kovach)
CT3B2-158-7	Design Details for Intrusion Detection Algorithm Design	Security Systems & Algorithms - Intrusion Detection-Waveform	C4ISR SEIT IA	TBD	TWNA STO Mr. Stephen W. Lucas Stephen.w.lucas@us.army.mil (732) 427-2625	C4ISR SEIT IA (Mark Kovach)
CT14-62-1	FC-NET Architecture Description Document	Dynamic Sensor-Shooter Pairing Algorithms & Fire Control	C4ISR	9/1/2004	Redstone Arsenal, Huntsville, AL Deborah Butler Deborah.butler@redstone.army.mil (256) 876-1303	C4ISR System Integration Lab, HB (Frank Nixon)
CT14-62-2	Application Programming Interfaces	Dynamic Sensor-Shooter Pairing Algorithms & Fire Control	C4ISR	9/1/2004	Redstone Arsenal, Huntsville, AL Deborah Butler Deborah.butler@redstone.army.mil (256) 876-1303	C4ISR System Integration Lab, HB (Frank Nixon)

CT Item #	CT Item Description	CTA Title	IPT	Need Date	Providing Agency	Intended User
CT14-62-3	Interface Description Language Compiler	Dynamic Sensor-Shooter Pairing Algorithms & Fire Control	C4ISR	9/1/2004	Redstone Arsenal, Huntsville, AL Deborah Butler Deborah.butler@redstone.army.mil (256) 876-1303	C4ISR System Integration Lab, HB (Frank Nixon)
CT14-62-4	Fire Control Component Repository, & Supporting Documentation	Dynamic Sensor-Shooter Pairing Algorithms & Fire Control	C4ISR	9/1/2004	Redstone Arsenal, Huntsville, AL Deborah Butler Deborah.butler@redstone.army.mil (256) 876-1303	C4ISR System Integration Lab, HB (Frank Nixon)
CT18A-68-1	Robotic Follower (RF) Advanced Technology Demonstration-Robotic Follower Operational Recommendation	Distributive Collaboration of Manned/Unmanned Platforms	UGV	11/30/2003	TARDECMr. Jeffrey Jackowski jaockoje@tacom.army.mil(586) 574-8674	TBDScott Fish & Andy Vest
CT18A-68-2	Robotic Follower (RF) Advanced Technology Demonstration-Leader Path Generation (beyond GPS) For Mounted & Dismounted Lead Follower Operations	Distributive Collaboration of Manned/Unmanned Platforms	UGV	10/30/04 – 04/30/06	TARDEC Mr. Jeffrey Jackowski jaockoje@tacom.army.mil (586) 574-8674	TBD Scott Fish & Andy Vest
CT18A-68-3	Robotic Follower (RF) Advanced Technology Demonstration-Path Following (beyond GPS) using Trail Following & Line-of-Sight Leader Vehicle Tracking	Distributive Collaboration of Manned/Unmanned Platforms	UGV	10/30/2004	TARDEC Mr. Jeffrey Jackowski jaockoje@tacom.army.mil (586) 574-8674	TBD Scott Fish & Andy Vest
CT18A-68-4	Robotic Follower (RF) Advanced Technology Demonstration-Traffic Avoidance Baseline	Distributive Collaboration of Manned/Unmanned Platforms	UGV	4/30/2006	TARDEC Mr. Jeffrey Jackowski jaockoje@tacom.army.mil (586) 574-8674	TBD Scott Fish & Andy Vest
CT18A-68-5	Robotic Follower (RF) Advanced Technology Demonstration-Application Programming Interface 9API) Development for Autonomous Navigation System	Distributive Collaboration of Manned/Unmanned Platforms	UGV	4/30/2003	TARDEC Mr. Jeffrey Jackowski jaockoje@tacom.army.mil (586) 574-8674	TBD Scott Fish & Andy Vest
CT18B-68-1	Crew Integration & Automation Testbed (CAT) Advanced Technology Demonstration – Application Programmer's Interface API Documentation	Distributive Collaboration of Manned/Unmanned Platforms	UGV & MGV	4/30/2004	TARDEC Mr. Andrew Orlando orlandoa@tacom.army.mil (586) 574-8663	TBD Scott Fish & Andy Vest
CT18B-68-2	Crew Integration & Automation Testbed (CAT) Advanced Technology Demonstration – Recommendations for UGV Control Modes & Operator Cues	Distributive Collaboration of Manned/Unmanned Platforms	UGV & MGV	04/30/04-04/30/06	TARDEC Mr. Andrew Orlando orlandoa@tacom.army.mil (586) 574-8663	TBD Scott Fish & Andy Vest

CT Item #	CT Item Description	TTA Title	IPT	Need Date	Providing Agency	Intended User
CT18B-68-3	Crew Integration & Automation Testbed (CAT) Advanced Technology Demonstration – Recommendations for MGVDriving Aids Using ANS Data	Distributive Collaboration of Manned/Unmanned Platforms	UGV	04/30/04-04/30/06	TARDECMr. Andrew Orlandoorlandoa@tacom.army.mil(586) 574-8663	TBDScott Fish & Andy Vest
CT18B-68-4	Crew Integration & Automation Testbed (CAT) Advanced Technology Demonstration – Recommendations for MGV Driving Aids Using ANS Data	Distributive Collaboration of Manned/Unmanned Platforms	UGV & MGV	04/30/04-04/30/06	TARDEC Mr. Andrew Orlando orlandoa@tacom.army.mil (586) 574-8663	TBD Scott Fish & Andy Vest
CT18C-68	ARV Robotic Technologies – Simulation Tools & Associated Report	Distributive Collaboration of Manned/Unmanned Platforms	UGV	09/30/04-06/30/08	TARDEC Mr. Jeff Jaster jasterjs@tacom.army.mil (586) 574-5106	TBD Scott Fish & Andy Vest
CT18D-68	HRI Report on Stat of Art, and Implementation Methods for both within FCS Increment 1 & Spiral Upgrades	Distributive Collaboration of Manned/Unmanned Platforms	UGV	09/30/04-06/30/08	TARDEC Terry Tierner tiernevt@tacom.army.mil (586) 574-8678	TBD Scott Fish & Andy Vest
CT18E-68-1	CTA Ladar – Photo Diode – April 2003	Distributive Collaboration of Manned/Unmanned Platforms	UGV	04/30/04-09/30/04	TARDEC Terry Tierner tiernevt@tacom.army.mil (586) 574-8678	TBD Scott Fish & Andy Vest
CT18E-68-2	ARL Robotics Technology – GPS/INS Evaluation	Distributive Collaboration of Manned/Unmanned Platforms	UGV	1/30/2004	TARDEC Terry Tierner tiernevt@tacom.army.mil (586) 574-8678	TBD Scott Fish & Andy Vest
CT19A-59-1	Fusion Based Knowledge for the Objective Force - Demonstration of Prototype BDA Decision Aids in C4ISR SIL. Government to provide initial BDA Decision Aid Framework as developed in first month of STO program	Rapid Battle Damage Assessment	C4ISR	6/30/2005	Donald Porter, Sr. CECOM RDEC 12WD	SoSIL J. Gregg
CT19A-59-2	Fusion Based Knowledge for the Objective Force - SoSIL Demonstration in Integration Phase 3. Government to provide algorithm and/or software as appropriate for inclusion as alternative to FCS algorithm & software, developed in the STO program to this point	Rapid Battle Damage Assessment	C4ISR	1/30/2008	Donald Porter, Sr.CECOM RDEC 12WD	SoSILJ. Gregg

CT Item #	CT Item Description	TTA Title	IPT	Need Date	Providing Agency	Intended User
CT19A-59-3	Fusion Based Knowledge for the Objective Force - BDA as part of FCS Field Test1. Government to provide final algorithm & software for BDA as alternative to FCS final algorithm & software	Rapid Battle Damage Assessment	C4ISR	6/30/2008	Donald Porter, Sr. CECOM RDEC 12WD	SoSIL J. Gregg
CT19B-59-1	Eye in the Sky - Demonstration of prototype BDA Decision Aids in C4ISR SIL. Government to provide initial sensor and software description as developed in first month of STO program	Rapid Battle Damage Assessment	C4ISR	6/30/2005	Paul King CECOM RDEC 12WD	SoSIL J. Gregg
CT19B-59-2	Eye in the Sky – SoSIL demonstration in Integration Phase 3. Government to provide sensor description & implementing software as alternative to FCS sensor description & supporting software.	Rapid Battle Damage Assessment	C4ISR	1/30/2008	Paul King CECOM RDEC 12WD	SoSIL J. Gregg
CT19B-59-3	Eye in the Sky – BDA as part of FCS Field Test 1. Government to provide final sensor selection & if appropriate final hardware prototype with supporting software as alternative to FCS hardware & supporting software, for field test of BDA capability..	Rapid Battle Damage Assessment	C4ISR	6/30/2008	Paul King CECOM RDEC 12WD	SoSIL J. Gregg
CT22A-123-1	Water Generation & Purification & Recovery Technology, Water from Exhaust - Provide engineering expertise to correlate system performance obtained during the demonstration program to FCS operating scenarios & requirements.	Water Generation From Exhaust	MGV	10/31/2003	TARDECDr. Jay Dusenburydusenbuj@tacom.army.mil 586-574-4145	TBD Doug Silva
CT22A-123-2	Water Generation & Purification & Recovery Technology, Water from Exhaust – Demonstration test report which includes performance mapping to FCS requirements & operational scenarios.	Water Generation From Exhaust	MGV	1/31/2004	TARDEC Dr. Jay Dusenbury dusenbuj@tacom.army.mil 586-574-4145	TBD Doug Silva

CT Item #	CT Item Description	TTA Title	IPT	Need Date	Providing Agency	Intended User
CT22A-123-3	Water Generation & Purification & Recovery Technology, Water from Exhaust – Bibliography of applicable source data is provided to the FCS Program along with access to the source data as required.	Water Generation From Exhaust	MGV	10/31/2003	TARDEC Dr. Jay Dusenbury dusenbuj@tacom.army.mil 586-574-4145	TBD Doug Silva
CT22A-123-4	Water Generation & Purification & Recovery Technology, Water from Exhaust – Bibliography of applicable source data is provided to the FCS Program along with access to the source data as required for characterizing filter performance to CBRN threats based on past test programs.	Water Generation From Exhaust	MGV	10/31/2003	TARDEC Dr. Jay Dusenbury dusenbuj@tacom.army.mil 586-574-4145	TBD Doug Silva
CT25A-71	APS components to be determined by LSI and DA	Active Protection System				TBD Tim Williams
CT25B-127	The Threat Warning Sensor to be delivered for transition to the FCS Program will be demonstrated TWS handoff of threat weapons consistent with PCD integrated into a full function PPS on an FCS platform at TRL 8. It will be suitable for integration into the FCS MGV platforms by means of a spril upgrade program	APS Threat Warning Sensor	MGV	3/31/2010	TARDECSteven Schehr(586) 574-5780	TBD Tim Williams
CT26-70	Multiple Deliverables	Signature Management	MGV	TBD	TARDEC Steven Schehr (586) 574-5780	TBD Tim Williams
CT27-83	Lightweight Hull & Vehicle Armor – Ballistic Protection for FCS, Hull lower front, hull lower side, hull skirt, hull upper, hull roof, mission module unique	Lightweight Hull & Vehicle Armor	MGV	TBD	TARDEC/ARL Dr. Douglas Templeton/TARDEC Mike Zoltoski/ARL	MGV IPT (Jamie Childress)
CT29-66-1	Power Distribution & Control – High-Temperature, High-Power Pulse Chargers/DC-DC Converters	Power Distribution & Control	MGV	TBD	TARDEC/ARL Edward Barshaw	TBD Tim Williams
CT29-66-2	Power Distribution & Control – High-Energy Density (HED) Thin Film Capacitors	Power Distribution & Control	MGV	TBD	TARDEC/ARL Edward Barshaw	TBD Tim Williams

CT Item #	CT Item Description	TTA Title	IPT	Need Date	Providing Agency	Intended User
CT29-66-3	Power Distribution & Control – Fast Rise-Time Silicon/Silicon Carbide Switches	Power Distribution & Control	MGV	TBD	TARDEC/ARL Edward Barshaw	TBD Tim Williams
CT29-66-4	Power Distribution & Control – High-Energy, Low-Inductance Pulse Forming Networks (PFNs)	Power Distribution & Control	MGV	TBD	TARDEC/ARL Edward Barshaw	TBD Tim Williams
CT31-78	High Density Packaged Power	Manned Ground Vehicle High Density Packaged Power	MGV	TBD	Dan Herrera/TARDEC Dr. Edward Shaffer/ARL	TBD Bill Siegel

Attachment 5

Reserved

Attachment 6

Data or Software to be Furnished with Restrictions

Technical Data or Computer Software to be Furnished with Restrictions	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
Terrain Commander Software	Developed Exclusively at private expense	Restricted Rights	Textron Systems
Miniature Acoustic Array Software	Developed Exclusively at Private Expense	Restricted Rights	Textron Systems
Electro-Optics Imaging System	Developed Exclusively at Private Expense	Limited Rights	Textron Systems
Distributed Peripheral Sensors (personnel detection)	Developed Exclusively at Private Expense	Limited Rights	Textron Systems
Target Discrimination and Nuisance Rejection	Developed Exclusively at Private Expense	Limited Rights	Textron Systems
Target Tracking and Electro-Optic Cueing	Developed Exclusively at Private Expense	Limited Rights	Textron Systems
C33DSP Microprocessor Architecture	Developed Exclusively at Private Expense	Limited Rights	Textron Systems
All (Corresponding to MIS Sensor)	COTS Equipment	Limited Rights	Thales Defense Limited
All (Corresponding to MIS Magnetomer)	COTS Equipment	Limited Rights	Thales Defense Limited
All (Corresponding to MIS PIR)	COTS Equipment	Limited Rights	Thales Defense Limited
SUO-D INFOSEC Module Detailed Design	Developed Exclusively at Private Expense	Limited Rights	ITT Industries, Aerospace/Communications Division
Low Power Wake-Up Feature Design and Implementation	Developed Exclusively at Private Expense	Government Purpose Rights	ITT Industries, Aerospace/Communications Division
SUO-D-TOA Implementation Methods Source Code	Developed Exclusively at Private Expense	Limited Rights	ITT Industries, Aerospace/Communications Division
SUO-D Modern Signal Acquisition Implementation Source Code	Developed Exclusively at Private Expense	Limited Rights	ITT Industries, Aerospace/Communications Division
SLICE Soldier Radio Waveform Technical Data	Developed Exclusively at Private Expense	Government Purpose Rights	ITT Industries, Aerospace/Communications Division
SUO/SLICE Radio Model Source Code	Developed Exclusively at Private Expense	Limited Rights	ITT Industries, Aerospace/Communications Division

Technical Data or Computer Software to be Furnished with Restrictions	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
SLICE Soldier Radio Waveform Modeling Source Code	Developed Exclusively at Private Expense	Government Purpose Rights	ITT Industries, Aerospace/Communications Division
Software for Unattended Ground Systems architecture (applies to pre-existing software and derivative software developed during performance of UGS subcontract)	Mixed Funding (Government and Private funds)	Government Purpose Rights	Honeywell International Inc., DSES
Design Data (this pre-existing data will be used as is during the performance of UGS)	Developed Exclusively at Private Expense	Limited Rights	Honeywell International Inc., DSES
Computer Software (this pre-existing software will be used as is during the performance of UGS)	Developed Exclusively at Private Expense	Restricted Rights	Honeywell International Inc., DSES
Design Data corresponding to Ademco 5890 Motion Sensor (applies to pre-existing data as well as modified data that will be produced during the performance of UGS)	Pre-existing item developed Exclusively at Private Expense	Limited Rights	Honeywell International Inc., DSES
Computer Software corresponding to Ademco 5890 Motion Sensor Software (applies to pre-existing software as modified software that will be produced during the performance of UGS)	Pre-existing item developed Exclusively at Private Expense	Restricted Rights	Honeywell International Inc., DSES
Design Data corresponding to Magnetic Anomaly HMR-2300 (applies to pre-existing data as well as modified data that will be produced during the performance of UGS)	Pre-existing item developed Exclusively at Private Expense	Limited Rights	Honeywell International Inc., DSES
Computer Software corresponding to Magnetic Anomaly HMR-2300 Software (applies to pre-existing software as modified software that will be produced during the performance of UGS)	Pre-existing item developed Exclusively at Private Expense	Restricted Rights	Honeywell International Inc., DSES
Design Data corresponding to Model 106 Nuclear Sensor (applies to pre-existing data as well as modified data that will be produced during the performance of UGS)	Pre-existing item developed Exclusively at Private Expense (assertion made on behalf of subcontractor)	Limited Rights	Honeywell International Inc., DSES
Computer Software corresponding to Model 106 Nuclear Sensor Software (applies to pre-existing software as modified software that will be produced during the performance of UGS)	Pre-existing item developed Exclusively at Private Expense (assertion made on behalf of subcontractor)	Restricted Rights	Honeywell International Inc., DSES

Technical Data or Computer Software to be Furnished with Restrictions	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
Technical Data for motes/communications platforms	Developed at private expense	Limited Rights	DUST, Inc.
VX Works (commercial operating system)	Developed at private expense	Restricted Rights	BAE SYSTEMS Integrated Defense Solutions, Inc.
Process: Polymer Coating of SAW devices, including improvements	Developed at private expense	Limited Rights	BAE SYSTEMS Integrated Defense Solutions, Inc.
Custom Chemical Polymers for detection of Chemical Warfare Agents (CWAs) and Toxic Industrial Chemicals (TICs), including improvements	Developed at private expense	Limited Rights	BAE SYSTEMS Integrated Defense Solutions, Inc.
Chemical detection, identification and concentration determination signal processing, including algorithms, data sets and software code, including improvements	Developed at private expense	Limited Rights	BAE SYSTEMS Integrated Defense Solutions, Inc.
SAW device passivation technique for chemical detection	Developed at private expense	Limited Rights	BAE SYSTEMS Integrated Defense Solutions, Inc.
Modeling simulations associated with SAW-based chemical detection, including improvements	Developed at private expense	Limited Rights	BAE SYSTEMS Integrated Defense Solutions, Inc.
JCAD & JCAD *ChemSentry*® production process, tooling and equipment, including improvements	Developed at private expense	Limited Rights	BAE SYSTEMS Integrated Defense Solutions, Inc.
Integrated Pneumatics, i.e. chemical detection air control system, including improvements	Developed with Mixed Funds	Government Purpose Rights	BAE SYSTEMS Integrated Defense Solutions, Inc.
Preconcentrator, including improvements	Developed with Mixed Funds	Government Purpose Rights	BAE SYSTEMS Integrated Defense Solutions, Inc.
Video Display Software	Development based on prior projects for different customers & at private expense	Restricted Rights	TEXTRON Systems, Honeywell
EOIS Controller Software	Development based on prior projects for different customers & at private expense	Restricted Rights	TEXTRON Systems, Honeywell
Video Processor Software	Development based on prior projects for different customers & at private expense	Restricted Rights	TEXTRON Systems, Honeywell
Video Processor Data	Development based on prior projects for different customers & at private expense	Restricted Rights	TEXTRON Systems, Honeywell
BAE IFF Interface Control Document, Doc. No. 5001441P	BAE COTS Product – Developed at Private Expense	Limited	Northrop Grumman Systems Corporation, Unmanned Systems

Technical Data or Computer Software to be Furnished with Restrictions	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
BAE IFF CXP Software (CT-1), Doc. No. 1023966P	BAE COTS Product – Developed at Private Expense	Limited	Northrop Grumman Systems Corporation, Unmanned Systems
Kearfott INS/GPS Inertial Sensor Assy (A206C960-10)	Kearfott Product – Developed at Private Expense	Limited	Northrop Grumman Systems Corporation, Unmanned Systems
Kearfott INS/GPS Low Voltage Power Supply (A5737M704-01)	Kearfott Product – Developed at Private Expense	Limited	Northrop Grumman Systems Corporation, Unmanned Systems
Kearfott INS/GPS INS Electronics Assembly (A538C770-02)	Kearfott Product – Developed at Private Expense	Limited	Northrop Grumman Systems Corporation, Unmanned Systems
Kearfott INS/GPS Operational Computer Software	Kearfott COTS Product – Developed at Private Expense	Restricted	Northrop Grumman Systems Corporation, Unmanned Systems
Kearfott INS/GPS GPS Assy (A206E180-01)	Kearfott Purchased Item (Trimble)	Limited	Northrop Grumman Systems Corporation, Unmanned Systems
Vibration Monitor Firmware	Chadwick-Helmuth COTS Product – Developed at Private Expense	Limited	Northrop Grumman Systems Corporation, Unmanned Systems
Radar Altimeter Firmware	Honeywell COTS Product – Developed at Private Expense	Limited	Northrop Grumman Systems Corporation, Unmanned Systems
1553 Bus Module	Condor Engineering COTS Product – Developed at Private Expense	Limited	Northrop Grumman Systems Corporation, Unmanned Systems
Air Pressure Sensor Firmware	Honeywell COTS Product – Developed at Private Expense	Limited	Northrop Grumman Systems Corporation, Unmanned Systems
Air Temperature Sensor Firmware	Goodrich COTS Product – Developed at Private Expense	Limited	Northrop Grumman Systems Corporation, Unmanned Systems
Data associated with Type Certificate #4H12 and Type Certificate Data Sheet #4H12, and all subsequent revisions	Schweizer Aircraft Corporation – Developed at Private Expense	Limited	Northrop Grumman Systems Corporation, Unmanned Systems
Band Track related components: Track Tensioner - Overload compliant track adjuster and extending compliant (Belleville springs) track adjuster	Components developed at private expense	Limited Rights	United Defense LP (GSD)
Power converter cooling and packaging	Technologies developed at private expense	Limited Rights	United Defense LP (GSD)
Vehicle Power Mgmt and Control hardware and software	Hardware/Software developed at private expense	Hdwr – Limited Rights SW – Restricted Rights	United Defense LP (GSD)

Technical Data or Computer Software to be Furnished with Restrictions	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
Hybrid Electric Drive Control Hardware/Software	Hardware/Software developed at private expense	Hdwr – Limited Rights SW – Restricted Rights	United Defense LP (GSD)
Motor Controller Hardware/Software.	Hardware/Software developed at private expense	Hdwr – Limited Rights SW – Restricted Rights	United Defense LP (GSD)
Traction Drive Motor	Technologies developed at private expense	Limited Rights	United Defense LP (GSD)
Power Conversion Electronics	Technologies developed at private expense	Limited Rights	United Defense LP (GSD)
Back-up Braking & Steering System	Technologies developed at private expense	Limited Rights	United Defense LP (GSD)
Hybrid Electric Drive Propulsion Models	Developed at private expense	Limited Rights	United Defense LP (GSD)
DADS Model Input Files	Developed at private expense	Limited Rights	United Defense LP (GSD)
NRMM Model Input Files	Developed at private expense	Limited Rights	United Defense LP (GSD)
LMS TRACK Superelement modified subroutines of DADS (object code only)	Developed at private expense	Restricted Rights	United Defense LP (GSD)
Advanced Cooling Power Converter (ACPC) – is an oil-cooled inverter and features IGBTs that are directly cooled by oil without an intermediate cold plate	Developed under Sacramento, CA Municipal Utilities District Contract No. 4500003112, terms of which state that UDLP shall retain rights to technical data and computer software developed or resulting from the project	Hdwr – Limited Rights SW – Restricted Rights	United Defense LP (GSD)
Top Attack Armor	Developed at private expense	Limited Rights	United Defense LP (GSD)
Signature Management Skin Material Design and Performance Data (description is classified)	Developed at private expense	Limited Rights	United Defense LP (GSD)

Technical Data or Computer Software to be Furnished with Restrictions	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
Transparent Armor Piercing Protection (TRAPP) Armor – is an improved transparent armor piercing protection system that acts as a vision window in an armor system. TRAPP armor comprises angled louvers with mirror surfaces in an aperture in armor. A sheet of transparent material is also provided adjacent to the aperture. Reference U.S. Patent 5,452,641	Developed at private expense	Limited Rights	United Defense LP (GSD)
Background Data	Developed exclusively at private expense	Special License Rights	United Defense LP (GSD)
*Temporally Driven Functional Causal Model (TDFCM) **Including, but not limited to, the following modules:** Model model.command_line model.home model.kbase model.log model.msg_q model.periodic_call model.proxy model.quit model.server.characters model.server.name model.server.xml model.socket.multicast model.socket.tee model.stream model.xml_tree model.task_signals model.alarm model.commands model.home.screen model.kbase.db model.lookup model.msgs model.priority_queue model.publish_subscribe model.resource model.server.dispatch model.server.parameters model.signals model.socket.ping	Developed exclusively at private expense	Special License Rights	United Defense LP (ASD)

Technical Data or Computer Software to be Furnished with Restrictions	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
model.socket.thin			
model.stream.build			
model.xml_tree.kbase			
model.template			
model.asynchronous			
model.dialog			
model.ipc			
model.keyed_message_queue			
model.monitor			
model.multiple_signals			
model.priority_queue.protect			
model.publisher			
model.semaphore			
model.server.html			
model.server.sensor			
model.socket			
model.socket.ports			
model.socket.tuning			
model.stream.chunk			
model.surrogates			
model.text			
model.buffers			
model.fields			
model.ipc.2.ada			
model.keyed_shared_memory			
model.motion			
model.nodes			
model.protected_list			
model.publisher.subscribers			
model.sensor			
model.server.kbase			
model.server.step			
model.socket.connections			
model.socket.publisher			
model.state_machine			
model.stream.data			
model.task_data			
model.text_file_input			
model.call_input			
model.free			
model.ipc.multicast			
model.list			
model.msg_io			
model.one_shot			
model.protected_queue			
model.queue			
model.server			
model.server.tasks			
model.utilities			

Technical Data or Computer Software to be Furnished with Restrictions	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
model.socket.http model.socket.tcp model.step model.stream.message model.task_deferral model.translate			
*Dynamic Object Model (Descendent from TDFCM) **Including, but not limited to, the following modules:** model.audio model.dvs.event model.lib model.video model.camera model.dvs.lib model.server.dvs model.vil model.cory model.dvs.step model.server.vaps model.server.tasks model.cory_plant model.dvs_plant model.server.vil model.dvs model.flybox model.vaps	Developed exclusively at private expense	Special License Rights	United Defense LP (ASD)
*Prototyping Ada Component Environment (PACE)	Developed exclusively at private expense	Special License Rights	United Defense LP (ASD)
*Simulation User Machine Interface Toolkit (SUMIT)	Developed exclusively at private expense	Special License Rights	United Defense LP (ASD)
*Models for crew noise including PARC CFD and structural input models **Including, but not limited to, the following modules:** Model 2.1 RECOIL_V.FOR - Recoil Software Model 8.1 Blast Overpressure Procedure – Crew noise software & procedure	Developed exclusively at private expense	Limited	United Defense LP (ASD)
*Gun Thermal Model	Developed exclusively at private expense	Limited	United Defense LP (ASD)
*Vehicle Thermal Transient Model	Developed exclusively at private expense	Limited	United Defense LP (ASD)

Technical Data or Computer Software to be Furnished with Restrictions	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
*Basis of Estimate Tool	Developed exclusively at private expense	Special License Rights	United Defense LP (ASD)
*Limited Shielding Pulsed-GMAW Welding process and its assoc. Fatigue & Fracture Data	Developed exclusively at private expense	Special License Rights	United Defense LP (ASD)
Inter-Bore Air Regulation System	Provisional Patent and Competition Sensitive	Special License Rights	United Defense LP (ASD)
Background Data	Developed exclusively at private expense	Special License Rights	United Defense LP (ASD)
UD Software Source Code Core Products (Computer Software): MGV System Software Source Code (Common and Variant) including: -System Tactical Software -Vehicle Management System Software -Ammunition Handling Software -Vehicle Safety Software -Hybrid Electric Drive Control Software -Autonomous Control Software -Crew User Interface Software -Crew Tactical Display Drivers Software -Diagnostics and Prognostics Software -Resupply Software	UD Business Proprietary or Competition Sensitive Software Core Capability containing trade secrets, intellectual property or MGV systems software expertise of business strategic interest and competitive advantage. Developed exclusively at private expense	Special License Rights	United Defense LP (ASD)

Technical Data or Computer Software to be Furnished with Restrictions	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
UD Software Core Middleware Products (Computer Software and Technical Data): MGV Systems Software Middleware (Common and Variant) -RTCOE Adapters -MGV System Software Architectural Patterns and Documentation	UD Business Proprietary or Competition Sensitive Software Core Capability containing trade secrets, intellectual property or MGV systems software expertise of business strategic interest and competitive advantage. Developed exclusively at private expense	Special License Rights	United Defense LP (ASD)
UD Software Core Products **(Computer Software & Technical Data – Product Line Vehicle Architecture)** MGV System Product Line Vehicle Architecture (Common & Variant) -Executable Architecture Source Code -Executable Architecture Low Fidelity & High Fidelity Models/Simulations -Executable Architecture Process Documents	UD Business Proprietary or Competition Sensitive Software Core Capability containing trade secrets, intellectual property or MGV systems software expertise of business strategic interest and competitive advantage Developed exclusively at private expense	Special License Rights	United Defense LP (ASD)

Technical Data or Computer Software to be Furnished with Restrictions	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
UD Software Core Products (Technical Data - Design Models): Any MGV Systems development design models (Common and Variant) including: Rose Models (Design) Requirements Models (RTM, Slate)	UD Business Proprietary or Competition Sensitive Software Core Capability containing trade secrets, intellectual property or MGV systems software expertise of business strategic interest and competitive advantage. Developed exclusively at private expense	Special License Rights	United Defense LP (ASD)
UD Software Core Products (Technical Data and Computer Software - Test Suites): MGV Systems Software Test Suite, Capabilities and Software Tools (Common and Variant) -CTS© -Simulation, Emulation, Stimulation (SES©) -MGV Systems Performance Data	UD Business Proprietary or Competition Sensitive Software Core Capability containing trade secrets, intellectual property or MGV systems software expertise of business strategic interest and competitive advantage. Developed exclusively at private expense	Special License Rights	United Defense LP (ASD)

Technical Data or Computer Software to be Furnished with Restrictions	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
UD Software Core Products (Technical Data - Design and Development Artifacts): Program Defined Process (PDP) Artifacts (Common and Variant) -Software Requirement Specifications (SRS)	UD Business Proprietary or Competition Sensitive Software Core Capability containing trade secrets, intellectual property or MGV systems software expertise of business strategic interest and competitive advantage. Developed exclusively at private expense	Special License Rights	United Defense LP (ASD)
UD Software Core Products (Technical Data and Computer Software - Design Prototypes and Studies): Any MGV Systems development design models (Common and Variant) that would contain UD proprietary or competition sensitive technologies including: -Performance Support (PSP) Prototype -Fault Management Demonstrator -Crew Module Demonstrator 2 (CMD2) -Computer Vision Automation System (CVAS[c])	UD Business Proprietary or Competition Sensitive Software Core Capability containing trade secrets, intellectual property or MGV systems software expertise of business strategic interest and competitive advantage. Developed exclusively at private expense	Special License Rights	United Defense LP (ASD)

Technical Data or Computer Software to be Furnished with Restrictions	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
-Trade studies, white papers and analyses			
UD Software Core Products **(Technical Data-Design and** **Development Artifacts):** Any MGV Systems design and development artifacts (Common & Variant) that would contain UD proprietary or competition sensitive technologies including: -Requirement Documents/ Database	UD Business Proprietary or Competition Sensitive Software Core Capability containing trade secrets, intellectual property or MGV systems software expertise of business strategic interest and competitive advantage Developed exclusively at private expense	Special License Rights	United Defense LP (ASD)
UD Software Domain Expertise (Technical Data) Any MGV Systems domain expertise data (Common and Variant) that would contain UD proprietary, competition sensitive and/or trade secret technologies involving the following areas of domain expertise including:	UD Business Proprietary or Competition Sensitive Software Core Capability containing trade secrets, intellectual property or MGV systems software expertise of business strategic interest and competitive advantage. Developed exclusively at private expense	Restricted	United Defense LP (ASD)

Technical Data or Computer Software to be Furnished with Restrictions	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
Fire Missions Indirect Fire Control MRSI Missions Move Shoot Initialization Shutdown Configure Resupply Multi-role Resupply			
Manufacturing historical and company knowledge used to develop the elements of the FCS Scope of Work	Developed exclusively at private expense	Special License Rights	General Dynamics Land Systems Inc.
Mine Blast Structural Design and interface data and documentation to include analysis and test parameters	Developed exclusively at private expense	Limited Rights	General Dynamics Land Systems Inc.
Technical Data Package associated with the Compact Modular Sight utilized as the gunner's sight for the MCS, C2V and R&SV Primary Weapon Systems	Developed exclusively at private expense	Special License Rights	General Dynamics Land Systems Inc.
Surmax Armor design, integration, manufacture processes and ballistic test technical data	Developed exclusively at private expense	Special License Rights	General Dynamics Land Systems Inc.
Advanced Fire Inhibit System (AFIS). This system utili9zes a two stage firing inhibit window that is based on real time transfer function that is a predictor of muzzle motion as a function of input disturbance at the gun mount. The unique element is the activation of a second inhibit window milliseconds before round propellant ignition.	Developed exclusively at private expense	Limited Rights	General Dynamics Land Systems Inc.
AHEAD Vehicle design, drawings, models, specifications and all other technical data associated with the AHEAD vehicle	Developed exclusively at private expense	Special License Rights	General Dynamics Land Systems Inc.
Power Flex Bus design, drawings, specifications, technical data package associated with the Power Flex Bus	Developed with mixed funding of the Government and General Dynamics Land Systems Inc.	Government Purpose License Rights under UDLP Subcontract No: 310308 under Government Contract DAAE30-02-C-1112	General Dynamics Land Systems Inc.

Technical Data or Computer Software to be Furnished with Restrictions	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
105mm design, drawings, specifications and all other technical data associated with the Denel 105mm ammunition	Developed exclusively at private expense of Denel Ltd. Of South Africa	Special License Rights	General Dynamics Land Systems Inc.
Electric Drive System design, drawings, specifications and all other technical data associated with the Magnet Motors electric drive design	Developed exclusively at private expense of Magnet Motors GMBH of Germany	Limited Rights	General Dynamics Land Systems Inc.
Confined Ceramic Armor Materials, design integration approaches, fabrication processes and ballistic test results for titanium encapsulated medium caliber armors	Developed exclusively at private expense	Special License Rights	General Dynamics Land Systems Inc.
Unique ceramic tile shapes and integration approaches designed to provide a combination of superior ballistic and multi-impact performance when ceramic tile arrays are impacted on seams and triple points	Developed exclusively at private expense	Special License Rights	General Dynamics Land Systems Inc.
Open and Closed Circuit Re-breather Concepts and Technical Data/Reports	Developed exclusively at private expense	Limited Rights	General Dynamics Land Systems Inc.
Closed Capsule NBC Collective Protection Concepts and demonstrators	Developed exclusively at private expense	Limited Rights	General Dynamics Land Systems Inc.
Ceramic Oxygen Generator System (COGS) All technical, design data and manufacturing processes associated with COGS	Developed exclusively at private expense of Litton Life Support of Northrop Grumman Co.	Limited Rights for Hardware/Restricted Rights for Software	General Dynamics Land Systems Inc.
Regenerative Metal Oxide Carbon Dioxide Scrubber All technical, design data and manufacturing processes associated with this product.	Developed exclusively at private expense of Hamilton Sunstrand	Limited Rights	General Dynamics Land Systems Inc.
Solid Amine Carbon Dioxide Scrubbing System All technical, design data and manufacturing processes associated with this system	Developed exclusively at private expense of Astrium Space Systems	Limited Rights for data/Restricted Rights for Software	General Dynamics Land Systems Inc.
Technical Data Package associated with in-wheel electric drive propulsion system	Developed exclusively at private expense	Special License Rights are claimed in the in-wheel electric drive propulsion system Technical Data package.	General Dynamics Land Systems Inc.

Technical Data or Computer Software to be Furnished with Restrictions	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
		Government Purpose Rights will be provided in the top-level schematics, diagrams, architecture, system interfaces and system demand data.	
Technical Data Package associated with the steering system	Developed exclusively at private expense	Special License Rights are claimed in the 8x8 Advanced Hybrid Electric Drive Vehicle steering system Technical Data package.	General Dynamics Land Systems Inc.
		Government Purpose Rights will be provided in the top-level schematics, diagrams, architecture, system interfaces and system demand data.	
Technical Data Package associated with the suspension system	Developed exclusively at private expense	Special License Rights are claimed in the 8x8 Advanced Hybrid Electric Drive Vehicle suspension system Technical Data package. Government Purpose Rights will be provided in the top-level schematics, diagrams, architecture, system interfaces and system demand data.	General Dynamics Land Systems Inc.

Technical Data or Computer Software to be Furnished with Restrictions	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
Technical Data Package associated with the pneumatic system	Developed exclusively at private expense	Special License rights are claimed in the 8x8 Advanced Hybrid Electric Drive Vehicle pneumatic system Technical Data package. Government Purpose rights will be provided in the top-level schematics, diagrams, architecture, system interfaces and system demand data.	General Dynamics Land Systems Inc.
Modular Air Revitalization System technical and design data	Developed exclusively at private expense	Limited Rights	General Dynamics Land Systems Inc.
All technical data, computer software and technical data associated with computer software that is used during the performance of this subcontract butis not a deliverable under this subcontract	Developed exclusively at private expense	Special License Rights	General Dynamics Land Systems Inc.
All Patents and Patents Pending, that will be used or practiced during performance of this subcontract but are not a deliverable or have not been conceived or first actually reduced to practice under this subcontract.	Developed exclusively at private expense	Special License Rights	General Dynamics Land Systems Inc.
MGV software architecture document drawings and specifications, including source code and object code	Developed exclusively at private expense	Restricted Rights	General Dynamics Land Systems Inc.
Embedded software architecture document, drawings and specifications including source code and object code	Developed exclusively at private expense	Restricted Rights	General Dynamics Land Systems Inc.
Firing Control Algorithm, architecture document, drawings and specifications including source code and object code	Developed exclusively at private expense	Restricted Rights	General Dynamics Land Systems Inc.

Technical Data or Computer Software to be Furnished with Restrictions	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
Training Delivery software and models, architecture document, drawings and specifications including source code and object code	Developed exclusively at private expense	Restricted Rights	General Dynamics Land Systems Inc.
Software algorithm that predicts what the gun muzzle angle (and/or other gun dynamic states), architecture document, drawings and specifications including source code and object code	Developed exclusively at private expense	Restricted Rights	General Dynamics Land Systems Inc.
Gun Muzzle stabilization software algorithm, architecture document, drawings and specifications including source code and object code	Developed exclusively at private expense	Restricted Rights	General Dynamics Land Systems Inc.
8-Round 120-mm Tank Rearm Magazine, GDATP Report 93APB502, Francisco E. Velasquez, 2/11/1993	Developed exclusively at private expense	Special License Rights	General Dynamics Land Systems Inc.
Magazine Technology, GDATP Assemblies SKDAR98177 SKDAR98180, Derek A. Rodriguez, 1998-1999	Developed exclusively at private expense	Special License Rights	General Dynamics Land Systems Inc.
MCS Ammunition Handling System Concepts, GDATP presentations dated 4/1/03 and 4/29/03, Robert M. Preuss and Derek Rodriguez, 2003	Developed exclusively at private expense	Special License Rights	General Dynamics Land Systems Inc.
Polymer resin formulations	Developed exclusively at private expense	Special License Rights	General Dynamics Land Systems Inc.
Computer software used for design and analysis of composite structures	Developed exclusively at private expense	Special License Rights	General Dynamics Land Systems Inc.
Computer software used to program and control filament winding equipment and cure apparatus.	Developed exclusively at private expense	Special License Rights	General Dynamics Land Systems Inc.
Equipment, processes and software for resin impregnation of fiber reinforcements	Developed exclusively at private expense	Special License Rights	General Dynamics Land Systems Inc.
Commercial Structural Analysis codes	Developed exclusively at private expense of Western Design	Special License Rights	General Dynamics Land Systems Inc.
Design allowables data	Developed exclusively at private expense	Special License Rights	General Dynamics Land Systems Inc.

DAAE07-03-9-F001
PZ0007
Attachment 6

Technical Data or Computer Software to be Furnished with Restrictions	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
Test Software VxWorks Board Support and Drivers Software Acceptance Test For FCS use in Analog Input/Output Circuit Card Assy	Developed exclusively at private expense of Vista Controls	Restricted Rights	General Dynamics Land Systems Inc.
Test Software VxWorks Board Support and Drivers Software Acceptance Test For FCS use in Digital Input/Output Circuit Card Assy	Developed exclusively at private expense of Vista Controls	Restricted Rights	General Dynamics Land Systems Inc.
Test Software VxWorks Board Support and Drivers Software Acceptance Test For FCS Serial PCI Mezzanine Circuit (SPMC) Card Assembly	Developed exclusively at private expense of Vista Controls	Restricted Rights	General Dynamics Land Systems Inc.
Test Software VxWorks Board Support and Drivers Software Acceptance Test For FCS Communications PCI Mezzanine Circuit (Com PMC) Card Assembly	Developed exclusively at private expense of Vista Controls	Restricted Rights	General Dynamics Land Systems Inc.
Test Software VxWorks Board Support and Drivers Software Acceptance Test For FCS 1553 Circuit Card Assembly	Developed exclusively at private expense of Vista Controls	Restricted Rights	General Dynamics Land Systems Inc.

Technical Data or Computer Software to be Furnished with Restrictions	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
Test Software VxWorks Board Support and Drivers Software Acceptance Test VXWorks Operating System Support -- Multiple Versions For FCS Persona Power Computer Circuit Card Assembly Generation 3	Developed exclusively at private expense of Vista Controls	Restricted Rights	General Dynamics Land Systems Inc.
Test Software VxWorks Board Support and Drivers Software Acceptance Test VXWorks Operating System Support -- Multiple Versions For FCS Persona Power Computer Circuit Card Assembly Generation 4	Developed exclusively at private expense of Vista Controls	Restricted Rights	General Dynamics Land Systems Inc.
Test Software VxWorks Board Support and Drivers Software Acceptance Test VX Works Operating System Support -- Multiple Versions P3A (Pentium 3 Processor) Circuit Card Assembly	Developed exclusively at private expense of Vista Controls	Restricted Rights	General Dynamics Land Systems Inc.
Western Design Compact Auto Loader Software 29K Controller Library	Developed exclusively at private expense of Vista Controls	Restricted Rights	General Dynamics Land Systems Inc.
Firmware for FPGA 1-DESIGN CONFIGURATION	Developed exclusively at private expense of Vista Controls	Restricted Rights	General Dynamics Land Systems Inc.

DAAE07-03-9-F001
PZ0007
Attachment 6

Technical Data or Computer Software to be Furnished with Restrictions	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
Firmware for FPGA 2-DESIGN CONFIGURATION	Developed exclusively at private expense of Vista Controls	Restricted Rights	General Dynamics Land Systems Inc.
Compact Autoloader Patents #5,756,923, Michael D. Golden 5/26/1998	Developed exclusively at private expense of Western Design	Limited Rights	General Dynamics Land Systems Inc.
Compact Bustle Magazine-Patent #5,456,154, Michael D Golden, 10/10/1994	Developed exclusively at private expense of Western Design	Limited Rights	General Dynamics Land Systems Inc.
Zipper Chain Projectile Rammer-Patent #5,895,880, Michael D. Golden, 4/20/1999	Developed exclusively at private expense of Western Design	Limited Rights	General Dynamics Land Systems Inc.
Endless Conveyor System, Patent #4,263,837, Douglas P. Tassie, 4/28/1981	Developed exclusively at private expense	Special License Rights	General Dynamics Land Systems Inc.
Magazine Conveyor for Large Caliber Ammunition, Patent #5,131,315, David L Maher and others 7/21/1992	Developed exclusively at private expense	Special License Rights	General Dynamics Land Systems Inc.
Propellant Magazine for Field Artillery Piece, Patent #5,170,006, David L. Maher and others 12/8/1992	Developed exclusively at private expense	Special License Rights	General Dynamics Land Systems Inc.
Ammunition Bucket Carriers for Magazine Conveyors, Patent #5,175,388, David L. Maher, 12/29/1992	Developed exclusively at private expense	Special License Rights	General Dynamics Land Systems Inc.
Ammunition Transfer Apparatus for Uploading and Downloading a Magazine, Patent 5,212,338, David L Maher, 5/18/1993	Developed exclusively at private expense	Special License Rights	General Dynamics Land Systems Inc.
Automated Ammunition Handling System Patent, #5,223,663, Jeffrey P.Johnson, 6/29/1993	Developed exclusively at private expense under US Government Contract #DAAA22-89-C-0144	Special License Rights	General Dynamics Land Systems Inc.
Logistical Support Apparatus for Weapons Vehicles, Patent #5,243,896, Derek A Rodriguez, 9/14/1993	Developed exclusively at private expense	Special License Rights	General Dynamics Land Systems Inc.
Active Ammunition Magazine with Improved Chain Conveyor, Patent #5,594,192, Derek A. Rodriguez, 1/14/1997	Developed exclusively at private expense	Special License Rights	General Dynamics Land Systems Inc.

DAAE07-03-9-F001
PZ0007
Attachment 6

Technical Data or Computer Software to be Furnished with Restrictions	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
Method and Apparatus for Storing and Handing Propellant Charge Units, Patent #6,170,380B1, Joseph F. Bender-Zanoni and others, 1/9/2001	Developed exclusively at private expense under US Government Contract #DAAA30-95-C-0009	Special License Rights	General Dynamics Land Systems Inc.
Apparatus for Storing Charge Units, Patent #6,490,958, Franklin D. Krol and Craig S. Charest, 12/10/2002	Developed exclusively at private expense under US Government Contract #DAAA30-95-C-0009	Special License Rights	General Dynamics Land Systems Inc.

Attachment 7

OFFICE SPACE AND ADMINISTRATIVE SUPPORT

A. Army Installations Requiring Boeing On-Site Support

1. The work required to successfully perform the SDD Phase necessitates that the LSI provide full-time, on-site personnel distributed at the below listed Army installations.

2. Following are the Army installations where Post support will be required:

No.	Army Installations	Number of People	Need Date	End Dates	IPT
G1	Ft. Knox (UAMBL)	4	6/1/2003	SoSI&V	TRN
G2	Ft. Knox	11	6/1/2003	SoSI&V	FDT
G3	Ft. Monroe	1	6/1/2003	SoSI&V	FDT
G4	Ft. Sill	1	6/1/2003	SoSI&V	FDT
G5	Ft. Lee	1	6/1/2003	SoSI&V	FDT
G6	Ft. Leavenworth	1	6/1/2003	SoSI&V	FDT
G7	Ft. Leonard Wood	1	6/1/2003	SoSI&V	FDT
G8	Ft. Benning	1	6/1/2003	SoSI&V	FDT
G9	Ft. Gordon	1	6/1/2003	SoSI&V	FDT
G10	Ft. Rucker	1	6/1/2003	SoSI&V	FDT
G11	Ft. Huachuca	1	6/1/2003	SoSI&V	FDT
G12	Ft. Eustis	1	6/1/2003	12/30/2011	TRN
G13	Ft. Monroe	2	6/1/2003	12.30/2011	C4I
G14	Ft. Belvoir	3	6/1/2003	10/1/2008	C4I
G15	Ft. Monmouth	10	6/1/2003	12/31/2011	C4I
G16	TACOM-Warren	1	6/28/2005	7/4/2005	MGV
G17	Ft. Lee	1	6/1/2003	1/1/2011	LOG
G18	APG	4	1/1/2004	Test Complete	IST
G19	WSMR	5	1/1/2004	Test Complete	IST

3. The Government agrees to provide, as a minimum, the Post access, office space, furniture, telephone and computer equipment services, miscellaneous office supplies, miscellaneous administrative support, etc. described below. The requested support identified below is per-person.

(a) Post access shall be provided, as appropriate, to allow LSI on-site personnel to perform their assigned duties. Post access to include vehicle decals, personal identification and badging. Parking shall be provided within a reasonable distance to office spaces.

(b) Office space provided shall be equal to those provided to Government personnel of similar rank or title, performing similar type work activities. Offices spaces shall be heated, cooled, ventilated and lighted as is provided for Government employees.

(c) Office furniture provided shall include, as a minimum, (1) four (4) 110v receptacles, (2) standard desk and ergonomic chair, (3) computer table designed for such use, (4) standard work table and two (2) visitor chairs, (5) a two (2) drawer filing cabinet and a two (2) shelf bookcase, and (6) coat rack.

(d) Telephone equipment provided shall be multi-line and have voice mail, speaker, conference call and headset capability and the ability to dial direct and long-distance. Use of a secure telephone will be provided, as required.

(e) Computing resources shall include Post LAN access to Army resources and Internet access same as is provided for site Government employees. Hardware and software technical support will be provided as required. Access to printers, plotters, fax machines, copiers and other office equipment, will be provided.

(f) FCS SECRET network systems, with provision for classified storage, as otherwise available at that location.

(g) Miscellaneous office supplies and administrative support shall be provided, as required.

B. Boeing and Subcontractor Locations Requiring Government On-Site Support

1. Following are the Boeing and subcontractor locations where Government support will be required:

No.	Boeing Location	Number of People	Need Date	End Dates	IPT
B1	Huntington Beach	7	1/2/2004	12/31/2011	C4I
B2	Seattle	7	1/2/2004	12/31/2011	C4I
B3	Rosslyn	10	10/1/2003	Test complete	IST
B4	Philadelphia	5	1/1/2004	1/1/2011	LOG
B5	St. Louis	2	1/1/2004	1/1/2011	LOG
B6	Huntsville	1	1/1/2004	1/1/2011	LOG
B7	St. Louis	1	5/30/2003	1/1/2011	PM, FCS
B8	Washington, DC	13	1/1/2004	1/1/2011	LOG

No.	Subcontractor Location	Number of People	Need Date	End Dates	IPT
S1	Huntsville-SAIC	6	1/4/2003	9/30/2004	UGV
S2	Huntsville-SAIC	8	10/1/2004	9/30/2007	UGV
S3	Huntsville-SAIC	6	10/1/2007	9/30/2009	UGV
S4	Orlando-SAIC	15	1/1/2004	12/30/2011	TRN
S5	Vienna-SAIC	22	10/1/2003	12/30/2011	SDT

Attachment 8

Integrated Master Plan

Future Combat Systems

System Development and Demonstration

Integrated Master Plan

DOCUMENT NUMBER:	RELEASE/REVISION:	RELEASE/REVISION DATE:
D786-10019-1	REV A	November 14, 2003

CONTENT OWNER:
System of Systems Engineering & Integration
All future revisions to this document must be approved by the content owner before release.

Document Information

Document Type	Original Release Date	Contract Number (if required)
Formal	See below.	DAAE07-03-9-F001
Preparing Organization (if different from owning organization)		Hardware and Software Used PC Microsoft Word 2000
Location of Software Files (optional)		
Boeing Web URL (optional)		
Notes and Limitations (optional) This document was originally delivered as "IMP-D786-10019-1". This is the original release for "D786-10019-1." Author of this document is Frank P. Leo.		

Signatures for original release

AUTHOR:	/s/ on ACE Hedley Morrison	1B-01-614 Org. Number	May 23, 2003 Date
APPROVAL:	/s/ on ACE Mary Ek	1B-01-612 Org. Number	May 23, 2003 Date
APPROVAL:	/s/ on ACE Roy E. Minson	1B-01-615 Org. Number	May 30, 2003 Date
DOCUMENT RELEASE:	/s/ on ACE Joanne Wilson	9S-7S-721R Org. Number	May 30, 2003 Date

DAAE07-03-9-F001
PZ0007
Attachment 8

Table of Contents

Abstract.....vii

1. Introduction..... 1

    1.1 IMP Description..... 1
    1.2 IMP Standard Verb List..... 2

2. FCS Integrated Master Plan (IMP) Listing..... 5

Revision Record.....47

List of Tables

Table 1-1 List of Standard FCS IMP Verbs... 2
Table 2-1 FCS IMP Listing 5
Table 2-2 IPT Code Definitions 46

DAAE07-03-9-F001
PZ0007
Attachment 8

Abstract

This document contains the listing of the Future Combat System (FCS) Integrated Master Plan (IMP) for the System Design and Development (SDD) program.

Introduction

1.1 IMP Description

The FCS Integrated Master Plan (IMP) implements the product orientation of the Integrated Product and Process Development (IPPD) philosophy. The IMP was developed to provide a product development logical sequence to our statement of work and product oriented WBS. All our the FCS Integrated Product Team (IPT) leaders and members collaborated with the Systems-of-Systems Engineering and Integration (SEI) integrated product development (IPD) planners and the government representatives to develop the IMP and Integrated Master Schedule (IMS), so it contains an effective and implementable logical series of Program Events (PE), Significant Accomplishments (SA), Accomplishment Criteria (AC), and allocated tasks for the total period of performance for the FCS SDD program.

The IMP PEs, SAs, and ACs provide the logical roadmap and sequential flow necessary to manage the entire program. The IMP/IMS development approach utilizes a single master scheduling database that includes the IMP and supporting IMS tasks. All IPTs perform tasks that roll up and are directly traceable to the IMP PEs, SAs and ACs.

It is our intention for the responsible IPTs to have Program Office counterpart-participants who will first hand observe the IPTs accomplishment of tasks, ACs and SAs. The IPT leaders monitor and control the completion using earned value management system (EVMS), internal audits, risk management, and other supporting processes and metrics to status progress. The IPTs efforts culminate in an event closure evidence and recommendation of closure acceptance to the next higher level IPT within the product team structure.

The definitions of PEs, SAs and ACs are as follows:

Program Events. PEs represent significant progress decision points that relate system maturity with continued system development. PEs are distributed throughout the contract period and define specific FCS control gates and milestones.

Significant Accomplishments. SAs represent the closure (i.e., accomplishment) of sequenced interim and critical activities that must be completed as entry-level or exit-level constraints for the completion of a PE. They provide a logical path toward product completion. Completion demonstrates that the appropriate closure criteria were achieved and products are ready to be used as building blocks for subsequent activities. SAs define interim and final steps on the path to define, design, develop, produce, integrate, test, and verify the product or system in support of the SOW and other contractual documentation. SAs are organized around the product and event to be supported. Closure of all SAs is a requirement for passage of the event to which they belong.

Accomplishment Criteria. ACs are definitive measures that are used to judge the completion of each SA and demonstrate results. When all of the ACs that define an SA are met, then the SA is satisfactorily completed. ACs are used to highlight specific areas of the work effort collected into sets. These sets make management and management control-tool products (for example, technical parameter tracking, risk monitoring, and critical process or incremental product verification) more effective to monitor and control. Standard verbs associated with ACs are defined clearly in Table 1-1, so that all parties understand the requirements for successful AC completion.

1.2 IMP Standard Verb List

The standard list of verbs used in the FCS IMP to express closure of the SAs and ACs is shown in Table 1-1, together with a verb description.

Table 0-1 List of Standard FCS IMP Verbs

Verbs	Verb Description for IMP activity
Agreed Upon	An authorized party of the Contractor enters into an agreement with the customer, the customer's government, the U.S. government, other companies, or with organizations within the Contractor and the agreement is documented in writing and signed by all parties.
Allocated	The subject parameter has been subdivided or apportioned into parts according to the appropriate product manager. A document that shows the allocation and acceptance has been prepared and is available in Advanced Collaborative Environment (ACE) or other media as required for timely and complete access to the information.
Analyzed	The subject parameter has been technically evaluated through equations, charts, and reduced data.
Approved	The subject configuration item, data, or document has been submitted to the appropriate authority, which has notified the team that it is acceptable.
Available	The subject configuration item, tool, or process is in place or operational. The subject data or document has been added to, and it is accessible in ACE or other media as required for timely and complete access to the information.
Baselined	The subject design, parameter, concept, or configuration item has been finalized, received management approval and is under configuration control.
Compiled	Information/dates have been gathered, cleaned up, and put together to form a definitive document and/or analysis.
Completed	The subject configuration item, data, or document has been prepared and reviewed by contractor management and is available in ACE or other media as required for timely and complete access to the information.
Conducted	The subject event or review has been held and minutes completed.
Defined	The subject configuration item, data, or document has been described in an appropriate description document, which is available in ACE or other media as required for timely and complete access to the information.
Delivered	The subject configuration item, data, or document has been accepted in the form and at the location specified in the contract.
Demonstrated	The subject configuration item, data, or document has been shown to be in accordance with contract requirements through measures where success or failure is determined by observation.
Developed	The subject configuration item, data, or document has been produced through a

Verbs	Verb Description for IMP activity
	sequence of activities that may include planning, design, test, and verification.
Documented	The subject area has been compiled, edited, and put into a draft format for review or in final form.
Established	The subject has been created and set in place in a manner consistent with its intended use (e.g., procedures, baselines established).
Evaluated	A measured comparison of the subject with contract requirements has been completed, and results are in ACE or other media as required for timely and complete access to the information.
Finalized	The subject data or document is complete, has contractor management approval, and may not be changed without formal revision control.
Generated	Data has been created or results have been established or information has been made available to satisfy a goal or expectation.
Identified	The characteristics of a configuration item, process, or function have been made known for the first time.
Implemented	The subject policy, approach, or procedure is being regularly executed.
Incorporated	Information has been obtained and included/combined into subject document/data item.
Initiated	The subject approach or procedure has been started.
Integrated	The subject has been consolidated into an entity (e.g., data, requirement, document, configuration item) by appropriately combining all separate requirements, functional disciplines, and configuration item considerations.
Negotiated	The subject item has been proposed by one party to another, exchanges between parties have taken place and the parties have arrived at an agreement which is documented in writing and sign by both parties.
Performed	A task or assignment has been carried out in accordance with directions, guidelines, and established processes.
Prepared	The subject item has been created, documented, and transferred in acceptable format for review.
Provided	The subject configuration item has been completed and delivered to the receiving agency.
Released	The subject data or document has received all necessary Government and contractor IPT approvals, has been completely distributed, and is available through ACE or other means as required for timely and complete access to the information.
Resolved	Successful determination or solution to an issue or problem declared in writing
Reviewed	The subject data document has been examined critically and satisfies predefined requirements.
Revised	The subject configuration item, data, or document has been updated to account for new requirements and/or facts.
Submitted	Provided to the customer for information or for approval when approval is required beyond that of customer participation in IPT approvals.
Supported	Prime activity has been supplemented and enhanced by providing data, information, or manpower.
Updated	The subject process, data, or document has been reevaluated based on later information, and adjustments have been incorporated.
Validated	The subject requirement, configuration item, data, or document has been reviewed for technical compliance by the contractor, using existing approved procedures, instructions, and checklists.

Verbs	Verb Description for IMP activity
Verified	The subject configuration item, data, or document has been proved to be in accordance with contract requirements by analysis, inspection, demonstration, or test.

2. FCS Integrated Master Plan (IMP) Listing

The FCS IMP indentured listing provided in Table 2-1 shows the Program Events (PE), Significant Accomplishments (SA) and Accomplishment Criteria (AC) defined for the SDD program. It also includes the unique identifier for each IMP item. This identifier is carried over into the IMS so one single integrated database can be maintained for the IMP and IMS. The FCS IMP uses a color-coding as well as an indenture to identify the PEs, SAs, and ACs. PEs are level 1 and are red, SAs are at the second level and are green, and ACs are at level 3 and are blue. In addition, the listing identifies the IPT with primary responsibility for each AC. The IPT code definitions are contained in Table 2-2.

Table 2-1 FCS IMP Listing

OL	PE	SA	AC	Description
1	B00A			Contract Award
1	B01A			System of Systems Requirements Review
2	B01A	010		SoS Requirements and Architecture Updated
3	B01A	010	010	Specification and product tree revised
3	B01A	010	020	System of Systems Operational Views Initial Submission Completed
3	B01A	010	030	SoS System Views Initially Drafted
3	B01A	010	040	Update AV2 to reflect SV Updates
3	B01A	010	050	Update TV-1 & Align with C4ISP TV-1
3	B01A	010	060	SoS Architecture Development Plan Drafted
3	B01A	010	070	SoS Functional Decomp/Analyses compl essential to initial allocations
3	B01A	010	080	Sec 3 Requirements Allocation Update
3	B01A	010	090	SoS TPMs initially drafted to support SoS spec
3	B01A	010	100	SoS/Segment/System trades essential to support SoS Spec
3	B01A	010	110	SoS Specification VCRI updated
3	B01A	010	120	SoS Specification (all sections) aligned to the JROC (April) ORD
3	B01A	010	130	Force Development DOTML-PF design, analysis, and assessments updated
3	B01A	010	140	FCS UA Objective Capabilities Specification
2	B01A	020		Initial Segment (Distributed Systems) Requirements Drafted
3	B01A	020	010	C4ISP Updated
3	B01A	020	020	Initial C4ISR Distributed System Specification (DSS)
3	B01A	020	030	Initial Training Distributed System Specification (DSS)
3	B01A	020	040	Material fielding plan updated
3	B01A	020	050	RAM-T analysis to support subsequent Plan
3	B01A	020	060	Supportability Strategy updated

DL	PE	SA	AC	Description
3	B01A	020	070	Initial Sustainment Distributed System Specification (DSS)
2	B01A	030		**Software Requirements/Architecture Product Updates**
3	B01A	030	010	SoS SADD initially drafted
3	B01A	030	020	Sus COE SSS, SRS Update
3	B01A	030	030	FCS Software Development Plan
3	B01A	030	040	Phased Software Integration Plan
3	B01A	030	050	Software Configuration Management Plan
3	B01A	030	060	Software Measurement Plan
3	B01A	030	070	COTS & Other Software Reuse Mgt Plan
3	B01A	030	080	Software Quality Assurance Plan
2	B01A	040		**Interfaces Identified and ACAs Updated**
3	B01A	040	010	FCS Internal Hardware Interfaces Identified
3	B01A	040	020	FCS Internal Software Interfaces Identified
3	B01A	040	030	FCS External/CP Interfaces Identified via EHCD
3	B01A	040	040	FCS CP External Interfaces go forward plan for capturing via ACAs/Scope Sheets ICD Template info
3	B01A	040	050	Complementary Programs Priority 1 Detailed ACAs completed
2	B01A	050		**Integration & Verification documents updated**
3	B01A	050	010	SoS Integration plan Updated
3	B01A	050	020	SoS Verification plan Updated
3	B01A	050	030	SoS integration lab development plan updated
3	B01A	050	040	SoS Analysis Plan (SAP) Drafted
3	B01A	050	050	C4ISR Software Integration & Test Plan Drafted
3	B01A	050	060	C4ISR Software Simulation Integration Plan Drafted
2	B01A	060		**Management, Engineering & design product Updates**
3	B01A	060	010	Initial DPD capability implemented
3	B01A	060	020	Systems engineering management plan Updated
3	B01A	060	030	Training management plan Updated
3	B01A	060	040	Training Data Product Updated
3	B01A	060	050	Interoperability Analyses documented
3	B01A	060	060	Manpower Requirements Criteria (A042) prepared
3	B01A	060	070	Trade study plan updated
3	B01A	060	080	Technology Development Strategy
3	B01A	060	090	Programmatic and Environmental safety and Health evaluation updated
3	B01A	060	100	Risk management Plan Updated
3	B01A	060	110	Draft Complementary Programs management control plan developed
3	B01A	060	130	Program Protection & Certification Plan Updated
3	B01A	060	150	SDD Simulation Support Plan Updated
2	B01A	070		**System of Systems assessment updated**
3	B01A	070	010	SoS affordability analysis & LCC Containment Plan Updated
3	B01A	070	020	SoS Effectiveness analysis performed
3	B01A	070	030	SoS Scenarios and Threat Updates reviewed
2	B01A	080		**System of Systems requirements review conducted**
3	B01A	080	010	Meeting conducted, and agreed upon action items/closure plans documented
1	B02A			**Program Definitization**
2	B02A	010		Kickoff Completed

OL	PE	SA	AC	Description
3	B02A	010	010	Management Plans and Processes Established
3	B02A	010	020	Organization Established
3	B02A	010	030	ACE Established
3	B02A	010	040	EVMS Interim (4-6 mo) baseline established
3	B02A	010	050	Kick-Off Conducted
2	B02A	020		Major Subcontracting Activities performed
3	B02A	020	010	Approved subcontract management plan released
3	B02A	020	020	Prioritized Risk Assessments and Mitigation Plans of subcontracts Complete (Incl EAC)
2	B02A	030		Integrated Baseline Review (IBR) Phase 1 Conducted
3	B02A	030	010	IMP/IMS Updated
3	B02A	030	020	FY04 / FY05 Resource Loading Into OPP/Cobra Completed
3	B02A	030	030	Initial IMS Critical Path Analysis Performed
3	B02A	030	040	LSI Processes to Integrate Subcontractor Cost/Schedule Data Reviewed
3	B02A	030	050	Preliminary Schedule for Major Subcontractor IBRs Developed
3	B02A	030	060	Phase 1 IBR Meeting conducted and agreed upon action items documented
2	B02A	040		Draft Complementary Programs MOAs/SMOAs developed
3	B02A	040	010	All MOAs/SMOAs signed
3	B02A	040	020	All Preliminary Draft ACAs completed
2	B02A	050		Contract negotiation Completed
3	B02A	050	010	IMP Definitization Completed
3	B02A	050	020	Programmatic and Technical Risks Identified and Mitigation Plans Updated
3	B02A	050	030	Contract Negotiated/Signed
3	B02A	050	040	Update Contract and all attachments
1	B03A			System of Systems Design Concept Review
2	B03A	010		SoS Requirements Updated
3	B03A	010	010	SoS Architectures Baselined
3	B03A	010	020	SoS Functional Decomp/Analyses compl essential to compl requirements allocation thru DSSs/PIDS
3	B03A	010	030	See 3.7 Requirements Allocation Update
3	B03A	010	040	SoS TPMs properly allocated down thru DSS/FoS (by product teams)
3	B03A	010	050	SoS/Segment/System trades essential to support SoS Spec/DSS/PIDS
3	B03A	010	060	SoS Specification (all sections) Updated
3	B03A	010	070	FCS UA Objective Capabilities Specification Updated
2	B03A	020		Segment (Distributed Systems) Requirements Updated
3	B03A	020	010	Distributed Systems Architectures Updated
3	B03A	020	020	C4ISR Distributed System Specification Updated (DSS)
3	B03A	020	040	Training Distributed System Specification Updated (DSS)
3	B03A	020	050	RAM-T analysis Updated
3	B03A	020	060	Performance Based Logistics Implementation Plan
3	B03A	020	070	Supportability Strategy Updated
3	B03A	020	080	Materiel Fielding Support Plan Update
3	B03A	020	090	Supportability Data Management Plan
3	B03A	020	110	Sustainment Distributed System Specification Updated (DSS)

OL	PE	SA	AC	Description
2	B03A	030		Software Requirements/Architecture Product Updates
3	B03A	030	030	Software Requirements Defined
3	B03A	030	070	Software Configuration Management Plan Updated
3	B03A	030	080	Software Quality Assurance Plan Updated
3	B03A	030	090	Software Measurement Plan Updated
3	B03A	030	100	COTS and Other Software Reuse Management Plan (CSRMP) Updated
2	B03A	040		FoS Requirements Allocation
3	B03A	040	010	Segment/Systems/Platform SRRs Completed
3	B03A	040	020	FoS Architectures updated
3	B03A	040	030	Draft platform/system prime item development specifications prepared
2	B03A	050		Interfaces Documentation Updated and ACAs Updated
3	B03A	050	010	FCS Internal Hardware Interface Control Documents (ICDs) Updated
3	B03A	050	020	FCS Internal Software Interface Control Documents (ICDs) Drafted
3	B03A	050	030	Update EHCD -FCS External/CP Interfaces
3	B03A	050	040	CP/Ext. Interface ICDs Drafted
3	B03A	050	050	Complementary Programs Priority 2 Detailed ACAs completed
2	B03A	060		Initial joint LSI/Suppliers/Vendors Design Concept Integration Assessed
3	B03A	060	010	C4ISR installed performance requirements reviewed
3	B03A	060	020	Distributed systems implementation concepts reviewed
3	B03A	060	030	Functional allocation reviewed for each platform - including SoS/Segment allocations
3	B03A	060	040	Initial platform conceptual configuration definitions reviewed
3	B03A	060	050	Requirements/concept discrepancies identified
3	B03A	060	060	Requirements/concept Discrepancies Prioritized
3	B03A	060	070	Plans & Trades to resolve discrepancies identified
2	B03A	070		Management, Engineering & Design Product Updates
3	B03A	070	010	Improved DPD capability implemented
3	B03A	070	020	Expanded ACE capabilities implemented
3	B03A	070	030	Trade study plan updated
3	B03A	070	040	Interoperability and IERs reviewed
3	B03A	070	050	Technology Development Strategy
3	B03A	070	060	Programmatic and Environmental safety and Health evaluation updated
3	B03A	070	070	Training Data Product Updated
3	B03A	070	080	Training Facilities Survey Report
3	B03A	070	090	FCS UoA Manpower Requirements Criteria Updated
3	B03A	070	100	Complementary Programs management control plan finalized

OL	PE	SA	AC	Description
3	B03A	070	120	Program Protection & Certification Plan Updated
3	B03A	070	130	SoS affordability analysis & LCC Containment Plan Updated
3	B03A	070	150	SoS Risk Assessments & Mitigation Plans Updated
3	B03A	070	160	SoS Design Integration Updated
2	B03A	080		System of Systems functional review conducted
3	B03A	080	010	Meeting conducted, and agreed upon action items/closure plans documented
1	B03B			System of Systems Functional Review
2	B03B	010		LSI/Supplier/Vendor Integrated Design Concepts and Functional Allocations Reassessed at SoS Level
3	B03B	010	010	C4ISR installed performance requirements updated
3	B03B	010	020	Distributed systems implementation concepts updated
3	B03B	010	030	Functional allocation updated for each segment/platform
3	B03B	010	040	Platform conceptual configuration definitions Updated
3	B03B	010	050	SoS/Segment/System trades essential to support finalization of SoS SFR (A034 Trade Study Report)
3	B03B	010	060	Requirements/concept discrepancies documented
3	B03B	010	070	Initial System Design Document Drafted (A007)
3	B03B	010	080	Major System Integration Laboratory's Hardware Designs Completed
2	B03B	020		SoS requirements and architecture updates
3	B03B	020	010	System of Systems architecture updated
3	B03B	020	020	System of Systems specification updated
3	B03B	020	030	FCS UA Objective Capabilities Specification Updated (A044)
3	B03B	020	040	Segment Architectures Baselined
2	B03B	030		C4ISR Design, Software Requirements and Plans Updated
3	B03B	030	010	C4ISR DSS Updated
3	B03B	030	020	Segment Design Updated
3	B03B	030	030	Software Requirements Updated
3	B03B	030	040	Software Operational Concept & Architecture Defined
3	B03B	030	050	C4I C4ISR Integration Laboratory Hardware Design Completed
3	B03B	030	060	C4ISR Software Integration & Test Plan Updated
3	B03B	030	070	C4ISR Software Simulation Integration Plan Updated
3	B03B	030	080	Provide SoS COE Documentation Update
2	B03B	040		Supportability Architecture established
3	B03B	040	010	Supportability analyses updated
3	B03B	040	020	Performance Based Logistics (PBL) metrics established
3	B03B	040	030	Logistics data base requirements updated
3	B03B	040	040	Logistics Decision Support System (LDSS) requirements for Systems, Platforms, and Subsystems demonstrated
3	B03B	040	050	Platform Soldier/Mission Readiness System (PS/MRS) requirements for Systems, Platforms, and Subsystems demonstrated
3	B03B	040	060	Interactive Electronic Technical Manuals (IETMs) requirements for Systems, Platforms, and Subsystems demonstrated
3	B03B	040	070	Logistics Demonstrations planning completed
3	B03B	040	080	Logistics Modeling & Simulation performed

OL	PE	SA	AC	Description
3	B03B	040	090	Reliability, Availability, Maintainability, Testability (RAM-T) analyses updated
3	B03B	040	100	Initial fielding planning established
3	B03B	040	110	Transportability and Deployability Assessments updated
3	B03B	040	120	DSS Specification Updated
3	B03B	040	130	Supply Chain Management Plan (SCMP)
3	B03B	040	140	Home Station Operations plan drafted
2	B03B	050		Training system design established
3	B03B	050	010	Inputs to customer training support documents developed
3	B03B	050	020	Training SIL established
3	B03B	050	030	Training system software requirements and architecture updated
3	B03B	050	040	Integration cross IPT/Supplier system requirements allocated
3	B03B	050	050	Collective training TSP products baselined
3	B03B	050	060	Training task analysis process baselined
3	B03B	050	070	Common components baselined
3	B03B	050	080	DSS Specification Updated
2	B03B	060		Software Requirements/Architecture Product Updates
3	B03B	060	020	SoS SDP updated
3	B03B	060	050	Software Architecture Updated
3	B03B	060	060	Software Requirements Baselined
3	B03B	060	080	Phased Software Integration Plan Updated
3	B03B	060	090	SW metrics assessed
3	B03B	060	100	Software Measurement Plan Updated
3	B03B	060	110	SEI CMMI Level 5 Evolution Plan (CMMIEP) Updated
3	B03B	060	120	Software Quality Assurance Plan (SQAP) Updated
3	B03B	060	130	COTS & Other Software Reuse Mgt Plan (CSRMP) Updated
2	B03B	070		Segment/System SFRs Complete and PIDS Updated
3	B03B	070	010	Segment/System/Platforms SFRs completed
3	B03B	070	020	Draft FoS prime item development specifications Updated
2	B03B	080		Interfaces Documentation Updated and ACAs Updated
3	B03B	080	010	Interconnect Schematic for all functional interfaces drafted
3	B03B	080	020	FCS Internal Hardware Interface Control Documents (ICDs) Updated
3	B03B	080	030	FCS Internal Software Interface Control Documents (ICDs) Drafted
3	B03B	080	040	Update EHCD -FCS External/CP Interfaces
3	B03B	080	050	CP/Ext. Interface ICDs Drafted
3	B03B	080	060	Complementary Programs Priority 3 Detailed ACAs completed
2	B03B	090		Key complementary programs evaluated
3	B03B	090	010	Evaluation of individual Complementary programs system engineering processes completed

OL	PE	SA	AC	Description
3	B03B	090	020	Evaluation of Individual Complementary programs design progress completed
3	B03B	090	030	Risks/conflicts identified
2	B03B	100		Management, Engineering & design product Updates
3	B03B	100	010	Improved DPD capability implemented
3	B03B	100	020	Milestone B update documentation required complete
3	B03B	100	030	Interoperability and IERs reviewed (A035)
3	B03B	100	040	Technology Development Strategy
3	B03B	100	060	FCS UnA Manpower Requirements Criteria Updated
3	B03B	100	070	FCS programmatic and environmental safety and health evaluation updated
3	B03B	100	090	Preliminary System of Systems design data incorporation into SSDD completed
3	B03B	100	100	SoS Design Integration Updated
2	B03B	110		System of Systems assessment performed
3	B03B	110	010	Initial SoS performance assurance analyses performed
3	B03B	110	020	SoS affordability analysis & LCC Containment Plan Updated
3	B03B	110	030	SoS effectiveness analysis updated
3	B03B	110	040	SoS risks assessments and mitigation plans updated
3	B03B	110	050	TPMs assessment updated
2	B03B	120		System of Systems functional review conducted
3	B03B	120	010	Meeting conducted, and agreed upon action items/closure plans documented
1	B04A			System of Systems Preliminary Design Review
2	B04A	010		JROC Products Evaluated
3	B04A	010	010	Force Development DOTML-PF design, analysis, and assessments updated
2	B04A	020		SoS Architecture, Requirements & Interfaces Updated
3	B04A	020	010	SoS and FoS Architectures updated
3	B04A	020	020	SoS to FOS requirements allocation updated
3	B04A	020	030	SoS to FOS functional allocation updated
3	B04A	020	040	Interconnect Schematic for all functional interfaces completed
3	B04A	020	050	FCS Internal Hardware Interface Control Documents (ICDs) Completed
3	B04A	020	060	FCS Internal Software Interface Control Documents (ICDs) Completed
3	B04A	020	070	Update EHCD -FCS External/CP Interfaces
3	B04A	020	080	CP/Ext. Interface ICDs Complete
3	B04A	020	090	FoS prime item development specifications Completed
3	B04A	020	100	DSSs Completed
3	B04A	020	110	SoS specification completed
3	B04A	020	120	System Design Document Updated (A007)
3	B04A	020	130	Complementary Programs Priority 4 Detailed ACAs completed
2	B04A	030		C4ISR Preliminary Design Completed
3	B04A	030	010	Lower-level Specifications and ICDs revised
3	B04A	030	020	Baseline Design Approved
3	B04A	030	030	Software Requirements & Architecture for Build 1 Inception Completed

OL	PE	SA	AC	Description
3	B04A	030	040	Initial Software Design Review Completed
3	B04A	030	050	C4ISR Test Requirements Generated
3	B04A	030	060	System Integration Laboratory C4ISR Simulations Completed
3	B04A	030	070	C4ISR Integration and Test Plans Completed
3	B04A	030	080	Software Requirements & Architecture for build 2 completed
3	B04A	030	090	Software Build 2 / Milestone C design review completed
3	B04A	030	100	C4ISP changes driven by architecture work captured
3	B04A	030	110	C4ISR PDR review completed
2	B04A	040		Software Preliminary Design Completed
3	B04A	040	020	FCS SDP updated
3	B04A	040	050	Software Requirements Updated
3	B04A	040	080	Phased Software Integration Plan Updated
3	B04A	040	090	Software Configuration Management Plan Updated
3	B04A	040	100	Software Measurement Plan Updated
3	B04A	040	110	SEI CMMI Level 5 Evolution Plan (CMMIEP) Updated
3	B04A	040	120	Software Quality Assurance Plan (SQAP) Updated
3	B04A	040	130	COTS & Other Software Reuse Mgt Plan (CSRMP) Updated
2	B04A	050		Supportability preliminary design data updated
3	B04A	050	010	Supportability analyses performed
3	B04A	050	020	Supportability Plans updated
3	B04A	050	030	Logistics Decision Support System (LDSS) design updated
3	B04A	050	040	Platform Soldier/Mission Readiness System (PS/MRS) design updated
3	B04A	050	050	Transportability and Deployability Assessments updated
3	B04A	050	060	Supportability Distributed System Spec updated
3	B04A	050	070	Logistics Database requirements updated
3	B04A	050	080	Logistics Decision Support System (LDSS) requirements allocated
3	B04A	050	090	Platform Soldier/Mission Readiness System (PS/MRS) requirements allocated
3	B04A	050	100	Interactive Electronic Technical Manuals (IETMs) requirements allocated
3	B04A	050	110	Logistics Demonstration planning completed
3	B04A	050	120	Fielding planning updated
3	B04A	050	130	Reliability, Availability, Maintainability, Testability (RAM-T) analyzed
2	B04A	060		Training system preliminary design data updated
3	B04A	060	010	Training Distributed System Spec Updated
3	B04A	060	020	Embedded Training (ET) preliminary system design completed
3	B04A	060	030	Training SIL implemented
3	B04A	060	040	Training system common components software requirements and architecture for Build inception updated
3	B04A	060	050	Common components and architectures integration into SoS Architectures implemented
3	B04A	060	060	Collective training development updated
2	B04A	070		MGV Preliminary designs completed

OL	PE	SA	AC	Description
3	B04A	070	010	MGV Software PDR completed
3	B04A	070	020	MGV Mission Equipment preliminary design established
3	B04A	070	030	MGV Common Subsystems preliminary design established
3	B04A	070	040	MGV Platform PDRs completed
3	B04A	070	050	MGV Subcontractor PDRs Complete
2	B04A	080		**UAV Systems' Preliminary Design Review Completed**
3	B04A	080	010	SoS requirements traceability completed
3	B04A	080	020	Requirements definition updated
3	B04A	080	030	Detail design definition developed
3	B04A	080	040	Software PDR Activities Completed
3	B04A	080	050	Systems preliminary design review completed
2	B04A	090		**UGV Systems' Preliminary Design Review Completed**
3	B04A	090	010	Requirements definition updated
3	B04A	090	020	SoS requirements traceability completed
3	B04A	090	050	Systems preliminary design review completed
2	B04A	100		**Key complementary programs evaluated**
3	B04A	100	010	Evaluation of individual Complementary programs system engineering processes completed
3	B04A	100	020	Evaluation of Individual Complementary programs design progress completed
3	B04A	100	030	Readiness to build products evaluated
3	B04A	100	040	Risks/conflicts identified
2	B04A	120		**Management, Engineering & design product Updates**
3	B04A	120	010	Program Plan Updated
3	B04A	120	020	Evaluation of prime item system engineering processes completed
3	B04A	120	030	Evaluation of prime item design progress completed
3	B04A	120	040	FCS UoA Manpower Requirements Criteria Updated
3	B04A	120	050	Technology Development Strategy
3	B04A	120	070	Technology Insertion Evaluated
3	B04A	120	080	SDD modeling and simulation support plan updated
3	B04A	120	090	SDD risk management plan updated
3	B04A	120	100	Results of RAM-T Analysis evaluated
3	B04A	120	120	Program protection & certification plan updated
3	B04A	120	130	SoS Design Integration Updated
2	B04A	130		**System of Systems assessment performed**
3	B04A	130	010	SoS performance assurance analyses updated
3	B04A	130	020	SoS affordability analysis & LCC Containment Plan Updated
3	B04A	130	030	SoS effectiveness analysis updated
3	B04A	130	040	SoS risks assessments and mitigation plans updated
3	B04A	130	050	KPPs and TPMs assessment updated
2	B04A	140		**Preliminary design review conducted**
3	B04A	140	010	Meeting conducted, and agreed upon action items/closure plans documented
1	B05A			**SoS Integration & Verification Phase 1**
2	B05A	010		**Program SoS Phase One Requirements/Planning Products Complete**
3	B05A	010	010	System Integration Plan Final Update for Phase 1
3	B05A	010	020	Integration Phase Plan 1 Released

OL	PE	SA	AC	Description
3	B05A	010	030	CP ACAs Essential to support Phase I Finalized
3	B05A	010	040	SHAD Baselined for Integration Phase I
3	B05A	010	050	Software Phased Integration Plan for Phase I Released
3	B05A	010	060	System Analysis Plan Final Update for Phase I
3	B05A	010	070	M&S Strategy Plan/SPP Final Update for Phase I
3	B05A	010	080	Simulations/Emulation Development/Integration Requirements Reviews Completed for Phase I
3	B05A	010	090	Test Planning for Phase I Complete
2	B05A	020		Program SoS Phase One Infrastructure Complete
3	B05A	020	010	SoSIL Distributed Network Certified
3	B05A	020	020	M&S Initial Framework Complete & Accredited
3	B05A	020	030	Analyses/Evaluation Tools Complete
3	B05A	020	040	C4ISR Integrated Software Build I Package Complete
3	B05A	020	050	Gov't/LSI/Supplier Support Team Identified and Committed
3	B05A	020	060	Integration Phase Readiness Review Conducted
2	B05A	030		Program SoS Phase One Integration Complete
3	B05A	030	010	IPT Simulation/Emulation Deliverles Complete per SHAD
3	B05A	030	020	Test Support Packages/Objectives Complete
3	B05A	030	030	Pre-Test Analyses on GUT/UA and Predictions Complete
3	B05A	030	050	Phase SI Early Integration for SoS Technical Testing & Audits (I/F, Design, Functionality, & Config) completed
3	B05A	030	060	Acceptance & Installation of simulation/Emulation to SoSIL Environ completed
3	B05A	030	070	Phase SI SoS Integration for Test and Test Readiness Review (TRR) completed
3	B05A	030	080	Phase SI SoS Technical Test Series completed
3	B05A	030	090	SoS Test Resources & Facilities completed
2	B05A	040		Program SoS Phase One Analyses, Evaluations and Tests Complete
3	B05A	040	010	Analyses Results Compared and Accounted for Relative to Test Results
3	B05A	040	020	Anomalies Resolved/Dispositioned & Break-Of-Configuration Review Complete
2	B05A	050		Program SoS Phase One Final Reports Completed
3	B05A	050	010	Integration Phase SI Technical Test Assessment Review completed
3	B05A	050	020	SoS Phase I I&V Assessment Report Complete
3	B05A	050	030	Downstream Objectives Assessed for Necessary Updates
2	B05A	060		System of Systems Assessment Completed
3	B05A	060	010	SoS performance assessment updated
3	B05A	060	020	SoS Effectiveness analysis performed
3	B05A	060	030	Assessment of Requirements/Architecture/Interface/Design Issues supported by necessary Trades
3	B05A	060	040	SoS Engineering specialty analyses performed
3	B05A	060	050	SOS risks assessment and mitigation plans reviewed
3	B05A	060	060	KPPs and TPMs evaluated
3	B05A	060	070	SoS Models and Sims Assessed for Updates
3	B05A	060	080	Force Development DOTMLPF design, analysis, and assessments updated

OL	PE	SA	AC	Description
3	B05A	060	100	SoS Force Development Operational Analysis Updated
1	B06A			System of Systems Critical Design Review
2	B06A	010		O&O and ORD updates evaluated
3	B06A	010	010	Force Development DOTMLPF design, analysis, and assessments updated
2	B06A	020		SoS-to-FoS Architecture, Requirements, Interfaces & Design Updated
3	B06A	020	010	SoS and FoS Architectures updated
3	B06A	020	020	SoS to FOS requirements allocation updated
3	B06A	020	030	SoS to FOS functional allocation updated
3	B06A	020	040	Interconnect Schematic for all functional interfaces updated
3	B06A	020	050	FCS Internal Hardware Interface Control Documents (ICDs) Updated
3	B06A	020	060	FCS Internal Software Interface Control Documents (ICDs) Updated
3	B06A	020	070	Update FIICD -FCS External/CP Interfaces
3	B06A	020	080	CP/Ext. Interface ICDs Updated
3	B06A	020	090	FoS prime item development specifications Updated
3	B06A	020	100	DSSs Updated
3	B06A	020	110	SoS specification updated
3	B06A	020	120	System Design Document Updated (A007)
3	B06A	020	130	Complementary Programs Priority 5 Detailed ACAs completed
2	B06A	030		C4ISR Critical Design Completed
3	B06A	030	010	C4ISR System Specifications, architecture and ICDs Completed
3	B06A	030	020	C4ISR detailed design vs. functional and performance requirement verifications completed
3	B06A	030	030	Initial Verification and Validation Analysis completed
3	B06A	030	040	Manufacturing Capabilities Defined
3	B06A	030	050	C4ISR SIL Test and Integration Completed
3	B06A	030	060	Subsystem Test procedures released per specification verifications by test/demo
3	B06A	030	070	Subsystem Test and Demonstration Requirements Generated
3	B06A	030	080	Fab drawings released
3	B06A	030	090	S/W design elaboration update completed
3	B06A	030	100	Software Incremental build 1 & 2 completed
3	B06A	030	110	System Integration Laboratory test & Integrations Initiated of breadboards completed
3	B06A	030	120	C4ISR CDR review completed
2	B06A	040		Software CDR activities completed
3	B06A	040	020	FCS SDP Completed
3	B06A	040	080	Phased Software Integration Plan Updated
3	B06A	040	090	Software Configuration Management Plan Updated
3	B06A	040	100	Software Measurement Plan Updated
3	B06A	040	110	SEI CMMI Level 5 Evolution Plan (CMMIEP) Updated
3	B06A	040	120	Software Quality Assurance Plan (SQAP) Updated
3	B06A	040	130	COTS & Other Software Reuse Mgt Plan (CSRMP) Updated
2	B06A	050		MGV Platforms initial design and CDRs completed

OL	PE	SA	AC	Description
3	B06A	050	010	MGV Software CDR Activities completed
3	B06A	050	020	MGV Mission Equipment Final Design Established
3	B06A	050	030	MGV Common Subsystems Final Design Established
3	B06A	050	040	MGV Subcontractor CDRs Complete
3	B06A	050	050	Systems critical design review completed
2	B06A	060		UAV Systems' Critical Design Review Completed
3	B06A	060	010	SoS Requirements Finalized
3	B06A	060	020	Requirements Definition Released
3	B06A	060	030	Detail Design Definition Developed
3	B06A	060	040	UGV SW CDR activities Completed
3	B06A	060	050	Systems critical design review completed
2	B06A	070		UGV Systems' Critical Design Review Completed
3	B06A	070	010	Requirements Definition Released
3	B06A	070	020	SoS Requirements Traceability Finalized
3	B06A	070	050	Systems critical design review completed
2	B06A	080		Weapons & Munitions Relevant studies & plans for weapons & munitions integrated
3	B06A	080	010	Weapons and munitions trade studies updated
3	B06A	080	020	Risk management plan for weapons & munitions updated
2	B06A	090		Soldier Systems Relevant studies & plans for Soldier Systems integration completed
3	B06A	090	010	Soldier Systems trade studies completed
3	B06A	090	020	Risk management plan for Soldier Systems completed
2	B06A	100		Key complementary programs evaluated
3	B06A	100	010	Evaluation of Individual Complementary programs system engineering processes completed
3	B06A	100	020	Evaluation of Individual Complementary programs design progress completed
3	B06A	100	030	Readiness to build products evaluated
3	B06A	100	040	Risks assessment and mitigation plans reviewed
3	B06A	100	050	Action/resolution closure plans established
2	B06A	110		Systems engineering and design products updated
3	B06A	110	010	FCS UoA system blueprint updated
3	B06A	110	020	Technology Insertion Evaluated
3	B06A	110	030	System of Systems design data incorporated into SSDD
3	B06A	110	040	SoS Interface control documents completed
2	B06A	120		Supportability requirements Incorporated
3	B06A	120	010	Supportability analyses updated
3	B06A	120	020	Performance Based Logistics (PBL) metrics updated
3	B06A	120	030	Logistics data base demonstrated
3	B06A	120	040	Logistics Decision Support System (LDSS) requirements for Systems, Platforms, and Subsystems updated
3	B06A	120	050	Platform Soldier/Mission Readiness System (PS/MRS) requirements for Systems, Platforms, and Subsystems updated
3	B06A	120	060	Interactive Electronic Technical Manuals (IETM's) requirements for Systems, Platforms, and Subsystems updated
3	B06A	120	070	Logistics demonstration plans updated
3	B06A	120	080	Reliability, Availability, Maintainability, Testability (RAM-T) analyses updated

OL	PE	SA	AC	Description
3	B06A	120	090	Supportability Plans updated
3	B06A	120	100	Material Fielding Plan updated
3	B06A	120	110	Detail Transportability/Deployability assessments updated
3	B06A	120	120	Logistics Decision Support System (LDSS) design updated
3	B06A	120	130	Platform Soldier/Mission Readiness System (PS/MRS) design updated
2	B06A	130		Training system Critical Design Review completed
3	B06A	130	010	Embedded training critical design completed
3	B06A	130	020	Horizontal integration cross IPT/Supplier system requirements updated
3	B06A	130	030	Common components and architectures integration into SoS Architectures Implemented
3	B06A	130	040	Software requirements, architecture, design completed for Build updated
3	B06A	130	050	Collective training development updated
2	B06A	140		SoS/FoS Integration and verification results reviewed
3	B06A	140	010	SoS Integration Phase 1 Completed/Assessed
3	B06A	140	020	FoS SIL/Platform Integration and Verification results reviewed
2	B06A	150		System of Systems assessment performed
3	B06A	150	010	SoS performance assurance analyses updated
3	B06A	150	020	SoS affordability analysis updated
3	B06A	150	030	SoS effectiveness analysis updated
3	B06A	150	040	SoS models and sims updated
3	B06A	150	050	SoS engineering specialty analyses updated
3	B06A	150	060	SoS risks assessments and mitigation plans updated
3	B06A	150	070	KPPs and TPMs assessment updated
3	B06A	150	080	SoS/FoS manufacturing/producibility/quality program capabilities evaluated
3	B06A	150	090	Technology Development Strategy
3	B06A	150	100	Technology Insertion Evaluated
2	B06A	160		Systems critical design review conducted
3	B06A	160	010	Meeting conducted, and agreed upon action items/closure plans documented
3	B06A	160	020	Segment / prime item and lower level CDRs for early systems completed
1	B07A			SoS Integration & Verification Phase 2
2	B07A	010		Program SoS Phase Two Requirements/Planning Products Complete
3	B07A	010	010	System Integration Plan Final Update for Phase 2
3	B07A	010	020	Integration Phase Plan 2 Released
3	B07A	010	030	CP ACAs Essential to support Phase 2 Finalized
3	B07A	010	040	SHAD Baselined for Integration Phase 2
3	B07A	010	050	Software Phased Integration Plan for Phase 2 Released
3	B07A	010	060	System Analysis Plan Final Update for Phase 2
3	B07A	010	070	M&S Strategy Plan/SPP Final Update for Phase 2
3	B07A	010	080	Simulations/Emulation Development/Integration Requirements Reviews Completed for Phase 2
3	B07A	010	090	Test Planning for Phase 2 Complete

OL	PE	SA	AC	Description
2	B07A	020		**Program SoS Phase Two Infrastructure Complete**
3	B07A	020	010	SoSIL Distributed Network Certified
3	B07A	020	020	M&S Initial Framework Complete & Accredited
3	B07A	020	030	Analyses/Evaluation Tools Complete
3	B07A	020	040	C4ISR Integrated Software Build 2 Package Complete
3	B07A	020	050	Gov'ILSE/Supplier Support Team Identified and Committed
3	B07A	020	060	Integration Phase Readiness Review Completed
2	B07A	030		**Program SoS Phase Two Integration Complete**
3	B07A	030	010	IPT Simulation/Emulation Deliveries Complete per SHAB
3	B07A	030	020	Test Support Packages/Objectives Complete
3	B07A	030	030	Pre-Test Analyses on CUT/CA and Predictions Complete
3	B07A	030	050	Phase S2 Early Integration for SoS Technical Testing & Audits (I/F, Design, Functionality, & Config) completed
3	B07A	030	060	Acceptance & installation of simulation/Emulation to SoSIL Environ completed
3	B07A	030	070	Phase S2 SoS Integration for Test and Test Readiness Review (TRR) completed
3	B07A	030	080	Phase S2 SoS Technical Test Series completed
3	B07A	030	090	SoS Test Resources & Facilities completed
2	B07A	040		**Program SoS Phase Two Analyses, Evaluations and Tests Complete**
3	B07A	040	010	Analyses Results Compared and Accounted for Relative to Test Results
3	B07A	040	020	Anomalies Resolved/Dispositioned & Break-Of-Configuration Review Complete
2	B07A	050		**Program SoS Phase Two Final Reports Completed**
3	B07A	050	010	Integration Phase S2 Technical Test Assessment Review completed
3	B07A	050	020	SoS Phase 2 I&V Assessment Report Complete
3	B07A	050	030	Downstream Objectives Assessed for Necessary Updates
2	B07A	060		**System of Systems Assessment Completed**
3	B07A	060	010	SoS performance assessment updated
3	B07A	060	020	SoS Effectiveness analysis performed
3	B07A	060	030	Assessment of Requirements/Architecture/Interface/Design Issues supported by necessary Trades
3	B07A	060	040	SoS Engineering specialty analyses performed
3	B07A	060	050	SOS risks assessment and mitigation plans reviewed
3	B07A	060	060	KPPs and TPMs evaluated
3	B07A	060	070	SoS Models and Sims Assessed for Updates
3	B07A	060	080	Force Development DOTML-PF design, analysis, and assessments updated
3	B07A	060	100	SoS Force Development Operational Analysis Updated
1	B09A			**LRIP Long Lead Readiness Review 1**
2	B09A	010		**Prime Item / segment data evaluated**
3	B09A	010	010	Prime Item / segment design progress evaluated
3	B09A	010	020	Prime Item / segment system engineering processes evaluated
3	B09A	010	030	Assessment of prime item / segment LRIP long lead requests completed

OL	PE	SA	AC	Description
3	B09A	010	050	Supplier production & quality reviews completed
3	B09A	010	060	Affordability/life cycle cost analysis evaluated
3	B09A	010	070	FoS Risks assessment and mitigation plans evaluated
2	B09A	020		**System of Systems products and analysis updated**
3	B09A	020	010	SOS requirements documents updated
3	B09A	020	020	System of Systems performance assessment updated
3	B09A	020	030	SOS risks assessment and mitigation plans reviewed
3	B09A	020	040	System of Systems design documents updated
3	B09A	020	050	Technology Development Strategy
2	B09A	030		**LRIP and Production Funding Estimates Updated**
3	B09A	030	010	LRIP Long Lead funding estimates updated
3	B09A	030	020	Production Long Lead funding estimates updated
3	B09A	030	030	LRIP funding estimates updated
3	B09A	030	040	Production funding estimates updated
2	B09A	040		**LRIP LL procurements initiated**
3	B09A	040	010	Final Bidder's List for LL LRIP identified
3	B09A	040	020	LRIP procurement requirements defined
3	B09A	040	030	Final LL procurement requirements defined
3	B09A	040	040	LRIP LL procurement RFPs approved
3	B09A	040	050	LRIP LL evaluation & selection plan/schedule generated
2	B09A	050		**Incremental FCA Conducted**
3	B09A	050	010	Meeting conducted, and agreed upon action items/closure plans documented
2	B09A	060		**LRIP LL Readiness Review conducted**
3	B09A	060	010	Meeting conducted, and agreed upon action items/closure plans documented
1	B10A			SoS Integration & Verification Phase 3
2	B10A	010		**Program SoS Phase Three Requirements/Planning Products Complete**
3	B10A	010	010	System Integration Plan Final Update for Phase 3
3	B10A	010	020	Integration Phase Plan 3 Released
3	B10A	010	030	CP ACAs Executed to support Phase 3 Finalized
3	B10A	010	040	SHAD Baselined for Integration Phase 3
3	B10A	010	050	Software Phased Integration Plan for Phase 3 Released
3	B10A	010	060	System Analysis Plan Final Update for Phase 3
3	B10A	010	070	M&S Strategy Plan/SPP Final Update for Phase 3
3	B10A	010	080	Simulations/Emulation Development/Integration Requirements Reviews Completed for Phase 3
3	B10A	010	090	Test Planning for Phase 3 Complete
2	B10A	020		**Program SoS Phase Three Infrastructure Complete**
3	B10A	020	010	SoSIL Distributed Network Certified
3	B10A	020	020	M&S Initial Framework Complete & Accredited
3	B10A	020	030	Analyses/Evaluation Tools Complete
3	B10A	020	040	C4ISR Integrated Software Build 3 Package Complete
3	B10A	020	050	Gov't/LSI/Supplier Support Team Identified and Committed
3	B10A	020	060	Integration Phase Readiness Review Conducted
2	B10A	030		**Program SoS Phase Three Integration Complete**
3	B10A	030	010	HIT Simulation/Emulation Deliveries Complete per SHAD
3	B10A	030	020	Test Support Packages/Objectives Complete
3	B10A	030	030	Pre-Test Analyses on UUT/UA and Predictions Complete

OL	PE	SA	AC	Description
3	B10A	030	040	HPT Prototype Deliveries Complete per SHAD, as applicable
3	B10A	030	050	Phase S3 Early Integration for SoS Technical Testing & Audits (HF, Design, Functionality, & Config) completed
3	B10A	030	060	Acceptance & Installation of simulation/Emulation to SoSIL Enviros completed
3	B10A	030	070	Phase S3 SoS Integration for Test and Test Readiness Review (TRR) completed
3	B10A	030	080	Phase S3 SoS Technical Test Series completed
3	B10A	030	090	SoS Test Resources & Facilities completed
2	B10A	040		Program SoS Phase Three Analyses, Evaluations and Tests Complete
3	B10A	040	010	Analyses Results Compared and Accounted for Relative to Test Results
3	B10A	040	020	Anomalies Resolved/Dispositioned & Break-Of-Configuration Review Complete
2	B10A	050		Program SoS Phase Three Final Reports Completed
3	B10A	050	010	Integration Phase S3 Technical Test Assessment Review completed
3	B10A	050	020	SoS Phase 3 I&V Assessment Report Complete
3	B10A	050	030	Downstream Objectives Assessed for Necessary Updates
2	B10A	060		System of Systems Assessment Completed
3	B10A	060	010	SoS performance assessment updated
3	B10A	060	020	SoS Effectiveness analysis performed
3	B10A	060	030	Assessment of Requirements/Architecture/Interface/Design Issues supported by necessary Trades
3	B10A	060	040	SoS Engineering specialty analyses performed
3	B10A	060	050	SOS risks assessment and mitigation plans reviewed
3	B10A	060	060	KPPs and TPMs evaluated
3	B10A	060	070	SoS Models and Sims Assessed for Updates
3	B10A	060	080	Force Development DOTML-PF design, analysis, and assessments updated
3	B10A	060	100	SoS Force Development Operational Analysis Updated
1	B09B			LRIP Long Lead Readiness Review 2
2	B09B	010		Prime Item / segment data evaluated
3	B09B	010	010	Prime Item / segment design progress evaluated
3	B09B	010	020	Prime Item / segment system engineering processes evaluated
3	B09B	010	030	Assessment of prime item / segment LRIP long lead requests completed
3	B09B	010	050	Supplier production & quality reviews completed
3	B09B	010	060	Affordability/life cycle cost analysis evaluated
3	B09B	010	070	FoS Risks assessment and mitigation plans evaluated
2	B09B	020		System of Systems products and analysis updated
3	B09B	020	010	SOS requirements documents updated
3	B09B	020	020	System of Systems performance assessment updated
3	B09B	020	030	SOS risks assessment and mitigation plans reviewed
3	B09B	020	040	System of Systems design documents updated
3	B09B	020	050	Technology Development Strategy

OL	PE	SA	AC	Description
2	B09B	030		LRIP and Production Funding Estimates Updated
3	B09B	030	010	LRIP Long Lead funding estimates updated
3	B09B	030	020	Production Long Lead funding estimates updated
3	B09B	030	030	LRIP funding estimates updated
3	B09B	030	040	Production funding estimates updated
2	B09B	040		LRIP LL procurements initiated
3	B09B	040	010	Final Bidder's List for LL LRIP Identified
3	B09B	040	020	LRIP procurement requirements defined
3	B09B	040	030	Final LL procurement requirements defined
3	B09B	040	040	LRIP LL procurement RFPs approved
3	B09B	040	050	LRIP LL evaluation & selection plan/schedule generated
2	B09B	050		Incremental FCA Conducted
3	B09B	050	010	Meeting conducted, and agreed upon action items/closure plans documented
2	B09B	060		LRIP LL Readiness Review #2 conducted
3	B09B	060	010	Meeting conducted, and agreed upon action items/closure plans documented
1	B10B			Network Maturity Decision Milestone Review
2	B10B	010		C4IT Testing Completed
3	B10B	010	010	C3ISR Build 4 SW Integration & Checkout Completed
3	B10B	010	020	C4IT Network Field Tests Completed
3	B10B	010	030	C4IT Lab Tests Completed
2	B10B	020		Networked software capability Demonstrated
3	B10B	020	010	Risk assessment of network requirements verification completed
3	B10B	020	020	Integrated Network S/W at SoS level demonstrated in sufficient detail to ensure stable interfaces and basic network interoperability
3	B10B	020	030	Detailed Build Plan for full networked functionality Completed
2	B10B	030		Acceptable performance in Operational Assessment and inter operability Demonstrated
3	B10B	030	010	SoS I&T phase 3 completed
3	B10B	030	020	Support Army ATEP testing completed
2	B10B	040		Network Maturity Readiness Review Event Review Conducted
3	B10B	040	010	Meeting conducted, and agreed upon action items/closure plans documented
2	B10B	050		Network Maturity Decision Made
3	B10B	050	010	Authorization to Proceed with Production Granted
1	B12A			SoS Integration & Verification Phase 4.1
2	B12A	010		Program SoS Phase Four Requirements/Planning Products Complete
3	B12A	010	010	System Integration Plan Final Update for Phase 4.1
3	B12A	010	020	Integration Phase Plan 4.1 Released
3	B12A	010	030	CP ACAs Essential to support Phase 4.1 Finalized
3	B12A	010	040	SHAD Baselined for Integration Phase 4.1
3	B12A	010	050	Software Phased Integration Plan for Phase 4.1 Released
3	B12A	010	060	System Analysis Plan Final Update for Phase 4.1
3	B12A	010	070	M&S Strategy Plan/SPP Final Update for Phase 4.1
3	B12A	010	080	Simulations/Emulation Development/Integration Requirements Reviews Completed for Phase 4.1

OL	PE	SA	AC	Description
3	B12A	010	090	Test Planning for Phase 4.1 Complete
2	B12A	020		**Program SoS Phase 4.1 Infrastructure Complete**
3	B12A	020	010	SoSIL Distributed Network Certified
3	B12A	020	020	M&S Initial Framework Complete & Accredited
3	B12A	020	030	Analyses/Evaluation Tools Complete
3	B12A	020	040	C4ISR Integrated Software Preliminary Build 4 Package Complete
3	B12A	020	050	Gov't/LSI/Supplier Support Team Identified and Committed
3	B12A	020	060	Integration Phase Readiness Review Conducted
2	B12A	030		**Program SoS Phase Four Integration Complete**
3	B12A	030	010	IPT Simulation/Emulation Deliveries Complete per SHAD
3	B12A	030	020	Test Support Packages/Objectives Complete
3	B12A	030	030	Pre-Test Analyses on UUT/UA and Predictions Complete
3	B12A	030	040	IPT Prototype Deliveries Complete per SHAD, as applicable
3	B12A	030	050	Phase S4.1 Early Integration for SoS Technical Testing & Audits (I/F, Design, Functionality, & Config) completed
3	B12A	030	060	Acceptance & Installation of simulation/Emulation to SoSIL Environ completed
3	B12A	030	070	Phase S4.1 SoS Integration for Test and Test Readiness Review (TRR) completed
3	B12A	030	080	Phase S4.1 SoS Technical Test Series completed
3	B12A	030	090	SoS Test Resources & Facilities completed
2	B12A	040		**Program SoS Phase Four Analyses, Evaluations and Tests Complete**
3	B12A	040	010	Analyses Results Compared and Accounted for Relative to Test Results
3	B12A	040	020	Anomalies Resolved/Dispositioned & Break-Of-Configuration Review Complete
2	B12A	050		**Program SoS Phase Four Final Reports Completed**
3	B12A	050	010	Integration Phase S4.1 Technical Test Assessment Review completed
3	B12A	050	020	SoS Phase 4.1 I&V Assessment Report Complete
3	B12A	050	030	Downstream Objectives Assessed for Necessary Updates
2	B12A	060		**System of Systems Assessment Completed**
3	B12A	060	010	SoS performance assessment updated
3	B12A	060	020	SoS Effectiveness analysis performed
3	B12A	060	030	Assessment of Requirements/Architecture/Interface/Design Issues supported by necessary Trades
3	B12A	060	040	SoS Engineering specialty analyses performed
3	B12A	060	050	SOS risks assessment and mitigation plans reviewed
3	B12A	060	060	KPPs and TPMs evaluated
3	B12A	060	070	SoS Models and Sims Assessed for Updates
3	B12A	060	080	Force Development DOTML-PF design, analysis, and assessments updated
3	B12A	060	100	SoS Force Development Operational Analysis Updated
1	B11A			**Initial Production Decision #1 Readiness Review**
2	B11A	010		**O&O and ORD updates evaluated**

OL	PE	SA	AC	Description
3	B11A	010	010	Force Development DOTMLPF design, analysis, and assessments updated
2	B11A	020		MGV LRIP Readiness Review completed
3	B11A	020	010	MCS, NLOS-C, ICV and C2V LRIP Items Identified
3	B11A	020	020	LRIP Readiness review completed
2	B11A	030		UAV LRIP Readiness Review Completed
3	B11A	030	010	Class I and IV LRIP Items identified
3	B11A	030	020	LRIP Readiness review completed
2	B11A	050		Acceptable performance in DT&E Phase for LRIP Candidate Prime Items Demonstrated
3	B11A	050	010	IPD #1 Prime Item Verification (tests, analysis, demos, inspections) performed
3	B11A	050	020	Risk assessment of open requirements verification completed
3	B11A	050	030	IPD #1 Prime Item Support Equipment Testing Completed
2	B11A	060		Acceptable performance in Operational Assessment and Inter operability Demonstrated
3	B11A	060	010	SoS I&T phase 4.0 completed
3	B11A	060	020	Limited User Testing LUT #1 completed
3	B11A	060	030	Support Army ATEP testing completed
2	B11A	070		Mature software capability Demonstrated
3	B11A	070	010	S/W verification and validation at platform level performed
3	B11A	070	020	Risk assessment of open platform requirements verification completed
3	B11A	070	040	Detailed Build Plan for full functionality Completed
2	B11A	080		LRIP procurements defined
3	B11A	080	010	Bidder's List for LRIP identified
3	B11A	080	020	Procurement requirements defined
3	B11A	080	030	LRIP procurement RFP's released
3	B11A	080	040	LRIP evaluation & selection plan/schedule generated
2	B11A	090		Production Readiness & Risk Assessment Completed
3	B11A	090	040	Supplier production & quality reviews completed
3	B11A	090	050	Technology Development Strategy
3	B11A	090	090	Complementary programs manufacturing risk evaluated
3	B11A	090	100	Government furnished weapons & munitions risks evaluated
3	B11A	090	110	Government furnished Soldier Systems risks evaluated
2	B11A	100		Acceptable operational supportability Demonstrated
3	B11A	100	010	Supportability plan and analyses completed
3	B11A	100	020	Necessary equipment completion plan supports FUE
3	B11A	100	030	Performance-based Logistics Implementation Plan completed
3	B11A	100	040	Interactive Electronic Technical Manuals Class V Framework demonstrated
3	B11A	100	050	Interactive Electronic Technical Manuals completion plan supports FUE
3	B11A	100	060	Log Demo Performed
2	B11A	110		Supportability Strategy validated
3	B11A	110	010	Supportability data base validated
3	B11A	110	020	Interactive Electronic Technical Manuals (IETM) validated
3	B11A	110	030	Logistics Decision Support System (LDSS) validated

OL	PE	SA	AC	Description
3	B11A	110	040	Platform Soldier/Mission Readiness System (PS/MRS) validated
3	B11A	110	050	Logistics Model validated
3	B11A	110	060	Supply Chain Management validated
2	B11A	120		Training LRIP readiness review completed
3	B11A	120	010	NRTTIs critical design reviews conducted
3	B11A	120	020	Training common components integration and testing completed
3	B11A	120	030	Embedded Training integration and test completed
3	B11A	120	040	Individual and collective TSPs for LDT I completed
2	B11A	130		LRIP Source Selection Completed
3	B11A	130	010	Source Selection Team established
3	B11A	130	020	Proposals Evaluated
2	B11A	140		System Life Cycle affordability Demonstrated
3	B11A	140	010	Life-cycle Cost Containment Report and analyses completed
3	B11A	140	020	Affordability analyses completed
2	B11A	150		LRIP and Production Funding Estimates Updated
3	B11A	150	010	LRIP Long Lead funding estimates updated
3	B11A	150	020	Production Long Lead funding estimates updated
3	B11A	150	030	LRIP funding estimates updated
3	B11A	150	040	Production funding estimates updated
3	B11A	150	050	LRIP and Productions proposals submitted
2	B11A	160		Incremental FCA Conducted
3	B11A	160	010	Meeting conducted, and agreed upon action items/closure plans documented
2	B11A	170		IPD #1 Readiness Review Event Review Conducted
3	B11A	170	010	Meeting conducted, and agreed upon action items/closure plans documented
2	B11A	180		IPD #1 Decision Made
3	B11A	180	010	Authorization to Proceed with Production Granted
1	B09C			LRIP Long Lead Readiness Review 3
2	B09C	010		Prime item / segment data evaluated
3	B09C	010	010	Prime item / segment design progress evaluated
3	B09C	010	020	Prime item / segment system engineering processes evaluated
3	B09C	010	030	Assessment of prime item / segment LRIP long lead requests completed
3	B09C	010	050	Supplier production & quality reviews completed
3	B09C	010	060	Affordability/life cycle cost analysis evaluated
3	B09C	010	070	FoS Risks assessment and mitigation plans evaluated
2	B09C	020		System of Systems products and analysis updated
3	B09C	020	010	SOS requirements documents updated
3	B09C	020	020	System of Systems performance assessment updated
3	B09C	020	030	SOS risks assessment and mitigation plans reviewed
3	B09C	020	040	System of Systems design documents updated
3	B09C	020	050	Technology Development Strategy
2	B09C	030		LRIP and Production Funding Estimates Updated
3	B09C	030	010	LRIP Long Lead funding estimates updated
3	B09C	030	020	Production Long Lead funding estimates updated
3	B09C	030	030	LRIP funding estimates updated

OL	PE	SA	AC	Description
3	B09C	030	040	Production funding estimates updated
2	B09C	040		LRIP LL procurements initiated
3	B09C	040	010	Final Bidder's List for LL LRIP identified
3	B09C	040	020	LRIP procurement requirements defined
3	B09C	040	030	Final LL procurement requirements defined
3	B09C	040	040	LRIP LL procurement RFPs approved
3	B09C	040	050	LRIP LL evaluation & selection plan/schedule generated
2	B09C	050		Incremental FCA Conducted
3	B09C	050	010	Meeting conducted, and agreed upon action items/closure plans documented
2	B09C	060		LRIP LL Readiness Review #3 conducted
3	B09C	060	010	Meeting conducted, and agreed upon action items/closure plans documented
1	B12B			SoS Integration & Verification Phase 4.2
2	B12B	010		Program SoS Phase 4.2 Requirements/Planning Products Complete
3	B12B	010	010	System Integration Plan Final Update for Phase 4.2
3	B12B	010	020	Integration Phase Plan 4.2 Released
3	B12B	010	030	CP ACAs Essential to support Phase 4.2 Finalized
3	B12B	010	040	SHAD Baselined for Integration Phase 4.2
3	B12B	010	050	Software Phased Integration Plan for Phase 4.2 Released
3	B12B	010	060	System Analysis Plan Final Update for Phase 4.2
3	B12B	010	070	M&S Strategy Plan/STP Final Update for Phase 4.2
3	B12B	010	080	Simulations/Emulation Development/Integration Requirements Reviews Completed for Phase 4.2
3	B12B	010	090	Test Planning for Phase 4.2 Complete
2	B12B	020		Program SoS Phase 4.2 Infrastructure Complete
3	B12B	020	010	SoSIL Distributed Network Certified
3	B12B	020	020	M&S Initial Framework Complete & Accredited
3	B12B	020	030	Analyses/Evaluation Tools Complete
3	B12B	020	040	C4.2ISR Integrated Software Build 4 Package Complete
3	B12B	020	050	Gov't/LSI/Supplier Support Team Identified and Committed
3	B12B	020	060	Integration Phase Readiness Review Conducted
2	B12B	030		Program SoS Phase 4.2 Integration Complete
3	B12B	030	010	IPT Simulation/Emulation Deliveries Complete per SHAD
3	B12B	030	020	Test Support Packages/Objectives Complete
3	B12B	030	030	Pre-Test Analyses on UUT/UA and Predictions Complete
3	B12B	030	040	IPT Prototype Deliveries Complete per SHAD, as applicable
3	B12B	030	050	Phase S4.2 Early Integration for SoS Technical Testing & Audits (I/F, Design, Functionality, & Config) completed
3	B12B	030	060	Acceptance & Installation of simulation/Emulation to SoSIL Environ completed
3	B12B	030	070	Phase S4.3 SoS Integration for Test and Test Readiness Review (TRR) completed
3	B12B	030	080	Phase S4.2 SoS Technical Test Series completed
3	B12B	030	090	SoS Test Resources & Facilities completed
2	B12B	040		Program SoS Phase 4.2 Analyses, Evaluations and Tests Complete
3	B12B	040	010	Analyses Results Compared and Accounted for Relative to Test Results

OL	PE	SA	AC	Description
3	B12B	040	020	Anomalies Resolved/Dispositioned & Break-Of-Configuration Review Complete
2	B12B	050		Program SoS Phase 4.2 Final Reports Completed
3	B12B	050	010	Integration Phase S4.2 Technical Test Assessment Review completed
3	B12B	050	020	SoS Phase 4.2 I&V Assessment Report Complete
3	B12B	050	030	Downstream Objectives Assessed for Necessary Updates
2	B12B	060		System of Systems Assessment Completed
3	B12B	060	010	SoS performance assessment updated
3	B12B	060	020	SoS Effectiveness analysis performed
3	B12B	060	030	Assessment of Requirements/Architecture/Interface/Design Issues supported by necessary Trades
3	B12B	060	040	SoS Engineering specialty analyses performed
3	B12B	060	050	SOS risks assessment and mitigation plans reviewed
3	B12B	060	060	KPPs and TPMs evaluated
3	B12B	060	070	SoS Models and Sims Assessed for Updates
3	B12B	060	080	Force Development DOTMLPF design, analysis, and assessments updated
3	B12B	060	100	SoS Force Development Operational Analysis Updated
1	B11B			Initial Production Decision #2 Readiness Review
2	B11B	010		O&O and ORD updates evaluated
3	B11B	010	010	Force Development DOTMLPF design, analysis, and assessments updated
2	B11B	020		MGV LRIP Readiness Review completed
3	B11B	020	010	RS&V, RLOS-M and MV LRIP Items identified
3	B11B	020	020	LRIP Readiness review completed
2	B11B	040		UGV LRIP Readiness Review Completed
3	B11B	040	010	UGV LRIP Items Identified
3	B11B	040	020	LRIP Readiness review completed
2	B11B	050		Acceptable performance in DT&E Phase for LRIP Candidate Prime Items Demonstrated
3	B11B	050	010	IPD#2 Prime Item Verification (tests, analysis, demos, inspections) performed
3	B11B	050	020	Risk assessment of open requirements verification completed
3	B11B	050	030	IPD#2 Prime Item Support Equipment Testing Completed
2	B11B	060		Acceptable performance in Operational Assessment and Inter operability Demonstrated
3	B11B	060	010	SoS I&T phase 4.2 completed
3	B11B	060	020	Limited User Testing LUT #2 completed
3	B11B	060	030	Support Army ATEP testing completed
2	B11B	080		LRIP procurements defined
3	B11B	080	010	Bidder's List for LRIP identified
3	B11B	080	070	Procurement requirements defined
3	B11B	080	030	LRIP procurement RFPs released
3	B11B	080	040	LRIP evaluation & selection plan/schedule generated
2	B11B	090		Production Readiness & Risk Assessment Completed
3	B11B	090	010	Supplier production & quality reviews completed
3	B11B	090	050	Technology Development Strategy

OL	PE	SA	AC	Description
3	B11B	090	090	Complementary programs manufacturing risk evaluated
3	B11B	090	100	Government furnished weapons & munitions risks evaluated
3	B11B	090	110	Government furnished Soldier Systems risks evaluated
2	B11B	100		**Acceptable operational supportability Demonstrated**
3	B11B	100	010	Supportability plan and analyses completed
3	B11B	100	020	Necessary equipment completion plan supports FUE
3	B11B	100	030	Performance-based Logistics Implementation Plan completed
3	B11B	100	040	Interactive Electronic Technical Manuals Class V Framework demonstrated
3	B11B	100	050	Interactive Electronic Technical Manuals completion plan supports FUE
3	B11B	100	060	Log Demo Performed
2	B11B	110		**Supportability Strategy validated**
3	B11B	110	010	Supportability data base validated
3	B11B	110	020	Interactive Electronic Technical Manuals (IETM) validated
3	B11B	110	030	Logistics Decision Support System (LDSS) validated
3	B11B	110	040	Platform Soldier/Mission Readiness System (PS/MRS) validated
3	B11B	110	050	Logistics Model validated
3	B11B	110	060	Supply Chain Management validated
2	B11B	120		**Training LRIP readiness review completed**
3	B11B	120	010	NRFTTs critical design reviews conducted
3	B11B	120	020	Training common components integration and testing completed
3	B11B	120	030	Embedded Training integration and test completed
3	B11B	120	040	Individual and collective TSPs for LUT 2 completed
2	B11B	130		**LRIP Source Selection Completed**
3	B11B	130	010	Source Selection Team established
3	B11B	130	020	Proposals Evaluated
2	B11B	140		**System Life Cycle affordability Demonstrated**
3	B11B	140	010	Life-cycle Cost Containment Report and analyses completed
3	B11B	140	020	Affordability analyses completed
2	B11B	150		**LRIP and Production Funding Estimates Updated**
3	B11B	150	010	LRIP Long Lead funding estimates updated
3	B11B	150	020	Production Long Lead funding estimates updated
3	B11B	150	030	LRIP funding estimates updated
3	B11B	150	040	Production funding estimates updated
3	B11B	150	050	LRIP and Productions proposals submitted
2	B11B	160		**Incremental FCA Conducted**
3	B11B	160	010	Meeting conducted, and agreed upon action items/closure plans documented
2	B11B	170		**IPD #2 Readiness Review Event Review Conducted**
3	B11B	170	010	Meeting conducted, and agreed upon action items/closure plans documented
2	B11B	180		**IPD #2 Decision Made**
3	B11B	180	010	Authorization to Proceed with Production Granted
1	B13A			SoS Integration & Verification Phase 5

OL	FE	SA	AC	Description
2	B13A	010		Program SoS Phase 5 Requirements/Planning Products Complete
3	B13A	010	010	System Integration Plan Final Update for Phase 5
3	B13A	010	020	Integration Phase Plan 5 Released
3	B13A	010	030	CP ACAs Essential to support Phase 5 Finalized
3	B13A	010	040	SHAD Baselined for Integration Phase 5
3	B13A	010	050	Software Phased Integration Plan for Phase 5 Released
3	B13A	010	060	System Analysis Plan Final Update for Phase 5
3	B13A	010	070	M&S Strategy Plan/STP Final Update for Phase 5
3	B13A	010	080	Simulations/Emulation Development/Integration Requirements Reviews Completed for Phase 5
3	B13A	010	090	Test Planning for Phase 5 Complete
2	B13A	020		Program SoS Phase 5 Infrastructure Complete
3	B13A	020	010	SoSIL Distributed Network Certified
3	B13A	020	020	M&S Initial Framework Complete & Accredited
3	B13A	020	030	Analyses/Evaluation Tools Complete
3	B13A	020	040	C4ISR Integrated Software Build 5 Package Complete
3	B13A	020	050	Gov't/LSI/Supplier Support Team Identified and Committed
3	B13A	020	060	Integration Phase Readiness Review Conducted
2	B13A	030		Program SoS Phase 5 Integration Complete
3	B13A	030	010	IPT Simulation/Emulation Deliveries Complete per SHAD
3	B13A	030	020	Test Support Packages/Objectives Complete
3	B13A	030	030	Pre-Test Analyses on UUT/UA and Predictions Complete
3	B13A	030	050	Phase S5 Early Integration for SoS Technical Testing & Audits (I/F, Design, Functionality, & Config) completed
3	B13A	030	060	Acceptance & installation of simulation/Emulation to SoSIL Environ completed
3	B13A	030	070	Phase S5 SoS Integration for Test and Test Readiness Review (TRR) completed
3	B13A	030	080	Phase S5 SoS Technical Test Series completed
3	B13A	030	090	SoS Test Resources & Facilities completed
2	B13A	040		Program SoS Phase 5 Analyses, Evaluations and Tests Complete
3	B13A	040	010	Analyses Results Compared and Accounted for Relative to Test Results
3	B13A	040	020	Anomalies Resolved/Dispositioned & Break-Of-Configuration Review Complete
2	B13A	050		Program SoS Phase 5 Final Reports Completed
3	B13A	050	010	Integration Phase S5 Technical Test Assessment Review completed
3	B13A	050	020	SoS Phase 5 J&V Assessment Report Complete
3	B13A	050	030	Downstream Objectives Assessed for Necessary Updates
2	B13A	060		System of Systems Assessment Completed
3	B13A	060	010	SoS performance assessment updated
3	B13A	060	020	SoS Effectiveness analysis performed
3	B13A	060	030	Assessment of Requirements/Architecture/Interface/Design Issues supported by necessary Trades
3	B13A	060	040	SoS Engineering specialty analyses performed
3	B13A	060	050	SOS risks assessment and mitigation plans reviewed

OL	PE	SA	AC	Description
3	B13A	060	060	KPPs and TPMs evaluated
3	B13A	060	070	SoS Models and Sims Assessed for Updates
3	B13A	060	080	Force Development DOTML-PF design, analysis, and assessments updated
3	B13A	060	100	SoS Force Development Operational Analysis Updated
1	B14A			SoS Verification Complete
2	B14A	010		Requirements Compliance Closeout Activities
3	B14A	010	010	Final Incremental FCAs completed
2	B14A	020		Increment 1 Requirements Documentation Released
3	B14A	020	010	Final Increment 1 SoS specification released
3	B14A	020	020	Segment & Systems' DSSs, PIDS, ICDs, IERs released
2	B14A	030		C4ISR Software Verification completed
3	B14A	030	010	Software Final Increment Build 6 Construction Completed
3	B14A	030	020	C4ISR Platform Integration and Testing for LRIP Completed
3	B14A	030	030	Software Build 6 Verification Completed
2	B14A	040		System of System Performance Verified
3	B14A	040	010	All PIDS Compliance Verified
3	B14A	040	020	Increment 1 Contract Specification Verification Requirements Demonstrated
3	B14A	040	030	Increment 1 System of Systems Verification Review Conducted
2	B14A	050		System of Systems Assessment Completed
3	B14A	050	010	SoS performance assessment updated
3	B14A	050	020	SoS Effectiveness analysis performed
3	B14A	050	030	Assessment of Requirements/Architecture/Interface/Design Issues supported by necessary Trades
3	B14A	050	040	SoS Engineering specialty analyses performed
3	B14A	050	050	SOS risks assessment and mitigation plans reviewed
3	B14A	050	060	KPPs and TPMs evaluated
3	B14A	050	070	SoS Models and Sims Assessed for Updates
3	B14A	050	080	Force Development DOTML-PF design, analysis, and assessments updated
3	B14A	050	090	SoS Force Development Operational Analysis Updated
1	B15A			SDD Closeout
2	B15A	030		C4ISR SDD Completed
3	B15A	030	010	Final PIDS, CIDS, CSCIs and ICDs Completed
3	B15A	030	020	Production Capability Approved
3	B15A	030	050	SOSIL Integration and Test Support for LRIP Completed
2	B15A	040		MGV SDD completed
3	B15A	040	010	MGV Software SDD Activities completed
3	B15A	040	020	MGV System Engineering and Analysis and Integration SDD completed
3	B15A	040	030	MGV common subsystems integration into SDD completed
3	B15A	040	040	MGV Mission Variant Inputs into SDD completed
3	B15A	040	050	Misc SoS Event support completed
3	B15A	040	060	MGV subcontracts Completed
2	B15A	050		UAV SDD Completed
3	B15A	050	010	Hardware and Software SDD activities completed

OL	PE	SA	AC	Description
3	B15A	050	020	UAV Program Management performed
2	B15A	060		**UGV SDD Completed**
3	B15A	060	010	Hardware and Software SDD activities completed
3	B15A	060	020	UGV Program Management performed
2	B15A	070		**Software SDD Completed**
3	B15A	070	010	Updated Software Risks & Mitigation plans in Risk Mgmt System reviewed
3	B15A	070	020	Impact of LRIP SW changes evaluated
2	B15A	080		**Subcontract close-out completed**
3	B15A	080	010	Subcontract open items defined
3	B15A	080	020	Subcontract SCLINs & SDRLs status evaluated
3	B15A	080	030	Government property disposition completed
3	B15A	080	040	Subcontract deliveries verified
3	B15A	080	050	Purchase contract close-out folder compiled
2	B15A	090		**SDD Contract Complete and Final SOS Design Delivered**
3	B15A	090	010	BUS Management and tasks completed
3	B15A	090	020	MGV management and tasks completed
3	B15A	090	030	SMP Management and tasks completed
3	B15A	090	040	UAV management and tasks completed
3	B15A	090	050	UGV management and tasks completed
3	B15A	090	060	Supportability management and tasks completed
3	B15A	090	070	Training management and tasks completed
3	B15A	090	080	Lethality management and tasks completed
3	B15A	090	090	Soldier Systems management and tasks completed
3	B15A	090	100	Complementary Programs management and tasks completed
3	B15A	090	110	ACE management and tasks completed
3	B15A	090	120	SE management and tasks completed
3	B15A	090	130	IS&T management and tasks completed
3	B15A	090	140	C4ISR management and tasks completed
3	B15A	090	150	Software management and tasks completed
3	B15A	090	160	Program Management management and tasks completed
3	B15A	090	170	Operations management and tasks completed
3	B15A	090	180	Force Development management and tasks completed
3	B15A	090	190	Final Verified Increment 1 Design Delivered

Table 2-2 IPT Code Definitions

ACE	Advanced Collaborative Environment IPT
BUS	Business IPT
C4I	C4ISR IPT
FDV	Force Development IPT
IST	Integration, Simulation and Test IPT
LET	Lethality IPT
MGV	Manned Ground Vehicles IPT
OPS	Operations IPT
PMO	Program Management
SEI	Systems-of-Systems Engineering and Integration IPT (Includes Complimentary Programs)
SMP	Supplier Management and Procurement IPT
SLD	Soldier Systems IPT
SUP	Supportability IPT
SWE	Software Engineering IPT
TRN	Training IPT
UAV	Unmanned Air Vehicles IPT
UGV	Unmanned Ground Vehicles IPT

DAAE07-03-9-F001
PZ0007
Attachment 8

Revision Record

Revision Letter	A
Changes in this Revision	CR 010 approves release of Rev A. Rev A documents the changes to the IMP to incorporate additional IMP Program Events and corrections found from the integrated program scheduling effort. Additional Program Events B03A SoS Design Concept Review B09B LRIP Long Lead Readiness Review #2 B09C LRIP Long Lead Readiness Review #3 B10B Network Maturity Milestone Decision Review B11B Initial Production Decision #2 Readiness Review B12B SoS Integration & Verification Phase 4.2 B14A SoS Verification Complete

Signatures

AUTHOR:	/s/ on ACE Ricardo Sotura	GT-01-007S Org. Number	Nov. 3, 2003 Date
APPROVAL:	/s/ on ACE Stanley G. Coker	GT-01-348S Org. Number	Nov. 5, 2003 Date
APPROVAL:	/s/ on ACE James R. Anderson	GT-01-007S Org. Number	Nov. 13, 2003 Date
DOCUMENT RELEASE:	/s/ on ACE Marilyn L. McGrath	9S-7M-721R Org. Number	Nov. 14, 2003 Date

Attachment 9

Directed Subcontracts

Directed Subcontractor	Purpose	Authorization Date
United Defense LP	Manned Ground Vehicle Integrated Design Team	January 23, 2003
General Dynamics Land Systems	Manned Ground Vehicle Integrated Design Team	January 23, 2003

Attachment 10

Reserved

Attachment 11

Complementary and Associated Programs

No		PROGRAM NAME	SMOA	ACA
		COMPLEMENTARY		
1	CP1	Advanced Aviation Forward Area Refueling System (AAFARS)	X	
2	CP260	Advanced Crew Served Weapon (XM307) (ACSW)	X	X
3	CP14	Advanced Precision Kill Weapon (APKWS)	X	
4	CP7	Aerial Common Sensor (ACS)	X	
5	CP421	Airborne Standoff Minefield Detection System (ASTAMIDS)	X	X
6	CP15	Army Airborne Command and Control System (A2C2S)	X	X
7	CP389	Army Tactical Missile System (ATACMS, MSLS)	X	X
8	CP31	Black Hawk (UH-60)	X	
9	CP33	Bridge Site Mobility (BSM)	X	
10	CP43	Chinook (CH-47)	X	
11	CP425	Close Combined Tactical Trainer (CCTT)	X	X
12	CP286	Comanche (RAH-66)	X	X
13	CP61	Compact Kinetic Energy Missile (CKEM)	X	
14	CP429	Defense Message System- Army (DMS-A)	X	
15	CP86	Distributed Common Ground System - Army (DCGS-A)	X	X
16	CP143	Emitter Mapping (Prophet 2/3)	X	X
17	CP201	Engineer Vehicle (Bridging and Obstacle Neutralization)	X	
18	CP102	Excalibur	X	X
19	CP104	Family of Medium Tactical Vehicles (FMTV)	X	
20	CP401	Firefinder Radar Q36/Q37 Both Q36/Q37 SMOA	X	
21	CP387	Ground Standoff Minefield Detection system (GSTAMIDS)	X	X
22	CP391	Guided Multiple-Launch Rocket System (GMLRS)	X	X
23	CP413	Handheld Standoff Mine Detection System (HSTAMIDS)	X	
24	CP81	HEMTT (wrecker, resupply, NLOS-LS, refuel, ammo)	X	X
25	CP85	High Mobility Artillery Rocket System (HIMARS)	X	X
26	CP130	High Mobility Engineer Excavator (HMEE)	X	
27	CP87	HMMWV (C2V, support & ambulance)	X	X
28	CP89	Javelin P31	X	X
29	CP160	Joint Biological Point Detection System	X	
30	CP164	Joint Chemical Agent Detector (JCAD)	X	
31	CP412	Joint Common Missile	X	
32	CP168	Joint Service Lightweight Stand-off Chemical Agent Detector	X	

DAAE07-03-9-F001
PZ0007
Attachment 11

No		PROGRAM NAME	SMOA	ACA
33	CP403	Joint Tactical Radio Systems (Cluster 1) (JTRS)	X	X
34	CP176	Joint Tactical Radio Systems (Cluster 5) (JTRS)	X	X
35	CP180	Land Warrior Block II (LW II) Stryker Interoperability	X	X
36	CP379	LHS Modular Fuel Farm (LHS Modular Farm)	X	
37	CP186	Lightweight Laser Designator/Rangefinder (LLDR)	X	X
38	CP414	Lightweight Water Purifier (LWP)	X	
39	CP415	Load Handling System Water Tank Rack (HIPPO)	X	
40	CP411	Maintenance Truck (Contact Truck)	X	X
41	CP196	Medical Communications for Combat Casualty Care (MC4)	X	X
42	CP206	Mid Range Munition/Extended Range Munition	X	X
43	CP438	MK VII	X	X
44	CP392	Multi Option Fuse for Artillery (MOFA)	X	
45	CP248	Non-Lethal 155mm Cannon Munition	X	X
46	CP128	Palletized Loading System Trailer	X	X
47	CP377	Profiler	X	X
48	CP284	Radiac Set AN (UDR-13)	X	
49	CP119	Rapidly Emplaced Bridging System (REBS)	X	
50	CP298	Secure Enroute Communications Package – Improved (SECOMP-I) / Joint Enroute Mission Planning and Rehearsal System (JEMPRS)	X	X
51	CP315	Sentinel Phased Array Radar (AN/MPQ-64)	X	X
52	CP378	Theater Support Vessel (TSV)	X	X
53	CP352	Unmanned Aerial Vehicle - Class IV-b ILO	X	X
54	CP356	Warfighter Information Network - Tactical (WIN-T)	X	X
		ASSOCIATED		
55	CP147	Advanced Field Artillery Tactical Data System (AFATDS)	X	X
56	CP149	Air and Missile Defense Workstation (AMDWS)	X	X
57	CP420	Airborne Early Warning and Control System (AWACS)		
58	CP151	Air Defense System Integrator (ADSI)	X	X
59	CP157	All Source Analysis System (ASAS)	X	X
60	CP422	Army Constructive Training Federation (ACTF)	X	X
61	CP17	Army Training Information Architecture (ATIA)	X	X
62	CP450	Automated Air Load Planning System (AALPS)		
63	CP162	Automated Deep Operations Coordination System (ADOCS)	X	
64	CP163	Automated Field Artillery/Fire Support & C3 System (German) (ADLER)	X	
65	CP423	Aviation Combined Arms tactical Trainer (AVCATT)	X	X
66	CP166	Aviation Mission Planning System/Joint Mission Planning System (AMPS/JMPS)	X	X
67	CP424	Base Shop Test Facility (BSTF)	X	X
68	CP179	Battle Command Sustainment System (BCS3) formally CSSCS	X	X
69	CP167	Battlefield Artillery Target Equipment System (UK System) (BATES)		
70	CP173	Blue Force Tracking (BFT)	X	X
71	CP175	C4 Army System (C2 System for Spain) (SIMACET)		
72	CP41	Chemical, Biological, Radiological, Nuclear Reconnaissance System (CBRNRS)		
73	CP49	CLASS 4A SIGINT Payload (Tactical SIGINT Payload)	X	X
74	CP334	Class IV EO/IR (aka Adv EO/IR)	X	X

DAAE07-03-9-F001
PZ0007
Attachment 11

No		PROGRAM NAME	SMOA	ACA
76	CP336	Class IV SAR/MTI	X	X
77	CP181	Command & Control Personal Computer (C2PC)		
78	CP426	Common Embedded Diagnostic (CED)	X	X
79	CP427	Common Logistics Operating Environment (CLOE)	X	
80	CP80	Common Training Instrumentation Architecture (CTIA)	X	X
81	CP428	Corps Battle Simulation (CBS)	X	X
82	CP451	Counterintelligence & Human Intelligence Management Systems (CHIMS)		
83	CP195	Digital Topographic Support System (DTSS)	X	X
84	CP145	Distributed Collaborative Tool Suite (DoD) (DCTS)		
85	CP197	Distributed Learning System (DLS)	X	
86	CP430	Electronic Time Fuse- M762A1		
87	CP205	F/A-22 Raptor Aircraft		
88	CP207	Family of Interoperable Operational Pictures (FIOP)		
89	CP408	FCS platform to non-FCS Platform Combat ID		
90	CP211	Force XII Battle Command Brigade & Below (FBCB2)	X	X
91	CP213	Forward Area Air Defense Command, Control, Communications and Intelligence (FAAD C3I)	X	X
92	CP219	Global Broadcast System (GBS)		
93	CP118	Global Combat Service Support-Army (GCSS-A)		
94	CP223	Global Command & Control System-Army (GCCS-A)	X	X
95	CP431	Global Information Grid (GIG)		
96	CP134	HTI-2d GEN FLIR ED		
97	CP432	Improved Data Modem (IDM)	X	X
98	CP237	Integrated Meteorological System (IMETS)	X	X
99	CP433	Intel Broadcast Service (IBS)		
100	CP241	Intelligence Analysis System (Marines) (IAS) (Marine Corps Air Ground Intelligence System (MAGIS)		
101	CP136	Intelligence Electronic Warfare Tactical Proficiency Trainer (IEWTPT)	X	X
102	CP150	Intelligent Munition System (IMS)	X	X
103	CP434	Joint Biological Standoff Detection System (JBSDS)		
104	CP452	Joint Command and Control (JC2)		
105	CP253	Joint Land Attack Cruise Missile Defense Elevated Netted System (JLENS)	X	X
106	CP265	Joint Tactical Ground Station (JTAGS)	X	X
107	CP99	Joint Warning and Reporting Network (JWARN)	X	
108	CP271	Land Force C2 Information System (Canadian System) (LFC2IS)		
109	CP435	Land Warrior Block III (LW III)	X	
110	CP184	Lightweight 120mm Cannon for Mounted Combat System		
111	CP277	Lightweight Forward Entry Device w/Forward Observer System (LFED/FOS)	X	X
112	CP279	Low Level Air Picture Interface (German System) (LLAPI/FAST)		
113	CP107	Longbow Apache (AH-64)	X	
114	CP437	Maintenance Support Device (MSD)	X	X
115	CP281	Maneuver Control System (MCS)	X	X
116	CP283	Marine Corps Target Identification System (MCTIS)		
117	CP285	Medium Extended Air Defense System (MEADS)	X	X
118	CP220	Military Operations in Urban Terrain Objective Instrumentation system (MOUT-OIS)	X	X
119	CP439	MK-44 30/40mm		

DAAE07-03-9-F001
PZ0007
Attachment 11

No		PROGRAM NAME	SMOA	ACA
119	CP440	Modular Artillery Charge System (MACS)		
120	CP214	Mongoose	X	
121	CP289	Mortar Fire Control System XM-95 (MFCS)	X	X
122	CP136	Movement Tracking System (MTS)		
123	CP441	Multilateral Interoperability Program (MIP)		
124	CP210	Multiple Integrated Laser Engagement System (MILES XXI)	X	X
125	CP293	Multiple-Launch Rocket System (MLRS)	X	X
126	CP295	Naval Fire Control System (NFCS)		
127	CP442	Network Centric Enterprise Services		
128	CP443	New Generation Army Targetry System (NGATS)		
129	CP254	Non-Line-of-Site Launch System RDTE (NLOS-LS)		X
130	CP341	ONE Tactical Engagement Simulation System (OneTESS)	X	X
131	CP264	One Semi-Automated Forces (OneSAF) Objective System	X	X
132	CP301	Paladin Automatic Fire Control System		
133	CP117	Palletized Loading System (PLS)	X	X
134	CP303	Patriot	X	X
135	CP270	Phoenix Battlefield Sensor System (Q47) / Firefinder	X	X
136	CP453	Precision, Extended Glide, Airdrop System (PEGASYS)		
137	CP280	Precision Guided Mortar Munition (PGMM)	X	X
138	CP444	Public Key Infrastructure (PKI)		
139	CP445	Soldier Combined Arms Tactical Trainer (Soldier-CATT)	X	X
140	CP416	Soldier System	X	X
141	CP409	Soldier to FCS Platform Combat ID		
142	CP410	Soldier to Soldier Combat ID		
143	CP417	Short Range Air Defense (SHORAD)	X	
144	CP446	Standard Tactical Entry Points Sites		
145	CP447	Surface Launched Advanced Medium Range Air to Air Missile (SLAMRAAM)	X	X
146	CP448	Synthetic Environment Core (SE-Core)	X	X
147	CP335	Tactical Airspace Integration System (TAIS)	X	X
148	CP337	Tactical Combat Operations Systems (Marines C2) (TCO)		
149	CP339	Tactical Electric Power (TEP)	X	
150	CP343	Tactical Exploitation System (TES)	X	X
151	CP64	Tactical Intel Simulation (TACSIM)	X	X
152	CP449	Teleports		
153	CP351	Theater Battle Management Core System (Air Force) (TBMCS)		
154	CP330	Training Unique Ammo	X	
155	CP357	Transportation Coordinators Automated Information for Movement System II (TC-AIMS)		
156	CP133	Unit Water Pod System (CAMEL)	X	
157	CP360	Warfighters Simulation (WARSIM)	X	X

ATTACHMENT 12

ACCOUNTING/APPROPRIATION DATA FOR PAYMENT OFFICE

(Agreement Cross-Reference: Article V, Paragraph B)

PART A. ACCOUNTING DATA FOR *THIS ACTION* (Award or Modification)

Identification of *THIS ACTION*: Modification PZ0007 10 Dec 2003

1. Accounting Data for *THIS ACTION* is presented below in two views: by CLIN/subCLIN and by ACRN.

Accounting Data by CLIN/SubCLIN

LINE ITEM	PRON & Amd No. JON	ACRN	FCS USE	PRIOR AMOUNT	INCREASE/DECREASE AMOUNT	CUMULATIVE AMOUNT THIS CLIN
0001AA	BU3GFD05BUEH 01 3GFD05	AA		$113,109,880.00	$-0-	$113,109,880.00
0001AB	BU3GFD05BUEH 01 3GFD05	AA		$6,756,048.00	$-0-	$6,756,048.00
0001AC	BU3GFD05BUEH 01 3GFD05	AA		$10,134,072.00	$-0-	$10,134,072.00
0001AG	BU3JFCSD37EH 01 39L7XX	AB		$1,267,240.00	$-0-	$1,267,240.00
0001AH	BU3JFCSD37EH 01 39L7XX	AB		$75,692.00	$-0-	$75,692.00
0001AJ	BU3JFCSD37EH 01 39L7XX	AB		$113,538.00	$-0-	$113,538.00
0001AK	BU4GFFC1BUEH 01 4GFFC1	AE		$-0-	$-0-	$-0-
0001AL	BU4GFFC1BUEH 01 4GFFC1	AE		$-0-	$-0-	$-0-
0001AM	BU4GFFC2BUEH 01 4GFFC2	AF		$-0-	$-0-	$-0-
0001AN	BU4GFFC2BUEH 01 4GFFC2	AF		$-0-	$-0-	$-0-
0001AP	BU4GFFC3BUEH 01 4GFFC3	AG		$-0-	$-0-	$-0-
0001AQ	BU4GFFC3BUEH 01 4GFFC3	AG		$-0-	$-0-	$-0-
0001AR	BU4GFFC4BUEH 01 4GFFC4	AH		$-0-	$-0-	$-0-
0001AS	BU4GFFC4BUEH 01 4GFFC4	AH		$-0-	$-0-	$-0-
0001AT	BU4GFFC5BUEH 01 4GFFC5	AJ		$-0-	$-0-	$-0-
0001AU	BU4GFFC5BUEH 01 4GFFC5	AJ		$-0-	$-0-	$-0-
0001AV	BU4GFFC6BUEH 01 4GFFC6	AK		$-0-	$-0-	$-0-
0001AW	BU4GFFC6BUEH 01 4GFFC6	AK		$-0-	$-0-	$-0-

DAAE07-03-9-F001
PZ0007
Attachment 12

LINE ITEM	PRON & Amd No. JON	ACRN	FCS USE	PRIOR AMOUNT	INCREASE/DECREASE AMOUNT	CUMULATIVE AMOUNT THIS CLIN
0001AX	BX4GFFC1BUEH 01	AL		$22,084,243.00	$-0-	$22,084,243.00
	4GFFC1					
0001AY	BX4GFFC1BUEH 01	AL		$16,015,756.00	$-0-	$16,015,756.00
	4GFFC1					
0001AZ	BX4GFFC2BUEH 01	AM		$20,287,362.00	$-0-	$20,287,362.00
	4GFFC2					
0001BA	BX4GFFC2BUEH 01	AM		$14,712,639.00	$-0-	$14,712,639.00
	4GFFC2					
0001BB	BX4GFFC3BUEH 01	AN		$6,376,028.00	$-0-	$6,376,028.00
	4GFFC3					
0001BC	BX4GFFC3BUEH 01	AN		$4,623,972.00	$-0-	$4,623,972.00
	4GFFC3					
0001BD	BX4GFFC4BUEH 01	AP		$4,057,472.00	$-0-	$4,057,472.00
	4GFFC4					
0001BE	BX4GFFC4BUEH 01	AP		$2,942,528.00	$-0-	$2,942,528.00
	4GFFC4					
0001BF	BX4GFFC5BUEH 01	AQ		$4,637,111.00	$-0-	$4,637,111.00
	4GFFC5					
0001BG	BX4GFFC5BUEH 01	AQ		$3,362,889.00	$-0-	$3,362,889.00
	4GFFC5					
0001BH	BX4GFFC6BUEH 01	AR		$1,101,314.00	$-0-	$1,101,314.00
	4GFFC6					
0001BJ	BX4GFFC6BUEH 01	AR		$798,686.00	$-0-	$798,686.00
	4GFFC6					
0001BK	BX4GFFC1BUEH 01	AL		$-0-	$126,800,000.00	$126,800,000.00
	4GFFC1					
0001BL	BX4GFFC2BUEH 01	AM		$-0-	$116,400,000.00	$116,400,000.00
	4GFFC2					
0001BM	BX4GFFC3BUEH 01	AN		$-0-	$36,600,000.00	$36,600,000.00
	4GFFC3					
0001BN	BX4GFFC4BUEH 01	AP		$-0-	$23,300,000.00	$23,300,000.00
	4GFFC4					
0001BP	BX4GFFC5BUEH 01	AQ		$-0-	$26,600,000.00	$26,600,000.00
	4GFFC5					
0001BQ	BX4GFFC6BUEH 01	AR		$-0-	$6,300,000.00	$6,300,000.00
	4GFFC6					
				NET CHANGE:	$336,000,000.00	$568,456,470.00

LINE ITEM	PRON & Amd No. JON	ACRN	FCS USE	PRIOR AMOUNT	INCREASE/DECREASE AMOUNT	CUMULATIVE AMOUNT THIS CLIN
2001AA	BU3GFD07BUEH 01	AC		$5,000,000.00	$-0-	$5,000,000.00
	3GFD07					
				NET CHANGE:	$-0-	

LINE ITEM	PRON & Amd No. JON	ACRN	FCS USE	PRIOR AMOUNT	INCREASE/DECREASE AMOUNT	CUMULATIVE AMOUNT THIS CLIN
2002AA	BU3FCSCQ18EH 01	AD		$3,000,000.00	$-0-	$3,000,000.00
	39M750					
				NET CHANGE:	$-0-	

Accounting Data By ACRN

ACRN	Accounting Classification	Accounting Station	INCREASE/DECREASE AMOUNT	Funding Source
AA	21 32040 0000 35R5R06P654645255Y S20113	W56HZV	$-0-	PM, FCS
AB	21 32040 0000 35D5D04654710L255Y S28043	W56HZV	$-0-	PM, RUS

DAAE07-03-9-F001
PZ0007
Attachment 12

ACRN	Accounting Classification	Accounting Station	INCREASE/DECREASE AMOUNT	Funding Source
AC	21 32040 0000 3RPTACOP6130092355Y S20113	W56HZV	$-0-	PM, FCS
AD	21 32040 0000 35D5C0013515208973516 S28043	W56HZV	$-0-	PM, DCOS
AE	21 42040 0000 45R5R06P654645 F56 255X S20113	W56HZV	$-0-	PM, FCS
AF	21 42040 0000 45R5R06P654645 F57 255X S20113	W56HZV	$-0-	PM, FCS
AG	21 42040 0000 45R5R06P654645 F52 255X S20113	W56HZV	$-0-	PM, FCS
AH	21 42040 0000 45R5R06P654645 F55 255X S20113	W56HZV	$-0-	PM, FCS
AJ	21 42040 0000 45R5R06P654645 F53 255X S20113	W56HZV	$ 0-	PM, FCS
AK	21 42040 0000 45R5R06P654645 F54 255X S20113	W56HZV	$ 0-	PM, FCS
AL	21 42040 0000 45R5R06P654645 F58 255Y S20113	W56HZV	$126,800,000.00	PM, FCS
AM	21 42040 0000 45R5R06P654645 F57 255Y S20113	W56HZV	$116,400,000.00	PM, FCS
AN	21 42040 0000 45R5R06P654645 F52 255Y S20113	W56HZV	$36,600,000.00	PM, FCS
AP	21 42040 0000 45R5R06P654645 F55 255Y S20113	W56HZV	$23,100,000.00	PM, FCS
AQ	21 42040 0000 45R5R06P654645 F53 255Y S20113	W56HZV	$36,600,000.00	PM, FCS
AR	21 42040 0000 45R5R06P654645 F54 255Y S20113	W56HZV	$6,100,000.00	PM, FCS
		NET CHANGE:	$336,000,000.00	

2. Net Obligation Change (Increase/Decrease) to Agreement for *THIS ACTION*:

Total Prior Agreement Obligation:	$240,456,470.00
Net Obligation THIS ACTION:	$336,000,000.00
Current Cumulative Obligation:	$576,456,470.00

PART B. FUNDS ALLOTTED/OBLIGATED

1. The total amount of all funds currently allotted to this Agreement is $576,456,470.00. This is the same amount as the "Total Government Funds Obligated to Date" block on the face page of the original Agreement, considering all Agreement modifications issued.

2. Notes Regarding Funds Allotted/Obligated.

a. Initial Funding, FY03. The Parties agreed and acknowledged at time of original Agreement award that $130,000,000.00 was all the funding that was expected to be available from date of award through 30 Sep 2003.
b. FY04 Funding. TBD
c. CLIN 2001 is a ceiling price CLIN. The contractor may only submit vouchers up to 75% of the ceiling until definitization occurs.
d. d. CLIN 2002 is a ceiling price CLIN. The contractor may only submit vouchers up to 75% of the ceiling until definitization occurs.
e Fee vouchering instructions for subCLINs 0001AX, 0001AY, 0001AZ, 0001BA, 0001BB, 0001BC, 0001BD, 0001BE 0001BF, 0001BG, 0001BH, and 0001BJ

1) For subCLINs 0001AX, 0001AY, 0001AZ, 0001BA, 0001BB, 0001BC, 0001BD, 0001BE 0001BF, 0001BG, 0001BH, and 0001BJ the contractor shall detail separately in its vouchers by subCLIN and ACRN the estimated cost, base fee and provisional incentive fee billed, and DFAS shall pay as billed. (This is necessary to preserve disbursement traceability for the base and provisional incentive fees.)
2) The contractor shall voucher for base fee and provisional incentive fee against subCLINs 0001AX, 0001AZ, 0001BB, 0001BD, 0001BF, and 0001BH in accordance with Article I.B.5.e.
3) The contractor shall voucher for the provisional fee for subCLINs 0001AY, 0001BA, 0001BC, 0001BE, 0001BG, and 0001BJ in accordance with Article I.B.5.f.
4) The contractor shall voucher for subCLINs 0001BK, 0001BL, 0001BM, 0001BN, 0001BP, and 0001BQ in accordance with Article IX.

PART C. OBLIGATION REFERENCE TABLES (Including *THIS ACTION*, Part A., above)

The two tables below are for reference only and aid to tracking obligations made under this Agreement. They merely depict what has already happened, and where to find details. These tables will be updated, as appropriate, with each relevant Agreement modification.

1. By CLIN

CLIN	ACRN	Cumulative Obligation This CLIN	Last Action Affecting This CLIN
0001AA	AA	$ 113,109,880.00	Initial Award
0001AB	AA	$6,756,048.00	Initial Award
0001AC	AA	$10,134,072.00	Initial Award
0001AG	AB	$1,267,240.00	P00001
0001AH	AB	$75,692.00	P00001
0001AJ	AB	$113,538.00	P00001
2001AA	AC	$5,000,000.00	P00002
2002AA	AD	$3,000,000.00	P00003
0001AK	AE	$-0-	P00005
0001AL	AE	$-0-	P00005
0001AM	AF	$-0-	P00005
0001AN	AF	$-0-	P00005
0001AP	AG	$-0-	P00005
0001AQ	AG	$-0-	P00005
0001AR	AH	$-0-	P00005
0001AS	AH	$-0-	P00005
0001AT	AJ	$-0-	P00005
0001AU	AJ	$-0-	P00005
0001AV	AK	$-0-	P00005
0001AW	AK	$-0-	P00005
0001AX	AL	$22,084,243.00	P00006
0001AY	AL	$16,015,756.00	P00006
0001AZ	AM	$20,287,362.00	P00006
0001BA	AM	$14,712,639.00	P00006
0001BB	AN	$6,376,028.00	P00006
0001BC	AN	$4,623,972.00	P00006
0001BD	AP	$4,057,472.00	P00006
0001BE	AP	$2,942,528.00	P00006
0001BF	AQ	$4,637,111.00	P00006
0001BG	AQ	$3,362,889.00	P00006
0001BH	AR	$1,101,314.00	P00006
0001BJ	AR	$798,686.00	P00006
0001BK	AL	$126,800,000.00	PZ0007
0001BL	AM	$116,400,000.00	PZ0007
0001BM	AN	$36,600,000.00	PZ0007
0001BN	AP	$23,300,000.00	PZ0007

0001BP	AQ	$26,600,000.00	PZ0007
0001BQ	AR	$6,300,000.00	PZ0007
Total For All CLINS		336,000,000.00	

2. By ACRN

ACRN	Accounting Classification	Accounting Station	Cumulative ACRN Obligation	Last Action Affecting This ACRN
AA	21 32040 0000 35R5R06P654645255Y S20113	W56HZV	$130,000,000.00	Initial Award
AB	21 32040 0000 35D5D04654710L255Y S28043	W56HZV	$1,456,470.00	P00001
AC	21 32040 0000 3RPTACOP633005255Y S20113	W56HZV	$5,000,000.00	P00002
AD	21 32040 0000 35D5D0337520892516 S28043	W56HZV	$3,000,000.00	P00003
AE	21 42040 0000 45R5R06 P654645 F56 255X S20113	W56HZV	-0-	P00006
AF	21 42040 0000 45R5R06 P654645 F57 255X S20113	W56HZV	-0-	P00006
AG	21 42040 0000 45R5R06 P654645 F52 255X S20113	W56HZV	-0-	P00006
AH	21 42040 0000 45R5R06 P654645 F55 255X S20113	W56HZV	-0-	P00006
AJ	21 42040 0000 45R5R06 P654645 F53 255X S20113	W56HZV	-0-	P00006
AK	21 42040 0000 45R5R06 P654645 F54 255X S20113	W56HZV	-0-	P00006
AL	21 42040 0000 45R5R06 P654645 F56 255Y S20113	W56HZV	$164,900,000.00	PZ0007
AM	21 42040 0000 45R5R06 P654645 F57 255Y S20113	W56HZV	$151,400,000.00	PZ0007
AN	21 42040 0000 45R5R06 P654645 F52 255Y S20113	W56HZV	$47,600,000.00	PZ0007
AP	21 42040 0000 45R5R06 P654645 F55 255Y S20113	W56HZV	$30,300,000.00	PZ0007
AQ	21 42040 0000 45R5R06 P654645 F53 255Y S20113	W56HZV	$34,600,000.00	PZ0007
AR	21 42040 0000 45R5R06 P654645 F54 255Y S20113	W56HZV	$8,200,000.00	PZ0007

(End of Attachment 12)

Attachment 13

CLIN 0001 Structure

1. CLIN 0001- Performance of the FCS SDD phase as described in this Agreement.

Program Definitization

(i) **Item 0001AA.** Estimated Cost for Program Definitization through 30 September 2003

Total Obligated Amount: $113,109,880.00
ACRN: AA (see Attachment 12 for accounting details)
Notes: This sub-CLIN 0001AA is fully-funded.

(ii) **Item 0001AB.** Base Fee for Program Definitization through 30 September 2003

Total Obligated Amount: $6,756,048.00
ACRN: AA (see Attachment 12 for accounting details)
Notes: This sub-CLIN 0001AB is fully-funded.

(iii) **Item 0001AC.** Incentive Fee for Program Definitization through 30 September 2003

Total Obligated Amount: $10,134,072.00
ACRN: AA (see Attachment 12 for accounting details)
Notes: This sub-CLIN 0001AC is fully-funded.

(iv) **Item 0001AD.** Estimated Cost for Program Definitization from 1 October 2003 through Definitization

Total Obligated Amount: $-0-
Total Estimated Cost $50,937,320.00
ACRN: TBD
Notes: This sub-CLIN 0001AD is not fully funded.

(v) **Item 0001AE.** Base Fee for Program Definitization from 1 October 2003 through Definitization

Total Obligated Amount: $-0-
Total Base Fee: $3,042,484.00
ACRN: TBD
Notes: This sub-CLIN 0001AE is not funded at this time.

(vi) **Item 0001AF.** Funding for Incentive Fee for Program Definitization from 1 October 2003 through Definitization

Total Obligated Amount: $-0-
Total Incentive Fee: $4,563,726.00
ACRN: TBD
Notes: This sub-CLIN 0001AF is not funded at this time.

(iv) **Item 0001AG.** Funding for Estimated Cost for Program Definitization from 1 October 2003 through Definitization

Total Obligated Amount: $1,267,240.00
Total Estimated Cost: $1,267,240.00
ACRN: AB
Notes: This sub-CLIN 0001AG is fully-funded.

(v) **Item 0001AH.** Funding for Base Fee for Program Definitization from 1 October 2003 through Definitization

Total Obligated Amount: $75,692.00
Total Base Fee: $75,692.00
ACRN: AB
Notes: This sub-CLIN 0001AH is fully-funded.

(v) **Item 0001AJ.** Funding for Incentive Fee for Program Definitization from 1 October 2003 through Definitization.

Total Obligated Amount: $113,538.00
Total Incentive Fee: $113,538.00
ACRN: AB
Notes: This sub-CLIN 0001AJ is fully-funded.

Note that the total amount for subCLINs 0001AD through 0001AJ is $60,000,000.00, and that the negotiated amount for the 1 Oct 03 through definitization period remains unchanged.

(vi) **Item 0001AK.** Funding from Project F56 "C4ISR" through Definitization (Article I.B.4).

Total Obligated Amount: $-0-
Total Estimated Cost: $-0-
Base Fee: $-0-
Incentive Fee: $-0-
ACRN: AE
Notes: This sub-CLIN 0001AK has been replaced by 0001AX.

(vii) **Item 0001AL.** Additional Funding from Project F56 "C4ISR" through Definitization (Article I.B.5.f)

Total Obligated Amount: $-0-
Total Estimated Cost: $-0-
Provisional Fee per Art. I.B.5.f: $-0-
ACRN: AE
Notes: This sub-CLIN 0001AL has been replaced by 0001AY.

(viii) **Item 0001AM.** Funding from Project 57 "Manned Ground Systems" through Definitization (Article I.B.4).

Total Obligated Amount: $-0-
Total Estimated Cost: $-0-

Base Fee: $ -0-
Incentive Fee: $ -0-
ACRN: AF
Notes: This sub-CLIN 0001AM has been replaced by 0001AZ.

(ix) **Item 0001AN.** Additional Funding from Project F57 "Manned Ground Systems" through Definitization (Article I.B.5.f)

Total Obligated Amount: $-0-
Total Estimated Cost: $-0-
Provisional Fee per Art. I.B.5.f: $-0-
ACRN: AF
Notes: This sub-CLIN 0001AN has been replaced by 0001BA.

(x) **Item 0001AP.** Funding from Project F52 "RECON" through Definitization (Article I.B.4).

Total Obligated Amount: $-0-
Total Estimated Cost: $-0-
Base Fee: $-0-
Incentive Fee: $-0-
ACRN: AG
Notes: This sub-CLIN 0001AP has been replaced by 0001BB.

(xi) **Item 0001AQ.** Additional Funding from Project F52 "RECON" through Definitization (Article I.B.5.f)

Total Obligated Amount: $-0-
Total Estimated Cost: $-0-
Provisional Fee per Art. I.B.5.f: $-0-
ACRN: AG
Notes: This sub-CLIN 0001AQ has been replaced by 0001BC.

(xii) **Item 0001AR.** Funding from Project F55 "SUST" through Definitization (Article I.B.4).

Total Obligated Amount: $-0-
Total Estimated Cost: $-0-
Base Fee: $-0-
Incentive Fee: $-0-
ACRN: AH
Notes: This sub-CLIN 0001AR has been replaced by 0001BD.

(xiii) **Item 0001AS.** Additional Funding from Project F55 "SUST" through Definitization (Article I.B.5.f)

Total Obligated Amount: $-0-
Total Estimated Cost: $-0-
Provisional Fee per Art. I.B.5.f: $-0-
ACRN: AH
Notes: This sub-CLIN 0001AS has been replaced by 0001BE.

(xiv) **Item 0001AT.** Funding from Project F53 "UGV" through Definitization (Article I.B.4).

Total Obligated Amount:	$-0-
Total Estimated Cost:	$-0-
Base Fee:	$-0-
Incentive Fee:	$-0-

ACRN: AJ
Notes: This sub-CLIN 0001AT has been replaced by 0001BF.

(xv) **Item 0001AU.** Additional Funding from Project F53 "UGV" through Definitization (Article I.B.5.f)

Total Obligated Amount:	$-0-
Total Estimated Cost:	$-0-
Provisional Fee per Art. I.B.5.f:	$-0-

ACRN: AJ
Notes: This sub-CLIN 0001AU has been replaced by 0001BG.

(xvi) **Item 0001AV.** Funding from Project F54 "Unattended Sensors" through Definitization (Article I.B.4).

Total Obligated Amount:	$-0-
Total Estimated Cost:	$-0-
Base Fee:	$-0-
Incentive Fee:	$-0-

ACRN: AK
Notes: This sub-CLIN 0001AV has been replaced by 0001BH.

(xvii) **Item 0001AW.** Additional Funding from Project F54 "Unattended Sensors"through Definitization (Article I.B.5.f)

Total Obligated Amount:	$-0-
Total Estimated Cost:	$-0-
Provisional Fee per Art. I.B.5.f:	$-0-

ACRN: AK
Notes: This sub-CLIN 0001AW has been replaced by 0001BJ.

(xviii) **Item 0001AX.** Funding from Project F56 "C4ISR" through Definitization (Article I.B.4).

Total Obligated Amount:	$22,084,243.00
Total Estimated Cost:	$19,214,969.00
Base Fee:	$ 1,147,709.00
Incentive Fee:	$ 1,721,565.00

ACRN: AL
Notes: This sub-CLIN 0001AX is fully-funded.

(xix) **Item 0001AY.** Additional Funding from Project F56 "C4ISR" through Definitization (Article I.B.5.f)

Total Obligated Amount: $16,015,756.00
Total Estimated Cost: $14,559,779.00
Provisional Fee per Art. I.B.5.f: $ 1,455,977.00
ACRN: AL
Notes: This sub-CLIN 0001AY is fully-funded.

(xx) **Item 0001AZ.** Funding from Project 57 "Manned Ground Systems" through Definitization (Article I.B.4).

Total Obligated Amount: $20,287,362.00
Total Estimated Cost: $17,651,547.00
Base Fee: $ 1,054,326.00
Incentive Fee: $ 1,581,489.00
ACRN: AM
Notes: This sub-CLIN 0001AZ is fully-funded.

(xxi) **Item 0001BA.** Additional Funding from Project F57 "Manned Ground Systems" through Definitization (Article I.B.5.f)

Total Obligated Amount: $14,712,639.00
Total Estimated Cost: $13,375,126.00
Provisional Fee per Art. I.B.5.f: $ 1,337,513.00
ACRN: AM
Notes: This sub-CLIN 0001BA is fully-funded.

(xxii) **Item 0001BB.** Funding from Project F52 "RECON" through Definitization (Article I.B.4).

Total Obligated Amount: $6,376,028.00
Total Estimated Cost: $5,547,629.00
Base Fee: $ 331,360.00
Incentive Fee: $ 497,039.00
ACRN: AN
Notes: This sub-CLIN 0001BB is fully-funded.

(xxiii) **Item 0001BC.** Additional Funding from Project F52 "RECON" through Definitization (Article I.B.5.f)

Total Obligated Amount: $4,623,972.00
Total Estimated Cost: $4,203,611.00
Provisional Fee per Art. I.B.5.f: $ 420,361.00
ACRN: AN
Notes: This sub-CLIN 0001BC is fully-funded.

(xxiv) **Item 0001BD.** Funding from Project F55 "SUST" through Definitization (Article I.B.4).

Total Obligated Amount: $4,057,472.00
Total Estimated Cost: $3,530,309.00
Base Fee: $ 210,865.00

Incentive Fee: $ 316,298.00
ACRN: AP

Notes: This sub-CLIN 0001BD is fully-funded.

(xxv) **Item 0001BE.** Additional Funding from Project F55 "SUST" through Definitization (Article I.B.5.f)

Total Obligated Amount: $2,942,528.00
Total Estimated Cost: $2,675,025.00
Provisional Fee per Art. I.B.5.f: $ 267,503.00
ACRN: AP
Notes: This sub-CLIN 0001BE is fully-funded.

(xxvi) **Item 0001BF.** Funding from Project F53 "UGV" through Definitization (Article I.B.4).

Total Obligated Amount: $4,637,111.00
Total Estimated Cost: $4,034,639.00
Base Fee: $ 240,989.00
Incentive Fee: $ 361,483.00
ACRN: AQ
Notes: This sub-CLIN 0001BF is fully-funded.

(xxvii) **Item 0001BG.** Additional Funding from Project F53 "UGV" through Definitization (Article I.B.5.f)

Total Obligated Amount: $3,362,889.00
Total Estimated Cost: $3,057,172.00
Provisional Fee per Art. I.B.5.f: $ 305,717.00
ACRN: AQ
Notes: This sub-CLIN 0001BG is fully-funded.

(xxviii) **Item 0001BH.** Funding from Project F54 "Unattended Sensors" through Definitization (Article I.B.4).

Total Obligated Amount: $1,101,314.00
Total Estimated Cost: $ 958,227.00
Base Fee: $ 57,235.00
Incentive Fee: $ 85,852.00
ACRN: AR
Notes: This sub-CLIN 0001BH is fully-funded.

(xxix) **Item 0001BJ.** Additional Funding from Project F54 "Unattended Sensors" through Definitization (Article I.B.5.f)

Total Obligated Amount: $798,686.00
Total Estimated Cost: $726,078.00
Provisional Fee per Art. I.B.5.f: $ 72,608.00
ACRN: AR

Notes: This sub-CLIN 0001BJ is fully-funded.

Note that all funding for subCLINs 0001AX, 0001AY, 0001AZ, 0001BA, 0001BB, 0001BC, 0001BD, 0001BE, 0001BF, 0001BG, 0001BH, 0001BJ comes from Program Element "ASM."

(xxx) **Item 0001BK** FY 04 Incremental Funding from Project F56 "C4ISR" (Article IX).

Total Obligated Amount:	$126,800,000.00
Total Estimated Cost	$115,172,229.00
FCCM	$ 111,352.00
Fixed Fee	$ 11,516,419.00
Incentive Fee	$ TBD

ACRN: AL
Notes: This sub-CLIN 0001BK is fully-funded.

(xxxi) **Item 0001BL** FY 04 Incremental Funding from Project 57 "Manned Ground Systems" (Article IX).

Total Obligated Amount:	$116,400,000.00
Total Estimated Cost	$105,725,927.00
FCCM	$ 102,219.00
Fixed Fee	$ 10,571,854.00
Incentive Fee	$ TBD

ACRN: AM
Notes: This sub-CLIN 0001BL is fully-funded.

(xxxii) **Item 0001BM.** FY 04 Incremental Funding from Project F52 "RECON" (Article IX).

Total Obligated Amount:	$36,600,000.00
Total Estimated Cost	$33,243,719.00
FCCM	$ 32,141.00
Fixed Fee	$ 3,324,140.00
Incentive Fee	$ TBD

ACRN: AN
Notes: This sub-CLIN 0001BM is fully-funded.

(xxxiii) **Item 0001BN** FY 04 Incremental Funding from Project F55 "SUST" (Article IX).

Total Obligated Amount:	$23,300,000.00
Total Estimated Cost	$21,163,352.00
FCCM	$ 20,461.00
Fixed Fee	$ 2,415,905.00
Incentive Fee	$ TBD

ACRN: AP
Notes: This sub-CLIN 0001BN is fully-funded.

(xxxiv) **Item 0001BP** FY 04 Incremental Funding from Project F53 "UGV" (Article IX).

Total Obligated Amount:	$26,600,000.00
Total Estimated Cost	$24,160,736.00

FCCM	$ 23,359.00
Fixed Fee	$ 2,415,905.00
Incentive Fee	$ TBD

ACRN: AQ
Notes: This sub-CLIN 0001BP is fully-funded.

(xxxv) **Item 0001BQ** FY 04 Incremental Funding from Project F54 "Unattended Sensors" (Article IX).

Total Obligated Amount:	$6,300,000.00
Total Estimated Cost	$5,722,280.00
FCCM	$ 5,532.00
Fixed Fee	$ 572,188.00
Incentive Fee	$ TBD

ACRN: AR
Notes: This sub-CLIN 0001BQ is fully-funded.

Attachment 14

CLIN 0002 Structure

1. CLIN 2001

(i) Item 2001AA. Cost-Plus-Fixed-Fee (CPFF) ceiling-priced effort for Spiral Development and Technology Planning WD0001

Total Obligated Amount: $5,000,000.00
Estimated # of Hours Reimbursable: 29,412
ACRN: AC (see Attachment 12 for accounting details)
Notes: This sub-CLIN 2001AA is fully-funded.

2. CLIN 2002

(ii) Item 2002AA. Cost-Plus-Fixed-Fee (CPFF) ceiling-priced effort for DCGS-A WD0002

Total Obligated Amount: $3,000,000.00
Estimated # of Hours Reimbursable: 17,647
ACRN: AD (see Attachment 12 for accounting details)
Notes: This sub-CLIN 2002AA is fully-funded.

DAAE07-03-9-F001

AGREEMENT

BETWEEN

THE BOEING COMPANY
P.O. BOX 516
J.S. MCDONNELL BLVD.
ST. LOUIS, MO 63166-0516

AND

U.S. ARMY TANK-AUTOMOTIVE AND ARMAMENTS COMMAND
6501 E. ELEVEN MILE ROAD
WARREN, MI 48397-5000

CONCERNING

FUTURE COMBAT SYSTEMS (FCS)
SYSTEM DEVELOPMENT AND DEMONSTRATION (SDD) PHASE

Agreement No.: DAAE07-03-9-F001
Ceiling Estimate for SDD Phase: $ 14,924,800,000.00
Additional amount available for definitization (Estimated Not To Exceed $14,734,800,000.00)
Total Estimated Government Funding, to ensure Program Definitization: $190,000,000.00
Total Government Funds Obligated by This Action: $130,000,000.00
Of the $130,000,000.00 , Cost $113,109,880.00 , Fee $16,890,120.00
Total Government Funds Obligated to Date: $130,000,000.00
Agreement Effective Date: Date signed by Grants Officer
Authority: 10 U.S.C. 2371 and Section 845 of the Public Law 103-160, as modified by Section 804 of Public Law 104-201, and as amended by Section 803 of the Floyd D. Spence National Defense Authorization Act for FY 2001.

Line of Appropriation: See Article V and Attachment 12

Boeing CAGE Code: 69236

This Agreement is entered into between the United States of America, hereinafter called the "Government", represented by the U.S. Army Tank-automotive and Armaments Command ("TACOM"), and The Boeing Company, hereinafter, referred to as "Boeing", or "LSI" or "Contractor" pursuant to and under U.S. Federal law.

FOR THE BOEING COMPANY

5/30/03
Brian D. Wittmers (Date)
Contracts Manager

FOR THE UNITED STATES OF AMERICA
THE U.S. ARMY TANK-AUTOMOTIVE
AND ARMAMENTS COMMAND

30 May 2003
Gary L. Tucker (Date)
Grants Officer

Table of Contents

Executive Summary

Article I **Scope of the Agreement**
- A. Structure
- B. Program Definitization
- C. Agreement
- D. Non-Disclosure of Sensitive Govt. Program Information
- E. Lower Tier Agreements
- F. Definitions

Article II **Term**
- A. Term of the Agreement
- B. Termination Provisions
- C. Termination Notification
- D. Lower Tier Agreements
- E. Extending the Term
- F. The following FAR/DFARS clauses apply

Article III **Deliverable Schedule**
- A. Deliverable Schedule – Data and Software
- B. Deliverable Schedule – Hardware
- C. SDD Completion
- D. The following FAR/DFARS clauses apply

Article IV **Management of the Program**
- A. Program IPT Structure
- B. Management and Program Structure
- C. Board Of Directors
- D. IPT Structure
- E. Govt. Manpower Support to IPTs—Subject Matter Experts
- F. Government Member IPT Responsibilities
- G. IPT Issue Resolution
- H. Earned Value Management System (EVMS)
- I. Office Space and Administrative Support
- J. Work Breakdown Structure (WBS)

Article V **Identification of Work to be Performed**
- A. Contract Line Item Numbers (CLIN)
- B. Accounting/Appropriation Data For Payment Office

Article VI **Obligation and Incremental Funding Schedule**
- A. Obligation
- B. Incremental Funding
- C. Funding Schedules
- D. The following FAR/DFARS clauses apply

Article VII **Fee *** To Be Added By Modification for Program Definitization *****

Article VIII **Make/Buy, Competition and Directed Subcontracts**
- A. Make/Buy
- B. Competition

C. Directed Subcontracts

Article IX **Payment and Payment Related Items**
A. Payment
B. CLIN 0001
C. CLIN 0002
D. Voucher Content
E. Payment Process
F. Payment Related Clauses
G. The following FAR/DFARS clauses apply

Article X **Financial Management**
A. Government Audit of Records
B. Accounting Practices
C. Lower Tier Agreements
D. The following FAR/DFARS clauses apply

Article XI **Security**
A. Program Security
B. Protection and Disclosure of Information – Public Release
C. Lower Tier Agreements
D. Shipment of Controlled Materials
E. The following FAR/DFARS clauses apply

Article XII **Government Furnished Equipment, Property, Information, Facilities, And Services**
A. General
B. GFX Added During SDD Performance
C. The following FAR/DFARS clauses apply

Article XIII **Modifications**
A. General
B. Cost or Pricing Information in Support of Modifications
C. The following FAR/DFARS clauses apply

Article XIV **Agreement Administration**

Article XV **Disputes**
A. General
B. Dispute Resolution Procedures

Article XVI **Intellectual Property Rights**
A. Data Correction and Update

Article XVII **Patent Rights**
A. The following FAR/DFARS clauses apply

Article XVIII **Data and Software Rights**
A. Definitions
B. Allocation of Principal Rights
C. Marking of Data or Software
D. Validation of Asserted Restrictions – Data and Software
E. Lower Tier Agreements

Article XIX **Foreign Access To Technology**
A. Definition
B. ITAR Compliance
C. Lower Tier Agreements

Article XX **Civil Rights Act**

Article XXI **Boeing Information**

Article XXII **Order Of Precedence**

Article XXIII **Execution**

Article XXIV **Liability and Insurance**
A. Liability and Insurance
B. The following FAR/DFARS clauses apply
Article XXV **Ordering From Government Supply Sources**
Article XXVI **Required Processes**
A. Approved Processes
B. List of Approved Processes
Article XXVII **Small Business Subcontracting Plan**
A. Goals
B. Subcontracting Reporting
C. Lower Tier Agreements
Article XXVIII **Pre-Award Cost Agreement**
Article XXIX **Complementary Programs**
Article XXX **SDD Technical Baseline**
Article XXXI **FAR/DFARS Clauses**
A. Commonly-Used Terms
B. Clause Incorporated By Reference
C. FAR Clauses Incorporated By Reference
D. DFARS Clauses Incorporated By Reference
Article XXXII **Design and Source Considerations**
Article XXXIII **Termination Liability Amounts**

Attachments

1 System Development and Demonstration (SDD) Statement of Work (SOW)
2 Deliverables List
3 DD Form 254, Contract Security Classification Specification
4 Government Furnished Equipment, Property, Information, Facilities, and Services
5 Reserved
6 Data or Software to be Furnished with Restrictions
7 Office Space and Administrative Support
8 Integrated Master Plan
9 Directed Subcontracts
10 Government Manpower Support to IPTs
11 Complementary Programs
12 Accounting / Appropriation Data For Payment Office
13 Reserved
14 Complementary Programs Model Memorandums of Agreement (MOAs)/ Subordinate MOAs (SMOAs)

The Parties mutually agree the Executive Summary, in its entirety, to include the SDD Statement of Objectives For Achieving IOC and Key Tenets of the Program, is included as an overview of the Program and to describe the overarching objectives and vision for the Future Combat Systems (FCS) Unit of Action for Initial Operational Capability (IOC) and beyond; and that the Executive Summary is non-contractual and non-binding on either Party, unless specified elsewhere within the Agreement.

EXECUTIVE SUMMARY

FCS Unit of Action (UA) System Development and Demonstration (SDD) Phase

FCS Overview

1. The goal of U.S. Army Transformation is the creation of the Objective Force (OF). The OF will be strategically deployable and capable of performing operations across the spectrum of conflict in a Joint inter-operational environment.

2. The OF is characterized by an innovative and revolutionary new operational and organizational concept for the Unit of Action (UA). The UA is the tactical warfighting echelon of the Objective Force, comprised of echelons at Brigade and below to fight tactical engagements and win battles. The UA is designed to win on the offensive, across the spectrum of conflict, against any expected adversary as part of a division-like Unit of Employment (UE) or Joint Task Force (JTF). In a low end Small Scale Conflict (SSC), one or more UAs can operate directly under a JTF. A UA can serve as an Army Forces (ARFOR) component headquarters for the JTF in this framework. The UA will account for the mission sets of these combat formations, with the exception of Special Forces (SF), Ranger, and Airborne Forces. The Army's UA will be part of a joint team that is decisive in any operation, against any level threat, in any environment. This team must be strategically and operationally responsive, rapidly deployable, able to change patterns of operations faster than the enemy can respond, and adjust to enemy changes of operations faster than he can exploit them. The UA accounts for these mission sets by operating as a Family of Systems (FoS) and a System of Systems (SoS). A FoS is a set or arrangement of independent systems that can be arranged or interconnected in various ways to provide different capabilities. The mix of systems can be tailored to provide desired capabilities dependent on the situation.

3. The Future Combat Systems (FCS) is a Family of Systems (FOS) networked to operate as a System of Systems (SoS) and will serve as a core materiel building block within the UA. The program goals are to: (1) acquire Future Combat Systems, (2) equip Soldiers, and (3) field FCS to Units of Action to enable achievement of the UA Operational and Organizational (O&O) Plan. The Army intends to field FCS Increment I with Initial Operational Capability (IOC) in 2010 for an FCS equipped maneuver battalion and Full Operational Capability (FOC) in 2012 for the Army's first Objective Force Unit of Action. Boeing is not responsible for the entire Unit of Action, they are only responsible for the specific work identified in the Agreement.

4. "FCS are comprised of a family of advanced, networked air- and ground-based maneuver, maneuver support, and sustainment systems that will include Manned and Unmanned (MUM) platforms. FCS are networked via a C4ISR architecture including networked communications, network operations, sensors, battle command system, training, and both MUM Reconnaissance and Surveillance (R&S) capabilities that will enable levels of Situational Understanding (SU) and synchronized operations heretofore unachievable. FCS will operate as a System of Systems (SoS) (defined in Chairman of the Joint

Chiefs of Staff Instruction (CJCSI) 3170.01B) that will network existing systems, systems already under development, and new systems to be developed to meet the needs of the UA. The network will enable improved Intelligence, Surveillance, and Reconnaissance (ISR), enhanced analytical tools, Joint exchange of blue and red force tracking down to the tactical level, battle command, real time sensor-shooter linkages, and increased synergy between echelons and within small units. It will also enable the UA to connect to UE and Joint-Interagency-Multinational (JIM) capabilities, making these capabilities available to the small units of the UA as well as with adjacent, non-contiguous units. FCS enable the networked UA to develop the situation in and out of contact, set conditions, maneuver to positions of advantage, and to close with and destroy the enemy through standoff attack and combat assault per the OF UA O&O Plan. "(ORD 14 April 2003, Change 3, Joint Requirements Oversight Council (JROC) approved).

Background

1. On 14 March 2002 Defense Advanced Research Projects Agency (DARPA) awarded an Other Transaction Agreement (OTA), Section 845 for Prototypes to The Boeing Company to serve as the U.S. Army's Lead Systems Integrator (LSI). The Boeing Company was selected as the LSI to partner with the Government in an Integrated Product Process Development (IPPD) environment to develop, manage and execute all aspects of the FCS program through Concept and Technology Development (CTD), with an option for System Development and Demonstration (SDD). This Agreement constitutes the exercise of the option contemplated in the CTD Agreement, MDA972-02-9-0005. Key among the LSI CTD responsibilities was to manage risk and facilitate transition to Milestone (MS) B. Continuing with the LSI into SDD was contingent upon the successful execution of the CTD Phase and negotiation of the subsequent SDD Agreement. The FCS program, cooperatively executed by DARPA and the Army, successfully exited the Concept and Technology Development (CTD) phase.

2. While the Army intends to retain the LSI for the foreseeable future, to maintain competition throughout the lifecycle, significant portions of SDD and Initial Production (IP) will be competitively awarded by the LSI to subcontractors specifically selected for their domain expertise. The initial capability increment is the first in a series of time-phased requirements, all of which are expected to be satisfied by the same LSI. SDD has competitive subcontracts, and performance specifications will be used to acquire the SDD hardware and software from a series of competitive actions. These specifications were made available for industry comment, during the CTD phase, to further encourage competition. It is planned to continue into IP for Increment I with the LSI using subcontracts being competitively awarded to the maximum extent feasible.

3. The Army, other Services, Joint activities or Allies have initiated or developed a number of technologies, and there are a significant number of ongoing programs that have relevance to FCS. In excess of one hundred (100) programs have been evaluated as having a need to interact with the FCS Program for SDD Increment I. During the System Development and Demonstration Phase additional programs may be added as complementary programs while others may be deleted. "Complementary Programs" for purposes of this Agreement is defined in Article I, subparagraph F.

SDD Phase

1. The SDD Increment I SDD phase will complete the integration of the FCS into a stable, interoperable, producible, supportable, and cost effective System of Systems that satisfies initial user expectations. The SDD phase includes System Integration and System Demonstration. During Systems Integration, the LSI will use the approved O&O and the JROC-validated Mission Needs Statement (MNS) and Operational Requirements Document (ORD) to integrate selected technologies at a System of Systems level. Recognizing that UA and OF development and demonstration work is ongoing and in parallel with the FCS SDD work, the LSI is also charged to work closely with the UA/FCS Proponent and the Army to ensure FCS SDD work is closely synchronized with the larger UA and OF development effort. The LSI will also ensure that the FCS roadmap to objective FCS capabilities is properly informed by, and synchronized with, CTD work for subsequent increments of FCS capability. The LSI will provide required program information and data to support decision-making through the IPPD structure. The Government will participate in all program decisions, to include Make/Buy and approval of competitive selection decisions, and the Government may disapprove any action taken under these processes. Linkage of the LSI's Modeling and Simulation (M&S) design work to the Army's OF Battle Labs will provide customer feedback to support FCS design work as envisioned under Simulation and Modeling for Acquisition, Requirements and Training (SMART). During the systems integration process, M&S and component level tests will verify technology and subsystem integration to ensure subsystem performance is achievable. The Distributed Product Description (DPD) will provide the complete digital system description within which the virtual technology component hardware will be tested. During Systems Demonstration, components will undergo a mix of virtual and physical testing. System simulation and its interactions with internal and external components will be accomplished through the use of M&S technologies, System Integration Laboratory (SIL) and networking to complement physical testing. Systems Demonstration will include prototype build and the execution of a series of Synthetic User Tests and Developmental Tests (DT). Results of testing will be integrated into the final production design prior to approval for entry into IP at Initial Production Decision (IPD). The prototype equipment may be refurbished (under separate contract), dependent upon suitability for use, availability of funds and identified needs, in the current production configuration and delivered to the First Unit Equipped (FUE) for New Equipment Training.

SDD Statement of Objectives for Achieving IOC

These objectives must be read as a whole as the elements are inter-related. As with the System of Systems, the whole is much greater than the sum of the parts. While these are the overall objectives for the SDD Agreement and beyond, the greater objective of achieving IOC by the end of the decade, must shape the work and decisions that are made in SDD.

1. Field FCS SoS solutions to Units of Action with initial FCS Increment I equipped battalion at IOC by the end of the decade and a FOC FCS Increment I equipped Unit of Action by 2012 to enable the UA to fight effectively as articulated in the UA O&O Plan
   (a) An organized, manned, trained and equipped subset (to be defined at IPD) of the FCS-equipped Unit of Action ready to begin new equipment and organizational training, leading to Operational Test Readiness Review III and the Initial Operational Test.
   (b) Successful verification of each critical operational issue during Operational Test.
   (c) Successful verification that the System of Systems is fully supportable and vital logistics goals are achieved.

2. Achieve a successful SDD effort
   (a) At IPD, Exit Criteria are achieved/demonstrated.

(b) At IPD, FCS UA Increment I Capabilities Specification is demonstrated for Increment I required performance.
(c) The LSI/Army partnership has defined, planned, and managed the systems engineering process to transform the FCS ORD into a tested SoS solution suitable for start of IP, conducted system reviews as defined in the Systems Engineering Management Plan (SEMP), and prepared for the IPD Defense Acquisition Board (DAB) review. These actions support achieving Increment I threshold capability.
(d) At CDR all schedules impacting/influencing the System of Systems are aligned with all performance expectations considered low to moderate risk for IPD.
(e) Necessary actions taken to ensure an achievable schedule in support of equipping Units of Action with initial force capability by the end of the decade. Sufficiently detailed Integrated Master Plan (IMP) and Integrated Master Schedule (IMS) facilitating management of the efforts to achieve IOC by end of decade are accomplished, with significantly greater detail through SDD.
(f) An Earned Value Management System (EVMS) for the LSI, first tier subcontractors, and select second tier subcontractors whose contributions exceed the dollar thresholds for requiring EVMS or who are designated by the PM, FCS as needing this level of management insight are implemented and validated.
(g) ACE fully deployed and operational prior to Critical Design Review (CDR).

3. Adopt a spiral development process to target the objective capability
(a) Cost parameters necessary to support achieving objective capability, including specific recommendations on the development, fielding and support of future increments, to include life-cycle cost impacts are identified.
(b) A plan for integrating, scheduling, measuring, and controlling the evolution of the FCS System of Systems development, test, and fielding leading to objective FCS Full Operational Capability (FOC) determined through continuous User requirements development and reflected in the latest version of the FCS ORD continues to be maintained.
(c) CTD work on subsequent FCS increments of capability is synchronized in an efficient and effective manner over time with previous increments under development or in production.
(d) All elements of the FCS program including LSI, Government, suppliers, and associate contractor activities are integrated into an event driven plan. Work is closely coordinated with Training and Doctrine Command (TRADOC) and Headquarters, Department of Army (HQDA) so that each increment of FCS capability is properly integrated and synchronized with the larger roadmaps for the UA and OF. Risk reduction activities with spiral development objectives for each program event including the plan to incrementally improve capability throughout the systems' life cycle based on spiral upgrades and technology insertion has been defined.
(e) Concurrent development of program increments, with the UA/FCS Proponent, to ensure rapid technical integration and support parallel CTD activities under DARPA or Army purview have been planned.

4. Establish FCS Enterprise as a solid enduring partnership between Combat Developers, Materiel Developers and Industry
(a) TRADOC Deputy Chief of Staff, Development (DCSDEV), Unit of Action Battle Lab, TRADOC System Manager for Future Combat Systems work in concert with the Material Developers and the LSI to establish and evolve the FCS operational and mission requirements.

(b) DARPA, Research, Development, and Engineering Command (RDEC) Command, PEOs, Program Manager, Army Test and Evaluation Command (ATEC) and Defense Contract Management Agency (DCMA) work in concert with the Combat Developers and the LSI to establish and define materiel solutions to meet continuous User requirements development needed to support and evolve the program to objective capability.
(c) LSI and Industry partners work in concert with the Material Developers and Combat Developers to design, develop, produce, field, sustain and support fielding of each increment of FCS FoS to OF Units of Action.

5. Key Performance Metrics will be demonstrated and documented in the System of Systems and individual system performance specifications based upon Increment I Key Performance Parameters (KPP)s and their prioritized ORD requirements

(a) Reliability, supportability, efficiency, deployability goals will be specifically identified, metrics will be established and incorporated into the documented performance baseline at the System of Systems and individual system levels.
(b) Supportability, sustainment, deployability, and fielding planning, including establishment of processes, procedures, and logistics management metrics, will be developed and tested to ensure logistics requirements are met across the FCS SoS. Performance Based Logistics (PBL) business processes and performance standards will be developed and validated, data management and analysis processes will be designed, and the PBL concept for sustainment will be expanded to incorporate complementary systems into the FCS Supportability Strategy. Collective performance of the requirements under this contract will be evaluated for effectiveness in achieving Operational Availability, Operation and Support Costs and Footprint.
(c) Key data has been provided and maintained on the ACE to ensure a solid foundation for Simulation-Based Acquisition activities to ensure close collaboration with the User in design work as envisioned in SMART.
(d) Development of SoS and FoS performance level modeling and simulation capability for use in analyzing requirements, evaluating design performance, and supporting system level testing has been managed and coordinated. System level modeling and simulation of information management, interoperability, lethality, survivability, supportability, agility/versatility, responsiveness, and vulnerability effectiveness evaluation has been developed. Use of this modeling and simulation capability across the SoS, FoS, testing, and other users, as needed, to support evaluation of FCS performance for selected designs including analysis of life-cycle cost impacts is coordinated.

6. LSI responsibility for total systems integration will be established and leveraged to ensure success both for SDD and beyond

(a) The management resources, engineering resources, products, and services required to design, build, procure, test, field and sustain prototypes or simulations for the integrated Family of Systems, including the distributed network systems, platforms, supportability, and training, when integrated and operated with systems external to FCS, constitute the FCS SoS are provided.
(b) Competitive procurement and management of systems and subsystems to the extent feasible to ensure "best of industry" involvement in the development of the FoS elements.
(c) Complementary systems and specific interaction needed to properly support the FCS program have and will continue to be identified in collaboration with PM, FCS.
(d) Program, including future increments, is shaped within planned funding and potential future cost constraints.

7. All actions needed to achieve future compliance with the Army Release, Fielding and Transfer Program (AR 700-142) dated May 1, 1995 and achievement of Material Release prior to IOC and FOC are taken.

KEY TENETS OF THE PROGRAM

- Create Opportunity for Best of Industry to Participate.
- Leverage Government Technology Base to Maximum Extent.
- Associate On-Going Enabling Efforts With LSI-Led Activity.
- Collaborative Environment from Design Through Life Cycle.
- As a Minimum, Commonality at Subsystem/Component Level.
- Design/Plan for Technology Integration
- Retain Competition throughout Objective Force Acquisition.
- Appropriate Government Involvement in Procurement Processes.
- Maintain and Shape Government Acquisition Community
- Maintain and Shape the Industrial Base of the Future
- Program Affordability--Balance Performance and Sustainment
- Consistent and Continuous Definition of Requirements

{ End of Executive Summary }

ARTICLE I: SCOPE OF THE AGREEMENT

A. Structure

1. The Boeing Company, as the Lead Systems Integrator (LSI), and its industry teammate, Science Applications International Corporation (SAIC) shares with the United States Army a common vision for the Future Combat Systems (FCS) that will serve as the materiel foundation for the Unit of Action. We are entering into an extended alliance between the Government and industry to provide advanced technologies that support enhanced warfighting capabilities and techniques for the Army to fulfill an expanding and evolving set of Army missions for the 21st century. This Agreement expresses the relationship between Boeing, as the LSI, and the Government, as represented by the Program Manager, Future Combat Systems and the Grants Officer. The LSI will continue to use the "best of industry" to work together with the Government to achieve a successful SDD Increment I phase, and to achieve the Army Vision of fielding a FCS threshold capability to enable the Unit of Action to achieve its O&O Plan with threshold FCS equipped maneuver battalion this decade.

2. A program management decision process, that addresses Cost As An Independent Variable (CAIV), will be utilized to focus on the cost, schedule, performance trade-offs in relation to SoS Life Cycle Cost (LCC) containment and Total Ownership Costs (TOC) estimates to help achieve operational capability within program cost constraints. Boeing's CAIV process contains three basic tenets: (1) setting cost targets; (2) allocating cost targets to subcontractors; and (3) reporting on program-level cost targets.

3. The planned funding for the program is a primary constraint for the Agreement. All proposed changes that increase cost will include recommendations of statement of work requirements to be modified, reduced, or deleted in order to perform within the existing Agreement funding constraints, unless the Grants Officer notifies Boeing that additional funds will be made available.

B. Program Definitization

1. The FCS SDD program effort is undefinitized at this time. The definitization period is referred to as "Program Definitization". Program Definitization is planned to be funded at $190,000,000.00 and is intended to ensure a timely definitization. The $190,000,000.00 is considered to be insufficient to ensure maintenance of the currently planned program schedule. There is no requirement for Boeing to work beyond the funding specifically provided in the Agreement.
2. Funds are not currently available for the full $190,000,000.00. The Government's obligation under this Agreement is contingent on the availability of appropriated funds from which payment for Agreement purposes can be made. No legal liability on the part of the Government for any payment may arise until funds are made available to the Grants Officer for this Agreement and until Boeing receives notice of such availability, to be confirmed in writing by the Grants Officer. The funds that are currently available are $130,000,000.00.
3. The $130,000,000.00 is the current limitation of the Government's liability. If the Agreement is terminated prior to definitization, no amount above the $130,000,000.00 can or will be added for either cost or fee. If additional funding is added, then the limitation of liability will be increased by the amount of the additional funding.

4. The FY 04 funding identified ($60,000,000.00) will be provided as early as available, but it is recognized that this may not be until late October or even November and that until such time as additional funding is obligated, the actual amount obligated to the Agreement is the Government's limitation of liability.

5. Definitization will include a cost estimate for the SDD Agreement and provision for applicable fee (fee for the balance of the Agreement is not defined at this time and may include fixed, incentive, award, etc.). The fee arrangement, described herein, used for the period through definitization, shall not set a precedent for the fee arrangement for the balance of the program. The fee for the definitization period is comprised of two parts, a base fee and an incentive fee. The incentive fee is comprised of five elements as described below. Any unearned incentive fee will be retained for use as fee for future incentive period(s) in the definitized Agreement with the specific application period and criteria determined by the fee determining official.

a. The fee for the period through definitization consists of a base fee in support of the overall definitization effort, and an incentive fee arrangement to support the definitization by rewarding the accomplishment of the major elements during definitization of the OTA. The total fee opportunity for the definitization period is $24,685,560.00. This consists of a base fee of $9,874,224.00 in support of the overall definitization effort, and an incentive fee arrangement to support the definitization by rewarding the accomplishment of the major elements as identified below,

1) Technical $1,645,704.00,
2) Software $1,645,704.00,
3) Manpower agreement $3,291,408.00,
4) Subcontracts $3,291,408.00 ($1,645,704.00 for the competitive subcontracts and $1,645,704.00 for the MGV Subcontracts) and
5) a fee for the definitized and signed Agreement in the amount of $4,937,112.00 for definitization of the OTA.

The fee for element 5, the definitized and signed Agreement, is reduced the longer it takes to definitize. The fee for the definitized and signed Agreement is $4,937,112.00. Commencing 210 days after award of the Agreement, the fee for element 5 will be reduced by $822,852.00, and reduced an additional $822,852.00 every 30 calendar days thereafter until the Agreement is definitized or the element 5 fee exhausted.

b. The total fee associated with the $130,000,000.00 is $16,890,120.00. Of that amount $6,756,048.00 is base fee, and the balance is for the following incentive fee elements:

1) $1,126,008.00 is for Technical,
2) $1,126,008.00 is for Software,
3) $2,252,016.00 is for Manpower agreement,
4) $2,252,016.00 is for Subcontracts($1,126,008.00 for the competitive subcontracts and $1,126,008.00 for the MGV Subcontracts), and
5) $3,378,024.00 is for the definitized and signed Agreement.

c. The total fee associated with the $60,000,000.00 is $7,795,440.00. Of that amount $3,118,176.00 is base fee, and the balance is for the following incentive fee elements:

1) $519,696.00 is for Technical,
2) $519,696.00 is for Software,
3) $1,039,392.00 is for Manpower agreement,
4) $1,039,392.00 is for Subcontracts ($519,696.00 for the competitive subcontracts and $519,696.00 for the MGV Subcontracts), and
5) $1,559,088.00 is for the definitized and signed Agreement.

d. The five incentive fee elements are defined as follows:

1. **Technical** UA Increment I specification updated to align with JROC approved ORD, dated 14 April 2003. By System Requirements Review (SRR), all JROC ORD requirements will be reconciled. This reconciliation can take two forms:

A. Establishment of a fully coordinated threshold (either JROC compliant or approved through the Trade Study process).

B. Establishment of a Threshold Range contingent upon the outcome of a Trade Study that has yet to be performed, including:

i. Appropriate justification as to why the Trade Study could not be performed prior to the SRR.

ii. A Change Control Board (CCB) approved Trade Study Plan.

2. **Software**, Demonstration of the Net Fires use case utilizing SoS COE Build 0 on the C4ISR test bench to validate C2 capabilities using SoS COE APIs.

A. The capabilities that are represented by the Net Fires use case shall be described as system engineering requirements that are documented in the DOORS database, and traceable to the ORD, and to the test cases to be run as part of the demonstration. All software process artifacts (peer reviews, etc.) that can demonstrate compliance with the approved software development process shall be compiled and made available for review prior to the demonstration. Compilation on ACE is acceptable.

B. The C4ISR testbed shall be under configuration control at the time of test and shall have been demonstrated to be suitable for use prior to the demonstration. The LSI SQA organization will be the agent to confer a judgment of suitability.

C. As part of the readiness review for the demonstration, the LSI shall present the original estimates and the actual values for the following metrics for all software included in the demonstration.

i) Report on estimated Source Lines of Code (SLOC) at the time of Agreement award vs. actual SLOC at the time of demonstration.

ii) Report on estimated productivity (SLOC/hr) at the time of Agreement award vs. actual productivity (SLOC/hr) achieved during development of the software for the demonstration.

iii) Report on estimated levels of software reuse and associated effort at the time of Agreement award vs. actual achieved levels of reuse and associated effort.

D. These actual values shall be used to revise the cost and schedule estimates for SDD, and presented as additional planning data for program management purposes.

E. The LSI shall present any suggested changes to the UML style guide/standards based upon implementation of the Net Fires use case.

3. **Subcontracts**. Competitive subcontracts - 100% of all competitive subcontracts resolved and 85% definitized. Resolved means that a proposal or bid has been submitted, evaluated and/or negotiated, or a cost agreement is in place. If negotiations are not complete, the LSI will submit to the Grants Officer a statement outlining final cost expectations, with adequate and proper back up. MGV subcontracts will be fully definitized, or the following: 1) Subsystem source selections complete, 2) GD/UDLP work split defined, and 3) The LSI completes an analysis of the UDLP/GD proposals and submits substantiated pricing data with adequate backup to the Grants Officer.

4. **Manpower Agreement.** Agreement between LSI and Government on LSI manpower will be considered complete after the Grants Officer notifies the LSI that the Grants Officer and the PMO is satisfied with the appropriate staffing levels for the IPTs.

5. **Definitization of Agreement.** This is the final definitive agreement for SDD, including the fee arrangements for the balance of the SDD program. For definitization, the parties must harmonize Boeing's projected expenditures with the funding profile and scope of work.

e. The base fee in support of the overall definitization effort shall be paid based upon the ratio of cumulative costs incurred, to date, to the total estimated costs for program definitization. The incentive fee pool will be paid on a provisional basis prior to accomplishment of the specific elements as defined above. A provisional billing payment may be made on a prorata basis against the 180 day definitization period. The 180 day period represents 12 planned vouchers and Boeing will equally divide the provisional fee payments. When an element is completed the balance of the fee available relative to that element will be paid with the approval of the Grants Officer.

f. Funds above the $190,000,000.00 may be provided at the Government's discretion to maintain Program schedule. A provisional fee for billing purposes will be provided at ten dollars provisional fee, for every one hundred dollars of estimated cost funded. Based on the fee structure negotiated at definitization the amount of provisional fee made available to Boeing will be adjusted either up or down as appropriate, and will be consistent with the fee structure for the balance of the Agreement in its entirety. If excess fee has been paid then it will either be decremented from the next voucher/invoice submitted or otherwise submitted to the Government based on the specific direction of the Grants Officer.

g. The complexities and risk associated with the FCS SDD Increment 1 Program are significant. The challenges of the program warrant the establishment of the maximum possible opportunity to earn fee. The fee available to be earned shall be based on the total negotiated cost base for the Agreement, including all normally allowable and allocable costs such as subcontracts, labor hours, and normal and customary rate applications in accordance with Boeing's approved disclosure statement. This commitment to provide an incentive commensurate with Program risk does not endorse or prohibit any particular fee structure, which shall be subject to negotiation for definitization. Establishment of the award fee arrangement requires a set of award fee evaluation areas and criteria that provide the expectations for excellent performance and Boeing's achievement of excellent performance will enable Boeing to earn the maximum fee available.

6. Boeing shall perform the work tasks to satisfy the accomplishment criteria for the first two IMP program events, SoS Requirements Review (SoSRR) and the Program Definitization, by 180 days after award. The scheduled IMP events are supported by doing those tasks that have been identified as needing to be initiated in the first six months. The following tasks are part of that process.

a. The Initial Baseline Review (IBR) for the program shall be conducted by 120 days after award.

b. It is understood that the initial IMP/IMS will need further refining at the IMS task level. Some tasks may require greater definition to support the criteria for the IMP events and additional tasks may need to be defined or eliminated. It is expected that the fidelity for the program will be of adequate detail by definitization to support both the agreed to dollars and the funding profile for the program.

c. The LSI will accompany PM,FCS on the scheduled visits to the PEO/PMs associated with Complementary Systems between June 2003 and September 2003. The LSI will participate with the Government in preparing and finalizing all MOAs by definitization. The LSI will participate with the Government in attempting to prepare and finalize all SMOAs by definitization. The LSI will prepare all draft ACAs prior to definitization. Some of the drafts (those ACAs where an initial SMOA has been signed and the complementary program prime contractor has been directed by the Government to initiate discussions with the LSI to develop an ACA) will have been worked with applicable contractors and some will be Boeing generated documents only.

7. Timely accomplishment of the Program Definitization will include: the detailed Integrated Master Schedule (IMS) at the LSI level by 135 days after award; the validation of the linkage between the Work Breakdown Structure (WBS), the Integrated Management Plan/Integrated Master Schedule, and the Technical Baseline to the agreed to cost by 165 days after award in order to achieve a definitive Agreement by 180 days after award. If the Agreement is not definitized within 30 days after the fee for the definitized and signed Agreement has been exhausted (per Article I, paragraph B,5.a. above), the definitization will be subject to Disputes, Article XV. Towards ensuring timely accomplishment the parties agree to meet within 30 days of award and identify the appropriate supporting tasks to the above schedule. Both parties will ensure periodic management reporting to facilitate the understanding of the progress being made.

8. The modification that definitizes the ceiling priced Agreement is planned to be a totally superceding modification for the entire FCS SDD program, incorporating those fixed portions of the business arrangement reflected in this Article for the definitization period.

9. There will be no Government manpower provided through definitization, unless the Agreement is expressly modified to provide Government manpower in lieu of LSI manpower. The requirements for Government Manpower will be identified and finalized during the definitization process. The GFX list will be finalized during the definitization process.

10.. The Statement of Work (SOW) at Attachment 1 is the SDD program SOW for FCS Increment I. The SOW, the terms and conditions other than the business arrangement for definitization, and all other attachments will be finalized during the definitization process so that all Agreement requirements at definitization will match the ceiling for the Agreement. There have been changes to the documents subsequent to 2 May 2003 and prior to execution of this Agreement. All such changes will be addressed during the definitization process. The ceiling price for the Agreement for definitization purposes is the Government's funding limitation and is not reflective of the proposal submitted. The definitization process will reconcile these issues to arrive at a definitive agreement.

C. Agreement

1. This Agreement is an Other Transaction pursuant to 10 U.S.C. 2371 and Section 845 of the 1994 National Defense Authorization Act, (Public Law 103-160) as amended. Boeing will be incentivized to achieve the program goals by use of an Award Fee plan as described in Article VII, Award Fee.

2. This Agreement is not a procurement contract, grant, or cooperative agreement. The Federal Acquisition Regulation (FAR) and Department of Defense FAR Supplement (DFARS) apply only as specifically referenced herein. This Agreement is not intended to be, nor shall it be construed as, by implication or otherwise, a partnership, a corporation, or other business organization. The Army will obtain access to program results and certain rights to patents, data and software pursuant to Articles XVII, Patent Rights and XVIII, Data and Software Rights.

3. As part of the competition to select an LSI for Concept and Technology Development (CTD), industry was advised of the Government's intent to exercise a follow-on option with the selected LSI for SDD. This Agreement, DAAE07-03-9-F001, constitutes the exercise of the SDD option contemplated by DARPA and the Army in the CTD solicitation and Agreement, MDA972-02-9-0005.

4. The Senior Procurement Executive for the agency approved, in writing, that in accordance with Section 845 of the National Defense Authorization Act for Fiscal Year 1994, Public Law 103-160, as amended (10 U.S.C. § 2371 *note*), the use of an Other Transaction Agreement, that exercises the option contemplated by DARPA and the Army in the CTD phase, continues the use of non-traditional defense contractors in significant roles, and provides for innovative business arrangements or structures that would not be feasible or appropriate under a FAR-based procurement contract, and is the appropriate instrument for the FCS SDD Phase.

D. Non-Disclosure of Sensitive Government Program Information

1. In the course of Agreement performance, the Government may furnish Boeing information (written, verbal or otherwise) developed outside of the FCS program, regarding Army programs and initiatives that is often sensitive to past, present, and future procurements within the Government (hereafter "Sensitive Government Program Information"). If the Government initially makes a disclosure of Sensitive Government Program Information to Boeing in non-written form, e.g., verbally, the information disclosed shall be identified as being Sensitive Government Program Information and confirmed, as such, in writing, by the Government within thirty (30) days from such disclosure. Subject to the foregoing, Sensitive Government Program Information will be marked as such before it is provided to Boeing. Boeing agrees to use reasonable efforts not to use or reproduce Sensitive Government Program Information for any purpose other than fulfilling the FCS Program (the "Purpose"), and to keep Sensitive Government Program Information in confidence, disclosing it only for the Purpose to (a) Boeing employees assigned to or supporting the FCS Program, (b) the Government and its FCS Program support contractors, and (c) other companies, organizations, or individuals that have agreed contractually to control Sensitive Government Program Information under the same conditions set forth herein. The obligations set forth above shall not apply: to information which is or becomes publicly available, or to information which is already in the possession of the recipient without restrictions, or to the extent prior written authorization of the Government is given, or after three (3) years after receipt of the information. This provision does not supercede the terms and conditions of Article XVIII, Data and Software Rights.

E. Lower Tier Agreements

1. Boeing may disclose such Sensitive Government Program Information to subcontractors, regardless of tier, on the FCS program, provided that it includes subparagraph D. in each such subcontract.

F. Definitions

The following definitions are used for purposes of this Agreement in lieu of definitions that may occur elsewhere:

1. The term "Agreement" as used herein refers to these articles and the attachments hereto.

2. The term "Lead Systems Integrator" or "LSI" or "contractor" refers to the recipient, The Boeing Company, acting as a single party, responsible to the U.S. Government through the Program Manager, Future Combat Systems (U.S. Army) and the Grants Officer (TACOM).

3. The term "Program" refers to the Future Combat Systems (FCS) as described in the Executive Summary paragraph entitled FCS Overview.

4. The term "Program Management Office" (PMO) refers to the Army Program Manager, Future Combat Systems and his designated staff.

5. The term "Program Manager LSI" or "PM, LSI" refers to the Boeing Program Manager and his designated staff.

6. The term "Parties" or "Party" refers to Boeing or LSI or Contractor and TACOM.

7. The term "Statement of Work" or "SOW" refers to the tasks to be accomplished by Boeing, and its subcontractors, in the performance of this Agreement, as defined in Attachment 1, SDD SOW.

8. The term "User" refers to the TRADOC (Training and Doctrine Command) Systems Manager (TSM) Future Combat Systems (FCS). The TSM FCS is the user representative voice in all discussions related to FCS."

9. The term "Initial Operational Capability" or "IOC" means within the IMS, an FCS-equipped maneuver battalion has completed hand-off and fielding of all materiel required by the Army's concept, soldiers are trained to standard, and required support is in place. In addition, Materiel Release of the FCS System of Systems (SoS), in accordance with the Army Release, Fielding and Transfer Program (AR 700-142) dated May 1, 1995, has been achieved. Boeing's required effort to support IOC is represented by this SDD Agreement and subsequent contracts.

10. The term "Integrated Product Team" or "IPT" refers to a multidisciplinary group of people who are collectively responsible for completing particular program objectives as described in their respective IPT Charter.

11. The term "IPT Leader" (LSI) and "IPT Co-Leader" (Government) refers to the co-equal technical leaders of their respective IPT. Refer to Article IV, Management of the Program.

12. The term "Integrated Master Plan" or "IMP" refers to an event driven program plan, which organizes the work effort by establishing Program Events and associated Significant Accomplishments.

13. The term "Integrated Master Schedule" or "IMS" refers to an integrated schedule, of time-phased tasks, that supports the Program Events and Significant Accomplishments of the IMP.

14. The term "In Process Review" or "IPR" refers to a predetermined agreed upon event to assess the status of program cost, schedule, and performance objectives.

15. The term "Integrated Product and Process Development" or "IPPD" refers to a management technique that simultaneously integrates all essential acquisition activities through the use of multidisciplinary teams to optimize the design, development, demonstration, evaluation, manufacturing and supportability process. IPPD facilitates meeting cost, schedule, performance, and supportability objectives from systems concept through production, including field support. One of the key tenets is multidisciplinary teamwork through IPTs.

16. The term "Advanced Collaborative Environment" or "ACE" refers to the shared data, tools, models, simulations, and the ability to access data and information based on logical business rules throughout the Future Combat Systems enterprise.

17. The term "Complementary Programs" means those items, data, software, programs or systems that are required to meet the functionality and performance of the FCS UA Increment I Capabilities Specification that are neither developed nor provided as part of the Lead System Integrator (LSI) effort, and any product that is needed to accomplish the SoS integration that will be provided through the Complementary Program related processes. Complementary programs will require an exchange of hardware, software, information and/or collaborative interaction between the LSI and other Government agencies and contractors for design, integration, test, production planning or program planning purposes. Complementary Programs consist of property (including software and data) or materiel furnished to the LSI through LSI agreements with the specific contractors. Government Furnished Property (GFP) consists of property or material furnished to Boeing directly from the Government without oversight of the LSI. NLOS-LS and IMS as identified in the ORD are FCS Core Programs, and are considered Complementary Programs for the purposes of this Agreement.

18. The term "non-traditional defense contractor" means an entity that has not, for a period of at least one year prior to the date of the transaction (other than a contract, grant or cooperative agreement) for a prototype project under the authority of 10 U.S.C. 2371, Section 803 is entered into, or performed with respect to --

(a) any contract that is subject to full coverage under the cost accounting standards prescribed pursuant to section 26 of the Office of Federal Procurement Policy Act (41 U.S.C. 422) and the regulations implementing such section; or
(b) any other contract in excess of $500,000 to carry out prototype projects or to perform basic, applied, or advanced research projects for a Federal agency, that is subject to the Federal Acquisition Regulation.

19. The term FCS "Board of Directors" refers to a group assembled at the discretion of the Program Executive Officer (PEO), Ground Combat Systems (GCS) consisting of Army and Office of Secretary of Defense (OSD) officials to include other PEOs, RDEC Directors, Army Materiel Command functional leaders, TRADOC, ATEC, DCMA, individuals with special expertise and LSI executive leadership to assist the PEO GCS in his responsibilities for planning, control and oversight to ensure achievement of key Program objectives.

20. The term "Program Generated Adjustment" refers to whenever a provision of this Agreement states that Boeing may be or is entitled to a "Program Generated Adjustment", the Government, at its sole option, may direct that the modification implementing the adjustment (a) maintain the overall schedule and estimated cost by removing requirements from the statement of work that reduce cost and/or schedule by an amount equal to the increased cost and/or schedule caused by the event giving rise to the Program Generated Adjustment, or (b) increase estimated cost and/or schedule, as appropriate, to account for the impact of the change. Unless directed otherwise by the Grants Officer, any request by Boeing for a Program Generated Adjustment will maintain the overall schedule and estimated cost and include recommendations of statement of work requirements to be modified, reduced, or deleted in order to perform within the existing Agreement schedule and cost boundaries. Adjustments implemented under (a) above will not cause any revision to the amount of Fee available for this Agreement. Any reference to an Equitable Adjustment under this Agreement in a FAR or DFARS clause, is hereby replaced with the term "Program Generated Adjustment", as defined herein.

21. The term "Family of Systems (FoS)" refers to: "The JROC defines a Family of Systems as a set or arrangement of independent systems that can be arranged or interconnected in various ways to provide different capabilities. The mix of systems can be tailored to provide desired

capabilities dependent on the situation. For this Statement of Work, the FCS Family of Systems is further defined by the FCS ORD as consisting of advanced, networked air and ground based maneuver, maneuver support and sustainment systems that include manned and unmanned platforms and is networked via a C4ISR architecture, including networked communications, network operations, sensors, battle command systems, training, and manned and unmanned reconnaissance and surveillance capabilities."

22. The term "System of Systems (SoS)" refers to: A set or arrangement of systems that are related or connected to provide a given capability. The loss of any part of the system will degrade the performance or capabilities of the whole. The FCS System of Systems is further defined by the FCS ORD as a network of systems integrated to perform one common mission, to include the networking of existing systems, systems already under development, and new systems to be developed to meet the needs of the Unit of Action."

23. The term "Full Operational Capability" (FOC) refers to the fielding of an FCS equipped UA able to effectively execute the O&O Plan.

24. The term "Terms and Conditions" refers to the terms and conditions of this Agreement which are contained within the Articles and referenced clauses, unless formally modified by modification to the Agreement.

ARTICLE II: TERM

A. The Term of the Agreement

1. The performance period of this Agreement commences upon the Agreement Effective Date and continues for one hundred three (103) months. Initial Production Decision (IPD) is estimated to be sixty three (63) months from date of award unless terminated earlier in accordance with the Limitation of Funds provision, Article VI, Obligation and Incremental Funding Schedule or the Termination provision, Article II. If all funds are expended prior to the end of the term, the Parties have no obligation to continue performance. Articles in this Agreement, which by their express terms or by necessary implication, apply for periods of time other than as specified in this Article, must be given effect, notwithstanding this Article.

B. Termination Provisions

1. In the event of a termination of this Agreement, it is agreed that disposition of intellectual property developed under this Agreement shall be in accordance with provisions set forth in Article XVII, Patent Rights and XVIII, Data and Software Rights. The Government and Boeing will negotiate in good faith a reasonable and timely adjustment of all outstanding issues between the Parties as a result of termination.

C. Termination Notification

1. Should the Government terminate work, or substantially reduce work, under the Agreement worth twenty-five (25%) per cent or more of the total Agreement amount, Boeing will provide appropriate notices, in accordance with Section 1372 of Pub. L. 103-160 and Section 824 of Pub. L. 104-201, (1) to all potentially affected employees or their official representatives; (2) to

the State dislocated worker unit or entity designated by the State to carry out rapid response activities under section 134(a)(2)(A) of the Workforce Investment Act of 1998 (29 U.S.C. 2864(a)(2)(A)); (3) to the chief elected official of the unit of general local government within which the adverse effect may occur; and (4) to each first-tier subcontractor with a subcontract of $500,000 or more; and will require that each such subcontractor provide notice to each of its subcontractors with a subcontract of $100,000 or more and impose a similar notice and flowdown requirement to subcontractors with subcontracts of $100,000 or more.

2. This notice to the employee shall have the same effect as a notice of termination to the employee for the purposes of determining whether such employee is eligible to participate in employment and training activities carried out under title I of the Workforce Investment Act of 1998 (29 U.S.C. secs. 2801 et seq. generally; for full classification, consult USCS Tables volumes), except in a case in which the employer has specified that the termination of, or substantial reduction in, the contract is not likely to result in plant closure or mass layoff as defined in 29 U.S.C. 2101.

D. Lower Tier Agreements

1. Boeing shall notify its first-tier subcontractors with subcontracts valued at $500,000 or more and require them to include the notification requirement in subparagraph C. above to subcontractors with subcontracts valued at greater than $100,000 or more.

E. Extending the Term

1. The Parties may extend, by mutual written agreement, the term of this Agreement if funding availability and opportunities reasonably warrant. Any extension shall be formalized through modification of the Agreement by the Grants Officer and the Boeing Contracts Manager.

F. The following FAR/DFARS clauses apply:

52.249-6	Termination (Cost-Reimbursement) (9/96) Tailoring: Except that disputes between the Parties will be handled under this Agreement as identified in Article XV: Disputes.

ARTICLE III: DELIVERABLE SCHEDULE

A. Deliverable Schedule – Data and Software

1. Boeing shall submit or otherwise provide the deliverables (including Software) listed in Attachment 2, Deliverables List as part of its LSI responsibilities to support the SDD phase. Submittal of deliverables will be via the Advanced Collaborative Environment (ACE). Deliverables will be marked in accordance with Article XVIII, Data and Software Rights.

2. The ACE workflow will be the process used for approving data listed in Attachment 2 that requires approval (i.e., Block 8 contains an "A").

a. Sixty (60) calendar days prior to its due date, the individual(s) who has the authority to approve the data for the Government will be identified. The Government will provide this information to Boeing who will enter it into the ACE workflow. At thirty (30) days prior to the deliverable due date, if this individual has not been identified, Boeing will notify the Grants Officer, or his designated representative, so that the Government may provide the name of the Government individual that has approval authority.
b. Boeing will notify the Government approval official, via the ACE workflow process, that the deliverable is available for final review and approval. Twenty (20) calendar days after the Government approval official has received notification, unless otherwise specified in Attachment 2, the deliverable will be deemed approved by the Government if neither comments nor disapproval are received.

3. Day-to- day IPT products such as technical assessment results, analysis, distributed product description (DPD), trade studies, and plans, will be made available to the Government via the ACE. However, unless such day-to-day IPT products are explicitly specified in Attachment 2, these products will not be subject to Article XVIII, Data and Software Rights.

B. Deliverable Schedule – Hardware

1. At the completion of the Agreement all system prototypes and SILs shall either become deliverables to the Government or the Government may decide to have them transferred to a subsequent follow-on production contract with Boeing at the Government's discretion. All such deliverables shall be F.O.B. Origin. Any residual property (prototypes, etc.) will vest and be dispositioned in accordance with the Article XII provision, "Government Property."

C. SDD Completion

1. Performance of this Agreement shall be deemed to have been completed thirty (30) calendar days after the successful accomplishment of the IMP events and SOW requirements or upon termination in accordance with Article II, Term, subparagraph A. or subparagraph F. or Article VI, Obligation and Incremental Funding Schedule, subparagraph D. Refer to Article I, B., for SOW requirements.

2. This Agreement shall remain open, administratively, until the following actions at a minimum have been settled:
(a) Closeout of subcontracts;
(b) Disposition of Government Property and Plant Clearance actions;
(c) Disposition of Classified Material;
(d) Final Patent Report;
(e) Final Modification Identified;
(f) Final Audits Conducted;
(g) Final Payment Made.

D. The following FAR/DFARS clauses apply:

52.246-9	Inspection of Research and Development (Short Form) (April 1984) Tailoring: Unless otherwise agreed, records of inspection work performed by Boeing will be posted to the ACE.

ARTICLE IV: MANAGEMENT OF THE PROGRAM

A. Program IPT Structure

1. The following IPTs are the initial IPTs the SDD Phase will commence with:

- Program Manager IPT (level I)
- Advanced Collaborative Environment IPT (level II)
- Complementary Programs IPT (level II)
- Force Development IPT (level II)
- Integrated Simulation and Test IPT (level II)
- Supportability IPT (level II)
- System of Systems Engineering & Integration IPT (level II)
- Training Systems IPT (level II)
- C4ISR Systems Integration IPT (level II)
- Increment II Concept & Technology Development IPT (level II)
- Lethality Systems Integration IPT (level II)
- MGV Systems Integration IPT (level II)
- Soldier Systems Integration IPT (level II)
- UAV Systems Integration IPT (level II)
- UGV Systems Integration IPT (level II)

B. Management and Program Structure

1. Boeing will structure its performance so as to facilitate appropriate span of control consistent with the SOW, Work Breakdown Structure (WBS), IMP and IMS. The Program Manager, LSI exercises program management and system integration responsibilities to include technology insertion, risk management, life cycle cost, and program evolution through each of the Government acquisition milestones. For purposes of this Agreement any body, regardless of its title, i.e. "Working Group", "Integrated Design Team", will be referred to as "IPT".

2. Boeing will use its Integrated Product and Process Development (IPPD) process centering on customer focus, multidisciplinary teamwork and total life cycle planning to facilitate the creation, staffing, and operations of the jointly led Integrated Product Teams (IPT). This collaborative working relationship helps to ensure successful execution of program plans, within cost, schedule, performance and supportability objectives. The IPPD process will ensure effective participation, including PM, FCS and User groups such as Integrated Concept Teams (ICTs), Battle Labs and TRADOC System Managers (TSMs), in key performance trade decisions that impact operational capabilities.

3. PM, FCS will ensure that all key Government stakeholders are officially represented on an IPT, where appropriate.

4. The ACE shall be used for IPT collaboration, workflows and approvals for IPT work products and formal deliverables.

C. Board of Directors

1. The Board of Directors may be convened during program performance at the discretion of the PEO, GCS in order to discuss top-level issues affecting, or that may affect, the program. The Board, in their advisory capacity, will provide to the PEO, GCS, as required, advice and counsel so that the PEO may fulfill his responsibilities for program planning, control and oversight to ensure key objectives are achieved.

D. IPT Structure

1. The FCS program will be managed and led through the Office of the Program Manager, co-chaired by both the PM, FCS and PM LSI. Reporting to the Office of the Program Manager are level II IPTs (as listed in paragraph A) which shall be jointly established and chartered by the PM, FCS and the PM LSI. Boeing will lead each IPT, regardless of IPT level, with the Government providing appropriate co-leaders, unless the PM, FCS and the PM LSI agree otherwise.

2. Supporting level II IPTs will be sub-IPTs, and Working Groups (WG) or other organizations which will be referred to as level III IPTs. Sub-IPTs and Working Groups will be established by level II IPT leaders with concurrence of the level II IPT Co-Leader.

3. Lower level IPTs (IV, V, VI, etc.) are not capped, but must be structured and chartered in accordance with Boeing's IPPD process. The Government reserves the right to participate on these lower level IPTs and to co-lead with the concurrence of the lower level IPT Leader.

4. Boeing shall provide administrative support and coordination of the day-to-day business activities for all IPTs.

5. Each IPT Charter shall be concurred in by IPT Leadership. Charters will contain goals from the Statement of Work, deliverable products and schedules, processes, responsibilities, authority and budget. Subcontractor and Government employees will participate in IPTs.

6. Boeing will require that each IPT has an:

(a) IPT Charter and Team Execution Plan (TEP): These documents define the purpose, responsibilities, membership and chain of authority for the IPT.
(b) Input into the Integrated Master Plan/Integrated Master Schedule (IMP/IMS) which establishes the products and resources for the allocated actions of the IPT.

E. Government Manpower Support to IPTs – Subject Matter Experts (SME)

NOTE: UNTIL OR UNLESS OTHERWISE MUTUALLY AGREED TO BY THE PARTIES AND IMPLEMENTED BY AGREEMENT MODIFICATION, THERE WILL BE NO GOVERNMENT SME PROVIDED IN LIEU OF LSI PERSONNEL. THE ISSUES ASSOCIATED WITH LSI MANAGEMENT OF GOVERNMENT PERSONNEL MUST BE RESOLVED PRIOR TO GOVERNMENT PERSONNEL BEING PROVIDED IN LIEU OF LSI PERSONNEL.

~~1. The Government is supporting IPTs by providing manpower (e.g. subject matter experts) in needed or specialized areas, in accordance with this Article IV.E and as specified in Attachment 10, Government Manpower Support to IPTs. A change in support provided subsequent to Agreement award will require a modification to the Agreement and a Program Generated~~

~~Adjustment (as defined in Article I: Scope of the Agreement, subparagraph F.). Program Generated Adjustment will be in accordance with Article XIII, Modifications.~~

~~2. The IPT Leader and IPT Co-Leader may jointly request a change in Government IPT support. In response, to the request, the Government will advise as to the availability of Government manpower, including detailed information on the specific support offered. Upon IPT Leader and IPT Co-Leader concurrence, the Government will provide manpower in support of an IPT. The Government, via the Grants Officer, shall provide to the Boeing Contracts Manager a modification including the information required by Attachment 10.~~

~~3. The IPT Leader and IPT Co-Leader will jointly evaluate the IPTs products and performance to ensure successful team performance. Evaluations will be provided through the appropriate supervision chain for both Boeing and the Government. The level II IPT Co-Leader is directly responsible to the PM, FCS for all lower level Government IPT effort or performance and to provide resolution of issues that may impact program performance within one (1) business day of issue identification to the level II IPT Co-leader.~~

~~4. The Government employee will perform his/her assigned responsibilities and duties under the leadership of the IPT Leader and IPT Co-Leader and will be expected to provide a weekly, or monthly activity report as required by the IPT Leader. The IPT Leader will evaluate the Government employee's performance for continued participation on the IPT and will make available to the Government employee's supervisor such evaluation. The responsibility for the supervision and day-to-day direction of the Government employee, however, will remain with that employee's Government supervisor.~~

~~5. If the Government cannot provide the supplemental manpower levels when planned, written notice, via the Grants Officer, shall be provided to the Boeing Contracts Manager as early as practicable, along with a projection of the extent of delay, and/or shortfall in manpower. To the extent that any Government supplemental manpower is provided late, fails to meet the purpose for which it was intended, to the extent there is a substantial impact and it causes Boeing to be late in its performance of its obligations under this Agreement or requires Boeing to perform additional work, Boeing may be entitled to a Program Generated Adjustment (as defined in Article I: Scope of the Agreement, subparagraph F.). Program Generated Adjustment will be in accordance with Article XIII, Modifications. In addition, the Parties mutually agree, Boeing's award fee evaluation score shall not be adversely impacted by the action, or non-action, of a Government individual supplied to the LSI as Government supplemental manpower, provided that providing Boeing can demonstrate they have acted responsibly in their overall LSI management responsibilities. The comparatively low instance of Government employees should make such extremely unlikely, provided that proper work management is being performed.~~

~~5. Boeing reserves the right to request discontinuance of the participation of a Government individual (e.g. Government supplemental manpower) from any IPT, if that individual fails to meet the purpose for which he/she was assigned, causes Boeing to be late in its performance of its obligations under this Agreement, or requires Boeing to perform additional work. The Boeing Contracts Manager will notify the Grants Officer of the specific situation and the Grants Officer will provide appropriate direction in a timely fashion.~~

~~6. Government provided IPT manpower individuals do not have authority to, and therefore shall not direct the efforts of Boeing subcontractors, regardless of tier. In the event a Government provided IPT individual provides direction to a Boeing subcontractor, regardless of tier, which~~

~~results in an increase to the subcontractor's cost or schedule for performance, the Government will be directly liable for any such subcontractor claim for equitable adjustment; and furthermore, if the direction to the Boeing subcontractor results in an increase to Boeing's cost or schedule for performance then Boeing also will be entitled to an Equitable Adjustment (as defined in Article I: Scope of the Agreement, subparagraph F.) in accordance with Article XIII, Modifications.~~

F. Government Member IPT Responsibilities

1. The Government may, in its sole discretion, appoint members to each IPT. Government members of the IPT are empowered by the PM, Future Combat Systems to express his views and interests and are responsible to the PM, Future Combat Systems for their actions. Government members of the IPT will report regularly and frequently to their home office, their Government team co-lead, and the PM, FCS to ensure a common Government view is maintained for the execution of the program. The Program Management Office may provide IPT representatives that are Support Contractor employees under contract to support the Program Management Office. Support Contractor employees acting in this capacity shall have first signed a Proprietary Information Agreements (PIA) with Boeing or shall provide to the Boeing Contracts Manager a copy of an existing Government FCS Non-Disclosure Statement prohibiting the unauthorized disclosure of Boeing proprietary information. Each IPT will have assigned a representative reporting to the Grants Officer to review proposed changes to the Program work for cost or schedule impacts. Such representative may be responsible for reviewing input and providing support to multiple IPTs. The Boeing and Government members of the IPTs do not have authority to make decisions that would result in a change to the Agreement. All required changes to the Agreement will be documented, in writing, via Agreement modification.

2. The Parties agree that Government members of an IPT do not have authority to, and therefore shall not, direct the efforts of Boeing subcontractors, regardless of tier.

G. IPT Issue Resolution

1. It is the intent of the Parties that IPT actions will be taken as a result of consensus between the IPT Leader and IPT Co-Leader. In the event consensus cannot be achieved, then the issue must be raised to the next level of the IPT structure in accordance with the following process:

(a) An inability to reach consensus between the IPT Leader and IPT Co-Leader of the IPT will result in the decision of the IPT Leader being followed until such time as the issue is resolved. This decision can be reviewed by appeal to the IPT to which they report. The Government IPT Co-Leader can initiate a request to review the decision or issue where consensus is not achieved.

(b) The IPT Co-Leader will submit a request for review of that decision, in writing, to the leaders of the IPT to which they report. The request for review will: (i) describe the decision to be reviewed; (ii) identify the reason for the disagreement; and (iii) identify an alternative decision.

(c) The higher-level IPT Leader and IPT Co-Leader will determine if they can reach a consensus decision themselves or if they need to involve their team to resolve the issue. All decisions by a higher-level IPT will be made within two (2) business days following

receipt of a request to review a decision in order to facilitate effective program performance.

(d) Any decision can be appealed to the next higher-level IPT. The new request for review will be handled in accordance with the procedure described in paragraphs (a) through (c).

(e) The final decision-making authority for an issue raised by this procedure will be the Program Manager, LSI. Any decision by the PM, LSI that does not sustain an appeal shall be immediately provided to PM, FCS. Should the PM, FCS disagree, he may request the Grants Officer provide appropriate direction to Boeing. In this case, if the direction results in an increase to Boeing's cost or schedule, then Boeing will be entitled to a Program Generated Adjustment. The Program Generated Adjustment (as defined in Article I: Scope of the Agreement, subparagraph F.) will be in accordance with Article XIII, Modifications.

2. Issue resolution by elevation to next higher level IPT is not the preferred method. IPTs are empowered and expected to quickly resolve issues within the scope of their Charter. However, any issue under the issue resolution process impacting cost, schedule or performance shall be brought to the attention of the Office of the Program Manager in no longer than one (1) week, if not resolved.

H. Earned Value Management System

1. In the performance of this Agreement, Boeing will use its Earned Value Management System (EVMS) as documented in the Integrated Performance Management Manual (IPM Manual) per Advance Agreement (AA) on The Boeing Company EVM System, dated October 31, 2000 between The Boeing Company and the Government regarding the Single Boeing Company Earned Value Management (EVM) System. The IPM Manual has been recognized by the Government as complying with the criteria provided in the Interim Defense Acquisition Procedure "Operation of the Defense Acquisition System" Tab C, Table 3 Contract Reporting Requirements dated 30 October 02.

2. If Boeing's EVMS is not recognized by the cognizant AAO as complying with EVMS criteria (or Boeing does not have an existing cost/schedule control system that has been accepted by the Department of Defense), Boeing shall apply the system to the Agreement and shall be prepared to demonstrate to the AAO that the EVMS complies with the EVMS criteria referenced in paragraph 1. of this clause.

3. The Government shall require Integrated Baseline Reviews (IBR) and subsequent baseline quality reviews (BQR). IBR reviews shall be scheduled as early as practicable and should be conducted within 120 calendar days after (1) Agreement award, (2) the exercise of significant agreement options, or (3) the incorporation of major modifications. The objective of IBRs and BQRs is for the Government and Boeing to jointly assess areas, such as Boeing's planning, to ensure (1) complete coverage of the statement of work, (2) logical scheduling of the work activities to include integration of all major performers' (sub-contractors) detailed activities into a singular and fully integrated performance measurement baseline that adheres to the program master plan, (3) adequate resourcing, and (4) identification of inherent risks. BQRs will be the logical extension to the IBR to ensure continued integrity of the Performance Measurement Baseline, and will be conducted at periodic intervals when deemed needed by the Government or Boeing throughout the Agreement's period of performance.

4. Boeing agrees to provide access to all pertinent records and data requested by the Grants Officer, AAO or other duly authorized Government representative. Access is to permit Government surveillance to ensure that the EVMS complies, and continues to comply, with the criteria referenced in paragraph 1. of this clause.

5. Boeing shall require all subcontractors with subcontracts worth more than $5M to manage their portion of the program using an approved earned value system. For subcontracts greater than $5M, the subcontractor will use a Cost/Schedule Status Report (C/SSR) to report their EVMS information and for all subcontracts in excess of $50M the subcontractor will use a Cost Performance Report (CPR) to report their EVMS information.

I. Office Space and Administrative Support

1. Due to the highly collaborative nature of the business relationship, the Parties mutually agree that each Party may be required, or may have to from time-to-time, provide to the other Party the use of office space, furniture, equipment, services, miscellaneous office supplies, administrative support, etc. for the mutual benefit of the FCS program. Attachment 7, Office Space and Administrative Support lists the Army installations and minimum requisite support to be provided to Boeing; and further lists the Boeing locations and minimum requisite support to be provided to the Government.

2. Office space and administrative support will be provided on a no-charge-for-use basis.

3. Either Party may immediately report to the Grants Officer or Boeing Contracts Manager, as the case may be, regarding inadequacies, defective space, furniture, equipment, etc., or non-availability of support, together with a recommended plan for obtaining the required support, listed in Attachment 7, Office Space and Administrative Support. The Parties, via the Grants Officer and Boeing Contracts Manager, mutually agree to resolve any support issues as expeditiously as possible

J. Work Breakdown Structure (WBS)

The agreed to WBS is the primary structure by which work is organized and managed, and costs tracked under this Agreement. Work tasks, cost accounts and IPTs are structured to address elements of the WBS. The WBS will be updated to reflect jointly agreed to changes, additions or deletions from, including but not limited to, IBR reviews identified in Article IV, subparagraph H. above or changes in scope of work due to subsequent Agreement modifications. The baseline WBS for the Agreement is document D786-10158-1, version 16, FCS WBS SDD Proposal Baseline (Mar 14, 2003).

ARTICLE V: IDENTIFICATION OF WORK TO BE PERFORMED
A. Contract Line Item Numbers (CLIN)

1. The Government reserves the right to subdivide the CLIN below, subject to mutual agreement, in writing, of the Parties.

2. CLIN 0001 Performance of the FCS SDD phase as described in this Agreement.

Program Definitization
(i) **Item 0001AA**. Estimated Cost for Program Definitization through 30 September 2003

Total Obligated Amount: $113,109,880.00
ACRN: AA (see Attachment 12 for accounting details)
Notes: This sub-CLIN 0001AA is fully-funded.

(ii) **Item 0001AB**. Base Fee for Program Definitization through 30 September 2003

Total Obligated Amount: $6,756,048.00
ACRN: AA (see Attachment 12 for accounting details)
Notes: This sub-CLIN 0001AB is fully-funded.

(iii) **Item 0001AC**. Incentive Fee for Program Definitization through 30 September 2003

Total Obligated Amount: $10,134,072.00
ACRN: AA (see Attachment 12 for accounting details)
Notes: This sub-CLIN 0001AC is fully-funded.

(iv) **Item 0001AD**. Estimated Cost for Program Definitization from 1 October 2003 through Definitization

Total Obligated Amount: $-0-
Total Estmated Cost: $52,204,560.00
ACRN:
Notes: This sub-CLIN 0001AD is not funded at this time.

(v) **Item 0001AE**. Base Fee for Program Definitization from 1 October 2003 through Definitization

Total Obligated Amount: $-0-
Total Base Fee: $3,118,176.00
ACRN:
Notes: This sub-CLIN 0001AE is not funded at this time.

(vi) **Item 0001AF**. Incentive Fee for Program Definitization from 1 October 2003 through Definitization

Total Obligated Amount: $-0-
Total Incentive Fee: $4,677,264.00
ACRN:
Notes: This sub-CLIN 0001AF is not funded at this time.

3. CLIN 0002

(a) CLIN 0002 is not subject to Article VII, Award Fee. The intent of CLIN 0002 is to cover work that is not, or could not have been, reasonably anticipated to be covered under CLIN 0001. Grants Officer authorized Work Directives will originate from within the Government. If the Government decides not to pursue that work, the decision will have no impact on Boeing's performance under CLIN 0001. All work performed under this CLIN will be initiated, as determined by the Grants Officer, as work that is only feasibly accomplished by Boeing, by virtue of the work it is performing under CLIN 0001. The work performed will not be feasible to

compete and must be appropriate to be performed under a Section 845 Other Transaction Agreement.

(b) Grants Officer- issued Work Directives will specify the (1) particular tasks, (2) deliverables, (3) schedule, (4) the funds available for the work, and may include (5) the number of man-hours reimbursable. All effort expended under a Work Directive will be reimbursed on a Cost-Plus-Fixed-Fee (CPFF) basis. The Limitation of Funds clause at Article VI, Obligation and Incremental Funding Schedule, subparagraph D. applies.

(i) Upon receipt of a Grants Officer- issued Work Directive, Boeing will submit a proposal to perform the work described in the Work Directive to the Grants Officer within fifteen (15) business days from receipt of the Work Directive. Boeing will begin effort under the Work Directive as directed by the Grants Officer as soon as the Agreement is modified to provide the specific tasks, value, schedule and funding for the Work Directive.

(ii) In the event work under a Grants Officer-issued Work Directive must begin in an expeditious manner (e.g. "hot start") a single composite hourly rate, derived from a single location chosen by Boeing in order to develop the composite hourly rate, consisting of $148.00/hour estimated cost and $22.00/hour of fixed fee for a total of $170.00/hour. The composite hourly rate will be derived from a broad mix of labor categories (e.g., engineering, logistics, administrative, managerial, subcontracted, etc.) established in advance for the purpose of initiating such "hot start" effort under a Work Directive. When a Work Directive is based on a composite rate, Boeing will submit a proposal to adjust the amount of funds for the Work Directive based on a proposed estimate of cost. Boeing is required to submit the proposal to the Grants Officer within fifteen (15) business days after the start of effort under a Work Directive.

B. Accounting/Appropriation Data For Payment Office

1. To ease financial administration and in order to provide a single reference location, all accounting and appropriation data, including Accounting Classification Reference Numbers (ACRN), Accounting/Appropriation Data for Payment Office, etc., is located in Attachment 12, Accounting/Appropriation Data for Payment Office.

2. Attachment 12 also contains cumulative totals of the financial obligations made under, and cumulative funds allotted to, this Agreement.

ARTICLE VI: Obligation and Incremental Funding Schedule

A. Obligation

1. The Government's liability to make payments to Boeing is limited to only those funds obligated under this Agreement or by modification to the Agreement. The Grants Officer may obligate funds to the Agreement incrementally. In no case shall the Government's financial liability exceed the amount obligated under this Agreement. The Government funding amount is that amount indicated in the "Total Government Funds Obligated To Date:" block on the title page of this Agreement and subsequent amendments/ modifications, and is also cited in Attachment 12 to the Agreement.

B. Incremental Funding

1. The Government will provide funds under this Agreement on an incremental basis pursuant to the "Limitation of Funds" clause below, and as described in this section B., hereunder. A portion of the total estimated Agreement amount shall be obligated on the date of award.

2. By signing this Agreement, the Government undertakes to plan for, and provide available funding when and as required, per the schedules below. It is estimated that the incremental amounts are sufficient for the performance of work in each of the cited periods. Boeing shall so plan and execute the work required by this Agreement so as to expend and/or commit funds compatible with the schedule set forth in subparagraph C. below.

3. The Government intends, but cannot guarantee, that it will fully fund this Agreement.

4. The Government may provide, at its discretion, such funds on an incremental basis within each fiscal year. If the Government cannot provide funding when required, written notice shall be provided to Boeing to that effect, in a timely fashion, along with a projection of the extent of delay, and/or shortfall in funding, as applicable. Boeing, in turn will notify subcontractors and adjust subcontracts, as appropriate.

C. Funding Schedules

1. – CLIN 0001

Period	Amount
FY03 - Award through 30 Sep 2003	$130,000,000.00
FY04- 1 Oct through definitization	$60,000,000.00
Planned funding for balance of Program	
FY04 - 01 Oct 2003 through 31 Oct 2004	$1,379,600,000.00
FY05 - 01 Nov 2004 through 31 Oct 2005	$2,868,600,000.00
FY06 - 01 Nov 2005 through 31 Oct 2006	$3,736,800,000.00
FY07 - 01 Nov 2006 through 31 Oct 2007	$2,932,900,000.00
FY08 - 01 Nov 2007 through 31 Oct 2008	$1,411,800,000.00
FY09 - 01 Nov 2008 through 31 Oct 2009	$1,005,700,000.00
FY10 - 01 Nov 2009 through 31 Oct 2010	$ 856,700,000.00
FY11 - 01 Nov 2010 through 31 Oct 2011	$ 413,600,000.00
FY12 - 01 Nov 2011 through completion	$ 129,100,000.00

D. The following FAR/DFARS clauses apply:

52.232-22	Limitation of Funds (4/84)

ARTICLE VII: FEE TBD

ARTICLE VIII: MAKE/BUY, COMPETITION AND DIRECTED SUBCONTRACTS

A. Make/Buy

1. The Government reserves the right to participate in all program decisions, to include Make/Buy, competitive selection decisions, and if considered in the program's interest to direct placement of subcontracts. Any decision by the Government that results in an increase to Boeing's cost or schedule for performance, will entitle Boeing to a Program Generated Adjustment (as defined in Article I: Scope of the Agreement, subparagraph F) in accordance with Article XIII, Modifications. While the Government will generally not interfere with Boeing's internal processes, the Government reserves the right to disapprove any Make/Buy decision under Boeing's processes regarding systems, subsystems or components. Government approval includes, but is not limited to, all tactical and/or prototype FCS hardware and software at all levels except modeling and simulation.

2. The Army Acquisition Executive (AAE), or his designee, shall approve all Make/Buy decisions for FCS related hardware or software at the system or subsystem level.

3. The PM,FCS, or designee, shall have approval of the Make/Buy decisions for all lower level items. However, lower level decisions made by the Boeing IPT Leader, if agreed to by the IPT Co-Leader will require no additional approval. If agreement is not obtained at the IPT level, then the process at Article IV, subparagraph G. shall apply.

4. Procurement of the Systems of System – Common Operating Environment (SoS – COE) is subject to the following process:

Boeing has been granted approval by the Army Acquisition Executive to manage and control the SOS – COE, with the following conditions:

(a) SOS – COE shall be developed as Open System Architecture.

(b) Boeing shall not introduce any proprietary components unless explicitly approved by the Government. Each component will be reviewed within the SOS – COE sub-IPT and, if necessary to introduce a proprietary component the Government concurrence is required to proceed.

(c) Government shall have approval of Make/ Buy of components of the SOS – COE. The design decisions resulting from a detailed system engineering process that results in a decision of make or buy (sole source buy, limited source buy or competitive source buy) will be reviewed and concurred by Boeing and Government IPT representatives. In the event concurrence is not reached by the IPT, the Government PM,FCS, or his designee, shall have final approval authority.

(d) Boeing shall develop and submit for Government approval critical interface definitions.

(e) Boeing shall pursue aggressive risk management and mitigation for SOS – COE.

(f) Boeing will lead a working group or sub-IPT consisting of itself, industrial partners, and the Government in defining the following:

1) The SOS – COE Architecture and Component Partitioning;

2) SOS – COE standards and ICDs;
3) SOS – COE API specifications and compliance tests;
4) Managing the component competition, as required;
5) Component acceptance testing and SOS – COE integration;
6) Critical interface definitions;
7) This group will be chartered and be an ongoing effort throughout this phase.

B. Competition

1. Boeing is authorized to use best commercial practices under this Agreement. If in Boeing's judgment FCS program goals may be jeopardized, then relief of flow down provisions shall be identified, in writing, to the Grants Officer via the Boeing Contracts Manager. The Grants Officer shall approve, or disapprove, any relief from normal flow down requirements within ten (10) business days from receipt of request. If the Grants Officer does not either approve, or disapprove, Boeing's request within ten (10) business days, Boeing's request shall be deemed to have been approved.

2. During performance under the CTD Agreement, MDA972-02-9-0005, Boeing developed, and delivered to the Government, a best value competitive process to select major systems and subsystems, to include access to all source selection data, which the Government approved under the CTD Agreement. The Government and Boeing mutually agree that Boeing will follow the approved competitive process plan during performance of the SDD Agreement. Boeing shall have the right to subcontract for engineering and consulting services, that assist it in its role as LSI, without prior Government approval.

C. Directed Subcontracts

1. In the event the Government disagrees with a selection made by Boeing as the result of a competition, the Government may direct the subcontract award. Also, if existing technologies, systems and major subsystems already in development, by or for the Government, represent in the Government's view the best approach to achieving capability in the Operational Requirements Document (ORD), the Grants Officer may direct their use and Boeing will not be required to compete that item. Any decision by the Government that requires Boeing to use a directed subcontractor that results in an increase to Boeing's cost or schedule for performance, will entitle Boeing to an Program Generated Adjustment (as defined in Article I: Scope of the Agreement, subparagraph F.) in accordance with Article XIII, Modifications. Directing a subcontract may only be authorized by the Grants Officer. Attachment 9, Directed Subcontracts lists those directed subcontracts.

ARTICLE IX: PAYMENT AND PAYMENT RELATED ITEMS

A. Payment

1. Subsequent to definitization, scheduled for 180 days after award, the overall reimbursement structure of this Agreement will be Cost-Plus-Award-Fee (CPAF), for CLIN 0001, and Cost-Plus-Fixed-Fee (CPFF), for CLIN 0002. Prior to definitization, CLIN 0001 provides for cost plus base and incentive fee. The incentive fee for CLIN 0001 will be paid provisionally as described in

Article I, B. In consideration for performing Agreement activities, Boeing shall voucher and receive Government payments, subject to the "Limitation of Funds" clause (e.g., Boeing must notify the Government when costs expected to be incurred in the next 60 days, when added to all previously incurred costs, will exceed 75% of the total amount so far allotted to the Agreement by the Government), for all allowable incurred costs, in accordance with this Article and, subsequent to definitization, Article VII, Fee, as applicable.

2. The DCMA AAO will ensure DFAS payments for each voucher under CLIN 0001 and CLIN 0002 are correctly disbursed from the appropriate ACRN account.

B. CLIN 0001

1. Boeing shall use the Standard Form 1034, public voucher, for purposes of reimbursement.

2. For CLIN 0001, Boeing shall voucher at Cost and applicable Base Fee. Calculation of Base Fee will be based upon the ratio of cumulative costs incurred, to date, to the total estimated costs.

3. For CLIN 0001, Boeing shall voucher the Incentive Fee on a prorata basis over the 180 days, in accordance with Article I, B. At the completion of an Incentive Fee element Boeing is authorized to voucher the balance of the fee associated with that element not previously vouchered.

4. Subject to Program definitization, separate sub-CLINs under CLIN 0001 will be established providing for applicable Fee amounts when authorized. Cost and applicable Fee amounts may be vouchered as a consolidated voucher. Any consolidated voucher shall discretely identify Cost and applicable Base and Incentive Fee. Calculation of Fee amounts shall be in accordance with Article I, B, and explained/annotated within the voucher.

5. Boeing vouchers will identify sub-CLIN and the appropriate ACRN using an allocation methodology of applying oldest money first.

C. CLIN 0002

1. For CLIN 0002, Boeing shall voucher at Cost and applicable Fixed Fee. Calculation of Fixed Fee will be based upon the ratio of cumulative costs incurred, to date, to the total estimated costs. The voucher shall discretely identify Cost and applicable Fixed Fee. Boeing shall use the Standard Form 1034, public voucher, for purposes of reimbursement.

2. Boeing vouchers will identify CLIN and the appropriate ACRN. The Government agrees to assist Boeing in identifying costs, by appropriate ACRN, by providing the requisite information with each Work Directive. Requisite information to be provided by Work Directive includes, but is not limited to, (1) Work Directive Number, (2) corresponding ACRN, and (3) ACRN funding amount.

D. Voucher Content

1. For any given voucher, the Costs claimed for reimbursement shall be consistent with the accounting standards cited in Article X, Financial Management, subparagraph B.

2. The following information will be included on each voucher:

(a) Boeing name and address;
(b) Voucher date, number and time period covered by the voucher;
(c) Agreement number;
(d) Amount claimed; (*see Note for (d)*)
(e) Taxpayer Identification Number, if required;
(f) EFT banking information, if required;
(g) Payment Office;
(h) CLIN and/or sub-CLIN as appropriate;
(i) 2-digit ACRN.

Note for (d): Supporting cost details to substantiate the amount claimed, if not provided within the voucher itself, must be traceable to the voucher and available upon request to authorized Government representatives (Grants Officer, DCAA, DCMA, etc.).

3. The information above for each voucher is provided so that the Government Payment Office (DFAS) will not have to independently assign or determine the CLIN/sub-CLIN and ACRN from which funds will be disbursed.

E. Payment Process

1. Boeing may submit interim vouchers bi-weekly to the Government Payment Office, identified below. Electronic voucher submittal is encouraged, provided that the format and transmission method are mutually acceptable, and otherwise consistent with this Article.

2. Boeing will provide a copy of all vouchers to both the DCMA AAO and the Grants Officer, as routine distribution.

3. Payment will be made by the following DFAS office within fourteen (14) calendar days following receipt of a proper payment request:

Defense Finance and Accounting Service (DFAS) -- Columbus Center (HQ0339)
DFAS-CO/West Entitlement Operations
P.O. Box 182381
Columbus, OH 43218-2381

4. Final (completion-type) vouchers (or final invoices) for any discretely priced CLIN or sub-CLIN shall be submitted to DCMA, for review, approval, and forwarding to the payment office.

F. Payment -Related Clauses

1. Interest: All amounts that become payable by Boeing to the Government under this Agreement shall bear simple interest from the date due until paid, unless paid within thirty (30) days of becoming due. The interest rate shall be the interest rate established by the Secretary of the Treasury (as provided in 41 USC 611), which is applicable to the period in which the amount becomes due, and then at the rate applicable for each six-month period as fixed by the

Secretary until the amount is paid. Interest charges may be reduced following the procedures in FAR 32.614-2.

2. Payments by Electronic Funds Transfer – Central Contractor Registration (CCR): All payments by the Government under this Agreement, shall be made by electronic funds transfer (EFT) using Boeing's EFT information contained within the CCR database. If Boeing's EFT information is incorrect, then the Government need not make payment to Boeing until correct EFT information is entered into the CCR database; and any voucher request under this Agreement shall be deemed not to be a proper voucher for the purpose of prompt payment. If the Government makes an uncompleted or erroneous transfer because it uses Boeing's EFT information incorrectly, the Government is responsible for making a correct payment, including any prompt payment penalty due, and recovering any erroneously directed funds; if Boeing is responsible for an uncompleted or erroneous transfer because Boeing's EFT information was incorrect (or if Boeing revised the information within thirty (30) days of Government release of the EFT payment transaction instruction to the Federal Reserve System) and the funds are no longer under the control of the Government payment office, Boeing is responsible for recovery of any erroneously directed funds. If the funds remain under the control of the Government payment office, the Government shall not make payment until such time as Boeing's EFT information is corrected within the CCR database. Government payments shall be deemed to have been made in a timely manner in accordance with the prompt payment terms of the Agreement if, in the EFT payment transaction instruction to the Federal Reserve System, the date specified for payment is on or before the prompt payment due date, provided the specified payment date is a valid date under the rules of the Federal Reserve System. Boeing may assign the proceeds of this Agreement provided Boeing requires as a condition of any such assignment that the assignee register in the CCR database and be paid by EFT in accordance with this clause. The Government is not liable for errors resulting from changes to EFT information made by Boeing's financial agent. The Government shall provide Boeing the available payment information suitable for transmission as of the date of release of the EFT instruction to the Federal Reserve System.

3. Required Central Contractor Registration: Boeing is responsible for the accuracy and completeness of the data within the Central Contractor Registration (CCR) database, and for any liability resulting from the Government's reliance on inaccurate or incomplete data. Boeing is required to confirm on an annual basis that its information in the CCR database is accurate and complete.

4. Certification of Final Indirect Costs: (a) For the purposes of this certificate, Boeing and its subcontractors, will submit the standard FAR certificate of final indirect costs to the cognizant Government activity. If a subcontractor is not otherwise required to submit the standard FAR certificate for final indirect costs, then it shall submit the certificate below; (b) Subcontractors (as applicable) shall -- (1) certify, in below format, any proposal to establish or modify final indirect cost rates; and (2) have the certificate signed by an individual of the subcontractor's organization at a level no lower than a vice president or chief financial officer of the business segment of the subcontractor that submits the proposal. (c) Failure to execute and submit the certification described may result in final indirect cost rates being unilaterally established by the Grants Officer or Administrative Agreements Officer. The Grants Officer may request a copy of Boeing's, or its subcontractors, Certificate of Final Indirect Costs from the cognizant Government agency assigned (e.g. the Defense Contract Audit Agency (DCAA), DCMA).

Certificate of Final Indirect Costs

This is to certify that I have reviewed this proposal to establish final indirect cost rates and to the best of my knowledge and belief, all costs included in this proposal (identify proposal and date) to establish final indirect cost rates for (identify period covered by rate) are allowable in accordance with the cost principles of the Federal Acquisition Regulation (FAR) and its supplements, or in the case of a non-traditional defense contractor in accordance with Generally Accepted Accounting Principles (GAAP), applicable to the contracts to which the final indirect cost rates apply.

Firm: _____
Signature: _____
Name of Certifying Official: _____
Title: _____
Date of Execution: _____

G. The following FAR/DFARS clauses apply:

52.216-7	Allowable Cost and Payment (12/2002) Tailoring: In paragraph (a)(1), the "authorized representative" for receipt of vouchers will be designated by the Grants Officer at the Start of Work meeting. In paragraph (a)(3), the fill-in is the "14th" day. Also, paragraphs (a)(3) and (g) notwithstanding, in the event electronic direct billing authorization is withdrawn by the Defense Contract Audit Agency (DCAA), any Government pre-payment audit will be performed by the cognizant Government agency of a specific Boeing payment request within five (5) business days following their receipt of the payment request, unless the Grants Officer authorizes an extension. The Government reserves the right to perform post-payment audits of Boeing vouchers at its discretion. In addition, the paragraphs (d)(4) and (d)(6) references to the Disputes clause, refer to Article XV: Disputes, under this Agreement. The Government intends that audit or other management oversight activities not interrupt or delay payment. The normal approach will be to allow payments to proceed while collaboratively working together to determine and correct any issue. If in the event that a systemic or process issue is considered to be of a magnitude that it would create the unacceptable situation of providing advance payments, then the Grants Officer may, at his unilateral discretion, delay or reduce payments until the issue is corrected.
52.216-8	Fixed Fee (3/97) Tailoring: This clause applies to CLIN 0002.
52.232-25	Prompt Payment (2/2002) Alt 1

ARTICLE X: FINANCIAL MANAGEMENT

A. Government Audit of Records

1. As used in this Article, "records" includes books, documents, accounting procedures and practices, and other data, regardless of the type and regardless of whether such items are in written form, in the form of computer data, or in any other form.

2. Boeing's relevant financial records are subject to examination or audit on behalf of TACOM by the Government for a period not to exceed three (3) years after final payment has been made under this Agreement. Boeing shall provide the Grants Officer, or Government designee, direct access to sufficient records and information to ensure full accountability for all funds paid, or proposed to be paid to it, under this Agreement. The Grants Officer will require annual audits of Boeing and its cost-reimbursement based subcontracts. A final audit will be conducted at the end of the SDD program; the final audit shall not duplicate or re-examine the results of prior year audits except to verify that any outstanding issues or newly determined issues have been resolved. Such audit, examination, or access shall be performed during business hours on business days, upon prior written notice, and shall be subject to the security requirements of the audited party. This clause shall not be construed to require any party, or entity, or subordinate element of such party or entity, that participates in the performance of this Agreement, to create or maintain any record that is not otherwise maintained in the ordinary course of business or pursuant to a provision of law.

3. The Comptroller General shall have access to the records described in this Article until three (3) years after the date of final payment is made by the Government under this Agreement. Boeing shall flow down this provision as indicated at subparagraph C. below. The Comptroller General, at its discretion, shall have access to and the right to examine records of any party to the Agreement or any entity that participates in the performance of this Agreement that directly pertain to, and involve transactions relating to, the Agreement. Excepted from this requirement is any party to this Agreement or any entity that participates in the performance of the Agreement, or any subordinate element of such party or entity, that has not entered into any other agreement (contract, grant, cooperative agreement, or "other transaction") that provides for audit access by a Government entity in the year prior to the date of the Agreement. The only records of a party, other entity, or subordinate element referred to in this paragraph that the Comptroller General may examine are records of the same type as the records the Government has had the right to examine under the audit clauses of the previous agreements that were entered into by that particular party, entity, or subordinate element. This clause shall not be construed to require any party, or entity, or subordinate element of such party or entity, that participates in the performance of this Agreement, to create or maintain any record that is not otherwise maintained in the ordinary course of business or pursuant to a provision of law.

B. Accounting Practices

1. Prior to the submission of vouchers to the Government, Boeing shall have and maintain an accounting system: which complies with Generally Accepted Accounting Principles or Cost Accounting Standards (CAS), whichever is applicable to Boeing under this Agreement; and which also complies with the requirements of this Agreement; and which further ensures that appropriate arrangements have been made for receiving, distributing and accounting for Federal funds.

(a) The contract cost principles in 48 CFR 31 and 48 CFR 231 (in the Federal Acquisition Regulation (FAR) and Defense Federal Acquisition Regulation Supplement (DFARS)) shall apply to determine the allowability of costs charged to the Government.

(b) Further, the allowability of any expenditures incurred in the performance of any subcontract award will be subject to those Federal cost principles or accounting standards applicable to the particular type of organization concerned (e.g., full-, modified-, or no CAS coverage).

2. Boeing agrees to an adjustment of the Agreement cost allowance, as appropriate, if Boeing or a subcontractor fails to comply with this Article, subparagraph B.1, or fails to follow an applicable cost accounting practice consistently and such failure results in any increased costs paid by the United States Government. Such adjustment shall provide for no more than the recovery of the increased costs to the United States, together with the interest rate established by the Secretary of the Treasury as provided in 41 USC 611 for such period, from the time the payment by the Government was made to the time the adjustment is effected.

3. Within thirty (30) calendar days after subcontract award, Boeing will submit the following information to Boeing's cognizant Agreement Administration Office, with copy furnished to the Grants Officer, for transmittal to the subcontractor's cognizant Contract Administration Office:

(a) Subcontractor's name and subcontract number;

(b) Dollar amount and date of award;

(c) Name of Contractor making the award.

C. Lower Tier Agreements

1. Boeing shall include in all negotiated subcontracts which Boeing enters into the substance of this Article and shall require such inclusion in all other subcontracts, at any tier, including the obligation to comply with all Federal cost principles, as applicable, in effect on the subcontractor's award date.

D. The following FAR/DFARS clauses apply:

52.215-15	Pension Adjustments and Asset Reversions (12/98)
52.215-18	Revision or Adjustment of Plans for Postretirement Benefits (PRB) Other than Pensions (10/97)

ARTICLE XI: SECURITY

A. Program Security

1. This program shall be provided protection as required by the appropriate Security requirements required by DD Form 254, Contract Security Classification Specification, (see Attachment 3). The highest level of classification involved in the performance of this SDD Agreement is Top Secret. It is the Government's position that the highest security classification of any deliverable as a result of this Agreement is Top Secret. This Agreement document is unclassified.

B. Protection and Disclosure of Information – Public Release

1. Except for FCS Program information previously approved for public release by the Government under the FCS Program, Boeing shall not release any information, outside of Boeing and its subcontractors, to include Associate Contractors, at any tier, regarding the work performed under this Agreement without first obtaining approval for Public Release as identified in the DD254. All such requests will first go to the Grants Officer who, after appropriate review, will make a determination of the suitability to disseminate program information publicly. Subcontractors and Associate Contractors shall submit such requests through Boeing.

2. Boeing will use computer and communications equipment that meets the requirements identified in the DD254 or Program Security Guide.

C. Lower Tier Agreements

1. Boeing shall include subparagraph B. above in all subcontracts which Boeing enters and shall require such inclusion in all other subcontracts, regardless of tier.

D. Shipment of Controlled Materials

1. Unless otherwise directed by the Grants Officer, Boeing shall coordinate and send advance notice of shipment to the consignee transportation officer for all shipments of classified material, protected sensitive, and protected controlled material; explosives and poisons, classes A and B; radioactive materials requiring the use of a III bar label; or when a truckload/carload shipment of supplies weighing 20,000 pounds or more, or a shipment of less weight that occupies the full visible capacity of a railway car or motor vehicle, is given to any carrier for transportation to a domestic destination (other than a port for export).

E. The following FAR/DFARS clauses apply:

252.204-7005	Oral Attestation of Security Responsibilities (11/2001)

ARTICLE XII: GOVERNMENT FURNISHED EQUIPMENT, PROPERTY, INFORMATION, FACILITIES, AND SERVICES

A. General

1. The Government Furnished Equipment, Property, Information, Facilities, and Services (hereafter collectively referred to as "GFX") listed in Attachment 4 to this Agreement shall be provided based on the written approval of the cognizant Contracting/Grants/Agreement Officers through the period of performance of this Agreement. The Government will provide assistance to include, but not limited to, granting Government approval for Boeing to obtain encryptors, and where appropriate, formally request that the Government office with cognizance over the item release or provide to Boeing the requested item within the desired timeframe.

2. GFX identified in Attachment 4 will be provided on a rent free, non-interference use basis. No item may be listed in Attachment 4 or added in Attachment 4 prior to receiving approval for rent free, non-interference use from the Government office with cognizance for the GFX. Any changes to Attachment 4 will require modification to the Agreement.

3. The Government makes no representations as to the suitability of GFX provided. If a GFX item is determined not suitable for its intended purpose the Government will make a good faith attempt to provide a suitable item. It is recognized this may not be feasible. If the GFX item is essential for work under the Agreement, it may become necessary to eliminate statement of work tasks or otherwise invoke a Program Generated Adjustment (as defined in Article I, subparagraph F. Definitions) to the Agreement in accordance with the Article XIII Modifications.

4. The Parties mutually agree that accountability for GFX and Classified Information provided to Boeing under the CTD Agreement, MDA972-02-9-0005 will be transferred and authorized for use under the SDD Agreement, if agreed to by the DARPA Agreements Officer. Attachment 4a reflects items for which approval is being sought.

5. Boeing agrees to maintain and update the GFX list, as reasonably required, and to provide such updated GFX list via the Advanced Collaborative Environment.

B. GFX Added During SDD Performance

1. The Parties mutually agree to work together to identify and obtain, in a timely fashion, GFX requirements, not identified prior to Agreement award, requested during performance under the SDD Agreement. The Parties further agree to use the process described in general terms below to obtain new GFX requirements for the benefit of the FCS program:

(a) The respective IPT Leader identifies the need for additional GFX item(s) and obtains concurrence of the IPT Co-Leader;

(b) The respective IPT Leader, or Boeing designate, contacts either the Grants Officer Representative (GOR), or Functional Technical Representative (FTR) designated for GFX, to discuss the need and availability of the new GFX item(s) and provides the pertinent GFX information such as item name, quantity, need date, cognizant Government official with possession of the requested GFX item(s), if known, etc.;

(c) The GOR, or FTR designated for GFX, contacts the cognizant Government official with possession of the requested GFX item(s) and determines if the requested GFX item(s) is available. The GOR, or FTR designated for GFX, contacts the IPT Leader, or Boeing designate, and makes that person aware if/when GFX items(s) is available,

(d) The IPT Leader, or Boeing designate, contacts the Boeing Contracts Manager and makes that person aware if/when GFX item(s) is available.

(e) The Grants Officer and Boeing Contracts Manager will execute a bi-lateral Agreement modification to add the GFX items(s) if available. Boeing and TACOM mutually agree to formally modify the subject Agreement at certain block points, vice each time a request of this nature is submitted to TACOM for approval, in order to facilitate efficient Agreement performance.

2. When Boeing can identify the Government official with responsibility for the desired GFX, Boeing may request rent-free use of such GFX directly from the responsible official. In this instance, Boeing will furnish the GOR, or if applicable, the FTR designated for GFX, a copy of any authorization granted. In those instances where Boeing cannot identify the responsible Government official, Boeing may submit the request to the GOR, or if applicable, to the FTR

designated for GFX. The GOR, or FTR, will then determine the Government official responsible for the desired GFX and request rent-free use on Boeing's behalf.

C. The following FAR/DFARS clauses apply:

52.245-5	Government Property (Cost-Reimbursement, Time-and-Material or Labor-Hour Contracts) (1/86)–(DoD - Deviation, per DAR Tracking Number 99-O0008, 13 July 99, until FAR is revised) Tailoring: Property records will be accessible via the ACE; annual reporting of DOD accountable property will be submitted on DD Form 1662. Paragraph (h), change from "the Changes clause" to "Article XIII: Modifications of this Agreement".

ARTICLE XIII: MODIFICATIONS

A. General

1. At any time during the term of the Agreement progress or results may indicate that a change in the Agreement would be beneficial to program objectives. Recommendations for modifications, including justifications to support any changes to the Agreement, will be documented in a letter and submitted by Boeing to the Grants Officer Representative with a copy to the Grants Officer. This documentation letter will detail the (1) technical, (2) chronological, and (3) financial impact of the proposed modification. All of the available Agreement funds will be obligated to the Agreement. Therefore, any requested modification must also identify what work is being modified, reduced or deleted to accommodate the proposed change. Any subsequent modification is subject to mutual agreement, in writing, signed by authorized representatives of both Parties. The Government is not obligated to pay for any proposed change until the Agreement is formally revised by the Grants Officer and the Boeing Contracts Manager and made part of this Agreement. Boeing is not obligated to initiate work for any proposed change until such time as a bilateral modification is executed by representatives of both Parties. The Government will reimburse Boeing for proposal preparation costs for proposed changes in accordance with the definition of Program Generated Adjustment (as defined in Article I: Scope of the Agreement, subparagraph F.) and in accordance with Boeing's approved disclosure statement.

2. Modifications, other than those identified in subparagraph 3. below, will normally be bilateral. In the event the Grants Officer directs a unilateral modification, within the general scope of the Agreement, Boeing will identify a ceiling price for the impact of the directed effort and will have the opportunity to propose an Program Generated Adjustment (as defined in Article I: Scope of the Agreement, subparagraph F.) in accordance with Article XIII, Modifications. In the event the modification involves new work, the Grants Officer will advise Boeing of the availability of additional funding for the new work or if the new work needs to be accomplished within existing funding constraints. If the Grants Officer determines an Program Generated Adjustment is warranted, the Grants Officer and Boeing Contracts Manager will, in a timely fashion, modify the Agreement accordingly. Boeing will proceed with the directed work based on the Grants Officer direction, provided there are adequate funds on the Agreement to provide for the required work. If Boeing disagrees with the Grants Officer's determination of whether or not an Program Generated Adjustment is warranted, then the determination will be subject to Article XV, Disputes.

3. For minor or administrative Agreement modifications (e.g., changes in the paying office or appropriation data, incremental funding actions, changes to Government or Boeing personnel identified in the Agreement, etc.) no signature is required by Boeing. Modifications will not be required for changes to controlled documents provided the affected IPT Leader and Co-leader have concurred in or approved the change document in writing.

4. The Government will be responsible for effecting all modifications to this Agreement.

B. Cost or Pricing Information In Support of Modifications

1. The cost or pricing information submitted by Boeing prior to Agreement award did not require Truth in Negotiations Act (TINA) certification. The same level of cost or pricing detail must be provided for deletions or reductions of work as is provided for changes or additions. Cost or pricing information submitted after Agreement award to support Agreement modifications shall likewise not require TINA certification.

2. The kind, level of detail, and format of cost or pricing information to support Agreement modifications is identified below:

(a) If the price is controlled under law by periodic rulings, reviews, or similar actions of a governmental body, attach a copy of the controlling document, unless it was previously submitted to the contracting office.

(b) For a commercial item, Boeing shall provide, at a minimum, information on prices at which the same item or similar items have previously been sold, leased or licensed or has been offered for sale, lease or license that is adequate for evaluating the reasonableness of the price of the modification. Such information may include:

(1) For catalog items, a copy of or identification of the catalog and its date, or the appropriate pages for the offered items, or a statement that the catalog is on file in the buying office to which the proposal is being submitted. Provide a copy or describe current discount policies and price lists (published or unpublished), e.g., wholesale, original equipment manufacturer, or reseller. Also explain the basis of each offered price and its relationship to the established catalog price, including how the proposed price relates to the price of recent sales in quantities similar to the proposed quantities.

(2) For market-priced items, the source and date or period of the market quotation or other basis for market price, the base amount, and applicable discounts. In addition, describe the nature of the market.

(c) Boeing grants the Grants Officer, or an authorized Government representative, the right to examine, at any time the books, records, documents, or other directly pertinent records to verify the reasonableness of price for (a) or (b) above. For items priced using catalog or market prices, or law or regulation, access does not extend to cost or profit information or other data relevant solely to Boeing's determination of the prices to be offered in the catalog or marketplace.

(d) If neither (a) or (b) apply, then Boeing shall submit data in accordance with Table 15-2 of FAR 15.408. This data shall not require TINA certification.

(e) When the proposal is submitted to the Grants Officer, also submit one (1) copy each to the Administrative Agreements Officer and the cognizant DCAA auditor.

C. The following FAR/DFARS clauses apply:

52.242-15	Stop-Work Order (8/89) Alternate I Tailoring: In paragraph (b)(2), change from "30 days" to "90 days".
52.243-7	52.243-7 Notification of Changes (4/84) Tailoring: The "Notice" under paragraph (b) shall be sent directly to the Grants Officer with a copy furnished to the AAO. Also, the negotiable fill-ins for notification and response timeframes in paragraphs (b) and (d) respectively are hereby defined as "15 calendar days" in both of the two fill-ins.

ARTICLE XIV: AGREEMENT ADMINISTRATION

1. The senior program executives are as identified below:

BOEING: Dennis A. Muilenburg, Program Manager

GOVERNMENT: BG Don Schenk, PM, Future Combat Systems
Roland Asoklis, Deputy PM, Future Combat Systems
COL(P) John Bartley, Deputy for Program Integration

2. Administrative and contractual matters under this Agreement shall be referred to the following representatives of the Parties:

BOEING: Brian D. Wittmers, Contracts Manager, Tel: (253) 773-9981

TACOM: Gary Tucker, Grants Officer, Tel: (586) 574-7137

3. Items delegated to the Administrative Agreements Officer shall be referred to:
DCMA Boeing St. Louis: Pamela Burton, Administrative Agreements Officer, (314) 233-9105
Matthew Danter, DCMA Lead FCS Program Integrator, (314) 233-6859

4. Each party may change its representatives named in this Article by written notification to the other party. The Government will effect the change as stated in Article XIII, Modifications.

5. The Grants Officer may designate one or more technical or administrative representatives to act on his behalf, within specified areas of governmental responsibility and/or for specific functions. Each such designation shall be in writing, and a copy provided to the Boeing Contracts Manager and DCMA. Revocation may be made at any time. Under no

circumstances will such representative have authority to make any commitments or changes to this Agreement, or act beyond the specified scope of their authority.

ARTICLE XV: DISPUTES

A. General

1. The Parties shall communicate with one another in good faith and in a timely and cooperative manner when raising issues under this Article.

B. Dispute Resolution Procedures

1. Any disagreement, claim or dispute between TACOM and Boeing concerning questions of fact or law arising from or in connection with this Agreement, and, whether or not involving an alleged breach of this Agreement, may be raised only under this Article.

2. Whenever disputes, disagreements, or misunderstandings arise, the Parties shall attempt to resolve the issue(s) involved by discussion and mutual agreement as soon as practicable. In no event shall a dispute, disagreement or misunderstanding which arose more than twelve (12) months prior to the notification made under subparagraph B.3 of this Article constitute the basis for relief under this Article unless the Head of Contracting Activity (HCA) for TACOM, in the interests of justice, waives this requirement.

3. Failing resolution by mutual agreement, the aggrieved Party, either the Government or Boeing as the case may be, shall document the dispute, disagreement, or misunderstanding by notifying the other Party (through the TACOM Grants Officer or Boeing Contracts Manager, as the case may be) in writing of the relevant facts, identify unresolved issues, and specify the clarification or remedy sought. Within five (5) business days after providing notice to the other Party, the aggrieved Party may, in writing, request a formal decision by the Grants Officer, TACOM, who shall, in turn, render a decision within forty-five (45) calendar days from receipt of the aggrieved party's case. At the request of the aggrieved party, the Principal Assistant Responsible for Contracting (PARC) and a senior executive designated by Boeing will review the Grants Officer's decision. The request for review of the Grants Officer's decision that is in dispute will be made within thirty (30) calendar days after the Grants Officer's decision has been issued. The TACOM PARC, and Boeing's senior executive shall conduct a review of the matter(s) in dispute and render a decision in writing within thirty (30) calendar days of receipt of a request to review. Any such joint decision is final and binding. In the event a joint decision cannot be reached within thirty (30) calendar days, the TACOM PARC will issue a final decision. Such decision is not subject to further administrative review and, to the extent permitted by law, shall be final and binding. If Boeing disagrees with such decision, Boeing may bring a claim in a court of competent jurisdiction as authorized by 28 U.S.C. 1491.

4. Pending final dispute resolution as provided within this Article, Boeing shall otherwise proceed diligently with performance of the Agreement and comply with any directions of the Grants Officer. If an Agreement modification is appropriate in order to implement a final binding dispute decision, the modification will address how the issue of Interest is to be handled, if applicable, and may include appropriate liability release language that represents a full and complete settlement of the issue with no further recourse.

ARTICLE XVI: INTELLECTUAL PROPERTY RIGHTS

A. Data Correction and Update

1. Notwithstanding inspection and acceptance by the Government of data or software delivered under this Agreement, and notwithstanding any provision of this Agreement concerning the conclusiveness of acceptance, the Government shall have the right to require Boeing to correct (or update) any such data or software found deficient (or outdated), within three (3) years of the delivery of such data or software. Such correction, or update, shall be at Government expense funded under this Agreement or, if the Agreement is closed, funded under a separate contractual instrument.

ARTICLE XVII: PATENT RIGHTS

A. The following FAR/DFARS clauses apply:

52.227-1	Authorization and Consent (7/95) Alternate I
52.227-2	Notice and Assistance Regarding Patent and Copyright Infringement (8/96)
52.227-10	Filing of Patent Applications-Classified Subject Matter (4/84)
52.227-12	Patent Rights - Retention By the Contractor (Long Form) (1/97)

ARTICLE XVIII: DATA AND SOFTWARE RIGHTS

A. Definitions

1. "Data", as used in this Article, means recorded information, regardless of form or method of recording, of a scientific or technical nature, which includes but is not limited to, trade secrets and mask works. The term does not include financial, administrative, cost, pricing or management information and does not include subject inventions included under Article XVII, Patent Rights.

2. "Software", as used in this Article, means computer software documentation, computer programs, object code listings, source code, and related materials that would enable the software to be reproduced, recreated or recompiled.

3. "Government Purpose Rights", as used in this Article, means rights to use, modify, duplicate, release, perform, display, or disclose Data or Software, in whole or in part and in any manner, for Government purposes only, and to have or permit others to do so for Government purposes only. Government purposes include competitive procurements but does not include any commercial purpose or use. The Government Purpose Rights granted herein are without expiration.

4. "Limited Rights", as used in this Article, means the rights to use, modify, reproduce, release, perform, display, or disclose Data, in whole or in part, within the Government. The Government may not, without the written permission of the party asserting Limited Rights, release or disclose the Data outside the Government, use the Data for manufacture, or authorize the Data to be used by another party, except that the Government may reproduce, release or disclose such Data or authorize the use or reproduction of the Data by persons outside the Government if reproduction, release, disclosure, or use is:

(i) Necessary for emergency repair and overhaul; or

(ii) A release or disclosure of Data (other than detailed manufacturing or process data) to, or use of such Data by, a foreign government that is in the interest of the Government and is required for evaluational or informational purposes;

(iii) Subject to a prohibition on the further reproduction, release, disclosure, or use of the Data; and

(iv) Boeing or its subcontractors asserting the restriction is notified of such reproduction, release, disclosure, or use.

(v) However, such express limitation shall not apply to any Government Systems Engineering and Technical Assistance (SETA) contractors under contract to the Government for the purpose of providing systems engineering and technical assistance services and/or administrative support services; provided that, the parties to whom this Data is disclosed shall have a legitimate need-to-know, and are under contract subject to DFARS clause 252.227-7025 entitled, "Limitations on the Use or Disclosure of Government-Furnished Information Marked with Restrictive Legends".

5. "Special License Rights", as used in this Article, applies only to Data or Software developed at private expense prior to the date, or outside the scope, of this Agreement. This designation may not apply to a required deliverable under this Agreement unless agreed to by the Government, e.g. for commercial Software or Data pertaining to commercial items. If the Government requests the Data or Software, asserted by Boeing, or a subcontractor, as subject to Special License Rights, a specific written agreement identifying use, purpose and access must be executed prior to the Data or Software being provided to the Government and made a part of Attachment 6, Data or Software to be Furnished with Restrictions. If the Government and Boeing, or a subcontractor, do not agree to satisfactory terms then the Data or Software shall not be provided to the Government.

6. "Restricted Rights", as used in this Article, applies only to noncommercial Software and means the Government's rights to --

(i) Use a computer program with one computer at one time. The program may not be accessed by more than one terminal or central processing unit or time shared unless otherwise permitted by this Agreement;

(ii) Transfer a computer program to another Government agency without the further permission of Boeing if the transferor destroys all copies of the program and related computer software documentation in its possession and notifies the licensor of the transfer. Transferred programs remain subject to the provisions of this Article;

(iii) Make the minimum number of copies of the Software required for safekeeping (archive), backup, or modification purposes;

(iv) Modify Software provided that the Government may --

(A) Use the modified Software only as provided in this Article; and

(B) Not release or disclose the modified Software except as provided in this Article;

(v) Permit contractors or subcontractors performing service contracts (as defined by 37.101 of the Federal Acquisition Regulation) in support of this or a related contract to use Software to diagnose and correct deficiencies in a computer program, to modify Software to enable a computer program to be combined with, adapted to, or merged with other computer programs or when necessary to respond to urgent tactical situations, provided that --

(A) The Government notifies the party which has granted Restricted Rights that a release or disclosure to particular contractors or subcontractors was made;

(B) Such contractors or subcontractors are subject to the use and non-disclosure agreement at 227.7103-7 of the Defense Federal Acquisition Regulation Supplement (DFARS) or are Government contractors receiving access to the Software for performance of a Government contract that contains the clause at DFARS 252.227-7025, "Limitations on the Use or Disclosure of Government-Furnished Information Marked with Restrictive Legends";

(C) The Government shall not permit the recipient to decompile, disassemble, or reverse engineer the Software, or use Software decompiled, disassembled, or reverse engineered by the Government pursuant to paragraph(iv) of this clause, for any other purpose; and

(D) Such use is subject to the limitation in paragraph 6.(i) of this Article; and

(vi) Permit contractors or subcontractors performing emergency repairs or overhaul of items or components of items procured under this or a related contract to use the Software when necessary to perform the repairs or overhaul, or to modify the Software to reflect the repairs or overhaul made, provided that --

(A) The intended recipient is subject to the use and non-disclosure agreement at DFARS 227.7103-7 or is a Government contractor receiving access to the software for performance of a Government contract that contains the clause at DFARS 252.227-7025, "Limitations on the Use or Disclosure of Government-Furnished Information Marked with Restrictive Legends"; and

(B) The Government shall not permit the recipient to decompile, disassemble, or reverse engineer the software, or use software decompiled, disassembled, or reverse engineered by the Government pursuant to this clause, for any other purpose.

7. "Unlimited rights", as used in this Article, means rights to use, modify, reproduce, perform, display, release, or disclose Data or Software, in any manner, and for any purpose whatsoever, and to have or authorize others to do so.

B. Allocation of Principal Rights

1. This Agreement shall be performed with Government funding.

2. Boeing agrees to retain and maintain in good condition until three (3) years after completion or termination of this Agreement, all Data or Software developed under this Agreement necessary to achieve Practical application (as defined in Article XVII, Patent Rights) of deliverable items, components and processes. In the event of exercise of the Government's March-in Rights as set forth under Article XVII, Patent Rights or subparagraph B.3 of this Article, Boeing agrees, upon written request from the Government to deliver to the Government, Data and Software developed under this Agreement necessary to achieve Practical application of deliverable items, components and processes within sixty (60) calendar days from the date of

the written request. The Government agrees to pay the costs of delivering such Data and Software and agrees these delivery costs are not covered by payments to Boeing under this Agreement.

3. Boeing agrees that, with respect to Data and Software developed under this Agreement necessary to achieve Practical application of deliverable items, components and processes, TACOM has the right to require Boeing to deliver all such Data and Software to TACOM in accordance with its reasonable directions if TACOM determines that:

(a) Such action is necessary because Boeing or assignee has not taken effective steps within three (3) years after completion or termination of this Agreement, consistent with the intent of this Agreement, to achieve Practical application of deliverable items, components and processes;
(b) Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by Boeing, assignee, or their licensees within three (3) years after completion or termination of this Agreement; or
(c) Such action is necessary to meet requirements for public use and such requirements are not reasonably satisfied by Boeing, assignee, or licensees within three (3) years after completion or termination of this Agreement.

4. With respect to all Data and Software delivered under this Agreement, the Government will subject to subparagraph B.6, receive Government Purpose Rights, or if subparagraph B.5 applies, Unlimited Rights. In the event of the Government's exercise of its right under subparagraph B.3 of this Article, the Government shall, subject to subparagraph B.6, receive Government Purpose Rights in all such Data or Software. With respect to all Data and Software previously delivered to the Government with Government Purpose Rights, the Government shall receive those same rights for the Data or Software.

5. The Government shall have Unlimited Rights in Data or Software that are:

(a) Otherwise publicly available or have been released or disclosed by Boeing, or a subcontractor, without restrictions on further use, release or disclosure, other than a release or disclosure resulting from the sale, transfer, or other assignment of interest in the Data or Software to another party or the sale or transfer of some or all of a business entity or its assets to another party;

(b) Data or Software in which the Government has obtained Unlimited Rights under another Government Agreement/contract or as a result of negotiations; or

(c) Data or Software delivered to the Government, under this or any other Government Agreement/contract or subcontract thereunder, with --

(1) Government Purpose Rights or Limited Rights and the restrictive condition(s) has/have expired; or

(2) Government Purpose Rights and Boeing's, or a subcontractor's, exclusive right to use such Data for commercial purposes has expired.

6. Attachment 6, Data or Software to be Furnished with Restrictions, lists Data or Software of Boeing, and its subcontractors, which will be furnished to the Government with rights which are more restrictive than Government Purpose Rights. This list is subject to the

subparagraph D. of this Article. Any subcontract which includes Data or Software to be included in Attachment 6 must be approved by the Government prior to Boeing entering into the subcontract. The list may be amended, subject to approval of the Government, based upon new information or inadvertent omissions. The cognizant IPT Leader and IPT Co-Leader must first approve any such requested amendment to Attachment 6. Amendments to Attachment 6 will be considered approved if the Government, via the Grants Officer, does not disapprove, in writing, within five (5) business days for Software that will not be incorporated into FCS systems and within ten (10) business days for Software that will be incorporated into FCS systems following receipt of the requested amendment. No Data or Software (other than with respect to subcontracts not subject to this Article as set forth in subparagraph D.) shall be delivered under this Agreement with rights, which are more restrictive than Government Purpose Rights unless included in Attachment 6. Boeing and TACOM mutually agree to formally modify the subject Agreement at certain block points, vice each time a request of this nature is submitted to TACOM for approval, in order to facilitate efficient Agreement performance.

7. Except for Data subject to Unlimited Rights or Special License Rights, the Government shall have Limited Rights in Data required to be delivered to the Government under this Agreement and are listed in Attachment 6:

(A) Pertaining to items, components, or processes developed exclusively at private expense and marked with the Limited Rights legend prescribed in this Article, or

(B) Created exclusively at private expense in the performance of an Agreement/contract that does not require the development, manufacture, construction, or production of items, components, or processes.

8. Except for Software subject to Unlimited Rights or Special License Rights, the Government shall have Restricted Rights in Software required to be delivered to the Government under this Agreement that were developed exclusively at private expense and are listed in Attachment 6.

9. The Government will receive a copyright license in any Data or Software item deliverables that are copyrighted. The license will permit the Government to copy, modify, and/or distribute the Data or Software item deliverables in any manner consistent with the restrictions in this Article on the Government's use and disclosure of the Data or Software in the deliverables.

10. Limited or proprietary information disclosed to Boeing or its subcontractors shall be controlled and protected in accordance with a Proprietary Information Agreement (PIA) or other appropriate instrument acceptable to the parties involved with the disclosure.

C. Marking of Data or Software

1. Any Data or Software delivered or provided pursuant to subparagraph B.4 above, shall be marked with the following legend:

"GOVERNMENT PURPOSE RIGHTS"

"The Government is granted Government Purpose Rights to this Data or Software. Use, duplication, or disclosure is subject to the restrictions as stated in Agreement DAAE07-03-9-F001 between The Boeing Company and the Government."

2. Any Data or Software delivered or provided pursuant to subparagraph B.5 above, shall be unmarked or marked with the following legend:

"UNLIMITED RIGHTS"
"The Government is granted Unlimited Rights to this Data or Software. Use, duplication, or disclosure is subject to the restrictions as stated in Agreement DAAE07-03-9-F001 between
The Boeing Company and the Government."

3. Any Data or Software delivered or provided pursuant to subparagraphs B.7, B.8 or A.5, shall be marked with one of the following legends:

B.7 **"LIMITED RIGHTS"**
"The Government is granted Limited Rights to this Data. Use, duplication, or disclosure is subject to the restrictions as stated in Agreement DAAE07-03-9-F001 between
The Boeing Company and the Government."

B.8 **"RESTRICTED RIGHTS"**
"The Government is granted Restricted Rights to this Software. Use, duplication, or disclosure is subject to the restrictions as stated in Agreement DAAE07-03-9-F001 between
The Boeing Company and the Government."

A.5 **"SPECIAL LICENSE RIGHTS"**
"The Government is granted Special License Rights to this Data or Software. Use, duplication, or disclosure is subject to the restrictions of a Special Data or Software Use Agreement as provided for in Agreement DAAE07-03-9-F001 between The Boeing Company and the Government."

D. Validation Of Asserted Restrictions -- Data and Software

1. Boeing shall maintain records sufficient to justify the validity of any markings that assert restrictions on Data or Software delivered or required to be delivered under this Agreement and shall be prepared to furnish to the Grants Officer a written justification for such restrictive markings in response to a request by the Grants Officer for such information.
2. Boeing agrees that the Grants Officer may transact matters under this clause directly with subcontractors or suppliers, at any tier, who assert restrictions on Data or Software. Neither this clause, nor any action taken by the Government under this clause, creates or implies privity of contract between the Government and Boeing's subcontractors or suppliers.
3. Requests for Information:

(a) The Grant's Officer may request Boeing to provide sufficient information to evaluate Boeing's asserted restrictions.
(b) Based upon the information provided the Grants Officer may --
(i) if Boeing (or the applicable subcontractor) agrees that the asserted restriction is not valid;
(A) Strike or correct the unjustified marking at Boeing's expense; or
(B) Return the Data or Software to Boeing for correction at Boeing's expense, or

(ii) Conclude that the asserted restriction is appropriate for this Agreement, and notify Boeing in writing.

(c) Boeing's failure to provide a timely response to a Grants Officer's request for information shall constitute reasonable grounds for questioning the validity of an asserted restriction.

4. Government Right to Challenge and Validate Asserted Restrictions:

(a) The Government has the right to challenge any restrictions asserted by Boeing on Data or Software delivered or provided for system or hardware performance under this Agreement. Except for Data or Software that is publicly available, or has been furnished to the Government without restrictions, or has been otherwise made available without restrictions, the Government may exercise this right only within the later of three (3) years after the date(s) the Data or Software is delivered or provided to the Government, or three (3)years following final payment.

(b) Only a Grants Officer's final decision or a court of competent jurisdiction that sustain the validity of an asserted restriction constitute validation of the restriction.

5. Challenge Procedures:

(a) A challenge must be in writing and shall --

(i) State the specific grounds for challenging the asserted restriction;

(ii) Require Boeing to respond within sixty (60) days; and

(iii) Require Boeing to provide justification for the assertion, in sufficient detail to enable the Grants Officer to determine the validity of the asserted restrictions.

(b) The Grants Officer shall extend the time for response if Boeing submits a written request with appropriate justification.

(c) The Grants Officer may request additional supporting documentation if, in the Grants Officer's opinion, Boeing's explanation does not provide sufficient evidence to justify the validity of the asserted restrictions.

(d) Notwithstanding challenge by the Grants Officer, the Parties may agree on the disposition of an asserted restriction at any time prior to a Grants Officer's final decision or, if Boeing has appealed that decision at any time prior to a decision by a court of competent jurisdiction.

(e) If Boeing fails to respond to the Grants Officer's request for information, the Grants Officer shall issue a final decision, in accordance with Article XV,: Disputes of this Agreement, pertaining to the validity of the asserted restriction.

(f) If the Grants Officer determines that the asserted restriction has --

(i) Not been justified, the Grants Officer shall issue promptly a final decision subject to Article XV, Disputes denying the validity of the asserted restriction; or

(ii) Been justified, the Grants Officer shall issue promptly a final decision validating the asserted restriction.

6. The Government agrees, notwithstanding a Grants Officer final decision denying validity of the asserted restriction, that it will honor the asserted restriction for a period of ninety (90) days, after which if there is no formal challenge to the decision, the Government may strike the restriction, remove the legends and there is no liability incurred by this action.

E. Lower Tier Agreements

1. Boeing shall include this Article, suitably modified to identify the Parties, in all subcontracts regardless of tier, including Boeing business units, who will be furnishing Data or Software to be provided to the Government in the performance of this Agreement. Boeing will not, as part of

the consideration for awarding the subcontract, obtain rights in the subcontractor's Data or Software.

ARTICLE XIX: Foreign Access to Technology

A. Definition

1. "Foreign Firm or Institution" means a firm or institution organized or existing under the laws of a country other than the United States, its territories, or possessions. The term includes, for purposes of this Agreement, any agency or instrumentality of a foreign government; and firms, institutions or business organizations which are owned or substantially controlled by foreign governments, firms, institutions, or individuals.

2. "Foreign Person" means any natural person who is not a lawful permanent resident as defined by 8 U.S.C. 1101(a)(20) or who is not a protected individual as defined by 8 U.S.C. 1324b(a)(3). It also means any foreign corporation, business association, partnership, trust, society or any other entity or group that is not incorporated or organized to do business in the United States, as well as international organizations, foreign governments and any agency or subdivision of foreign governments (e.g., diplomatic missions).

B. ITAR Compliance

1. Boeing shall comply with all U.S. export control laws and regulations, including the International Traffic in Arms Regulations (ITAR), 22 CFR Parts 120 through 130, and the Export Administration Regulations (EAR), 15 CFR Parts 730 through 799, in the performance of this Agreement. Unless otherwise granted an exemption, Boeing shall be responsible for obtaining the appropriate licenses or other approvals, if required, for exports of hardware, technical data, and software, or for the provision of technical assistance.

2. Boeing shall be responsible for obtaining export licenses, if required, before utilizing foreign persons in the performance of this Agreement, including instances where the work is to be performed on-site at any Government installation, where the foreign person will have access to export-controlled technical data or software.

3. Boeing shall be responsible for all regulatory record keeping requirements associated with the use of licenses and license exemptions/exceptions.

4. Boeing may request, in writing, authority to export ITAR-controlled technical data (including software) pursuant to the exemption at 22 CFR 125.4(b)(3). DASA DE&C may affirm the use of the exemption where the U.S. Army PM, FCS certifies the conditions specified by Boeing exist and provided the data does not disclose details of the design, development, production, or manufacture of any defense article.

5. If the U.S. Army PM, FCS directs Boeing to provide information or briefings, then Boeing will pursuant to ITAR section 125.4(b)(1), document the request and submit a written request to the U.S. Army PM, FCS who will certify the conditions specified by Boeing exist. The U.S. Army PM, FCS will provide the certification to DASA DE&C who may affirm the use of the exemption provided the conditions certified by the U.S. Army PM, FCS satisfies the ITAR. Such request will only be pursued when beyond the scope of ITAR section 125.4(b)(3).

C. Lower Tier Agreements

1. Boeing shall include this Article, suitably modified, to identify the parties, in all subcontracts.

ARTICLE XX: CIVIL RIGHTS ACT

1. This Agreement is subject to the requirements of Title VI of the Civil Rights Act of 1964 as amended (42 U.S.C. 2000-d) relating to nondiscrimination in employment.

ARTICLE XXI: BOEING INFORMATION

Taxpayer Identification No: 430400674
DUNS: 016544780
CAGE Code: 69236

ARTICLE XXII: ORDER OF PRECEDENCE

1. In the event of any inconsistency between the Articles of this Agreement and language set forth in the Attachments thereto, the inconsistency shall be resolved by giving precedence in the following order: (1) Until definitization if there is any inconsistency between Article I. B. and anything else, then Article I. B. will take precedence. (2) The Articles of this Agreement, (3) SOW, (4) other Attachments to the Agreement. In the event there is any conflict between a clause contained in full text in the Agreement and a referenced clause, the full text clause shall take precedence.

ARTICLE XXIII: EXECUTION

1. This Agreement constitutes the entire agreement of the Parties and supersedes all prior and contemporaneous agreements, understandings, negotiations and discussions among the Parties, whether oral or written, with respect to the subject matter hereof. This Agreement may be revised only by written consent of the Boeing Contracts Manager and the TACOM Grants Officer, or as provided in Article XIII, Modifications. This Agreement or modifications to the Agreement may be executed by the Parties using a faxed signature from the other party and these documents will be deemed as original.

ARTICLE XXIV: LIABILITY AND INSURANCE

A. Liability and Insurance

1. Boeing shall maintain the types of insurance listed in FAR 28.307-2(a), (b), and (c) with the minimum amounts of liability indicated, or commercial equivalent.

B. The following FAR/DFARS clauses apply:

52.228-7	Insurance-Liability to Third Persons (3/96)
52.246-24	Limitation of Liability - High-Value Items (2/97)
52.246-25	Limitation of Liability - Services (2/97)
252.228-7002	Aircraft Flight Risk (9/96) Tailoring: Aircraft in this clause also relates to "Unmanned Air Vehicles (UAV). Paragraph (d)(4), change from "the Disputes clause of this contract" to "Article XV: Disputes of this Agreement."

ARTICLE XXV: Ordering From Government Supply Sources

1. The Grants Officer authorizes Boeing to use Government Federal Supply Schedule Contracts in the performance of this Agreement.

2. This authorization is issued in accordance with provisions of 48 CFR subpart 51.1 "Contractor Use of Government Supply Sources" and can be used only to acquire goods and services required specifically for performance under this Agreement.

3. The Grants Officer will provide the Boeing Contracts Manager a copy of the authorization letter within ten (10) business days of Agreement award.

4. For each order placed to a Federal Supply Schedule vendor (1) a copy of the authorization letter must accompany the order, unless a copy was previously furnished to the vendor, and (2) the following statement must appear on the order:

> "This order is placed under written authorization from the U.S. Army Tank-Automotive and Armaments Command (TACOM) dated [Date of Agreement Award]. In the event of any inconsistency between the terms and conditions of this order and those of your Federal Supply Schedule Contract, the latter will govern."

5. Boeing is also provided authorization for subcontractor's to use Government Federal Supply Schedule Contracts.

6. Boeing's ordering authorization may be unilaterally withdrawn, or suspended, by the Grants Officer, in whole or in part, by providing written notice to the Boeing Contracts Manager.

ARTICLE XXVI: REQUIRED PROCESSES

A. Approved Processes

1. Boeing will continue to use the listed approved processes derived from enterprise-wide policy, program management best practices, and program requirements in the performance of this effort to the extent applicable.

B. List of Approved Processes

1. Program Management
2. Cost and Schedule Management
3 Technology Management and Transition
4. Cost Estimating

ARTICLE XXVII: SMALL BUSINESS SUBCONTRACTING PLAN

A. Goals

1.Boeing's Small Business Plan goals for the FCS Program are set forth below:

	FCS SDD Goals

	(% of Boeing subcontracted Dollars)
Small Business	17.5%
Small Disadvantaged Business	3.5%
Woman Owned Small Business	2.5%
Historically Underutilized Business Zone Small Business	0.3%
Veteran Owned Small Business	1.5%
Service Disabled Veteran Owned Small Business	0.2%

Note: These goals are based on dollars going to small business through and including the third tier of subcontracts.

B. Subcontracting Reporting

1. Boeing will provide a summary of its subcontracted effort with small businesses on a semi-annual basis, and at SDD Agreement completion, consistent with the information required by Standard Form 294, Subcontracting Report for Individual Contracts. Boeing will report all subcontracted effort to small businesses to include awards to small businesses from its first, second and third tier large business subcontracts. Dollars reported as Small Business awards will only be counted once. Boeing format for reporting requirements is acceptable.

C. Lower Tier Agreements

1. Boeing shall include the Small Business Plan goals as a requirement of all first, second and third tier large business subcontracts.

ARTICLE XXVIII: PRE-AWARD COST AGREEMENT

1. In order to reduce schedule risk to the Program, it is recognized that Boeing has initiated effort, beginning 21 March 2003, covered under this Agreement prior to Agreement award. Upon Agreement award to Boeing, those allowable and allocable costs incurred up to $9.7M by Boeing in pursuit of effort called for under this Agreement, will be recognized as allowable and allocable to the SDD Agreement to the extent they would have been allocable and allowable had they been incurred subsequent to award of the SDD Agreement. This effort consists of tasks in support of the transition from CTD to SDD such that Boeing can immediately perform SDD work upon award of this Agreement.

ARTICLE XXIX: COMPLEMENTARY PROGRAMS

A. The LSI's efforts, with respect to Complementary Programs, is set forth in Attachment 1, SDD Statement of Work paragraph 3.1.4.4.

B. The Government is responsible for managing the Complementary Program contracts and contractors. PM,FCS will facilitate cooperation between the Government Program Management teams to ensure cooperation from the Complementary Program contractors with Boeing to satisfy the needs of the FCS program. PM, FCS will facilitate the LSI with Complementary Programs SOW requirements by entering into Program Executive Office (PEO) Memorandum of Agreements (MOA) and Program Management (PM) Subordinate Memorandum of Agreements

(SMOA) with each Complementary Program. Model MOAs and SMOAs are incorporated in Attachment 14.

C. The LSI may be entitled to a Program Generated Adjustment as it pertains to Complementary Systems within the definition in Article I, when a product or piece of information from a Complementary Program fails to be suitable (including timely availability) for its intended use and there is a negative impact to the program. Any such adjustment will be in accordance with Article XIII, Modifications.

D. For any product, hardware, software or data, that needs to be provided from a complementary program, which is not available, then a Program Generated Adjustment, as identified in C. above, will be proposed to overcome the problem.

ARTICLE XXX: SDD TECHNICAL BASELINE

1. The SDD Technical Baseline is the FCS UA Increment I Capabilities Specification. Initially, all 14 April 2003 JROC ORD requirements will be reflected in the FCS UA Increment I Capabilities Specification as either products being developed as part of Increment I or as spiral systems for future implementation. The spiral systems identified in Appendix C of the FCS UA Increment I Capabilities Specification, and noted below, are not a part of the initial technical baseline for contract performance but may be considered for future inclusion based on affordability decisions. For those items designated as Increment I products the below trade processes will be used to determine the specific requirements for Increment I.

2. During the definitization process the LSI shall identify the schedule for completion of the Prime Item Development Specifications, Distributed System Specifications, Architectures, and Procurement Control Drawings that will become technical baseline documents when approved.

3. Trade studies and affordability assessments will be conducted for spiral systems at the request of the Government.

4. Changes impacting a KPP will require a contract modification. All other changes will be handled through the below indicated process.

5. Verification of the Technical Baseline will be accomplished as identified in the LSI's Integrated Test and Evaluation Plan (ITEP), D786-10074-1. The verification criteria of the ITEP will be superceded by Section 4 of the FCS UA Increment I Capabilities when approved.

6. Trade Processes

(a) If only an objective requirement in the JROC ORD now exists, the Specification will reflect either the objective capability or a "TBD" for threshold, and that requirement will be adjudicated through the trade study process.
(b) If the FCS UA Increment I Capabilities Specification does not, at minimum, meet the JROC ORD threshold capability, the requirement in question will either
(i) be brought into alignment with the JROC ORD and placed in the FCS UA Increment I Capabilities Specification or
(ii) be identified as a trade study candidate and placed in the trade study candidate pool.
(c) The trade study process will be implemented as follows:

(i) The requirement will be adjudicated through the approved Trade/CAIV joint process (with participation of PM, FCS, LSI and TRADOC at a minimum).
(ii) If the process determines that a change is necessary to the SoS Increment I Specification, a recommendation will be made to update both the SoS Increment I Specification and the JROC ORD simultaneously.
(iii) The FCS UA Increment I Capabilities Specification update will not be delayed awaiting ORD updates.
(iv) Once the discrepancies have been resolved through approved process, the FCS UA Increment I Capabilities Specification will have contractual precedence.

Note:
The Spiral Development Programs specified in Appendix C are currently:
(1) Unmanned Aerial Vehicle Class II,
(2) Armed Robotic Vehicle – Assault and Armed Robotic Vehicle- Reconnaissance variants
(3) Loitering Attack Munition and the
(4) Intelligent Munition System.

ARTICLE XXXI: FAR/DFARS Clauses

A. Commonly Used Terms

1. Terms contained within a FAR or DFARS clause including, but not limited to, (1) Schedule, (2) Contracting Officer, (3) Contract, (4) Disputes clause, (5) Administrative Contracting Officer, etc. are interpreted to mean (1) Agreement, (2) Grants Officer, (3) Agreement, (4) Article XV Disputes, (5) Administrative Agreements Officer, respectively. Any other commonly used terms not expressly included in this paragraph, contained within a FAR/DFARS clause, shall also be interpreted in terms of an Other Transaction Agreement, Section 845 as the FCS acquisition instrument and not in terms of a FAR procurement contract.

B. Clause Incorporated by Reference

1. This Agreement incorporates one or more clauses by reference, with the same force and effect as if they were given in full text, except if there is a conflict with a full text clause, in which case the full-text clause would govern. Upon request, the Grants Officer will make their full text available.

C. FAR Clauses Incorporated by Reference

52.223-3	Hazardous Material Identification and Material Safety Data (1/97) "To be provided to the Government during Agreement performance, as required."
52.223-5	Pollution Prevention and Right-to-Know Information (4/98)
52.223-7	Notice of Radioactive Materials (1/97)

	Tailoring: Paragraph (a), insert "30 calendar" as the fill-in.
52.225-8	Duty-Free Entry (2/2000)
52.249-14	Excusable Delays (4/84)

D. DFARS Clauses Incorporated by Reference

252.223-7002	Safety Precautions for Ammunition and Explosives (5/94)
252.223-7007	Safeguarding Sensitive Conventional Arms, Ammunition, and Explosives (10/2002)
252.225-7008	Supplies to be Accorded Duty-Free Entry (3/98) "All"
252.225-7010	Duty-Free Entry - Additional Provisions (8/2000)
252.225-7032	Waiver of United Kingdom Levies (10/92)
252.225-7043	Antiterrorism/Force Protection for Defense Contractors Outside the United States (6/98)
252.228-7005	Accident Reporting and Investigation Involving Aircraft, Missiles, and Space Launch Vehicles (12/91)
252.235-7003	Frequency Authorization (12/91)

ARTICLE XXXII: DESIGN AND SOURCE CONSIDERATIONS

1. The following DFARS clauses, while not required for the SDD Agreement, will be mandatory under any subsequent contract for Long Lead Items, Initial Production or Production unless Boeing requests a waiver for itself, or for any of its subcontractor(s), which is subsequently approved by the Government, provided the clause allows for such waiver request. Boeing shall consider the following clauses in its planning for transition to Production. Design limitations and supply chain management decisions required to comply with these clauses will be documented in sufficient detail, so that, in the event of any subsequent contract for Long Lead Items, Initial Production or Production, clause compliance can be demonstrated.

252.225-7001	Buy American Act and Balance of Payments Program (3/98)
252.225-7002	Qualifying Country Sources As Subcontractors (12/91)
252.225-7014	Preference for Domestic Specialty Metals (3/98) Alt 1
252.225-7016	Restriction on Acquisition of Ball and Roller Bearings (12/2000)
252.225-7022	Restriction on Acquisition of Polyacrylonitrile (PAN) Carbon Fiber (6/97)
252.225-7025	Restriction on Acquisition of Forgings (6/97)
252.225-7026	Reporting of Contract Performance Outside the United States (6/2000)
252.225-7030	Restriction on Acquisition of Carbon, Alloy, and Armor Steel Plate (10/92)
252.225-7031	Secondary Arab Boycott of Israel (6/92)

ARTICLE XXXIII: Termination Liability Amounts

1. There is currently no authorization or proviso for any liability beyond the funds obligated to the Agreement by the Grants Officer. Boeing has requested that the Army consider adding a Special Termination Cost Article to the Agreement. This Article will be similar in content to DFARS 252.249-7000, identifying the cost categories to those listed in the DFARS clause. 2. Within thirty days of award of the SDD Agreement the PM, FCS will forward the request to the Department of Army for consideration. If the requested clause is not approved for incorporation, the Government is not obligated to take any further action regarding this matter, nor can be held liable as a result of not incorporating such requested clause.

3. If DA approval is not received by July 31, 2003, Boeing will adjust its planned financial outlays to cover potential termination liability costs. This will be reflected in the subsequent financial reports.

4. Furthermore, PM, FCS and Boeing agree to pursue Full Termination Liability Cost coverage. PM, FCS agrees to pursue this request upon receipt of Boeing data required to support such request with the objective to have DA approval prior to definitization of the Agreement. If the requested clause is not approved for incorporation, the Government is not obligated to take any further action regarding this matter, nor can be held liable as a result of not incorporating such requested clause. If DA approval is not received Boeing will adjust its planned financial outlays to cover potential termination liability costs. This will be reflected in the subsequent financial reports.

ATTACHMENT 1

STATEMENT OF WORK FOR THE FCS INCREMENT I SDD PROGRAM

1.0 OVERVIEW

This document defines the Government's requirement for work to be performed by The Boeing Company, in its role as the Future Combat Systems (FCS) Lead Systems Integrator (LSI), to execute the FCS Increment I (see Article XXX) Systems Development and Demonstration (SDD) Program tasks as described below. The role of the LSI is not simply that of a traditional Prime Contractor, but is more that of the Government's partner in ensuring implementation of FCS through engineering a system of systems solution, competitive selection of industry sources for development of the systems comprising the FCS Family of Systems, and integrating and testing these systems to satisfy the Increment I requirements. While this does not preclude the LSI from being a source of individual systems/subsystems development, such development participation requires prior approval of the Government or selection through the competitive procurement process (Article VIII of this Agreement), which includes Government approval. To accomplish this, the LSI/Army Program Manager FCS (PM FCS) partnership will work closely in a collaborative, cooperative environment with TRADOC, and other Army organizations designated to integrate the FCS Family of Systems (FoS) work with the larger Unit of Action (UA) System of Systems (SoS) and Objective Force (OF) development efforts.

1.1 PROGRAM OBJECTIVES

The LSI has been selected by the Government to work in a collaborative environment with PM FCS, to ensure a successful development, production, fielding, and sustainment of the full complement of safe, reliable, suitable, and effective FCS materiel in accordance with (IAW) the FCS Operational Requirements Document (ORD) and the FCS UA Objective Capabilities Specification. The LSI is responsible for executing the FCS Increment I SDD program Statement of Work including support in integration of FCS SDD efforts with the Army's larger UA and Objective Force Doctrine, Organization, Training, Materiel, Leader, Personnel (Soldiers), and Facilities (DOTMLPF) development work to ensure the UA equipped with the FCS can employ concepts in the UA Operational and Organizational (O&O) plan to achieve capabilities in the O&O and FCS ORD. This SDD Agreement phase addresses the first of successive anticipated increment system designs/developments leading to the envisioned FCS Objective Force.

1.2 INCREMENT I SDD DESCRIPTION

The FCS SoS development effort is a complex integration task that implements a coordinated, comprehensive approach across the program elements of Training, Supportability, Networks, Systems, Interoperability, Force Development, and Testing. This high level, overarching integration ensures that the approved UA O&O plan, the Joint Requirements Oversight Committee (JROC) validated Mission Needs Statement (MNS), and the FCS Operational Requirements Document (ORD) guide the program approach to optimize force design, define requirements, ensure interoperability, demonstrate performance, reduce risk, and reach a balance of affordable performance throughout the life cycle. The LSI will define an incremental development plan for the

evolution of the FCS into a stable, interoperable, producible, supportable, and cost effective system that meets the Army FCS ORD through implementation of multiple capability increments. During this SDD Increment I, the LSI will design, integrate, build, support, and test the first capability increment (Increment I) of this incremental development plan. Some systems within the family of systems will achieve these capabilities prior to others and this will result in a phased completion of Increment I SDD. Refer to the FCS SDD Integrated Master Plan and Schedule (IMP/IMS) for detailed program listing and schedule.

1.3 SCOPE

This Statement of Work (SOW) defines the scope of work for the LSI relative to performing SoS management, engineering, procurement, integration, supportability, test, and evaluation during the FCS Increment I SDD phase. The defined scope of this FCS Increment I SDD includes the work necessary to ensure a successful IPD leading to Initial Production (IP) for all the FCS Family of Systems.

1.4 TECHNICAL PERFORMANCE REQUIREMENTS

FCS SoS performance requirements of the O&O and the ORD are used to derive the FCS UA Objective Capabilities Specification. The Increment I performance requirements are then derived from the FCS UA Objective Capabilities Specification and defined in the FCS UA Increment I Capabilities Specification at Agreement start and result in the configuration and capability baseline as defined in Article XXX of this Agreement. SoS Increment I capabilities and the implementing configuration are anticipated to evolve during SDD. Key Performance Parameters (KPPs) and ORD threshold requirements as allocated to Increment I in the FCS UA Increment I Capabilities Specification represent the minimum acceptable needs for the initial Increment I performance baseline. KPPs are non-tradable. Non-KPP ORD threshold requirements that are proposed to be traded will be worked in accordance with the trade process approved by the Government. Subsequent increments (for future procurement) will be defined during this SDD phase to ultimately result in a plan for achieving the full ORD objective capability. The Government will define metrics and criteria for the evaluation of each of the ORD requirements and to require the LSI to provide an Incremental Development Plan for achieving (singularly or in combination) each of the critical criteria in future increments.

1.5 SCHEDULE

The SDD program execution schedule is documented by the event-based Integrated Master Plan (IMP). The Integrated Master Schedule (IMS) is the management tool that schedules the program events and accomplishments found in the IMP.

2.0 APPLICABLE DOCUMENTS

The following documents as invoked in Section 3 provide guidance to and requirements for the LSI during SDD. Unless otherwise specified the version of each specific REFERENCE and COMPLIANCE document in effect at the time of usage shall apply. REFERENCE documents are to be used for guidance only. COMPLIANCE documents are a requirement. Second tier and lower documents (e.g., those documents cited or referenced within a first tier or lower document) cited in LSI COMPLIANCE

documents are contractually binding unless specifically designated as a reference within the higher tier document.

REFERENCE Documents
Government Documents

1. FCS ORD (and Annexes) Chg3, 14 April 03 (including KPP designations)
2. System Threat Assessment Report (STAR), 24 Jan 03
3. Systems Training Plan (STRAP)
4. Army Software Blocking Plan
5. UA O&O Plan, Chg 1, 25 Nov 02
6. FCS Mission Need Statement, 23 Jan 03
7. DoD Architecture Framework 1.0
8. TRADOC Pamphlet 350-70-2, Multimedia Courseware Development Guide
9. Advanced Distributed Learning (ADL) Shareable Content Object Reference Model (SCORM)
10. Army FCS UA Systems Book 2.0
11. DoD 5000 Series Regulations
12. TRADOC Maneuver Sustainment Concept
13. TRADOC Pamphlet 525-3-0 Objective Force
14. TRADOC Pamphlet 525-3-92 Unit of Employment
15. TRADOC Pamphlet 525-4-0 Maneuver Sustainment
16. TRADOC Pamphlet 525-3-25 Maneuver Support
17. TRADOC Pamphlet 525-3-0.1 Battle Command (C4ISR)
18. TRADOC Pamphlet 525-3-04 Army Aviation
19. TRADOC Pamphlet 525-3-9 Fires & Effects
20. TRADOC Pamphlet 525-1-0 Soldier as a System
21. All TRADOC Objective Force Concept Documents Published

LSI Documents

1. FCS Program Plan Summary (D786-10218-1)
2 SDD Integrated Master Schedule (IMS) (D786-10020-1)
3 FCS Incremental Development Plan (D786-10068-1)
4. Enterprise Production Plan (D786-10212-1)
5 Simulation Support Plan (D786-10002-1)
6. Other Transaction For Prototypes # MDA972-02-9-0005

COMPLIANCE Documents
Government Documents (As of date of award)

1. Joint Technical Architectures (JTA)
2. Joint Technical Architectures-Army (JTA-A)
3. Joint Architecture Unmanned Systems (JAUS)
3. Test and Evaluation Master Plan (TEMP), 8 May 2003
4. DA PAM 5-11, Verification, Validation, and Accreditation of Army Models and Simulation
5. TRADOC Regulation 350-70, Systems Approach to Training Management Processes and Products
6. Army Training Infrastructure Architecture Compliance Standards (ATIAS), Version 3.2, 19 April 2002
7. Special Access Programs AR-380-381
8. DoD 5100.76-M Physical Security of Sensitive Conventional Arms, Ammunition and Explosives
9. DoD Future Logistics Enterprise (FLE) - U.S. Army PBL Implementation Guide

LSI Documents

1. Systems Engineering Management Plan (SEMP) (D786-10007-1)
2. Software Development Plan (D786-10006-1)
3. FCS UA Increment I Capabilities Specification (S786-50000)
4. C4I Support Plan (C4I SP) (D786-10021-1)
5. Configuration/Data Management Plan (D786-10008-1)
6. SDD Competition Process Plan (D786-100065-1)
7. SDD Integrated Master Plan (IMP) (D786-10019-1)
8. Programmatic Environmental, Safety and Health Evaluation (PESHE) (D786-10030-1)
9. Complementary Programs Management Control Plan (A038) when approved
10. Supportability Strategy (D786-10025-1)
11. FCS Life Cycle Cost Containment Plan (D786-10012-1)
12. Program Risk Management Plan (D786-10015-1)
13 Systems Integration Laboratory (SIL) Development Plan. (When approved)
14 **Program Protection Plan (D786-10099-1 Rev B)**
15 SoS Architectures (various)
16. FoS Architectures (various)
17. System Integration Plan (SIP) (D786-10113-1)
18. System Verification Plan (SVP) (D786-10159-1)

3.0 LSI TASKS

The following subsections describe the work scope for the LSI during SDD divided into three major activities:

a. **Subsection 3.1** describes the SoS Engineering Integration and Program Management effort to manage the overarching requirements and SoS design analyses. It includes the definition and allocation of requirements and flowdown of process guidance to the Integrated Product Teams (IPTs) and any associated development subcontractors for networked FoS product design, development, integration, and verification activities.

b. **Subsection 3.2** describes implementation of the SoS requirements into the networked FoS analysis, design, development, integration, and test efforts at the individual FoS level.

c. **Subsection 3.3** describes the LSI activities to coordinate and perform integrated FoS and SoS demonstration and test planning, execution, and evaluation in accordance with test milestones defined in the Integrated Master Plan (IMP) and Integrated Master Schedule (IMS).

d. Data deliverables associated with selected SOW paragraphs are identified by references {Axxx} to specific FCS SDD program Agreement deliverable items per Attachment 2. References to the Work Breakdown Structure are indicated by [WBS x.x.x.x] to the sixth level as appropriate.

3.1 SOS ENGINEERING, INTEGRATION, AND PROGRAM MANAGEMENT

The LSI shall perform the necessary program and engineering management activities associated with planning and conducting the FCS SDD Increment I program IAW the Applicable Documents listed in paragraph 2.0, above. The LSI will ensure that

the FCS design and processes support smooth transition to the objective capability as defined by the requirements documents and will assist TRADOC to integrate and synchronize the LSI FCS work with the larger UA and OF requirements as specified in the following subparagraphs. [WBS 1.1.1]

3.1.1 SoS Engineering and Integration Management

The LSI shall define, plan, and manage the systems engineering process IAW the SEMP and the Systems Integration Plan to transform the UA Increment I Capabilities Specification into a tested SoS Increment I solution suitable for IP initiation, conduct system reviews as defined in the SEMP and/or IMP, and prepare for the IPD. {A001, A029} [WBS 1.1.1.1, 1.1.1.2, 1.1.1.3, 1.1.1.7]

3.1.1.1 Objective Force Requirements Integration. The LSI shall support TRADOC in refining and allocating UA Operational Requirements; refining operational interfaces with joint, interagency, and multinational (JIM) organizations and forces; and refining joint operational concepts for implementation into final design. This activity is to be sustained on three levels: Unit of Action (UA), Unit of Employment (UE), and Objective Force (OF). The LSI will support refinement and maintain traceability of FCS requirements with operational concepts, force design, O&O, ORD, operational architectures, training and leader development, and operational interfaces with programs relevant to FCS (Attachment 11); perform Operational Analysis in support of force requirements; define and analyze future increment upgrades in terms of operational and force impacts; and force initialization, deployment, operations, support, and garrisoning requirements. The LSI will work collaboratively with TRADOC and Headquarters, Department of the Army (HQDA) to integrate FCS SDD work into the larger UA and OF development and demonstration effort in order to help the Army optimize force design and define/refine requirements in a continuous/consistent manner over time, including maintaining currency to the STAR. The LSI will support TRADOC/ UA Maneuver Battle Lab (UAMBL) in the horizontal integration and synchronization of FCS SDD efforts with TRADOC's larger OF/UA DOTMLPF domains. The LSI shall supply data in support of TRADOC documentation of operational requirements, findings, and conclusions that impact the FCS design, Operational and Organizational Concept, or requirements development, and shall ensure rapid dissemination to PM FCS and design engineers to ensure parallel work is effectively synchronized. The LSI will acquire insights from the experimentation, studies, and analysis conducted by the following TRADOC organizations: UAMBL, Combined Arms Center (CAC), Combined Arms Support Command (CASCOM), TRADOC Analysis Center (TRAC), and enhanced Objective Force Battle Labs (including support to UAMBL from other centers and schools as part of the Hub and Spoke concept). These insights acquired will be submitted to TRADOC to ensure their analytic validity and consistency with the UA developmental concepts. The LSI will also provide TRADOC with any insights from their FCS SDD work that could impact UA and OF operational considerations. {A002} [WBS 1.1.1.1, 1.1.1.1.2, 1.1.1.1.3, 1.1.1.1.4. 1.1.1.1.5]

3.1.1.1.1 Force Integration & Analysis. The LSI shall support TRADOC through PM FCS with UA level and FCS system of systems integration, interoperability, and force effectiveness trades necessary to achieve the allocation of ORD requirements to the FCS UA Objective Capabilities Specification. The LSI will support PM FCS and TRADOC in modeling and simulation efforts for trade studies, assessment, evaluations of force effectiveness, and for User Representative testing and training to include the

integration of Government and LSI modeling and simulation efforts. The LSI will also participate in TRADOC Integrated Concept Teams designed to synchronize and optimize all UA and OF DOTMLPF requirements. The LSI shall support planning, coordination, and execution of Unit of Action Maneuver Battle Lab (UAMBL) experimentation that impacts the FCS FoS design, and shall assist in refining Operational and Organizational concept and requirements development. The LSI shall document analyses, findings, and lessons learned. {A002, A003, A030, A044} [WBS 1.1.1.1.3, 1.1.1.1.4, 1.1.1.1.5]

3.1.1.1.2 TRADOC Site Representation. The LSI shall provide onsite personnel distributed at TRADOC force development sites based on needs identified by the UAMBL and HQ TRADOC (see Agreement Attachment 7 – Office Space and Administrative Support). These personnel shall coordinate the translation of operational concepts and force requirements and rapidly disseminate continuous requirements development and refinement emerging from UAMBL experiments to coordinate and synchronize operational concepts, force requirements, materiel development, and analytical activities. The LSI shall ensure that UA requirements efforts are current with emerging insights gained from subsequent FCS CTD increments being conducted in parallel with Increment I SDD. [WBS 1.1.1.1.5]

3.1.1.1.3 TRADOC Battle Lab Integration. Based on Attachment 7 and SOW 3.1.4.6 below, the LSI shall provide TRADOC's networked Battle Labs and schools with access to the LSI virtual prototype designs organized within the FCS ACE Distributed Product Description (DPD), to facilitate operational experimentation with latest baseline designs and also to enable rapid dissemination of User Representative feedback to designers as the UA is designed and developed in parallel with the FCS SDD. This work will be targeted at providing specific system and family of systems performance data through Army Materiel Systems Analysis Activity (AMSAA) to the TRADOC network of Battle Labs and schools. [WBS 1.1.1.5]

3.1.1.2 Interface Management. The LSI shall identify and manage the technical interface requirements among FCS FoS components and among the FCS FoS and complementary systems (including systems used "in-lieu of" systems listed in the ORD) as defined in Attachment 11 and Article XXIX. The LSI shall establish, monitor and maintain interfaces to systems external to FCS (legacy, higher echelon, Joint, Coalition, and other Government and Non-Government Agencies as defined in Attachment 11) and control internal FoS system-to-system interfaces. {A004} [WBS 1.1.2.1.3.2]

3.1.1.2.1 Interoperability Management. The LSI shall identify, update, and manage the interoperability requirements among the FCS FoS, Army, and joint, interagency, and multinational (JIM) organizations and forces listed in Attachment 11. This effort requires the LSI to monitor and control all FCS interfaces required to satisfy FCS interoperability requirements and includes participation in interface control working groups, development and maintenance of interface control documents, design of FCS interfaces, and verification that interfaces conform to approved Interface Control Documents. In coordination with TRADOC's OF and UA force development work, the LSI shall identify, update, and manage interoperability solutions to meet the User Representatives requirements among the FCS FoS as they relate to the Army's UA and OF developments work, and Army participation in development of JIM organizations, forces, and equipment, including addressing files, applications, standards, protocols and other relevant considerations. The LSI shall submit maintainability and reliability

considerations for interoperability to TRADOC (through UAMBL to CASCOM). The LSI shall submit information exchange considerations to TRADOC (through UAMBL to the Architecture Integration Management Directorate). {A035} [WBS 1.1.2.1.2.11, 1.1.2.1.3.2]

3.1.1.3 SoS Architecture Development and Management. In close coordination with TRADOC, AMC, and other Army organizations, the LSI will develop, integrate, and manage FCS SoS level Operational, System, and Technical View architectures and support TRADOC development of Operational View architectures reflecting O&O Plan and ORD maturation to provide an evolutionary roadmap for SoS architectures using DoD Architecture Framework 1.0 as appropriate. The LSI will manage and update the FCS interface requirements to higher (DoD and JIM) and lower level architecture views, implementing JTA, JTA-A, and JAUS requirements into these views as required. The system design approach shall comply with the applicable portions of the Joint Technical Architecture-Army. Any proposed technical designs that deviate from the standards and practices delineated in the Joint Technical Architecture-Army, either during the evaluation and/or subsequent execution of this Agreement shall be approved by PM FCS, prior to implementation. The LSI will provide FCS developed architecture products to TRADOC to support update and management of the Objective Force Operational and System Architecture-Conceptual (SA-C) architectures. {A005, A006} [WBS 1.1.1.2.2, 1.1.1.2.2.1]

3.1.1.3.1 System/Subsystem Design Description. The LSI shall develop and maintain a System/Subsystem Design Description (SSDD) as a single document to capture system-level (e.g., electrical, software, mechanical) design concepts and decisions and used as the basis for further system and subsystem development. In addition to system-level architecturally significant contents, the LSI will include design decisions and constraints at appropriate system/subsystem levels as necessary and applicable to meeting system performance requirements and to coordinate interfaces across multiple developers/products (e.g., IPTs, suppliers/platforms, vehicles, sensors). {A007} [WBS 1.1.1.2, 1.1.2.1.3]

3.1.1.3.2 FCS Specifications. The LSI shall update and manage the FCS UA Increment I Capabilities Specification reflecting the SDD Increment I compliant capability (as defined in Article XXX) including interfaces to Increment I complementary programs (Attachment 11). The LSI shall also develop and deliver a FCS UA Objective Capabilities Specification reflecting the full FCS ORD to provide overarching guidance for future incremental development planning (3.1.10). The LSI will develop, update, and manage all systems level performance specifications, Distributed System Specifications, Prime Item Development Specifications (PIDS), Procurement Control Drawings, and Software Specifications to reflect the Increment I capability only. {A003, A008, A009, A018, A044} [WBS 1.1.1.2.3.2, 1.1.2.1.3.6]

3.1.1.3.3 Requirements Analysis Management. In coordination with PM,FCS, TRADOC, the LSI shall translate operational requirements into systems requirements. This translation includes the development of systems and technical architectural views of the SoS, as well as the FoS that comprise the SoS. The LSI shall capture and appropriately allocate performance, functional, and other derived requirements to the specifications of 3.1.1.3.2. Further, the LSI shall develop and maintain dynamic traceability of requirements linking the ORD to the FCS UA Objective Capabilities Specification and lower tier specifications and system design, enabling identification of

change impact. The LSI shall develop and maintain a comprehensive integrated requirements database to capture: continuous FCS requirements development over time to objective capability; FCS requirements, including key attributes related to safety and mission critical functions; traceability between the system level requirements and the Hardware Configuration Item (HWCI) and Computer Software Configuration Items (CSCI) requirements they are allocated to; and traceability between HWCI and CSCI requirements and design components that implement them. {A009, A018} [WBS 1.1.1.2.2, 1.1.1.2.2.1, 1.1.1.2.3.2, 1.1.2.1, 1.1.2.1.3.3, 1.1.2.1.3.6]

3.1.1.3.4 SoS Architecture Development Plan. The LSI shall develop a SoS Architecture Development Plan that defines the SoS Architecture processes, management, and organization to be utilized in the development of architectures. Timelines and milestones for development of the SoS Architectures will be as documented in the IMP and IMS. {A010} [WBS 1.1.1.2.2]

3.1.1.4 Configuration/Data Management. The LSI shall provide configuration and data management (CDM) through the FCS ACE IAW the CDM Plan. The LSI will develop and manage processes and policies implemented in related program CDM organizations, including ensuring that architecture data is synchronized with and entered into the TRADOC Army Architecture Repository Management System (AARMS), managing the FCS data repository, and providing oversight of configuration management policies and processes employed by other LSI organizations and suppliers. The LSI shall manage the FCS interface control documents relating to SoS internal and external interoperability. The LSI will coordinate configuration management of FCS SDD products to ensure an appropriate level of interoperability/consistency with TRADOC, Army Test and Evaluation Command (ATEC), and AMC configuration management policies and procedures for operational and SA-C architecture products. {A011} [WBS 1.1.1.2.4, 1.1.2.1.3.3]

3.1.1.5 Manpower and Personnel Integration (MANPRINT). The LSI shall integrate MANPRINT into system designs to accommodate personnel health and safety, human factors, system safety, soldier survivability, skills/aptitude/development, training, and system manpower requirements. As a part of preliminary design, collaborate with appropriate AMC and other Army agencies, including the TRADOC System Manager (TSM) FCS, to resolve User Representative MANPRINT issues in the design and development of the FCS SoS. MANPRINT considerations and derived requirements must be maintained compatible with the capabilities and limitations of the User population. The LSI will provide policy and processes to ensure consistent incorporation of the MANPRINT program across all configurations. The LSI shall conduct MANPRINT design evaluation during system development, to include requirement, specification, design, test, and assessment and provide a report on results of evaluation. {A012, A013, A028} [WBS 1.1.1.2.4, 1.1.2.1.2.13]

3.1.1.6 Trade Study and Life Cycle Cost Containment Management. The LSI shall establish policies and procedures relating to the trade study process, including application of Cost as an Independent Variable (CAIV), coordination for studies that cross program elements, and recommendations for final resolution on any issues that affect SoS requirements. The LSI will utilize trade studies to provide support for technology and design decisions. The LSI will implement the FCS Life Cycle Cost Containment Plan defined in D786-10012-1 and IAW the Life Cycle Cost Estimation reporting milestones identified in the IMS. The LSI shall develop an overall plan

consistent with the Containment Strategy to achieve program affordability, implementing CAIV to balance cost, performance, and schedule, including development of Total Ownership Cost estimates to track progress toward meeting containment requirements and reducing operations and support costs. The LSI will resolve User Representative operational performance issues in conjunction with TRADOC in the design and development of the FCS SoS as well as the individual systems that comprise the FCS FoS. The LSI will ensure FCS FoS and system trades are synchronized and integrated with the larger UA and OF development and demonstration effort. The LSI will provide trade study data to TRADOC to support TRADOC's decision process regarding adjustments to FCS operational requirements and effectiveness. The LSI will support best choice decisions with documented evaluation. Requirements not incorporated into design concepts for Increment I, shall be reassessed as required. The LSI will flow trade study policy and requirements down to the major FCS network and platform development subcontractors. The LSI shall participate in and provide oversight to the conduct of the subcontractors' trade study processes. {A014, A015, A016, A034} [WBS 1.1.1.2.2.4, 1.1.1.2.8]

3.1.1.7 Software Management. The LSI shall establish a Software Process and Management Team, consisting of LSI, Government, and supplier representatives, to provide the overarching program-wide software management, coordination and guidance for processes relating to software. This software management team will ensure that the proper policies, processes, procedures, tools, and training are in place to provide an integrated coherent software management approach across all elements of the program and implementation of an open software architecture across the FCS FoS. The software management team shall update and maintain the FCS Software Development Plan and approve and coordinate changes to IPT and supplier Software Development Plans. The software management team shall assist and verify that the IPTs and their software suppliers implement and maintain organizational software development practices that are certified to at least Level 3 of the Software Engineering Institute Capability Maturity Model for Software (SEI CMM). The software management team shall develop a plan to achieve SEI Capability Maturity Model Integration (CMMI-SW) Level 5 certification by the end of Increment I SDD. The software management team shall develop and maintain a software progress measurement plan to establish software metrics and a measurement process to include audits and assessments. Using the FCS ACE, the team shall collect metrics from the software suppliers and perform analyses to assist IPTs in software defect prevention and reduction as well as cost and schedule adherence. {A017}[WBS 1.1.1.3]

3.1.1.7.1 Software Lifecycle Activities. The LSI shall conduct SoS software requirements, architecture, and design reviews to ensure the development and maintenance of the FCS SoS/FoS software solutions are integrated across all of the UA Battlefield Functional Areas, UE, and Home Station Operating Center (HSOC) to meet FCS requirements and operational architecture demands. The LSI shall also participate in other software reviews to ensure FCS SoS/FoS integration. The LSI shall prepare, deliver for approval, and maintain the FCS SoS/FoS software architecture description document (SADD). The SADD will address implementation and maintenance of an open architecture that enables industry to develop modular battlefield software enhancements to increase the operational effectiveness of the UA, UE and HSOC. The LSI shall develop a software transition plan to identify resources required to maintain and support delivered software. The will develop a phased software integration plan that includes initial development and a roadmap/plan for software upgrades, including tactical, that

support both Increment I, and subsequent increments, taking into consideration the Army Software Blocking Plan. {A017, A036} [WBS 1.1.1.3]

3.1.1.7.2 Software Configuration and Quality Management. The LSI is responsible for SoS/FoS software configuration management per the CDM Plan, including operation of the FoS level software configuration control board. The software management team maintains the software item database, software configuration management database, and software problem reporting database. The LSI shall ensure that all software developed or modified (including source code, firmware and supporting documentation) under this agreement shall be accessable through the FCS ACE and become Government property at the end of SDD. The LSI shall develop and maintain a software quality assurance plan. The team shall perform software quality product and process audits of LSI software activities and supplier software quality engineering. {A017} [WBS 1.1.1.3]

3.1.1.8 Performance Assurance. The LSI shall ensure SoS and FoS performance is effectively and efficiently achieved to specific documented criteria. The LSI will define SoS and FoS performance by such criteria as: Key Performance Parameters (KPPs), prioritized ORD threshold and objective requirements, Technical Performance Measures (TPMs), Measures of Effectiveness (MOEs), system security, producibility, parts/materials/processes, and affordability. The LSI shall conduct performance test and analysis at the small unit (company) level to establish integrated SoS effectiveness measures across the UA Battlefield Functional Areas (BFA). The LSI will conduct SoS level analysis to evaluate UA Force Effectiveness compared to the SoS specifications. {A020, A021} [WBS 1.1.1.2.5, 1.1.1.2.6, 1.1.1.4.4]

3.1.1.9 SoS Verification. The LSI shall conduct a verification program to support the decision to proceed with IP, and provide verification data for Government evaluation of SoS performance by the Joint Interoperability Test Command and Army Test and Evaluation Command. {A021, A022, A029} [WBS 1.1.1.2.7]

3.1.1.10 FCS Incremental Development Plan. The LSI shall define and maintain an event driven plan for integrating, scheduling, measuring, and controlling the evolution of the FCS System of Systems development, test, and fielding leading to Full Operational Capability (FOC) of the Unit of Action. This plan will integrate the elements of the FCS program including LSI, Government entities representing DARPA and AMC (Science and Technology Objectives), TRADOC, suppliers, and complementary programs and other services and Government Agencies associated with Objective Force Block #2 and #3 efforts.. The LSI will define risk reduction activities and affordability/Life Cycle Cost containment analyses with incremental development objectives for each program event. The LSI will include within the plan the methodology and details for incrementally improving capability throughout the FCS life cycle based on incremental upgrades and technology insertion to include spiral of Increment I deferred systems that comprise the FCS FoS. The plan shall include a logical roadmap to synchronize subsequent CTD work in an effective sequence from FCS Increment I capability to the FCS objective capability. The plan shall be structured to accommodate insights gained from subsequent FCS CTD work, AMC/DA Science and Technology Objectives efforts, and TRADOC continuous requirements development. {A023} [WBS 1.1.1.2.10]

3.1.1.10.1 Incremental Upgrade Strategy. Within the FCS Incremental Development Plan, the LSI will define Increment I configuration and corresponding capability and

provide baseline descriptions of future increments necessary to meet the objective ORD requirements. The LSI will also include in the plan both critical software upgrades that will be fielded between increments and regular software upgrades that will be implemented at increment boundaries. The software upgrade plan shall provide for continuous commercial innovation and development of software that will increase UA operational effectiveness consistent with the UA O&O plan. [WBS 1.1.1.2.10]

3.1.1.10.2 Technology Insertion. The LSI will monitor relevant maturing technology to identify opportunities for technology insertion either to ensure avoidance of system obsolescence and associated sustainment problems or to provide a high payoff system performance enhancement that results from technology that has matured between planned increments. [WBS 1.1.1.2.9]

3.1.1.10.3 Provisions for Growth. The LSI shall specify and implement FCS FoS and associated FCS System of Systems architectures that include provisions for design margin and growth consistent with the FCS Incremental Development Plan. The LSI shall include growth provisions and flexibility to accommodate future technologies to meet User requirements development/refinement. The LSI shall design the FCS to facilitate growth to full objective capabilities. The LSI shall conduct appropriate design studies IAW the Incremental Development Plan to determine needed design parameters enabling subsequent capability upgrades to be readily inserted without significant redesign and retrofit. The LSI shall design in additional capacity (such as space, weight and power), and shall also incorporate the design "hooks"/interfaces to facilitate adding the growth capabilities.

- The LSI shall analyze objective performance requirements associated with increment 1 Thresholds and design the Increment I FCS with capacity and interfaces needed to facilitate objective capability enhancements without significant redesign

- For systems identified as spiral development candidates (e.g. CL II UAV, ARV-A, ARV- RSTA, IMS, LAM), the LSI shall address the overall impact to the FCS (both at the System of Systems and at the platform/FOS level), to include impacts to network, C2, Workstations, supportability, etc, and identify appropriate growth provisions to be incorporated in the initial FCS design.

[WBS 1.1.1.2.10]

3.1.1.11 Technology Management. The LSI will define and monitor current and planned technology maturation and insertion plans across all planned increments. The LSI shall develop a maturation scheduling strategy, and perform analysis, risk identification, and planning for programmatic integration of critical technologies into Increment I. The LSI shall specify technologies and risk reduction strategies for proposed future increment technologies with technology readiness levels below TRL 6. The LSI shall coordinate with PM,FCS, TRADOC, AMC and DARPA to identify technologies requiring further maturation (i.e., those not sufficiently mature to use in Increment I IP) and provide associated SDD technology development data to assist in transitioning these technologies from SDD into Increment II CTD. This data shall be accessible through the FCS ACE. {A024} [WBS 1.1.1.2.9]

3.1.1.12 SoS Logistics Management. The LSI shall provide the planning, management and integration, of all logistics functions to include the implementation of Performance Based Logistics IAW DoD 5000 series, DoD Future Logistics Enterprise (FLE) - U.S. Army PBL Implementation Guide, and the guidance of TRADOC Maneuver

Sustainment Concept. In close coordination with the Army, the LSI shall conduct logistics planning, analyses, and testing, and develop and recommend technologies, processes, procedures, and performance metrics to achieve logistics footprint and operational support cost reduction and to ensure logistics and readiness requirements are met across the FCS SoS. The LSI shall submit maintainability and reliability considerations for interoperability to TRADOC (through UAMBL to CASCOM). {A025, A027} [WBS 1.1.1.7]

3.1.1.13 Programmatic Environmental, Safety and Health Evaluation (PESHE). The LSI shall update the PESHE including integration of ESOH design considerations. The LSI shall comply with applicable Federal, State and Local regulations and statutes. {A028} [WBS 1.1.1.6.4.4]

3.1.2 Simulation and Modeling for Acquisition, Requirements, and Training (SMART)

The LSI shall manage, coordinate, and as required develop, in collaboration with the Government and suppliers, SoS and FoS performance level modeling and simulation (M&S) capability for use in analyzing requirements, evaluating design performance, and supporting system and SOS level testing IAW relevant sections of the Simulation Support Plan. The LSI, in close coordination with TRADOC, AMC and other Army organizations, shall develop requirements for constructive and virtual simulations for trade studies, SoS force effectiveness and performance assessment, requirement validation, design analysis, and test planning and design to support demonstrations and tests. The LSI shall serve as the enterprise level integrator to ensure FCS M&S efforts addressing requirements, design, training, manufacturing, and production are not being duplicated among the efforts of the LSI, subcontractors, and Government, and to leverage reuse and commonality of M&S tools to include AMC RDECOM facilities and capabilities for materiel research, development and evaluations, as well as TRADOC Battle Lab and school facilities conducting experimentation efforts focused on Unit of Action DOTMLPF requirements development and demonstration. The LSI will ensure integration and cross leveraging of M&S between appropriate program elements. The LSI will ensure M&S representations are consistent among the Government, LSI, and suppliers. The LSI will ensure that the modeling and simulation capability developed in support of SDD also supports planned future increment processes and functions (e.g., training, post deployment software support, supportability, and interoperability). However, the LSI shall not develop models, simulations or architectural artifacts for which there are effective and efficient alternatives existing within the Government as defined in the SIL Development Plan unless specifically authorized by the Government. Government M&S capabilities include, but are not limited to: OneSAF/OTB, CASTFOREM, Janus, VIC, STORM, OASIS, JDEP, and Virtual Proving Ground. The LSI shall maintain and update Government furnished models and simulations as required. The LSI shall ensure that any models, simulations, architectures, and documentation (including source code) necessary for full functional use, maintenance and upgrade of the M&S developed under this agreement will be accessible through the FCS ACE and become Government property at the end of SDD, in accordance with 3.1.1.7.2. [WBS 1.1.1.4]

3.1.2.1 Force Effectiveness Modeling. The LSI shall coordinate and support, among LSI, Government, Industry sources and User Representatives, Operational Analyses, including modeling of interfaces, designs, and testing as necessary to

evaluate FCS Increment I Force Effectiveness. The LSI shall document and receive approval of Force Effectiveness SoS, FoS, and UA analysis results through an FCS ACE workflow (that includes: HQ TRADOC, TRAC and UAMBL). HQ TRADOC (ICW TRAC and UAMBL) shall approve both plans and results that in any way affect or represent the force effectiveness of either FCS FoS, SoS or the UA. The LSI will develop, provide analysis data in support of TRADOC development of scenarios. The LSI shall coordinate the maintenance and utilization of scenarios in support of Force Effectiveness evaluation and FCS design specific performance evaluations. All Environment (scenario, terrain, and weather) and Behavior (employment and TTP) data sets for analysis will be approved by TRADOC (specifically HQ TRADOC ICW TRAC and UAMBL). Army Materiel Systems Analysis Activity (AMSAA) certifies performance data. The LSI shall develop and maintain a library of scenario results within the FCS ACE for comparison as the design evolves. {A030} [WBS 1.1.1.4.2]

3.1.2.2 SoS and FoS Modeling and Data Description. The LSI shall develop or acquire Government accredited system level modeling and simulation of the following: responsiveness, deployability, agility and versatility, lethality, survivability, sustainability, training, interoperability, availability, vulnerability, and information management. The LSI shall develop simulation federation architecture design alternatives for virtual (realtime) and constructive (non-realtime) SoS simulations. The LSI will coordinate the use of this modeling and simulation capability across SoS and FoS development, testing, and other User Representative support as needed to evaluate FCS performance for selected designs IAW the Simulation Support Plan. [WBS 1.1.1.4.3]

3.1.2.2.1 System Modeling. The LSI shall coordinate and manage the integration of each system's variant models, emulations, and simulations into the SoSIL, other SILs, and test environments to support development and integration with other elements of the SoS and to ensure both SoS and FoS level demonstration and test objectives are met. The LSI will ensure that individual system-to-system interfaces are validated prior to SoS level integrated test and evaluation. [WBS 1.1.1.4.3]

3.1.2.2.2 Distributed Product Description (DPD). The LSI shall develop and maintain a DPD consisting of system/subsystem reference models for each system's variants, including physical, dynamic, behavior, and other models as required to support ongoing analyses and integration tasks, to verify and analyze performance and other considerations with respect to requirements in the SoS specifications, and to ensure commonality and affordability of system elements within the context of the FoS. The LSI, working in conjunction with Army Materiel Systems Analysis Activity (AMSAA) and other AMC organizations, shall provide performance data for FCS systems translated into inputs for the Army operational simulations (e.g., this includes but is not limited to ONE Semi automated forces (ONESaf) Test Bed, CASTFOREM, JANUS). The DPD feature shall be available for Government access via the FCS ACE. [WBS 1.1.1.4.3, 1.1.1.5.2.1]

3.1.2.3 Simulation Development, Verification, Validation, and Accreditation and Support. The LSI will provide and implement the necessary Modeling and Simulations (M&S) processes and standards to coordinate simulations development and utilization in support of FoS design evaluation and SoS performance verification. The LSI shall verify and validate models and simulations used for the FCS design, development, and test and evaluation in compliance DA PAM 5-11 and the LSI developed FCS Simulation Validation and Verification Plan, provide verification/validation data to support Government accreditation of models and simulations, and conduct validation and

verification of simulations that will support a virtual Operational Test prior to IPD. {A031} [WBS 1.1.1.4.3.3]

3.1.3 SoS Integration Laboratory

The LSI shall design, develop, use, and maintain a SoS Integration Laboratory (SoSIL) with data and analysis results accessible through the FCS ACE, IAW the System Integration Laboratory (SIL) development and maintenance plan for the program life cycle, for use in SoS development, integration, and test. The LSI will provide detailed design, interface, and utilization information in separate documents available for Government review and comment. The LSI shall establish system simulators at supplier sites as appropriate and provide a framework and detailed interface definitions to integrate simulators across the dispersed sources/User Representatives, including interfacing with complementary programs hardware, software, and SILs, in both industry and Government, IAW SoS test plans. The LSI shall provide interfaces to the DoD Joint Distributed Engineering Plant for interoperability testing, to the AMC RDECOM Laboratories, and to Army technical test capabilities (specific Government site locations requiring interfaces will be as mutually agreed to between the Government and the LSI). The LSI, shall facilitate through the DREN (Defense Research Engineering Network) a link for RDECOM's Laboratories, ATEC facilities, and TRADOC Battle Labs and schools to the LSI SILs and SoSIL to enable concurrent engineering design development and evaluation with User Representative continuous and consistent requirements determination and development to occur between LSI and Government virtual development and prototyping facilities and to avoid duplication of Government capabilities and events. The LSI shall furnish all emerging performance data to AMSAA for validation. {A032} [WBS 1.1.2.1.4.1]

3.1.4 System of Systems Program Management and Control

The LSI shall provide integrated program management, program control, agreement and subcontracts management, data management, and operations management associated with the LSI overarching management of the FCS SoS activities. The LSI shall conduct subcontract procurement activities in an open competitive environment IAW the Competition Process Plan to allow the selection of the best of industry or Government sources for major FCS products. The LSI shall support PM FCS in program contingency planning (e.g., funding changes, threat evolution, requirements changes). The LSI shall use Integrated Process and Product Development (IPPD) as defined in Article IV of this OTA. The LSI shall report management performance metrics at program management reviews. [WBS 1.1.1.6]

3.1.4.1 Program Management. The LSI shall provide the executive level leadership to implement and control FCS program cost, schedule, and performance activities through Agreement closeout. The LSI will conduct monthly PM FCS program status and management reviews and quarterly FCS SDD reviews to the FCS Board of Directors. The LSI will be the primary focal point to the Government FCS Program Management Office, conducting, coordinating, integrating, and administering all aspects of LSI program management IAW the SDD IMP and IMS and using the FCS Program Plan as guidance, leading to a successful Increment I IPD decision and completion of SDD efforts. The LSI will perform technical level management and administration for the development of SDD products. The LSI shall maintain on the ACE a current FCS roster, identifying members by IPT and by Working Group. [WBS 1.1.1.6.4]

3.1.4.1.1 Program Reviews. The LSI will conduct reviews IAW the FCS Program Plan Summary and IMP/IMS to assess SoS program/technical maturity. [WBS 1.1.1.6.3]

3.1.4.1.2 Program Risk Management. The LSI shall execute program risk management by identifying, assessing, and ensuring mitigation of program risks, with separate identification of risks associated with the SoS COE. Each risk identified shall include an assessment of technical, cost, schedule, and programmatic risks IAW the Risk Management Plan. {A033} [WBS 1.1.1.6.4.2]

3.1.4.1.3 Program Documentation and Briefing Support. The LSI shall coordinate generation of information requirements for IPD and other programmatic support, including providing data for PM FCS program briefings and participating on Government Working IPTs. [WBS 1.1.1.6.3.1]

3.1.4.1.4 Program Protection. The LSI shall provide for security of both classified and unclassified information, data, hardware, and software generated for the program. The LSI shall comply with and provide security procedures and processes to satisfy the security requirements identified in the DD Form-254, which specifies requirements for Top Secret-Special Compartmented Information (TS-SCI), Communications Security (COMSEC), National Industrial Security Program Operating Manual (NISPOM), NISPOM Supplement, NISPOM Overprint, Program Security Guides, Security Classification Guideline, DoD 5100.76-M, and AR-380-381 (Special Access Programs); and the Program Protection Plan. [WBS 1.1.1.6.4.4]

3.1.4.1.5 Data Management. The LSI shall coordinate, monitor, and deliver contractually required data items on the FCS ACE unless otherwise specified. [WBS 1.1.1.6.1.3]

3.1.4.1.6 Integrated Product Team Training. The LSI shall conduct IPT training for Level II and III IPTs within 30 days of their IPT Charter being established. The LSI will establish an IPT training program for individuals who are assigned to an established IPT after the initial training period. The IPT training shall address as a minimum the IPT's charter and structure; conflict resolution; cost, schedule, and performance baselines; Agreement modification process; and common practices.

3.1.4.2 Subcontractor Management. The LSI shall maintain competition throughout the life cycle at the subcontract level IAW the Competition Process Plan. The LSI will ensure utilization of Best Commercial Practices and Best Public-Private Partnerships to reduce cycle times and cost. The LSI will proactively participate in the FCS supply base Make or Buy plans, evaluation criteria, and decision-making processes. The LSI shall manage subcontractor activities to facilitate on-time delivery of quality products consistent with the contractual, cost, technical, and schedule constraints, and ensure coordinated and consistent direction aligned with program objectives. The LSI will coordinate with the suppliers through the LSI Integrated Product Teams (IPTs) and the assigned onsite Major Subcontract Managers (MSM) concerning subcontractors' scopes of work, data deliveries, and funding. The Competition Process Plan shall be available for Government review on the FCS ACE. [WBS 1.1.1.6.1.2]

3.1.4.3 Agreement Management. The LSI shall administer and comply with this Agreement. [WBS 1.1.1.6.1]

3.1.4.3.1 Export & Import Compliance. The LSI shall comply with applicable regulations and statutes regarding exports and imports. [WBS 1.1.1.6.1]

3.1.4.4 Program Management Coordination with Complementary Programs. The LSI shall ensure that the FCS systems developed under this Agreement incorporate the Complementary Programs listed in Attachment 11 needed to fulfill the requirements call out in the SoS Specification; and meet the Army's requirement for successful UA Increment I FOC, including those UE, Legacy, Interim, Joint, International and Multinational interfaces needed to make the UA operational. The LSI shall develop and implement a Complementary Programs Management Control Plan that shall include the process for identifying and managing Complementary Programs. The Plan shall include coordination and interfaces with the UA Supportability Strategy, Fielding Team activities and Material Fielding Agreements prepared by the Supportability IPT and Materiel Fielding sub-IPT. {A038}

3.1.4.4.1 The LSI shall develop a database of the Complementary Programs needed to establish interfaces and meet the FCS UA Increment I Capabilities Specification requirements in accordance with the CDRL. {A061}

3.1.4.4.2 The LSI shall integrate the complementary program schedules into the overall FCS program IMP/IMS. The LSI shall provide System of Systems recommendations for the SDD FCS Increment I phase Complementary Program integration from analysis of IPT inputs and EVMS data.

3.1.4.4.3. The PM FCS, with LSI support, will work with PEO GCS in establishing Memorandums' of Agreement (MOAs) with the Complementary Programs' Government Program Executive Offices (PEOs) and Subordinate MOAs (SMOAs) with the Program Managers of Army Material Command (AMC) item managers, Research Development Engineering Centers (RDECs), and other Government Agencies to help ensure the definition and management of program interfaces between FCS and complementary programs are adequate to effect required FCS performance. The LSI, with PM FCS support to the extent possible, will, concurrent with Government MOA and SMOA development, establish and manage Associate Contractor Agreements (ACAs), as necessary, with the prime contractors, subcontractors, and/or Original Equipment Manufacturers of identified FCS complementary programs. Complementary programs ACAs shall reference detailed Material Fielding Agreements (MFAs) which shall be developed during SDD by the Material Fielding sub-IPT in coordination with the responsible complementary program office personnel.

3.1.4.4.4 The LSI shall identify issues and recommend risk mitigation efforts associated with complementary programs development and integration.

3.1.4.4.5 The development cost of the Complementary Programs technologies required for the successful execution of the FCS SDD Program is not funded through this FCS SDD Agreement, except for the following aspects of specific Complementary Programs:

Complementary Program	Technology	Specific Configuration Changes Dependent upon Completing Current Development	Hardware Required for Prototype Testing
CP387, Ground Standoff Mine Detection System (GSTAMIDS)	Ground Sensors, Procurement Package 12	X	X
CP143, Emitter Mapping (Prophet 2/3)		X	X
CP334, Class IV EO/IR (aka Advanced Electro-Optical / Infrared and ASTAMIDS –(Air Standoff Minefield Detection System)	Air Sensors, Procurement Package 14		X
CP49 Class 4A SIGNITPayload (Tactical SIGINT Payload)			X
CP403, Joint Tactical Radio System (JTRS) Cluster 1	Ground and Air Communications, Procurement Packages 24 and 25		X
CP176 Joint Tactical Radio System (JTRS) Cluster 5			X
CP32, ATIA-M	Manned Ground Vehicle	X	
CP80, CTIA	Manned Ground Vehicle	X	
CP264, One SAF Objective System RDTE	Manned Ground Vehicle	X	
CP184, Lightweight 120mm Cannon for Mounted Combat System	Manned Ground Vehicle (MGV) Mounted Combat System (MCS)	X	

[WBS 1.1.1.6.5, 1.1.2.1.2.11]

3.1.4.5 Business Management. The LSI shall implement the necessary business management functions to ensure all budget and schedule constraints are met during SDD and shall provide necessary schedule, financial, and other program progress reporting. {A039, A040, A041} [WBS 1.1.1.6.2]

3.1.4.5.1 Earned Value Management. The LSI shall implement an earned value management approach to ensure program leadership properly manages the use of LSI and subcontractor resources (dollars and manpower) and meets or exceeds all program schedule and technical requirements. This management system includes applying effective management control systems as set forth in Article IV of this Agreement that provide disciplined cost and schedule and technical performance data in a timely manner for program management decision making. [WBS 1.1.1.6.2]

3.1.4.5.2 Integrated Planning/Scheduling. The LSI shall ensure adequate plans are developed to support successful execution of all work projects and programs. This planning and scheduling shall be reflected in a single Integrated Master Plan (IMP) and Integrated Master Schedule (IMS), including demonstration, maintenance, and analysis of critical path for both prime and subcontracts. {A043} [WBS 1.1.1.6.2]

3.1.4.5.3 Government Furnished Property (GFP) Management. The LSI shall manage GFP in accordance with the terms and conditions of the Agreement. [WBS 1.1.1.6.2]

3.1.4.6 FCS Advanced Collaborative Environment (ACE). The LSI shall provide a well organized, intuitive, and rapid electronic collaborative access to a single integrated source of management information, product information, and technical data IAW the FCS Advanced Collaborative Environment (ACE) Implementation Plan. The LSI shall develop, track and routinely report metrics for the FCS ACE to monitor the utility, the support, and the User Representative satisfaction with the interface. The FCS ACE shall be developed to serve as the primary FCS program management decision support system. In addition, the LSI will develop, maintain, and mature the FCS ACE to serve as the primary means of creating, sharing, reporting, collecting, recording, accessing and approving program information between the LSI, authorized FCS major/critical subcontractors, and authorized U.S. Government personnel connected with the FCS program. The LSI shall develop a Distributed Product Description within the FCS ACE organized by the JTA-A views (Operational, Technical, System, System of System) as described in the Simulation Support Plan. The LSI will provide the FCS ACE application development, deployment, software and hardware support, training, infrastructure and sustainment as required. The LSI shall develop and deploy interfaces to selected Government data environments to include the Army Test Incident Reporting System (ATIRS) and Vision hosted by ATEC, and AARMS hosted by TRADOC. The FCS ACE shall support an emerging Interoperable Modeling and Simulation Environment (IMSE) by serving as the single authoritative source of data, and mapping product information to M&S data. The FCS ACE shall accommodate the exchange of information between the system engineers and User Representatives to enhance LSI design work as envisioned in SMART activities. For validation of design information by AMSAA prior to use in modeling, the LSI shall ensure that the FCS ACE provides a means to logically trace this design information to performance requirements. Nothing in this paragraph (3.1.4.6) shall require the LSI to provide infrastructure to Government sites. {A045, A062} [WBS 1.1.1.5]

3.1.4.7 Production Operations Planning & Product Assurance. The LSI shall develop an Enterprise Production Plan for production transition from SDD to IP and then to Full Rate Production (FRP). This planning will include identification of necessary IP Long Lead items, as well as IP-phase deliverable product quantities. The LSI shall provide product assurance and quality support at all levels of product development and manufacture. The LSI will ensure that production planning supports program objectives, risk mitigation, lean manufacturing, commonality, best practices, breakout opportunities, logistics production, and production readiness, and will ensure related facility planning supports program requirements throughout the program lifecycle. All long lead, initial production, and full rate production planning data will be IAW the Enterprise Production Plan which outlines the strategy, plan, and approach to manage and mitigate risk leading to IP. {A046} [WBS 1.1.1.8]

3.1.4.7.1 Production Operations Planning. The LSI shall provide management, oversight, and support to ensure accomplishment of production development, readiness, and supportability planning throughout the program lifecycle. The LSI shall determine and report on industrial capabilities. The LSI will provide management, oversight, and support to ensure facility development, readiness, and supportability planning meets program requirements for cost, schedule, risk, rate, and technology insertion at all levels

of manufacture for hardware platforms, common subsystems, and major/critical systems/components. {A047} [WBS 1.1.1.8.1, 1.1.1.8.3, 1.1.1.8.4]

3.1.4.7.2 Product Assurance & Quality. The LSI will use its product assurance and quality standards to ensure delivery of hardware platforms, common subsystems, software, and major/critical systems/components that meet program requirements and are available to support testing and demonstration during the SDD phase. [WBS 1.1.1.8.2]

3.1.4.7.3 Production Design Updates. Subject to Article XIII (Modifications), the LSI shall accept hardware and/or software design/code changes made during parallel FCS IP design activities to support ongoing SDD hardware and/or software efforts and incremental development planning. The LSI shall likewise assess completed design/code updates made to hardware and/or software in ongoing SDD efforts for incorporation into the next occurring IP effort. The LSI shall post design changes to the FCS ACE after approval of changes via the FCS change control process IAW the CM Plan. [1.1.1.2.4.1]

3.1.4.8. Home Station Operation Center (HSOC). The LSI shall develop and document the requirements and design for the FCS HSOC. HSOC requirements analysis and design definition activities shall define a networked, in-garrison, battle command planning capability, and interoperability requirements for seamless operations with FCS training and logistics systems. The LSI shall perform the systems engineering, design engineering, site surveys and configuration designs to identify the facility design criteria, the detailed list of equipment, communications connectivity, information protection, war fighter-machine interface, software configuration items, modes of operations, training and supportability provisions and the installation sites. The LSI shall maximize use of FCS embedded hardware and software functionality to satisfy HSOC requirements. The LSI shall also develop a detailed HSOC implementation and procurement plan. The detailed implementation plan shall identify cost, schedules, unique site installation requirements, implementation risk, and recommended facility modification suppliers. The LSI shall coordinate with appropriate customer organizations to assure expectations are being met. {A019}

3.2 FoS ENGINEERING, DEVELOPMENT, AND INTEGRATION

The LSI is responsible for the engineering, development, and integration, including all associated subcontractor performance of FoS units. The LSI shall ensure that a "pit stop engineering" like design approach is an integral and concurrent part of the design activities for the FCS FoS. This design approach includes: generation and application of a "pit stop engineering and maintenance" type efficiencies into the design philosophy and standards of excellence, training of the Integrated Product Design Teams on the "pit stop" design approach and illustrative examples, fabrication and use of scaled and full scale mock-ups, and the conduct of periodic interactive design reviews to apply standards of excellence and gage progress. Using a "pit stop" approach, the LSI will design to minimize logistics activities emphasizing MANPRINT considerations and supportability/maintainability issues in the battlefield environment. This philosophy takes into consideration ease of maintainability at the lowest possible level ensuring that all unit service/repair actions can be performed quickly in the battlefield environment. This philosophy shall also include embedded training to facilitate ease of use by the operator

and maintainer. The LSI shall flow down FCS UA Increment I Capabilities Specification interface, performance, and affordability requirements by ensuring provision for these requirements in the engineering, products, and services required to design, build, procure, and test real or virtual prototypes for the integrated Family of Systems. The LSI shall integrate complementary systems necessary to provide the required capabilities. The LSI will provide for competitive procurement and management of systems and subsystems to ensure best of industry and Government involvement in the development of the FoS elements. [WBS 1.1.2]

3.2.1 FoS Analysis and Integration

The LSI shall conduct performance, design, and affordability analyses/trades, and requirements flow down within the context of the FoS to maintain baseline performance, functional, physical, and logical integration. This includes MANPRINT at both the individual and integrated FoS levels. {A014} [WBS 1.1.2.1]

3.2.1.1 FoS Integration and Trades Analysis. In close coordination with PM FCS and TRADOC, the LSI shall perform performance analyses and trades across the FoS to ensure integrated Manned/Unmanned Platforms/Vehicles (MUPVs) and the supporting C4ISR network meet SoS requirements. The LSI shall analyze requirements/design to balance system operational performance characteristics (e.g., responsiveness, deployability, agility and versatility, lethality, survivability, sustainability, training, interoperability, availability, and vulnerability) to establish required performance and affordability parameters. The LSI will work with TRADOC to ensure trade decisions consider the larger impact of UA and other OF requirements development. Cost as an Independent Variable (CAIV), producibility, testability, and safety shall be included in the analysis/trades process. The LSI shall support efforts with ongoing Government analysis of a SoS supportability model to identify potential trades to reduce logistics footprint and life cycle costs. The LSI shall ensure that changes to performance requirements, such as reliability, availability, maintainability, and testability (RAM-T), resulting from trade studies are approved through the established configuration management process. {A014, A034} [WBS 1.1.2.1.3.1]

3.2.1.2 Technical Baseline Management and Control. The LSI shall perform tasks to manage and control the FoS technical baseline, including definition and conduct of FoS level trade studies, interface control for both software and hardware across the Family of Systems and from FCS FoS to complementary systems. Configuration Management shall be performed IAW with SoS CM guidance, including CM custodial responsibility for FCS to complementary programs ICDs as defined in complementary programs Government MOAs. The LSI shall create and maintain the Master Equipment List (MEL) and FoS architectures and specifications. The LSI shall manage and maintain a performance baseline of system and subsystem attributes necessary for SoS/FoS analysis, modeling, and simulation, consistent with the Army FCS UA Systems Book. {A011, A014, A018, A034} [WBS 1.1.2.1.3]

3.2.2 Distributed Network Development and Integration

The LSI shall define, design, procure, build, integrate, and test a Networked Battle Command System across the FoS IAW the Software Development Plan (SDP), SoS specifications, C4I SP, TEMP, and applicable segment and subsystem specifications.

The LSI will ensure the FCS ACE supports movement of data in and out of SILs to facilitate this Networked Battle Command/C4ISR capability.{A017, A037} [WBS 1.1.2.2]

3.2.2.1 Distributed Network Analysis and Integration. The LSI shall conduct performance and design analyses including all FoS elements with the integrated Networked Battle Command/C4ISR capability to maintain baseline performance, functional, and logical integration. The LSI will perform network performance analyses and trade studies, develop the network configuration, and manage the Distributed Network architectures and requirements including the interfaces to systems and platforms external to FCS and internal FoS system-to-system interfaces. {A006, A009, A018 } [WBS 1.1.2.2.2]

3.2.2.2 Distributed Network SIL. The LSI shall develop, utilize, and maintain the Distributed Network SIL to support analysis and testing of network functions IAW the SIL development plan. The DREN will use the actual Networked Battle Command system being developed to the maximum extent possible. {A032} [WBS 1.1.2.1.4.5]

3.2.2.2.1 System Development, Integration and Simulation. The LSI shall use Networked Battle Command/C4ISR element emulation, simulation, and hardware in the loop techniques to design, develop and integrate the diverse components of the integrated Networked Battle Command/C4ISR system and to verify that the proposed design meets the FCS SoS and Networked Battle Command/C4ISR Segment Specifications. [WBS 1.1.2.1.4.5, 1.1.2.2.2.4]

3.2.2.3 System of Systems Common Operating Environment. The LSI shall define, develop, procure, fabricate, integrate, and test the System of Systems Common Operating Environment (SoS COE) information management backbone and application interface structure for implementation of the distributed network. The LSI shall develop the information assurance applications and services that are common across the network, and perform information assurance risk assessments and mitigation. The LSI shall lead in an Application Program Interface working group consisting of itself, industry partners, and Government as co-lead to address and resolve all SoS COE services and interfaces. The LSI shall define and manage the implementation and configuration, including the interfaces of the SoS COE. The LSI shall develop a SoSCOE subcomponent migration plan that addresses the targeted technology for integration into the incremental verisons of FCS. The LSI shall establish a performance evaluation matrix to support procurement and testing of the SoS COE components. The LSI shall integrate and test the SoS COE system with platform/vehicle systems/subsystems. The LSI shall develop or acquire, and deliver (via the FCS ACE) all databases, data sets, and software required to operate the SOS COE, to include ontologies and task integration networks, and make the SoS COE fully functional under operating conditions. {A007, A018 } [WBS 1.1.2.2.4

3.2.2.4 Communication. The LSI shall define, develop, procure, fabricate, integrate, and test the networked communications. {A007, A018 } [WBS 1.1.2.2.6]

3.2.2.5 Intelligence, Surveillance and Reconnaissance (ISR). The LSI shall define, develop, procure, fabricate, integrate, and test the distributed ISR elements and application software, including soldier interfaces, common sensor interface, Level 1 fusion with organic and non-organic sensor feeds, and Sensor Data Management for the FCS. The LSI shall develop or acquire, and deliver (via the FCS ACE) all databases and

data sets required to operate the aforementioned software, to include all parameters employed by target recognition and fusion algorithms, and make it fully functional under operating conditions. {A007, A018 } [WBS 1.1.2.2.5]

3.2.2.6 Command and Control. The LSI shall define, develop, procure, fabricate, integrate, and test the distributed command and control application software, including soldier interfaces, mission planning, situational awareness and understanding, and battle management for the FCS UA. The LSI shall develop or acquire, and deliver all databases and data sets needed to operate the aforementioned software, to include default icons, topographic and cartographic data, and make it fully functional under operating conditions. {A007, A018 } [WBS 1.1.2.2.3]

3.2.2.7 Training Applications. The LSI shall define, develop, procure, fabricate, integrate, and test the common and unique training applications for the Distributed Network. {A018 } [WBS 1.1.2.2.10]

3.2.2.8 Supportability Applications. The LSI shall define, develop, procure, fabricate, integrate, and test an integrated Logistics Decision Support System (LDSS), Interactive Electronic Technical Manuals (IETMs), and a Platform Soldier-Mission Readiness System (PS-MRS) to support each MUPV system type. The LSI will define and recommend the interfaces necessary to incorporate appropriate in-lieu-of systems supportability requirements and information interchange applications IAW the Supportability Strategy. {A018 } [WBS 1.1.2.2.11]

3.2.2.9 Network Integration, Test, and Evaluation. Using the Distributed Network SIL, the LSI shall integrate network supporting applications onto the network information management backbone and evaluate their individual and integrated network performance IAW the SoS/FoS distributed network requirements. The LSI generates the formal test plans (including plans for utilization of the Army's Central Test Support Facility) and procedures for verifying network performance against requirements. The LSI will execute the network level verification tests and analyze/report the results. The LSI shall identify and implement corrective actions and perform retests as required. {A042, A048} [WBS 1.1.2.3.4]

3.2.2.10 Distributed Network Site Representation. The LSI shall provide onsite personnel distributed at C4ISR development sites as listed in Agreement Attachment 7 – Office Space and Administrative Support. These personnel shall coordinate the systems and technical architectural views with the operational views, coordinate and oversee sensor R&D and sensor integration efforts being performed in coordination with PM NV/RSTA and NVESD, and perform liaison with PM FCS, PEO C3T, PEO IEW&S and RDEC, to coordinate complementary programs within the PEOs, coordinate the procurement of "special access" systems (DCGS-A, SAR/MTI and UGS) being managed/procured by Ft Monmouth Program Management offices.

3.2.3 Manned/Unmanned Platform/Vehicle (MUPV) System Development and Integration

The LSI shall define and procure, from best of industry and Government sources per the SDD Competition Process Plan, the design, development, fabrication, integration, assembly, checkout, and verification test and evaluation of virtual and real prototypes for each MUPV system. The LSI shall ensure the design of each primary MUPV system

(and applicable variants) meets the requirements provided in the appropriate systems specifications. The LSI shall conduct analyses that balance life cycle cost considerations with requirements in the FCS UA Increment I Capabilities Specification while providing an open architecture approach to maintain commonality across applicable subsystems. The LSI will manage the selected industry sources to ensure FCS FoS level requirements are met and that interfaces between MUPV systems, Networked Battle Command/C4ISR networking nodes, and supportability and training systems are met. The LSI shall perform any required system-to-system integration necessary to validate individual system interfaces prior to SoS level test and evaluation. {A014, A034} [WBS 1.1.2.3, 1.1.2.3.4]

3.2.3.1 MUPV System Analysis and Integration. The LSI shall conduct performance and design analyses in the context of the FoS MUPV systems to maintain baseline performance, functional, and logical integration. The LSI shall perform system performance analyses and trade studies. The LSI shall establish and manage the system architectures and requirements including interfaces. {A006, A014, A034} [WBS 1.1.2.3.1, 1.1.2.3.4]

3.2.3.2 System Integration Laboratories. The LSI shall define, develop, procure, fabricate, integrate, utilize, and maintain SILs as required to support analysis and testing of MUPV system/subsystem functions IAW the SIL development plan. {A032} [WBS 1.1.2.1.4.2, 1.1.2.1.4.3]

3.2.3.3 MUPV Subsystems Development and Test. The LSI shall define, develop, procure, fabricate, integrate, support, and test MUPV subsystems. [WBS 1.1.2.3.2, 1.1.2.3.3]

3.2.3.3.1 Analysis and Integration. The LSI shall conduct analyses evaluating life cycle affordability considerations with requirements in the FCS UA Increment I Capabilities Specification to ensure affordability of subsystem elements. The LSI shall identify, develop and procure subsystems and common subsystems that result in Life Cycle Cost savings commensurate with ongoing developments, competitive procurements, supportability, schedule, future production, and performance considerations. The LSI shall ensure subsystem designs account for integration with their FoS end item systems to meet system level performance requirements. {A014, A034} [WBS 1.1.2.3.2, 1.1.2.3.3]

3.2.3.3.2 Design and Development. The LSI, based on the analyses of 3.2.3.3.1, shall procure prototype common and mission equipment hardware/software end items. The LSI shall develop preliminary and detailed design packages for the integrated common and mission equipment end items, focused on a producible, reliable, sustainable, maintainable, affordable design. The LSI shall define, document, and manage subsystem interfaces and maintain an open architecture design. The LSI shall obtain subsystem prototypes, models, and/or simulations as necessary to support development as well as the tests and demonstrations of 3.2.3.3.3. The LSI shall obtain system models and data necessary to support Government and LSI analysis, and training and decision support applications. The LSI shall procure adequate test hardware to enable required testing to be conducted prior to IPD. {A007, A018 } [WBS 1.1.2.3.2, 1.1.2.3.3]

3.2.3.3.3 Prototype, Modeling, and Simulation Testing and Demonstration. The LSI shall validate defined functionality and performance characteristics of common and mission equipment subsystem prototypes through tests commensurate with specification requirements. In the event a physical prototype is not required for SDD, the LSI shall conduct appropriate functional and performance demonstration through modeling and simulation of the end item to validate functionality and performance requirements. The LSI will ensure the FCS ACE supports movement of data in and out of SILs to facilitate development of the MUPV control software and system. [WBS 1.1.2.3.2, 1.1.2.3.3]

3.2.3.4 MUPV System Integration, Test, and Evaluation. The LSI shall develop and demonstrate a detailed production ready design for each MUPV system variant identified in support of the FCS Increment I capability, including the use of models, emulations, and where necessary, emulated hardware or software as required to provide the necessary data/demonstrations needed to verify readiness for IP. The LSI shall ensure functional, physical, and logical integration of each unique system developed including the distributed network, common equipment, and mission equipment. The LSI shall ensure the system performs within integrated (system-to-system) FoS specification requirements through verification of defined functionality and performance characteristics. To the extent practical, the LSI will ensure prototypes can be refurbished for future testing. [WBS 1.1.2.3.4]

3.2.3.5 Training Applications. The LSI shall define, develop, procure, fabricate, integrate, support, and test the common and unique training applications for the MUPV systems. {A018} [WBS 1.1.2.2.10]

3.2.4 Supportability

The LSI shall develop and document integrated "factory to foxhole" management, products, and services required to design, develop, assemble, integrate, field, sustain and upgrade (through spiral development) and test the supportability processes and supporting automated applications within the FCS SoS. The LSI shall prepare a UA Supportability Strategy that includes an end-to-end automated sustainment capability that integrates supply chain requirements of the UA, UE, and Enterprise Army. The LSI shall perform analyses to aid in life cycle product support decision making to include developing and implementing metrics, performance standards, warranty requirements, and incentives. The LSI shall include supportability product design/interfaces as required to address Army supportability implementation beyond the FoS and/or SoS levels for consistency with the existing and emerging U.S. Army supportability infrastructure. The LSI shall implement supportability architectures and requirements IAW the FCS UA Objective Capabilities Specification and UA Supportability Strategy during the design, development, fabrication, and test of MUPVsystems to achieve the transportability, deployability, and operational availability goals, to reduce life cycle sustainment burdens, and to establish the basis for Performance Based Logistics (PBL). The LSI shall define the Performance Based Logistics (PBL) business processes, develop the PBL performance metrics and standards, design the data management and analysis process, and update the PBL concept for sustainment in accordance with the UA Supportability Strategy. The LSI shall conduct analyses and provide recommendations on the implementation of PBL that considers public, private, and partnership capabilities, to include industrial base considerations. The LSI shall perform the duties of the Product Support Integrator (PSI) for FCS during SDD (e.g., logistics planning, modeling and simulations in order to mitigate risk and verify the reduced FCS logistics burden and

increased readiness and availability). The LSI shall integrate the products and services generated by the Product Support Provider (PSP), the LSI or its subcontractors, in order to meet SoS requirements for the UA. The LSI shall provide results of PBL implementation analyses at each major Increment I SDD program review. {A025, A027} [WBS 1.1.2.4]

3.2.4.1 Logistics Analysis and Engineering. The LSI shall utilize a progressive assurance approach to plan, implement, and manage a supportability and RAM-T program IAW the FCS UA Increment I Capabilities Specification and Supportability Strategy. The LSI shall ensure that the suppliers provide progressive assurance that all RAM-T requirements (hardware and software) are satisfied. LSI shall ensure that suppliers use best commercial engineering approaches to design RAM-T into the platforms and systems early in the design process. The LSI shall establish supportability metrics necessary to gauge the maturation and completion of supportability designs. Supportability metrics shall be tracked to performance under this agreement and shall include as a minimum Operational, Availability, Operations and Support Costs and Footprints. The LSI shall perform logistics support analyses, power management analysis, and engineering design analyses for MUPV systems, common and unique support equipment, and source and level of repair for SoS implementation. The LSI shall plan, develop, implement, coordinate, verify, and validate technical operational and maintenance procedures for each system. The LSI shall develop prototype embedded Class V Interactive Electronic Technical Manuals (IETMs) to support each SDD system type. The LSI shall conduct reliability growth testing, environmental stress screening, and other reliability assurance efforts as appropriate. The LSI shall provide results of RAM-T analyses at each major Increment I SDD program review. {A026, A049} [WBS 1.1.2.1.4.2, 1.1.2.4.2]

3.2.4.2 Logistics Product Integration. The LSI shall integrate supportability products into the SoS elements including diagnostics/prognostics functions. The LSI shall conduct Maneuver Sustainment analyses in accordance with the FCS Supportability Strategy. The LSI shall define Maneuver Sustainment functions common to applicable variants and mission unique products for each variant. The LSI shall identify medical items for integration into medical and combat vehicles. The LSI shall conduct logistics technical reviews at the system, vehicle, and component levels. {A025} [WBS 1.1.2.4.3]

3.2.4.2.1 *Supportability Strategy Development.* The Supportability Strategy shall define the planning, programming, and execution of the support program that meets operational support performance requirements in the most cost effective manner over the total life cycle of the FCS SoS. The supportability strategy facilitates development and integration of the following key integrated logistics support tenants: logistics management information; transportability and deployability; maintenance operations; manpower and personnel; product support management - including performance based logistics and ammunition; facilities; technical data; training and training support; fielding planning; computer resource support and reliability, availability and maintainability. The Supportability Strategy will include all system and equipment in the UA. (A025)

3.2.4.3 Supportability Data Management. The LSI shall develop and provide a database management system that provides access to complete life cycle data for logistics support, including access to supplier data through the FCS ACE. The database

shall include performance specification baselines for future FCS procurements contained in the DPD. The LSI shall ensure data requirements are mapped to sources (to include the diagnostic/prognostic devices utilized in FCS) and cross-walked from there to the supporting applications to include PS-MRS, LDSS, the IETMs, etc. {A051} [WBS 1.1.2.4.3]

3.2.4.4 Supply Chain Management (SCM). Within the construct of PBL, the LSI shall develop and implement a plan, including access to supplier data through the FCS ACE, for the collection of data supporting the integration of all SCM functions associated with FCS systems to ensure that they meet supportability related performance requirements. {A052} [WBS 1.1.2.4.3]

3.2.4.5 Supportability Test and Demonstration. The LSI shall conduct equipment testing and demonstrations for SoS and FoS supportability performance verification. The LSI shall validate Maneuver Sustainment, PBL, and other applicable support concepts during testing and demonstrations. The LSI shall ensure sensor collection of data for logistics decision support system software is adequate to support logistics modeling verification and validation efforts as well as operational PBL. {A026} [WBS 1.1.2.4.1]

3.2.4.6 Fielding. The LSI shall field all FCS Increment I SDD equipment and coordinate the fielding of all other UA systems to meet testing and training requirements. The LSI shall develop plans to support the fielding of Increment I FCS into the UA including IOC and FOC. The LSI shall conduct fielding analyses and recommend the most suitable fielding methodology for the Increment I of FCS into the UA. {A050} [WBS 1.1.2.4.4]

3.2.5 Training Systems

The LSI shall assist TRADOC in their UA Training Developments responsibilities by providing horizontal integration with FCS SDD work to TRADOC's larger UA and OF developments work. The LSI shall provide the management plans, products, verification and validation, and services required to ensure design, development, fabrication, integration, support and test of a UA training program and a FCS FoS and SoS training system capable of meeting FCS UA Increment I Capabilities Specification and System Training Plan (STRAP) objectives consistent with the Army's concept for OF and UA training. The LSI shall perform training management and planning in accordance with established policy, processes, and procedures. The LSI shall develop, document, and allocate an integrated set of training functional, performance, test, and affordability requirements. The LSI shall design the FCS training system as an integral part of the overall SoS design to meet Increment I requirements and provide for future incremental upgrades. The LSI shall develop and deliver a Training Management Plan that addresses the full range of training support products, architectures, infrastructures, and training development, and the management tools required to provide Increment I capabilities in the institution, operational, unit, and self development domains IAW ATIAS. The LSI shall identify, assess, and mitigate training risks as part of the SDD risk reduction effort and coordinate these risk reduction efforts with the SoS Engineering Technical Risk Manager. The LSI will support the distributed network and platform product development efforts as required to implement/include embedded and standalone training designs within FoS products as necessary to ensure these designs meet SoS specification requirements. The LSI shall establish training product design/interfaces to

ensure effective integration with the Army's larger UA and OF training concept and infrastructure IAW the LSI's SoS Architecture. {A005, A053} [WBS 1.1.2.5]

3.2.5.1 FCS Training Systems Engineering. The LSI will ensure training engineering design analyses are performed at FCS SoS and FoS levels and integrated with TRADOC's larger UA training developments, taking into consideration training for individual, maintenance, crew, unit, leader, and staff teams. The LSI shall determine and document training materials not limited to: operator, maintainer, Training Aids, Devices, Simulators, Simulations (TADSS). The LSI will assist TRADOC in their role in developing doctrine, tactics, and training products, as required to support the UA O&O and the Army's OF training concept under development, to include interoperability with complementary programs. The LSI shall perform individual system training analysis and will assist TRADOC in conducting collective task analyses IAW TRADOC Regulation 350-70, Systems Approach to Training Management and Processes, TRADOC Pamphlet 350-70-2, Multimedia Courseware Development Guide, and Advanced Distributed Learning Shareable Content Object Reference Model. The LSI shall develop and implement training architectures and requirements IAW the FCS UA Increment I Capabilities Specification. The LSI shall provide configuration and data management for FCS training products. The LSI shall perform system training analysis to identify potential common components and reuse between embedded training, mission planning, mission rehearsal, as well as other system hardware and software. {A014, A034, A054} [WBS 1.1.2.5.1]

3.2.5.2 Training Systems Integration Laboratory. In support of the SoSIL, the LSI shall develop, utilize, and maintain a training SIL as required to support analysis and testing of training functions and ensure this SIL provides integrated functionality with the SoSIL for both SoS and FoS interfaces. {A032} [WBS 1.1.2.1.4.6]

3.2.5.3 Training Product Development/Integration. The LSI shall, IAW TRADOC Regulation 350-70, Systems Approach to Training Management and Processes, develop and integrate FCS training products for UA training developments and FCS SoS and FoS elements, including simulator development, manned systems training, unmanned systems training, training facilities, training support packages, and system training plan. The LSI shall provide FCS FoS and SoS training performance analysis and system training data through the integrated UA level. {A055, A056} [WBS 1.1.2.5.2, 1.1.2.5.2.5]

3.2.5.4 Developmental and Operational Test – Training. The LSI shall provide training for Developmental and Operational Testing for FoS and SoS performance verification. The LSI shall coordinate with AMC and TRADOC to define and develop training plans and products to be provided in support of test and evaluation activities. {A053, A054, A055} [WBS 1.1.2.5, 1.1.3.2]

3.2.5.5 Training Facilities. The LSI shall assess, survey, recommend modifications or additions, and document the analysis of training facilities, support equipment, training articles, threat training systems and simulators, and simulation models/test beds, training areas, and ranges as necessary to support the training of UA equipped with FCS. {A057} [WBS 1.1.2.5.2.4]

3.2.5.6 Tactical Engagement Simulation System. The LSI shall conduct a trade study in coordination with TRADOC to review the range of options available for using a Tactical Engagement Simulation System (TESS). The LSI will use the results of this

study to develop short and long range plans to employ TESS within the UA. The LSI will ensure that TESS is fully interoperable with existing Combat Training Centers (CTC) and legacy training systems. {A014, A034} [WBS 1.1.2.5.1, 1.1.2.5.1.1]

3.2.5.7 Common Components/Services. The LSI shall conduct trade studies to review the use and implementation of FCS components/services in FCS applications (e.g., Network Battle Command C4ISR, M&S, Training, etc.), FCS common components, and FCS Training common components. The LSI will use the results of these studiesto develop short and long range plans for the FCS equipped UA and as a guide for implementation. {A014, A034} [WBS 1.1.2.5.1, 1.1.2.5.1.1]

3.2.5.8 Training Site Representation. The LSI shall provide onsite personnel distributed as listed in Agreement Attachment 7 – Office Space and Administrative Support. These personnel shall coordinate with the Army G-1 and UAMBL in the refinement of Manpower, Personnel and Training artifacts (MPT, TAD, MER, BOIPFD/QQPRI).

3.3 SoS INTEGRATED TEST & EVALUATION

The LSI shall perform FCS FoS integrated test and evaluation in the SoS environment to verify SoS and system level performance in support of the IP decision process. This verification shall be in accordance with the FCS UA Increment I Capabilities Specification requirements allocated to the SDD Increment I design and include verification of interoperability requirements and interfaces IAW approved interface control documents. This activity includes facilities, resources, test phases, planning, execution, evaluation, and reporting as described below and IAW the TEMP. The LSI shall ensure a contiguous thread of M&S support throughout testing. M&S includes representations of components, systems, forces (UA, UE, Joint, and opposing), and threats; scenario generators; environmental simulators; synthetic stimuli; and event controllers. The LSI will ensure M&S serves as input or nodes on the SILs and SoSIL and wraparounds or players in Limited User Test (LUT), Follow-on Development Test and Evaluation (FDTE), and the Initial Operational Test (IOT) implementing the Standard Simulator Database (SSDB) Interchange Format (SIF). The LSI will use M&S to augment Technical testing where available and appropriate. Where Government M&S are not available or appropriate, the LSI shall procure or develop applicable M&S (see 3.1.2). The LSI shall develop and supply all validation and verification data and artifacts necessary for ATEC accreditation before any M&S is used to support testing. All Environment (scenario, terrain, and weather) and Behavior (employment and TTP) data sets for analysis will be approved by TRADOC (specifically HQ TRADOC ICW TRAC and UAMBL). Army Materiel Systems Analysis Activity (AMSAA) certifies performance data. [WBS 1.1.3]

3.3.1 Test Planning and Execution

The LSI shall define and manage the phases of technical testing required to support the FCS Incremental Development Plan and ATEC System Evaluation. The LSI will participate in the combined test planning activities and provide the necessary test planning, test design, test integration, test execution, test assessment, test reporting, and test analysis. The LSI shall provide and/or obtain the necessary test resources/facilities, including use of modeling and simulation capabilities as discussed in 3.1.2, 3.1.3, and 3.3, to perform tests. The LSI shall develop and update the Integrated

Test and Evaluation Plan (ITEP) and provide updates for the Test and Evaluation Master Plan (TEMP) which describe the overall combined testing strategy and definition of the spectrum of integrated simulation, test, and evaluation activities associated with FCS. {A058} [WBS 1.1.3.1, 1.1.3.2]

3.3.1.1 Test Planning and Design. The LSI shall ensure adequate test planning and testing to support an iterative design and test process using the FCS ACE to distribute test data results IAW the ITEP and the TEMP. The LSI shall define the specific test phases corresponding to FoS development schedules with staggering/overlapping of testing to accommodate the different levels and parallelism of development planned, e.g., prototype vs. modeling/simulation, subsystems vs. integrated system capability. The LSI shall use these test phase definitions in the development of test plans/scheduling/coordination and test designs for the testing to be performed. The LSI shall plan pre-field and field tests, and plan integrated mission tests. The LSI will ensure test plan consistency with the TEMP and support the Army's Combined Test Organization to ensure close coordination with the Army test community. {A058} [WBS 1.1.3.2.1]

3.3.1.2 Test Integration and Execution. The LSI shall prepare test procedures and range documentation. The LSI shall execute SoS and system testing in accordance with the test plans and designs of 3.3.1.1 and the incremental integration process as FoS capabilities become available for test. [WBS 1.1.3.2.2]

3.3.1.2.1 Test Support Package (TSP). The LSI shall provide and administer TSPs capable of sustaining test and evaluation efforts. The TSPs shall be delivered to the appropriate test sites at least 30-days prior to start of each test. The LSI shall conduct maintenance and provide all repair parts, tools, test fixtures, and facilities except those the Government chooses to provide in response to the System Support Package Component List (SSPCL). {A059} [WBS 1.1.2.4.1.3]

3.3.1.2.2 Logistics Testing. The LSI shall provide technical analyses and operations support to all logistics demonstrations and simulations, maintenance training, and system verification, validation, and integration tests to ensure that requirements for RAM-T and supportability are met. [WBS 1.1.2.4.1.4]

3.3.1.2.3 Ballistic Survivability. The LSI shall support Ballistic Survivability testing by providing test planning, test operations, assistance in damage assessment, repair assistance, and procedures review. [WBS 1.1.3.2.1, 1.1.3.2.2]

3.3.1.3 Test Assessment and Reporting. The LSI shall perform requirements analysis, prepare test assessment and data collection plans, and prepare test assessment/data/corrective action reports. The LSI shall prepare the test resources validation/verification plan. The LSI shall establish a test site data management center, collect/reduce/control test data, and perform data authentication. The LSI shall assess the adequacy and quality of tests performed and report raw results of the testing at the conclusion of each test executed. The LSI will reschedule testing where such assessment warrants. The LSI shall provide the Government all requested data from component, system, and SoS level testing in a form usable by the Army Test and Evaluation Command (ATEC) to support Government independent technical and operational evaluation. The LSI shall develop and maintain a Data Acquisition System accessible through the FCS ACE to support data collection efforts during test operations.

Data shall include reports that document significant test incidents in standard Army Test Incident Report System (ATIRS) format and shall be entered into the ATIRS. The LSI will allow and support Government observation and validation of component, system, and SoS testing. {A060} [WBS 1.1.3.2.3]

3.3.1.4 Test Analysis. The LSI shall provide data and analysis of test results to demonstrate that performance requirements are met or an appropriate performance growth model that demonstrates performance progression. The LSI shall jointly review shortfalls with the Government to determine if design changes and/or retesting is required. {A060} [WBS 1.1.3.2.4]

3.3.1.5 Failure Reporting Analysis and Corrective Action System (FRACAS). The LSI shall establish and manage a FRACAS process to support resolution of test incidents through the corrective action process. The LSI shall write test incident reports for tests conducted at non-Government test locations and provide these data to the Government. The LSI will provide data for reliability and maintainability scoring conferences. {A060} [WBS 1.1.3.2.4]

3.3.2 Test Facilities and Resources

The LSI will partner with the Army to define applicable Government test facilities. The LSI shall plan and conduct testing to take full advantage of the existing investment in DoD ranges, facilities, and other resources (e.g., Aberdeen Proving Ground (APG), Yuma Proving Ground (YPG)) wherever practical. The LSI shall supplement the use of existing facilities with the design, development, modification, implementation, integration, and documentation of other required test facilities, support equipment, test articles, threat systems and simulators, test targets/expendables, and simulation models/test beds as necessary to perform the tests defined in 3.3.1.1. The LSI shall maintain the LSI's facilities and resources that are required to support the combined Development Test and Evaluation (DT&E) and Operational Test and Evaluation (OT&E) objectives, to include the equipment needed to perform software maintenance and modification. The LSI shall conduct validation and verification assessments of test facilities/support equipment. [WBS 1.1.3.2.5]

3.3.2.1 Test Support Equipment. The LSI shall design, develop, procure, utilize, and maintain test support equipment for use in the SoSIL. [WBS 1.1.3.2.5.2]

3.3.3 Operational/User Test Support

The LSI shall provide for Government Operational/User testing the equipment operations support, planning, maintenance, and training necessary to execute and complete Government Operational/User testing. This also includes participation in the planning, conduct, and monitoring of Battle Lab exercises. The LSI shall obtain approval from TRADOC prior to integrating doctrine and tactics training during tests. The LSI shall provide training to the Army for Army use of the SoSIL for OT&E. The LSI will participate in writing operational test plans and reports and participate in Operational Test Readiness Reviews (OTRRs) and ATEC System Team (AST) meetings. The LSI will provide data and information to support the Government in writing of: Test Incident Reports for tests performed at ATEC test sites, collection and reduction of data using FCS specific instrumentation and data collection, and gathering data and information required for the issuance of Safety Releases. The LSI shall participate in hardware and

software testing and provide data as necessary to satisfy safety concerns and hazards that have been defined, including SIL as well as field tests. [WBS 1.1.3.2.5.6]

ATTACHMENT 2

DELIVERABLES LIST (CDRL)

A001 FCS Systems Engineering Management Plan Update
A002 TRADOC Integration Support Documentation
A003 FCS UA Increment I Capabilities Specification Update
A004 SoS/FoS Interface Control
A005 SoS Architectures Update
A006 FoS Architectures Update
A007 System/Subsystem Design Description (SSDD)
A008 FCS C4ISR Segment Specification Update
A009 FCS Prime Item Development Specifications
A010 SoS Architecture Development Plan
A011 Configuration and Data Management Plan Update
A012 Manpower Requirements Criteria
A013 Human Systems Integration Report
A014 Trade Study Plan/Report
A015 Life Cycle Cost Containment Plan Update
A016 Life Cycle Cost Estimate
A017 Software Development Plans
A018 Software Specifications
A019 Home Station Operation Center Plan
A020 Performance Assessment Report
A021 System Verification Plan Update
A022 SoS Verification Report
A023 FCS Incremental Development Plan Update
A024 FCS Technology Maturation Plan
A025 Supportability Strategy Update
A026 RAM-T Program Plan
A027 Performance Based Logistics Implementation Plan
A028 FCS Programmatic Environmental, Safety and Health Evaluation (PESHE)
A029 System Integration Plan Update
A030 Force Effectiveness Modeling Report
A031 FCS Simulation Validation and Verification Plan
A032 System Integration Laboratories Development and Maintenance Plan
A033 Risk Management Plan Update
A034 Trade Study Report
A035 Interoperability Analysis Report
A036 Software Architecture Description Document
A037 C4I Support Plan Update
A038 FCS Complementary Programs Management Control Plan
A039 SDD Contract Funds Status Report (CFSR)
A040 Contract Cost Data Report (CCDR)
A041 Cost Performance Report (CPR)
A042 FoS Distributed Network Test Plans
A043 IMS Updates
A044 FCS UA Objective Capabilities Specification
A045 FCS ACE Implementation Plan
A046 Enterprise Production Plan Update
A047 Industrial Base Capabilities Assessment
A048 FoS Distributed Network Test Reports
A049 Interactive Electronic Technical Manuals (IETMs)
A050 Materiel Fielding Support Plan Update
A051 Supportability Data Management Plan

A052 Supply Chain Management Plan
A053 Training Management Plan
A054 Training Data Products
A055 Training Support Package
A056 System Training Data
A057 Training Facilities Survey Report
A058 TEMP Data
A059 System Support Package Component List (SSPCL)
A060 Integrated Test Report
A061 Complementary Programs Database
A062 FCS ACE Metrics

DELIVERABLES LIST (HARDWARE)

At completion all residual Government property (e.g. prototype hardware and software, test hardware and software, software Integration Laboratory hardware/software, etc.) used in the performance of this Agreement will be dispositioned to the Government in accordance with FAR Part 45 unless specified elsewhere in the Agreement.

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No. 0001	B. Exhibit Attachment 2	C. Category Other	
D. System/Item. Future Combat Systems		E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A001	2. Title of Data Item: Miscellaneous Program Management Data	3. Subtitle: System Engineering Management Plan Updates	
4. Authority (Data Acquisition Document No.) See remarks.	5. Agreement Reference Attachment 1, paragraph 3.1.1	6. Requiring Office SFAE-GCS-FCS	

7. Transmtl Mthd	8. APP Code	9. Frequency	10. As of Date	11. Date of First Submission	12. Date of Subsequent Submission
ACE	A	See Remarks	See Remarks	See Remarks	See Remarks

13. REMARKS

1. Updates to the SEMP (D786-10007-1) as required to maintain document to current LSI engineering management practices.
2. Maintain consistency with D786-10007-1for format and content.
3. SEMP updates shall be delivered to the FCS ACE and approved via the ACE workflow process.
4. Government will provide comments within 30 days of notice that data has been posted to ACE.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001		B. Exhibit Attachment 2		C. Category Other	
D. System/Item. Future Combat Systems				E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A002	2. Title of Data Item: Technical Report - Study / Services			3. Subtitle: TRADOC Objective Force Integration Support Documentation	
4. Authority (Data Acquisition Document No.) DI-MISC-80508			5. Agreement Reference Attachment 1, 3.1.1.1, 3.1.1.1.1		6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency As required	10. As of Date SoSRR	11. Date of First Submission SoSRR	12. Date of Subsequent Submission As required

13. REMARKS

1. Document the results and operational lessons learned in accordance with SOW paragraphs 3.1.1.1 and 3.1.1.1.1 Objective Force Requirements and Force Integration & Analysis,accumulated from assisting TRADOC/UAMBL but not limited to, the following areas:

   a. [DOCTRINE] UA doctrine requirements integration; refining UA operational concepts to develop UA and FCS doctrinal products; initiation of UA field manuals; identification of new required UA-specific publications; development of program directives for UA doctrinal publications; defining proponent, select combined arms, multi-service, and as directed, multi-national FCS doctrine implications; standardization of UA doctrine that crosses functional lines; review of other doctrine for accuracy and horizontal integration; quality control of UA publications; periodic review of of publications for consistency/impact to FCS SDD and UA developmental work.
   b. [ORGANIZATION] Refining organizational concepts in the UA O&O Plan; development of personnel requirements; determining major FCS equipment requirements; determining the breakout of UA organizational elements; summarizing relevant information for equipment assignment, mobility, and concept of operations; obtaining approval for the UA Table of Organization and Equipment (TOE); developing the FCS FoS Basis of Issue Plan; recommending new manpower requirements criteria; Total Army Analysis process.
   c. [TRAINING] Developing individual training plans, course administrative data, and programs of instruction; developing training systems (training management plan, products, verification/validation, and services required to design, develop, assemble, integrate, and test a UA training plan/program); developing, utilizing, and maintaining a training system laboratory to support analysis and testing of training functions; integrating training products based on STRAP into the FoS elements; providing SoS performance analysis for training at the integrated SoS level; FoS and SoS performance verification test and demonstration for training.
   d. [MATERIEL] Refining materiel requirements documents; refinement of FCS ORD/Capabilities Development Document and KPPs for Milestone C; refinement of STRAP; refinement of Critical Operational Issues and Criteria in TEMP; refinement of FCS STAR; SMART process.
   e. [LEADER] Defining the Leader Development Support System and requirements.
   f. [PERSONNEL] Ensuring the Soldier is central in the development and design of the FCS FoS and that all personnel requirements/documentation, such as the Manpower Estimate Report, properly reflect TRADOC's requirements. Intent is to reduce the level of human specification.
   g. [FACILITIES] Determining new or unique facilities requirements to support FCS fielding and maintenance.
   h. [UE and OF BATTLE COMMAND REQUIREMENTS INTEGRATION] documentation of UE and OF Networked Battle Command development impact on FCS design.
   i. [OF MANEUVER SUPPORT REQUIREMENTS INTEGRATION] Documenting emerging OF Maneuver Support requirements impact on FCS design.
   j. [OF MANEUVER SUSTAINMENT REQUIREMENTS INTEGRATION] Document emerging OF Maneuver Sustainment requirements impact on FCS design.

(See page 3 for continuation.

CONTRACT DATA REQUIREMENTS LIST			
A. Contract Line Item No. 0001	B. Exhibit Attachment 2	C. Category Other	
D. System/Item. Future Combat Systems		E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A002 (cont)	2. Title of Data Item: Technical Report - Study / Services	3. Subtitle: TRADOC Objective Force Integration Support Documentation	

13. REMARKS (cont)

2. This submittal may consist of multiple reports based on the individual items listed above. Each report shall be a standalone document with a dash number assigned to the Data Item number (i.e., A002-n, where n starts with 1) to distinguish one subject matter report from another. Assignment of the dash numbers shall be arbitrary but shall be sequentially assigned and controlled through LSI data management. A list of the dash number assignments shall be available under ACE using A002-0 as the data item number.

3. Report may be in contractor format using block 4 as a guide.

4. Report shall be delivered via the FCS ACE and approved via the ACE workflow process which includes TRADOC.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
System/Item. Future Combat Systems			Agreement/PR NO. DAAE07-03-9-F001		F. Contractor The Boeing Company
1. Data Item No. A003	2. Title of Data Item: Engineering Change Proposal/Notice of Revision		3. Subtitle: FCS UA Increment I Capabilities Specification Updates		
4. Authority (Data Acquisition Document No.) See remarks		5. Agreement Reference Attachment 1, 3.1.1.1.1, 3.1.1.3.2			6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency See Remarks	10. As of Date See Remarks	11. Date of First Submission SoSRR	12. Date of Subsequent Submission As required

13. REMARKS

1. Provide updates to the FCS UA Increment I Capabilities Specification (S786-50000) as required by Configuration Control Board (CCB) action.

2. FCS UA Increment I Capabilities Specification updates shall be consistent with S786-50000.

3. Each ECP shall be delivered to the FCS ACE and approved via the CCB process.

4. Resulting NORs shall be posted to the FCS ACE.

5. A minimum of 90% of all JROC ORD requirement discrepancies will be resolved prior to the SRR. Any remaining discrepancies (beyond the 90%) will have a corresponding plan of action and anticipated resolution date.

6. An 06 level review panel of TRADOC/PM representatives will evaluate the end product (SoS Increment I Specification) and all discrepancy resolution plans NLT 2 weeks prior to the SRR (3 OCT 2003).

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No.	B. Exhibit	C. Category
0001	Attachment 2	Other

D. System/Item.	E. Agreement/PR NO.	F. Contractor
Future Combat Systems	DAAE07-03-9-F001	The Boeing Company

1. Data Item No.	2. Title of Data Item:	3. Subtitle:
A004	SoS/FoS Interface Control	Interface Control Documents, Interface Specification

4. Authority (Data Acquisition Document No.)	5. Agreement Reference	6. Requiring Office
DI-CMAN-81248A, DI-SESS-81632	Attachment 1, paragraph 3.1.1.2, 3.2.1	SFAE-GCS-FCS

7. Transmtl Mthd	8. APP Code	9. Frequency	10. As of Date	11. Date of First Submission	12. Date of Subsequent Submission
ACE	A	As required	SoS PDR	See Remarks	As required

13. REMARKS

1. Defines the required FCS technical interface requirements among FCS FoS components and among the FCS FoS and complementary systems via configuration controlled ICDs and Interface Specifications. Each of these interface control documents shall be a standalone document with a dash number assigned to the Data Item number (i.e., A004-n, where n starts with 1) to distinguish one interface control document delivery from another. Assignment of the dash numbers shall be arbitrary but shall be sequentially assigned and controlled through LSI data management. A list of the dash number assignments shall be available under ACE using A004-0 as the data item number.

2. Initial (draft) interface control documentation (e.g., ICDs, ISs) is required at SoS PDR. Each draft interface document shall be separately delivered to the FCS ACE and approved through the ACE workflow process.

3. Final interface control documentation is due at SoS CDR; subsequent updates as required through the CM process.

4. Contractor format is acceptable using the data item descriptions of block 4 as a guide.

5. Documentation shall be delivered to the FCS ACE and approved via the ACE workflow process.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
	28-05-2003		

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2			C. Category Other	
D. System/Item. Future Combat Systems				E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A005	2. Title of Data Item: Engineering Change Proposal/Notice of Revision			3. Subtitle: SoS Architecture Update	
4. Authority (Data Acquisition Document No.) DI-CMAN-80639C, DI-CMAN-80642C			5. Agreement Reference Attachment 1, 3.1.1.3, 3.2.5		6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency See Remarks	10. As of Date See Remarks	11. Date of First Submission See Remarks	12. Date of Subsequent Submission See Remarks

13. REMARKS

1. Provide updates to the SoS Architectures generated during OTA MDA 972-02-9-0005 as required by Configuration Control Board (CCB) action. The changes will be posted within 30 days of the CCB action.

2. SoS Architecture updates shall be in Army Core Architecture Data Model (CADM) compliant format.

3. Each release shall be delivered to the FCS ACE and approved in accordance with the Configuration Management Plan including TRADOC in the approval cycle.

4. Resulting NORs shall be posted to the FCS ACE and entered into the TRADOC AARMS.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A006	2. Title of Data Item: Engineering Change Proposal/Notice of Revision		3. Subtitle: FoS Architecture Update		
4. Authority (Data Acquisition Document No.) DI-CMAN-80639C, DI-CMAN-80642C			5. Agreement Reference Attachment 1, 3.1.1.3, 3.2.2.1, 3.2.3.1		6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency As Required	10. As of Date See Remarks	11. Date of First Submission As Required	12. Date of Subsequent Submission See Remarks

13. REMARKS

1. Provide updates to the FoS Architectures generated during OTA MDA 972-02-9-0005 as required by Configuration Control Board (CCB) action. The changes will be posted within 30 days of the CCB action.

2. FoS Architecture updates shall be in Army Core Architecture Data Model (CADM) compliant format.

3. Each release shall be delivered to the FCS ACE and approved in accordance with the Configuration Management Plan including TRADOC in the approval cycle.

4. Resulting NORs shall be posted to the FCS ACE and entered into the TRADOC AARMS.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No. 0001	B. Exhibit Attachment 2	C. Category Other	
D. System/Item. Future Combat Systems		E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A007	2. Title of Data Item: System/Subsystem Design Description (SSDD)	3. Subtitle:	
2. Authority (Data Acquisition Document No.) DI-IPSC-81432A	5. Agreement Reference Attachment 1, 3.1.1.3.1, 3.2.2.3, 3.2.2.4, 3.2.2.5, 3.2.2.6, 3.2.3.3.2,		6. Requiring Office SFAE-GCS-FCS

7. Transmtl Mthd	8. APP Code	9. Frequency	10. As of Date	11. Date of First Submission	12. Date of Subsequent Submission
ACE	A	See Remarks	See Remarks	See Remarks	See Remarks

13. REMARKS

1. Define system/subsystem (e.g., electrical, software, mechanical) design concepts and decisions used as the basis for further system/subsystem development. Include descriptions of design decisions, databases, data sets, and other design data including but not limited to those significant architectural aspects supporting manned and unmanned platforms, ISR, and Command & Control subsystems data.

2. Draft shall be submitted at PDR.

3. Final shall be submitted at CDR.

4. Report may be in contractor format using the requirements of block 4 as a guide.

5. Report shall be delivered to the FCS ACE and approved via the ACE workflow process.

G. PREPARED BY	H. DATE	I.	J. DATE

	28-05-2003	APPROVED BY	

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A008	2. Title of Data Item: Engineering Change Proposal/Notice of Revision		3. Subtitle: C4ISR Segment Specification Update		
4. Authority (Data Acquisition Document No.) See Remarks		5. Agreement Reference Attachment 1, 3.1.1.3.2			6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency As Required	10. As of Date See Remarks	11. Date of First Submission As required	12. Date of Subsequent Submission See Remarks

13. REMARKS

1. Provide updates to the C4ISR Segment Specification (S786-50100) as required by Configuration Control Board (CCB) action. The changes will be posted within 30 days of the CCB action.
2. C4ISR specification updates shall be consistent with S786-50100.
3. Each ECP shall be delivered to the FCS ACE and approved via the CCB process.
4. Resulting NORs shall be posted to the FCS ACE.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A009	2. Title of Data Item: System Specification		3. Subtitle: Prime Item Development Specification (PIDS)		
4. Authority (Data Acquisition Document No.) DI-IPSC-81431A		5. Agreement Reference Attachment 1, 3.1.1.3.2, 3.1.1.3.3, 3.2.2.1		6. Requiring Office SFAE-GCS-FCS	
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency See Remarks	10. As of Date See Remarks	11. Date of First Submission See Remarks	12. Date of Subsequent Submission As required
13. REMARKS 1. Provide PIDS as required by IMP/IMS. 2. PIDS may be in contractor format using block 4 as a guide. 3. PIDS shall be delivered to the FCS ACE and approved via the ACE workflow process.					
G. PREPARED BY	H. DATE 28-05-2003		I. APPROVED BY	J. DATE	

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A010	2. Title of Data Item: Technical Report – Study / Services		3. Subtitle: SoS Architecture Development Plan		
4. Authority (Data Acquisition Document No.) DI-MISC-80508		5. Agreement Reference Attachment 1, 3.1.1.3.4		6. Requiring Office SFAE-GCS-FCS	
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency As Required	10. As of Date SoSFR	11. Date of First Submission SoSFR	12. Date of Subsequent Submission As required

13. REMARKS

1. Defines planned updates to SoS Architectures. Increment I elements of the SoS Architectures shall be specifically defined.

2. Plan may be in contractor format using block 4 as a guide.

3. Plan shall be delivered to the FCS ACE and approved via the ACE workflow process including TRADOC.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No.	B. Exhibit	C. Category
0001	Attachment 2	Other

D. System/Item.	E. Agreement/PR NO.	F. Contractor
Future Combat Systems	DAAE07-03-9-F001	The Boeing Company

1. Data Item No.	2. Title of Data Item:	3. Subtitle:
A011	Technical Report – Study / Services	Configuration/Data Management (CDM) Plan Update

4. Authority (Data Acquisition Document No.)	5. Agreement Reference	6. Requiring Office
See Remarks.	Attachment 1, 3.1.1.4, 3.2.1.2	SFAE-GCS-FCS

7. Transmtl Mthd	8. APP Code	9. Frequency	10. As of Date	11. Date of First Submission	12. Date of Subsequent Submission
ACE	A	As Required	See Remarks	As Required	See Remarks

13. REMARKS

1. Updates to CDM Plan (D786-10008-1) as required to reflect changes in the configuration management process. CDM plan shall include all FCS SoS product data and interfaces with the FCS logistics systems, to include IETM data.

2. Maintain consistency with D786-10008-1for format and content.

3. Plan updates shall be delivered to the FCS ACE and approved via the ACE workflow process.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
	28-05-2003		

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No.	B. Exhibit	C. Category
0001	Attachment 2	Other

D. System/Item.	E. Agreement/PR NO.	F. Contractor
Future Combat Systems	DAAE07-03-9-F001	The Boeing Company

1. Data Item No.	2. Title of Data Item:	3. Subtitle:
A012	Manpower Requirements Criteria	

4. Authority (Data Acquisition Document No.)	5. Agreement Reference	6. Requiring Office
DI-ILSS-81165A	Attachment 1, 3.1.1.5	SFAE-GCS-FCS

7. Transmtl Mthd	8. APP Code	9. Frequency	10. As of Date	11. Date of First Submission	12. Date of Subsequent Submission
ACE	A	See Remarks	See Remarks	See Remarks	See Remarks

13. REMARKS

1. Ensures MANPRINT design efforts are integrated into system designs to accommodate personnel health and safety, human factors, system safety, soldier survivability, skills/aptitude/development, training, and system manpower requirements.
2. Contractor format is acceptable using block 4 as a guide for both format and content.
3. Draft report shall be submitted at SoSRR.
4. Final report shall be submitted at SoS PDR; subsequent updates as required.
5. Report shall be delivered to the FCS ACE and approved via the ACE workflow process including TRADOC.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
	28-05-2003		

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other	
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A013	2. Title of Data Item: Technical Report – Study / Services		3. Subtitle: Human Systems Integration Report	
4. Authority (Data Acquisition Document No.) DI-MISC-80508		5. Agreement Reference Attachment 1, 3.1.1.5		6. Requiring Office SFAE-GCS-FCS

7. Transmtl Mthd	8. APP Code	9. Frequency	10. As of Date	11. Date of First Submission	12. Date of Subsequent Submission
ACE	A	As Required	See Remarks	See Remarks	See Remarks

13. REMARKS

1. Report shall detail MANPRINT design evaluation during system development, to include requirement, specification, design, test, and assessment.
2. Report may be in contractor format using block 4 as a guide.
3. Report shall be delivered to the FCS ACE and approved via the ACE workflow process including TRADOC.
4. Initial report shall be submitted at SoS PDR with subsequent updates as required.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
	28-05-2003		

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001		B. Exhibit Attachment 2		C. Category Other	
D. System/Item. Future Combat Systems				e. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A014	2. Title of Data Item: System/Design Trade Study Plan			3. Subtitle: Trade Study Plan	
4. Authority (Data Acquisition Document No.) DI-ILSS-81021			5. Agreement Reference Attachment 1, 3.1.1.6, 3.2.1.1, 3.2.1.2, 3.2.3, 3.2.3.1, 3.2.3.3.1, 3.2.5.1, 3.2.5.6, 3.2.5.7		6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency As Required	10. As of Date See Remarks	11. Date of First Submission See Remarks	12. Date of Subsequent Submission See Remarks

13. REMARKS

1. Define planned trades, policies, procedures, and processes including CAIV to support and document best choice design decisions to include but not limited to the following: TESS trades, common component trades, requirements trades, technology trades, and life cycle cost trades.

2. Initial plan to be submitted at SoSRR and updates provided every 6 months or as required thereafter until SoS CDR.

3. Plan shall be delivered to the FCS ACE and approved via the ACE workflow process. HQ TRADOC will be the final User authority for all operational trade decisions.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No.	B. Exhibit	C. Category
0001	Attachment 2	Other

D. System/Item.	E. Agreement/PR NO.	F. Contractor
Future Combat Systems	DAAE07-03-9-F001	The Boeing Company

1. Data Item No.	2. Title of Data Item:	3. Subtitle:
A015	Technical Report – Study / Services	Life Cycle Cost Containment Plan Update

4. Authority (Data Acquisition Document No.)	5. Agreement Reference	6. Requiring Office
N/A	Attachment 1, 3.1.1.6	SFAE-GCS-FCS

7. Transmtl Mthd	8. APP Code	9. Frequency	10. As of Date	11. Date of First Submission	12. Date of Subsequent Submission
ACE	A	As Required	See Remarks	See Remarks	See Remarks

13. REMARKS

1. LCC containment plan (D786-10012-1) shall be updated to reflect changes in the LCC containment process.
2. Maintain consistency with D786-10012-1 for format and content.
3. Initial update at SoSRR and subsequent updates every 6 months or sooner if required.
4. Plan updates shall be delivered to the FCS ACE and approved via the ACE workflow process.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
	28-05-2003		

CONTRACT DATA REQUIREMENTS LIST					
A. Agreement Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A016	2. Title of Data Item: Technical Report – Study / Services		3. Subtitle: Life Cycle Cost Estimate		
4. Authority (Data Acquisition Document No.) DI-MISC-80508		5. Agreement Reference Attachment 1, 3.1.1.6		6. Requiring Office SFAE-GCS-FCS	
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency As Required	10. As of Date See Remarks	11. Date of First Submission 120 days AAA	12. Date of Subsequent Submission See Remarks

13. REMARKS

1. LCC estimate per A015 and updated as required to reflect FCS configuration and or other cost driver changes.
2. Report may be in contractor format using block 4 as a guide.
3. Estimate updates shall be delivered to the FCS ACE and approved via the ACE workflow process.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001		B. Exhibit Attachment 2		C. Category Other	
D. System/Item. Future Combat Systems				E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A017	2. Title of Data Item: Technical Report – Study / Services			3. Subtitle: Software Development Plans	
4. Authority (Data Acquisition Document No.) DI-MISC-80508			5. Agreement Reference Attachment 1, 3.1.1.7, 3.1.1.7.1, 3.1.1.7.2		6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency See Remarks	10. As of Date See Remarks	11. Date of First Submission See Remarks	12. Date of Subsequent Submission See Remarks

13. REMARKS

1. Define policy and processes in appropriate software development plans to ensure consistent software development across all elements of SoS and FoS Increment I SDD. These plans shall include:

   Software Development Plan (D786-10006-1 - update as mutually agreed between LSI and PM FCS)

   Software Configuration Management Plan (draft 60 days AAA, update as mutually agreed between LSI and PM FCS)

   Phased Software Integration Plan (draft 100 days AAA, update as mutually agreed between LSI and PM FCS)

   Software Measurement Plan (draft 60 days AAA, update as mutually agreed between LSI and PM FCS)

   Software Transition Plan (draft at CDR. Final 6 months prior to IPD)

   COTS and other Software Reuse Management Plan (draft 75 days AAA)

   Software Quality Assurance Plan (draft 60 days AAA)

   SEI CMMI Level 5 Evolution Plan (draft 120 days AAA)

   Each plan may be a standalone or combined with other plans if appropriate. All standalone documents shall be assigned a dashed data item number (i.e., A017-n, where n starts with 1) to distinguish one plan delivery from another. Assignment of the dash numbers shall be arbitrary but shall be sequentially assigned and controlled through LSI data management. A list of the dash number assignments shall be available under ACE using A017-0 as the data item number.

2. Plans may be in contractor format and where appropriate may use block 4 as a guide.

3. Plans or plan updates shall be delivered to the FCS ACE and approved via the ACE workflow process.

4. Drafts (or updates for existing plans) shall be delivered as indicated in paragraph 1 above and subsequent updates made as required thereafter. Comments to drafts shall be incorporated in a final submission within 60 of receipt unless otherwise specified.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
	28-05-2003		

AGREEMENT DATA REQUIREMENTS LIST

A. Agreement Line Item No.	B. Exhibit	C. Category	
0001	Attachment 2	Other	
D. System/Item.		E. Agreement/PR NO.	F. Contractor
Future Combat Systems		DAAE07-03-9-F001	The Boeing Company
1. Data Item No.	2. Title of Data Item:	3. Subtitle:	
A018	Software Artifacts	Software Process, Requirements, Design, Test, and Design Artifacts	

4. Authority (Data Acquisition Document No.)	5. Agreement Reference	6. Requiring Office
EIA/IEEE –J-STD-016	Attachment 1, 3.1.1.3.2, 3.1.1.3.3, 3.2.1.2, 3.2.2.1, 3.2.2.3, 3.2.2.4, 3.2.2.5, 3.2.2.6, 3.2.2.7, 3.2.2.8, 3.2.3.3.2, 3.2.3.5	SFAE-GCS-FCS

7. Transmtl Mthd	8. APP Code	9. Frequency	10. As of Date	11. Date of First Submission	12. Date of Subsequent Submission
ACE	A	As Required	As Required	As Required	As Required

13. REMARKS

1. Documents all software efforts, requirements analysis and decisions, design analysis and decisions, test planning, processes, and reporting for all elements across the SoS and FoS Increment I software in SDD. Complementary program artifacts (requirements specifications, design documents and models, interface specifications and documents) may be exempt from this on a case by case basis as mutually agreed by the LSI and the PMFCS. These artifacts shall be at the appropriate configuration levels as mutually agreed by the LSI and PM FCS but no less than CSCI level. Artifacts may be combined as agreed by the LSI and PM FCS. These artifacts shall include but not limited to the following:

   Meeting minutes, reuse analyses, software development folders, peer review and other production evaluation reports, audit reports, problem reports, metric reports, metric analysis, approved process tailoring/improvements, supplier SDPs, briefings, schedules, requirements specifications, design documents and models, interface specifications and documents, test plans, reports, source code listings, executable software, instruction manuals, programmer's manuals, and selection rationale.

2. All standalone artifacts/documents shall be assigned a dashed data item number A018-n where n starts with 1) to distinguish one plan delivery from another. Assignment of dash numbers shall be arbitrary but shall be sequentially assigned and controlled though LSI data management. A list of the dash number assignments shall be available under ACE using A018 as the data item number.

3. Artifacts may be in contractor format using block 4 as a guide.

4. Artifacts and updates shall be delivered to the FCS ACE and approved via the ACE workflow process.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
	28-05-2003		

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A019	2. Title of Data Item: Technical Report – Study / Services		3. Subtitle: Home Station Operation Center Plan		
4. Authority (Data Acquisition Document No.) DI-MISC-80508		5. Agreement Reference Attachment 1, paragraph 3.1.4.8		6. Requiring Office SFAE-GCS-FCS	
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency See Remarks	10. As of Date See Remarks	11. Date of First Submission See Remarks	12. Date of Subsequent Submission See Remarks

13. REMARKS

1. Define the requirements and design for the FCS HSOC which include a networked, in-garrison, battle command planning capability and interoperability requirements for seamless operations with FCS training and logistics systems.

2. Define a detailed HSOC implementation and procurement plan which shall include cost, schedules, site installation requirements, implementation risks, and recommended facility modifications and potential suppliers.

3. HSOC plan shall be delivered to the FCS and approved via the FCS ACE workflow process.

4. Plan due at SFR, updates as required.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A020	2. Title of Data Item: Technical Report – Study / Services		3. Subtitle: SoS Performance Assurance Report		
4. Authority (Data Acquisition Document No.) DI-MISC-80508		5. Agreement Reference Attachment 1, 3.1.1.8		6. Requiring Office SFAE-GCS-FCS	
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency As Required	10. As of Date See Remarks	11. Date of First Submission Initial SoS IA + 60	12. Date of Subsequent Submission See Remarks

13. REMARKS

1. Documents the results of periodic SoS performance assurance evaluations per Block 5 (including EMI/EMC/EMF, mass properties, parts, materials, processes).

2. Report may be in contractor format using block 4 as a guide.

3. Evaluation reports to be provided NLT 60 days after completion of test events and/or other evaluations of SoS performance as appropriate.

4. Report shall be delivered to the FCS ACE and approved via the ACE workflow process which includes TRADOC.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001		F. Contractor The Boeing Company
1. Data Item No. A021	2. Title of Data Item: Test & Evaluation Program Plan		3. Subtitle: SoS Verification Plan Update		
4. Authority (Data Acquisition Document No.) DI-NDTI-81284		5. Agreement Reference Attachment 1, 3.1.1.8, 3.1.1.9			6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency As Required	10. As of Date See Remarks	11. Date of First Submission See remarks	12. Date of Subsequent Submission See Remarks

13. REMARKS

1. Updates the SoS verification plan (D786-10159-1) of the SoS Increment I design (including approach to verifying compliance of all FCS SoS Specification requirements).

2. Maintain consistency with D786-10159-1 for format and content.

3. Initial update to be submitted at SoSRR; subsequent updates as required.

4. Update shall be delivered to the FCS ACE and approved via the ACE workflow process which includes TRADOC.

G. PREPARED BY	H. DATE 04-23-03	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001		B. Exhibit Attachment 2		C. Category Other	
D. System/Item. Future Combat Systems				E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A022	2. Title of Data Item: Technical Report – Study / Services			3. Subtitle: SoS Verification Report	
4. Authority (Data Acquisition Document No.) DI-MISC-80508			5. Agreement Reference Attachment 1, 3.1.1.9		6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency As Required	10. As of Date See Remarks	11. Date of First Submission As Required	12. Date of Subsequent Submission See Remarks

13. REMARKS

1. Report shall document the requirements traceability flowdown and flowup and verification closure data and results for the SoS Specification requirements.

2. Report may be in contractor format using block 4 as a guide.

3. Report shall be delivered to the FCS ACE and approved via the ACE workflow process which includes TRADOC.

4. Report shall be submitted 60 days after completion of each FCS integration phase.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A023	2. Title of Data Item: Miscellaneous Program Management Data		3. Subtitle: FCS Incremental Development Plan Update		
4. Authority (Data Acquisition Document No.)		5. Agreement Reference Attachment 1, paragraph 3.1.1.10		6. Requiring Office SFAE-GCS-FCS	
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency See Remarks	10. As of Date See Remarks	11. Date of First Submission See Remarks	12. Date of Subsequent Submission See Remarks

13. REMARKS

1. Document changes/updates the FCS Incremental Development Plan (D786-10068-1).
2. Maintain consistency with D786-10068-1 for format and content.
3. FCS Incremental Development Plan updates shall be delivered to the FCS ACE via the ACE workflow process which includes TRADOC.
4. Initial update at SoSRR; subsequent updates at SOS PDR and SoS CDR and as required.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001		F. Contractor The Boeing Company
1. Data Item No. A024	2. Title of Data Item: Technical Report – Study / Services		3. Subtitle: Technology Maturation Plan		
4. Authority (Data Acquisition Document No.) DI-MISC-80508			5. Agreement Reference Attachment 1, 3.1.1.11		6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency As required	10. As of Date See Remarks	11. Date of First Submission See Remarks	12. Date of Subsequent Submission See Remarks

13. REMARKS

1. Plan shall document technology maturation and insertion approach including assessment for appropriate technologies across all planned Increments. Plan shall include but not be limited to: maturation schedule, strategy, risk identification and mitigation.

2. Plan may be in contractor format using block 4 as a guide.

3. Plan shall be delivered to the FCS ACE and approved via the ACE workflow process which includes TRADOC.

4. Draft plan shall be submitted at SoS PDR and updated as required in coordination with the Incremental Development Plan (A023).

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001		F. Contractor The Boeing Company
1. Data Item No. A025	2. Title of Data Item: Technical Report - Study / Services		3. Subtitle: Supportability Strategy Update		
4. Authority (Data Acquisition Document No.) DI-MISC-80508		5. Agreement Reference Attachment 1, 3.1.1.12, 3.2.4, 3.2.4.2, 3.2.4.2.1			6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency Yearly	10. As of Date See Remarks	11. Date of First Submission SoSRR	12. Date of Subsequent Submission See Remarks

13. REMARKS

1. Provide updates to the FCS Supportability Strategy Plan (D786-10025-1) developed in the CTD phase.

2. Maintain consistency with D786-10025-1 for format and content.

3. Report shall be delivered to the FCS ACE and approved via the ACE workflow process which includes TRADOC.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No.	B. Exhibit	C. Category
0001	Attachment 2	Other

D. System/Item.	E. Agreement/PR NO.	F. Contractor
Future Combat Systems	DAAE07-03-9-F001	The Boeing Company

1. Data Item No.	2. Title of Data Item:	3. Subtitle:
A026	Technical Report - Study / Services	RAM-T Program Plan

4. Authority (Data Acquisition Document No.)	5. Agreement Reference	6. Requiring Office
DI-MISC-80508	Attachment 1, 3.2.4.1, 3.2.4.5	SFAE-GCS-FCS

7. Transmtl Mthd	8. APP Code	9. Frequency	10. As of Date	11. Date of First Submission	12. Date of Subsequent Submission
ACE	A	Yearly	See Remarks	SoSFR	Annually

13. REMARKS

1. Establish FCS RAM-T allocated requirements and integrate suppliers' information into the SoS RAM-T Case to demonstrate progress towards meeting RAM-T goals. Metrics shall include as a minimum: Operational Availability, Operations and Support Costs and Footprint.

2. Report shall be in contractor format using block 4 as a guide.

3. Report shall be delivered to the FCS ACE and approved via the ACE workflow which includes TRADOC.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
	28-05-2003		

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No. 0001	B. Exhibit Attachment 2	C. Category Other	
D. System/Item. Future Combat Systems		E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A027	2. Title of Data Item: Technical Report – Study / Services	3. Subtitle: Performance Based Logistics Implementation Plan	
4. Authority (Data Acquisition Document No.) DI-MISC-80508	5. Agreement Reference Attachment 1, 3.1.1.12, 3.2.4	6. Requiring Office SFAE-GCS-FCS	

7. Transmtl Mthd	8. APP Code	9. Frequency	10. As of Date	11. Date of First Submission	12. Date of Subsequent Submission
ACE	A	Yearly	See Remarks	SoSFR	Annually

13. REMARKS

1. Document the PBL development process: team; strategy; agreements; metrics; PSI selection; monitoring; and reviewing & updating strategy, including integrating the supplier efforts & development/analysis/selection of product support services.

2. Plan may be in contractor format and may use block 4 as a guide.

3. Plan or plan updates shall be delivered to the FCS ACE and approved via the ACE workflow process including CASCOM and TRADOC.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
	28-05-2003		

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No. 0001	B. Exhibit Attachment 2	C. Category Other	
D. System/Item. Future Combat Systems		E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A028	2. Title of Data Item: Technical Report - Study / Services	3. Subtitle: Programmatic Environment, Safety and Occupational Health Evaluation (PESHE) Update	
4. Authority (Data Acquisition Document No.) DI-MISC-80508	5. Agreement Reference Attachment 1, 3.1.1.13, 3.1.1.5	6. Requiring Office SFAE-GCS-FCS	

7. Transmtl Mthd	8. APP Code	9. Frequency	10. As of Date	11. Date of First Submission	12. Date of Subsequent Submission
ACE	A	Qtrly	See Remarks	90 AAA	Quarterly

13. REMARKS

1. Update to PESHE Plan (D786-10030-1) including integration of ESOH design considerations and delivery of the required reports, analyses and data IAW the existing Programmatic Environment, Safety and Occupational Health Evaluation (PESHE) and its referenced documents. These requirements include:

   a. System Safety/Health Program Plans
   b. Safety Assessment Reports (initial and updates)
   c. Hazard Tracking and Hazardous Materials Management Databases
   d. Preliminary Hazards Lists
   e. Hazard Reports documenting hazard analysis results and findings
   f. Data in support of major Program Reviews and Events
   g. Data in support of the FCS Environmental Management System
   h. Data to support ESOH Compliance Assessment of SDD suppliers, T&E/training/fielding installations, and Complementary Systems
   i. Data to support National Environmental Policy Act analyses for FCS core systems and FCS/UA Complementary Systems
   j. Data to support Safety/Health Releases
   k. Data to support Materiel Release
   l. Data as required to support the residual hazard risk acceptance process

2. Integrate the reports, analyses and data into the PESHE as attachments, annexes and/or references.

3. Required PESHE elements shall be delivered to the FCS ACE and approved via the ACE workflow process.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
	04-23-03		

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001		B. Exhibit Attachment 2		C. Category Other	
D. System/Item. Future Combat Systems				E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A029	2. Title of Data Item: Technical Report - Study / Services			3. Subtitle: System Integration Plan Update	
4. Authority (Data Acquisition Document No.) DI-MISC-80508			5. Agreement Reference Attachment 1, 3.1.1, 3.1.1.9		6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency As required	10. As of Date See Remarks	11. Date of First Submission See Remarks	12. Date of Subsequent Submission As required

13. REMARKS

1 Updates to the system integration plan (D786-10113-1) including integration initiatives, methodologies, objectives, responsibilities, processes, tools, and resources.

2. Maintain consistency with D786-10113-1 for format and content.

3. Initial update to be submitted at SoSRR.

4. Updates shall be delivered to the FCS ACE and approved via the ACE workflow process.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No.	B. Exhibit	C. Category	
0001	Attachment 2	Other	
D. System/Item.		E. Agreement/PR NO.	F. Contractor
Future Combat Systems		DAAE07-03-9-F001	The Boeing Company
1. Data Item No.	2. Title of Data Item:	3. Subtitle:	
A030	Technical Report - Study / Services	Force Effectiveness Modeling Report	
4. Authority (Data Acquisition Document No.)		5. Agreement Reference	6. Requiring Office
DI-MISC-80508		Attachment 1, 3.1.1.1.1, 3.1.2.1	SFAE-GCS-FCS

7. Transmtl Mthd	8. APP Code	9. Frequency	10. As of Date	11. Date of First Submission	12. Date of Subsequent Submission
ACE	A	As required	See Remarks	As required	As required

13. REMARKS

1. Documents insights obtained from LSI FCS SoS effectiveness analysis that impacts TRADOC's UA/OF development and design work. Includes lessons learned from TRADOC UA/OF experimentation, studies, and analysis that impacts the FCS SoS and FoS solutions and designs; SMART collaboration sessions between TRADOC and LSI; and emerging FCS SoS/FoS design capabilities to support TRADOC UA/OF operational experimentation and analysis.

2. Report may be in contractor format using block 4 as a guide.

3. Report shall be delivered to the FCS ACE and approved via the ACE workflow process including TRADOC.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
	28-05-2003		

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No.	B. Exhibit	C. Category	
0001	Attachment 2	Other	
D. System/Item. Future Combat Systems		E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A031	2. Title of Data Item: FCS Simulation Validation & Verification Plan	3. Subtitle:	
1. Authority (Data Acquisition Document No.) Army Accreditation Plan, DI-MISC-80508		5. Agreement Reference Attachment 1, 3.1.2.3	6. Requiring Office SFAE-GCS-FCS

7. Transmtl Mthd	8. APP Code	9. Frequency	9. As of Date	11. Date of First Submission	12. Date of Subsequent Submission
ACE	A	As required	See Remarks	See Remarks	See Remarks

13. REMARKS

1. Documents the proposed steps for validation and verification of the SDD Increment I simulations to support Government accreditation design.
2. Plan may be in contractor format consistent with Army Accreditation Plan.
3. Draft plan and updates to be submitted as required.
4. Plan and updates shall be delivered to the FCS ACE and approved via the ACE workflow process including TRAC.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
	28-05-2003		

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001		B. Exhibit Attachment 2		C. Category Other	
D. System/Item. Future Combat Systems				E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A032	2. Title of Data Item: Technical Report - Study / Services			3. Subtitle: System Integration Laboratories Development Plan	
4. Authority (Data Acquisition Document No.) DI-MISC-80508			5. Agreement Reference Attachment 1, 3.1.3, 3.2.2.2, 3.2.3.2, 3.2.5.2		6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency See Remarks	10. As of Date See Remarks	11. Date of First Submission 30 Days AAA	12. Date of Subsequent Submission See Remarks

13. REMARKS

1. Detail the policies, processes, procedures for design, development, use, and maintenance of the FCS System Integration Laboratories (SILs), to include but not necessarily limited to separate annexes for detailed design, interface, and utilization information. This detail shall also include the results of joint LSI/Government investigation of current Government M&S capabilities and the assessment of the utility of these for use in SDD in place of developing new M&S capabilities.

2. Plan may be in contractor format using Block 4 as a guide.

3. Update as required.

4. Report shall be delivered to the FCS ACE and approved via the ACE workflow process including TRADOC. Approval of this document shall constitute approval of assessment regarding availability of M&S capabilities from the Government in support of SDD.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A033	2. Title of Data Item: Miscellaneous Program Management Data		3. Subtitle: Risk Management Plan Update		
4. Authority (Data Acquisition Document No.) See Remarks		5. Agreement Reference Attachment 1, paragraph 3.1.4.1.2		6. Requiring Office SFAE-GCS-FCS	
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency See Remarks	10. As of Date See Remarks	11. Date of First Submission See Remarks	12. Date of Subsequent Submission As required

13. REMARKS

1. Update the Risk Management Plan (D786-10015-1) consistent with the existing Risk Management Plan format as required.
2. Maintain consistency with D786-10015-1 for format and content.
3. Initial update at SoSRR
4. Risk Management Plan updates shall be delivered to the FCS ACE and approved via the ACE workflow process.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No. 0001	B. Exhibit Attachment 2	C. Category Other	
D. System/Item. Future Combat Systems		E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A034	2. Title of Data Item: System/Design Trade Study Report	3. Subtitle: Trade Study Report	
4. Authority (Data Acquisition Document No.) DI-ILSS-81021	5. Agreement Reference Attachment 1, 3.1.1.6, 3.2.1.1, 3.2.1.2, 3.2.3		6. Requiring Office SFAE-GCS-FCS

7. Transmtl Mthd	8. APP Code	9. Frequency	10. As of Date	11. Date of First Submission	12. Date of Subsequent Submission
ACE	A	As required	See Remarks	See Remarks	See Remarks

13. REMARKS

1. Documents results of trades and decisions made relative to requirements and design for FCS Increment I.

2. Reports may be in contractor format using block 4 as a guide. If desired, contractor may submit multiple versions of this document - one for each trade or set of trades, or may combine all trades into one document submittal. If multiple versions are submitted, each separate version shall be a standalone document with a dash number assigned to the Data Item number (i.e., A014-n, where n starts with 1) to distinguish one plan delivery from another. Assignment of the dash numbers shall be arbitrary but shall be sequentially assigned and controlled through LSI data management. A list of the dash number assignments shall be available under ACE using A014-0 as the data item number.

3. Initial report to be submitted at SoS PDR and updates provided every 6 months or as required thereafter until SoS CDR. After SoS CDR, reports shall be submitted as required to reflect new trades resulting from or causing subsequent design change decisions.

4. Reports shall be delivered to the FCS ACE and approved via the ACE workflow process which includes TRADOC.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A035	2. Title of Data Item: Technical Report – Study / Services		3. Subtitle: Interoperability Analysis Report		
4. Authority (Data Acquisition Document No.) DI-MISC-80508		5. Agreement Reference Attachment 1, 3.1.1.2.1		6. Requiring Office SFAE-GCS-FCS	
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency As required	10. As of Date See Remarks	11. Date of First Submission As required	12. Date of Subsequent Submission See Remarks

13. REMARKS

1. Documents analysis data from interoperability studies in support of PM, FCS and TRADOC.
2. Report may be in contractor format using block 4 as a guide.
3. Report shall be delivered to the FCS ACE and approved via the ACE workflow process including TRADOC.

G. PREPARED BY	H. DATE 04-24-03	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No.	B. Exhibit	C. Category	
0001	Attachment 2	Other	
D. System/Item.		E. Agreement/PR NO.	F. Contractor
Future Combat Systems		DAAE07-03-9-F001	The Boeing Company
1. Data Item No.	2. Title of Data Item:	3. Subtitle:	
A036	Software Architecture Description Document	Software Architecture Views	
4. Authority (Data Acquisition Document No.)	5. Agreement Reference	6. Requiring Office	
ANSI/IEEE –1471-2000	Attachment 1, 3.1.1.7.1	SFAE-GCS-FCS	

7. Transmtl Mthd	8. APP Code	9. Frequency	10. As of Date	11. Date of First Submission	12. Date of Subsequent Submission
ACE	A	As required	See Remarks	See Remarks	See Remarks

13. REMARKS

1. Defines software architecture across all elements of SoS and FoS Increment I SDD. One document shall be defined at the SoS level. This shall include architectural decisions including but not limited to those significant aspects supporting manned and unmanned platforms, ISR, and command and control subsystems data.

2. Document may be in contractor format using block 4 as a guide.

3. Document and update(s)shall be delivered to the FCS ACE..

4. Draft shall be delivered at SoS PDR, final at SoS CDR, and subsequent updates made via the FCS SDD configuration management process which includes TRADOC.

	H. DATE	I. APPROVED BY	J. DATE
	28-05-2003		

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2			C. Category Other	
D. System/Item. Future Combat Systems				E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A037	2. Title of Data Item: Technical Report – Study/Services			3. Subtitle: C4I Support Plan Update	
4. Authority (Data Acquisition Document No.) DI-MISC-80508			5. Agreement Reference Attachment 1, paragraph 3.2.2		6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency As Required	10. As of Date See Remarks	11. Date of First Submission As Required	12. Date of Subsequent Submission See Remarks

13. REMARKS

1. Provide updates to the C4I Support Plan (S786-10021-x)
2. C4I Support Plan updates shall be consistent with S786-10021-x and use block 4 as a guide.
3. C4I Support Plan update due 60 days AAA (first darft); comments if received to be incorporated within 10 days)
4. Updates shall be delivered to the FCS ACE and approved via the FCS ACE workflow process.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2			C. Category Other	
D. System/Item. Future Combat Systems				E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A038	2. Title of Data Item: Technical Report – Study / Services			3. Subtitle: Complementary Programs Management Control Plan	
4. Authority (Data Acquisition Document No.) DI-MISC-80508				5. Agreement Reference Attachment 1, 3.1.4.4, Article XXX, Attachment 11	6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency As required	10. As of Date See Remarks	11. Date of First Submission See Remarks	12. Date of Subsequent Submission As required

13. REMARKS

1. Define the management control processes (including risk identification and mitigation) to be used to identify, manage, and ensure interoperability and synchronization of complementary Systems with the FCS FoS, and schedule integration consistent with FoS development needs. Plan shall also include coordination and interfaces with the UA Supportability Strategy, Fielding Team activities and Materiel Fielding Agreements prepared by the Supportability IPT and Materiel Fielding sub-IPT.

2. Plan may be in contractor format using block 4 as a guide.

3. Plan shall be delivered to the FCS ACE and approved via the ACE workflow process which includes TRADOC.

4. Draft shall be submitted at SoSRR; final at SoSFR.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
.	28-05-2003		

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001		B. Exhibit Attachment 2		C. Category Other	
D. System/Item. Future Combat Systems				E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A039	2. Title of Data Item: Contract Funds Status Report			3. Subtitle:	
4. Authority (Data Acquisition Document No.) DI-MGMT-81468			5. Agreement Reference Attachment 1, 3.1.4.5.		6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code N/A	9. Frequency Quarterly	10. As of Date See Remarks	11. Date of First Submission See Remarks.	12. Date of Subsequent Submission Quarterly

13. REMARKS

1. Report shall be submitted on the 25th of the month following the close of the preceding Government fiscal quarter (25 October, 25 January, 25 April, and 25 July).
2. Report shall contain data current as of last day of the preceding LSI fiscal accounting month.
3. Initial report to be submitted 25 July 2003.
4. Report shall be delivered via the FCS ACE.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001		B. Exhibit Attachment 2		C. Category Other	
D. System/Item. Future Combat Systems				E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A040	2. Title of Data Item: Contractor Cost Data Report			3. Subtitle:	
4. Authority (Data Acquisition Document No.) Cost Data Reporting Plan A-03-A-C			5. Agreement Reference Attachment 1, 3.1.4.5.		6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd Encrypted e-mail	8. APP Code N/A	9. Frequency As required by Block 4	10. As of Date As required by Block 4	11. Date of First Submission As required by Block 4	12. Date of Subsequent Submission As required by Block 4
13. REMARKS 1. Prepare and submit CCDR DD1921, DD1921-1, DD2630-2, and DD2630-3 IAW the CCDR Plan approved by OSD on 4 April 2003.					
G. PREPARED BY	H. DATE 28-05-2003		I. APPROVED BY	J. DATE	

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001		F. Contractor The Boeing Company
1. Data Item No. A041	2. Title of Data Item: Cost Performance Report		3. Subtitle:		
4. Authority (Data Acquisition Document No.) DI-MGMT-81466		5. Agreement Reference Attachment 1, 3.1.4.5			6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code N/A	9. Frequency Monthly	10. As of Date See Remarks	11. Date of First Submission See Remarks	12. Date of Subsequent Submission See Remarks

13. REMARKS

1. First submittal will be no later than the 25th of the month following the close of the second accounting period after Agreement award. Subsequent submissions will continue no later than the 25th of each of the succeeding months.

2. Report shall include data as of last day in the preceding LSI accounting month.

3. Variance reporting will be established by mutual agreement between the LSI and the Government. Variance reporting will focus on the significant cost, schedule, and critical path drivers with analysis of technical and risk impacts when appropriate..

4. The level of detail will be determined by mutual agreement between the LSI and the Government.

5. Report shall be delivered via the FCS ACE.

G. PREPARED BY	H. DATE 04-24-03	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No.	B. Exhibit	C. Category
0001	Attachment 2	Other

D. System/Item.	E. Agreement/PR NO.	F. Contractor
Future Combat Systems	DAAE07-03-9-F001	The Boeing Company

1. Data Item No.	2. Title of Data Item:	3. Subtitle:
A042	Test Plans	FoS Distributed Network Test Plan

4. Authority (Data Acquisition Document No.)	5. Agreement Reference	6. Requiring Office
DI-NDTI-80808, DI-MISC-80912	Attachment 1, 3.2.2.9	SFAE-GCS-FCS

7. Transmtl Mthd	8. APP Code	9. Frequency	10. As of Date	11. Date of First Submission	12. Date of Subsequent Submission
ACE	A	As required	See Remarks	As required	See Remarks

13. REMARKS

1. Define plans required to perform virtual and physical prototype testing at the FoS Distributed Network system/subsystem level.
2. Plans may be in contractor format using block 4 as a guide.
3. Documentation shall be delivered to the FCS ACE and approved via the ACE workflow process.
4. Draft plan shall be submitted at SoS PDR; final at SoS CDR.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
	28-05-2003		

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001		F. Contractor The Boeing Company
1. Data Item No. A043	2. Title of Data Item: Management Data		3. Subtitle: Integrated Master Schedule Updates		
4. Authority (Data Acquisition Document No.) DI-MISC-80004, DI-MISC-81183A			5. Agreement Reference Attachment 1, paragraph 3.1.4.5.2		6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency See Remarks	10. As of Date See Remarks	11. Date of First Submission See Remarks	12. Date of Subsequent Submission See Remarks

13. REMARKS

1. Completion of IMS (D786-10019-1) for full SDD program at or before initial IBR.
2. Maintain consistency with D786-10020-1 for format and content.
3. Contractor schedules shall be consistent with existing IMS format.
4. IMS updates shall be delivered to the FCS ACE and approved via the ACE workflow process.
5. Full statused IMS schedule shall be delivered monthly to the FCS ACE.
6. IMS Status Metrics, Summary Analysis, and Late Item Exceptions shall be delivered weekly to the FCS ACE.
7. IMS Critical Path analysis will be delivered monthly to the FCS ACE.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001		F. Contractor The Boeing Company
1. Data Item No. A044	2. Title of Data Item: Specifications		3. Subtitle: FCS UA Objective Capabilities Specification		
4. Authority (Data Acquisition Document No.) DI-IPSC-81431A		5. Agreement Reference Attachment 1, 3.1.1.1.1, 3.1.1.3.2			6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency See Remarks	10. As of Date See Remarks	11. Date of First Submission SoSRR	12. Date of Subsequent Submission As Required

13. REMARKS

1. All JROC ORD requirements will be reconciled. That reconciliation can take two (2) forms:

   a. Establishment of fully coordinated threshold (either JROC compliant or approved through the trade study process)

   b. Establishment of a threshold range contingent upon the outcome of a trade study that has yet to be performed, including:

      (1) Appropriate justification as to why the Trade Study could not be performed prior to SRR

      (2) A CCB approved Trade Study Plan

      (3) Identification of all necessary resources to complete the action.

2. The report form and format should be consistent with the FCS UA Increment I Capabilities Specification S786-50000 (A003) using Block 4 as a guide.

3. Document shall be delivered to the FCS ACE and approved via the ACE workflow process which includes TRADOC.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001		F. Contractor The Boeing Company
1. Data Item No. A045	2. Title of Data Item: Technical Report – Study / Services		3. Subtitle: FCS ACE Implementation Plan		
4. Authority (Data Acquisition Document No.) DI-MISC-80508		5. Agreement Reference Attachment 1, 3.1.4.6			6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency As required	10. As of Date See Remarks	11. Date of First Submission 120 days AAA	12. Date of Subsequent Submission As required

13. REMARKS

1. Define new applications and interfaces to be implemented and the associated milestones to support SDD Increment I data exchange requirements including but not limited to the integration of SILs, ATIRS, Vision, SMART.

2. Plan may be in contractor format using block 4 as a guide.

3. Plan shall be delivered to the FCS ACE and approved via the ACE workflow process including TRADOC.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
E. System/Item. Future Combat Systems			F. Agreement/PR NO. DAAE07-03-9-F001		F. Contractor The Boeing Company
1. Data Item No. A046	2. Title of Data Item: Technical Report – Study / Services		3. Subtitle: Enterprise Production Plan		
4. Authority (Data Acquisition Document No.) See Remarks		5. Agreement Reference Attachment 1, 3.1.4.7			6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency As required	10. As of Date See Remarks	11. Date of First Submission See Remarks	12. Date of Subsequent Submission As required

13. REMARKS

1. Enterprise Production Plan (D786-10212-1) processes and methodologies used by the LSI to ensure that program suppliers comprehend and accomplish the requirements specified in the supplier SOW. Indicate the support available from the LSI for completion of these tasks and management activities to be performed by the LSI to mitigate production risk and ensure on-time delivery. Emphasis shall be placed on the processes supporting the transition to LRIP including go-ahead for LRIP Long Lead items and production.

2. Maintain consistency with D786-10212-1 for format and content.

3. Initial plan to be delivered 60 days after PDR with updates as required.

4. Plan shall be delivered to the FCS ACE and approved via the ACE workflow process.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001		B. Exhibit Attachment 2		C. Category Other	
D. System/Item. Future Combat Systems				E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A047	2. Title of Data Item: Technical Report – Study / Services			3. Subtitle: Industrial Capabilities Assessment	
4. Authority (Data Acquisition Document No.) DI-MISC-80508			5. Agreement Reference Attachment 1, 3.1.4.7.1		6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency As required	10. As of Date See Remarks	11. Date of First Submission See Remarks	12. Date of Subsequent Submission As required
13. REMARKS 1. Industrial capabilities assessment to meet FCS future production requirements. 2. Plan may be in contractor format using block 4 as a guide. 3. Initial plan to be delivered 60 days prior to Initial PRR with updates as required. 4. Plan shall be delivered to the FCS ACE and approved via the ACE workflow process.					
G. PREPARED BY		H. DATE 28-05-2003		I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001		F. Contractor The Boeing Company
1. Data Item No. A048	2. Title of Data Item: Test Plans/Reports		3. Subtitle: FoS Distributed Network Test Report		
4. Authority (Data Acquisition Document No.) DI-NDTI-80808, DI-NDTI-80808			5. Agreement Reference Attachment 1, 3.2.2.9		6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency As required	10. As of Date See Remarks	11. Date of First Submission See Remarks	12. Date of Subsequent Submission See Remarks

13. REMARKS

1. Publish test data and results including results from SIL testing, Limited User Tests, and Operational Tests at the system and subsystem level. Test results shall include roll-up of testing performed at Government and supplier locations. Draft reports will be posted within 30 days of test completion. Final report will be posted within 30 days after receipt of comments.

2. Reports may be in contractor format using block 4 as a guide.

3. Documentation shall be delivered to the FCS ACE and approved via the ACE workflow process.

4. Each set of test results shall be delivered NLT 60 days after completion of respective tests.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST

A. Contract Line Item No.	B. Exhibit	C. Category
0001	Attachment 2	Other

D. System/Item.	E. Agreement/PR NO.	F. Contractor
Future Combat Systems	DAAE07-03-9-F001	The Boeing Company

1. Data Item No.	2. Title of Data Item:	3. Subtitle:
A049	Interactive Electronic Technical Manuals	

4. Authority (Data Acquisition Document No.)	5. Agreement Reference	6. Requiring Office
DI-NDTI-81284, MIL-STD-400518	Attachment 1, 3.2.4.1.	SFAE-GCS-FCS

7. Transmtl Mthd	8. APP Code	9. Frequency	10. As of Date	11. Date of First Submission	12. Date of Subsequent Submission
ACE	A	Yearly	See Remarks	SoSFR	See Remarks

13. REMARKS

1. Integrates supplier technical data with LSI logistics data into fully executable embedded class V IETMs.
2. IETM delivery to be timed to support demonstrations, test and program V&V schedules in conjunction with PSMRS. IETMS will be delivered within PSMRS as a package.
3. IETMs may be in contractor format using block 4 as a guide.
4. IETMs shall be delivered to the FCS ACE and approved via the ACE workflow process.

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
	28-05-2003		

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001		F. Contractor The Boeing Company
1. Data Item No. A050	2. Title of Data Item: Technical Report – Study / Services		3. Subtitle: FCS Materiel Fielding Support Plan Update		
4. Authority (Data Acquisition Document No.) See Remarks		5. Agreement Reference Attachment 1, 3.2.4.6			6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency Yearly	10. As of Date See Remarks	11. Date of First Submission SRR	12. Date of Subsequent Submission Annually

13. REMARKS

1. Updates to the existing FCS Materiel Fielding Support Plan (D786-10044-1).
2. Maintain consistency with D786-10044-1 for format and content.
3. Plan updates shall be delivered to the FCS ACE and approved via the ACE workflow process which includes TRADOC.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001		F. Contractor The Boeing Company
1. Data Item No. A051	2. Title of Data Item: Technical Report Study / Services		3. Subtitle: Supportability Data Management Plan		
4. Authority (Data Acquisition Document No.) DI-MISC-80508			5. Agreement Reference Attachment 1, 3.2.4.3		6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency Annually	10. As of Date See Remarks	11. Date of First Submission SoSFR	12. Date of Subsequent Submission Annually

13. REMARKS

1. Describes the development and implementation of a database management system for the complete life cycle data for logistics support containing data such as engineering drawings, IETM data, test reports, models, etc.
2. Plan may be in contractor format using the requirements of block 4 as a guide.
3. Report shall be delivered to the FCS ACE and approved via the ACE workflow process.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001		B. Exhibit Attachment 2		C. Category Other	
D. System/Item. Future Combat Systems				E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A052	2. Title of Data Item: Technical Report Study / Services			3. Subtitle: Supply Chain Management Plan (SCMP)	
4. Authority (Data Acquisition Document No.) DI-MISC-80508			5. Agreement Reference Attachment 1, 3.2.4.4		6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency Annually	10. As of Date See Remarks	11. Date of First Submission SoSFR	12. Date of Subsequent Submission Annually

13. REMARKS

1. Describes the integration of supply chain management practices into the performance based logistics concept to optimize the performance of logistics functions so the end customer receives optimum support.

2. Plan may be in contractor format using block 4 as a guide.

3. Plan shall be delivered to the FCS ACE and approved via the ACE workflow process.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2			C. Category Other	
D. System/Item. Future Combat Systems				E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A053	2. Title of Data Item: Technical Report – Study / Services			3. Subtitle: Training Management Plan	
4. Authority (Data Acquisition Document No.) DI-MISC-80508			5. Agreement Reference Attachment 1, 3.2.5, 3.2.5.4		6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency Semi-Annually	10. As of Date See Remarks	11. Date of First Submission 60 Days AAA	12. Date of Subsequent Submission Semi-Annually

13. REMARKS

1. Define policy and processes to ensure consistent incorporation of the training products across all configurations. Plan shall provide for training design evaluation during system development, to include requirement, specification, design, test, and assessment.

2. Plan may be in contractor format using block 4 as a guide.

3. Plan shall be delivered to the FCS ACE and approved via the ACE workflow process including TRADOC.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001		B. Exhibit Attachment 2		C. Category Other	
D. System/Item. Future Combat Systems				E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A054	2. Title of Data Item: Training Data Products			3. Subtitle:	
4. Authority (Data Acquisition Document No.) MIL-PRF-2961B			5. Agreement Reference Attachment 1, 3.2.5.1, 3.2.5.4		6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency Semi-Annually	10. As of Date See Remarks	11. Date of First Submission 120 Days AAA	12. Date of Subsequent Submission Semi-Annually

13. REMARKS

1. Describes training aids, devices, simulators, simulations, individual system level and collective task analyses, training architectures and requirements.

2. Report may be in contractor format using block 4 as a guide.

3. Report shall be delivered to the FCS ACE and approved via the ACE workflow process including TRADOC.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

AGREEMENT DATA REQUIREMENTS LIST					
A. Agreement Line Item No. 0001		B. Exhibit Attachment 2		C. Category Other	
D. System/Item. Future Combat Systems				E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A055	2. Title of Data Item: Training Support Package			3. Subtitle:	
4. Authority (Data Acquisition Document No.) TRADOC REG 350-70, DI-NDTI-80872			5. Agreement Reference Attachment 1, 3.2.5.3, 3.2.5.4		6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency Semi-Annually	10. As of Date See Remarks	11. Date of First Submission 120 Days after SoS PDR	12. Date of Subsequent Submission Semi-Annually

13. REMARKS

1. Lesson plans for appropriate FoS elements IAW TRADOC Regulation 350-70.
2. Lesson plans may be in contractor format using block 4 as a guide.
3. Lesson plans shall be delivered to the FCS ACE and approved via the ACE workflow process including TRADOC.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

AGREEMENT DATA REQUIREMENTS LIST					
A. Agreement Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company	
1. Data Item No. A056	2. Title of Data Item: Technical Report – Study / Services		3. Subtitle: System Training Data		
4. Authority (Data Acquisition Document No.) DI-MISC-80508		5. Agreement Reference Attachment 1, 3.2.5.3		6. Requiring Office SFAE-GCS-FCS	
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency Semi-Annually	10. As of Date See Remarks	11. Date of First Submission 6 Months AAA	12. Date of Subsequent Submission Semi-Annually

13. REMARKS

1. System Training data based on TRADOC Regulation 350-70 for appropriate FoS elements.
2. Data may be in contractor format using block 4 as a guide.
3. Data shall be delivered to the FCS ACE and approved via the ACE workflow process including TRADOC.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001		B. Exhibit Attachment 2		C. Category Other	
D. System/Item. Future Combat Systems				E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A057	2. Title of Data Item: Technical Report – Study / Services			3. Subtitle: Training Facilities Survey Report	
4. Authority (Data Acquisition Document No.) DI-NDTI-80872, DI-MISC-80508			5. Agreement Reference Attachment 1, 3.2.5.5		6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency Semi-Annual	10. As of Date See Remarks	11. Date of First Submission 6 Months AAA	12. Date of Subsequent Submission Semi-Annually

13. REMARKS

1 Describes results of training facilities surveyed including but not limited to assessment, recommended modifications and additions, support equipment, training articles, threat training systems and simulators, and simulation models/test beds, training areas and ranges. Initial submission will consist of plan and methodology for conducting Training Facilities Surveys.

2. Plan may be in contractor format using block 4 as a guide.

3. Plan shall be delivered to the FCS ACE and approved via the ACE workflow process including TRADOC.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001		B. Exhibit Attachment 2		C. Category Other	
D. System/Item. Future Combat Systems				E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A058	2. Title of Data Item: Technical Report – Study / Services			3. Subtitle: TEMP Data	
4. Authority (Data Acquisition Document No.) DI-MISC-80508			5. Agreement Reference Attachment 1, 3.3.1, 3.3.1.1		6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency See Remarks	10. As of Date See Remarks	11. Date of First Submission See Remarks	12. Date of Subsequent Submission See Remarks

13. REMARKS

1. Provides data from LSI Integrated Test and Evaluation Plan (D786-10074-1) in support of Government TEMP updates.
2. Initial update at SoSFR and subsequent updates as required.
3. Data to be consistent with TEMP using block 4 as a guide.
4. Report shall be delivered to the FCS ACE and approved via the ACE workflow process. Test data that supports ATEC's System Evaluation shall be posted with a direct electronic portage to ATEC's VISION system.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001		F. Contractor The Boeing Company
1. Data Item No. A059	2. Title of Data Item: System Support Package Component List (SSPCL)		3. Subtitle:		
4. Authority (Data Acquisition Document No.) DI-ILSS-80532, DI-ILSS-80557		5. Agreement Reference Attachment 1, 3.3.1.2.1			6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency See Remarks	10. As of Date See Remarks	11. Date of First Submission As required	12. Date of Subsequent Submission See Remarks
13. REMARKS 1. Identifies recommended resources and services required to conduct system support testing. 2. Report may be in contractor format using block 4 as a guide for format and content. 3. Report shall be delivered to the FCS ACE and approved via the ACE workflow process. 4. Updates as required.					
G. PREPARED BY	H. DATE 28-05-2003		I. APPROVED BY		J. DATE

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001		B. Exhibit Attachment 2		C. Category Other	
D. System/Item. Future Combat Systems				E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A060	2. Title of Data Item: Technical Report - Study / Services			3. Subtitle: Integrated Test Report	
4. Authority (Data Acquisition Document No.) DI-MISC-80508			5. Agreement Reference Attachment 1, 3.3.1.3, 3.3.1.4, 3.3.1.5		6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency See Remarks	10. As of Date See Remarks	11. Date of First Submission NLT 60 Days after each SoS Test Event	12. Date of Subsequent Submission See Remarks

13. REMARKS

1. Documents test data, assessments, results, test analyses, incident reports, and corrective actions in standard ATIRS format.

2. Reports shall be delivered to the FCS ACE and approved via the ACE workflow process and in standard ATIRS format to ATEC's VISION system.

3. Report may be in contractor format using block 4 as a guide.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST					
A. Contract Line Item No. 0001	B. Exhibit Attachment 2		C. Category Other		
D. System/Item. Future Combat Systems			E. Agreement/PR NO. DAAE07-03-9-F001		F. Contractor The Boeing Company
1. Data Item No. A061	2. Title of Data Item: Technical Report – Study / Services		3. Subtitle: Complementary Programs Database		
4. Authority (Data Acquisition Document No.) DI-MISC-80508			5. Agreement Reference Attachment 1, 3.1.4.4, Article XXX, Attachment 11		6. Requiring Office SFAE-GCS-FCS
7. Transmtl Mthd ACE	8. APP Code A	9. Frequency As required	10. As of Date See Remarks	11. Date of First Submission Date of Award	12. Date of Subsequent Submission As required

13. REMARKS

1. For each Complementary Program, define the following data elements: Lead IPT, CPIDS, IPT Name, Bin, Item Description/Function, Specific Hardware/Software/Data Required, eg. End items, software, brackets, cables, A-Kit, B-Kit, etc, including Item National Stock Numbers and Item Nomenclature/Line Item Number, if applicable, Quantity, When Required (date), Duration to Retain (end date), Where Required (location), Program Event(s) Supported, Mechanism for Delivery, Contractor Source, UFR POM Value; Yes or No, ROM Value, Impact to Program if item not obtained on schedule, Impact to Program if item not obtained at all, IPT Government POC, Phone, E-mail, Government Agency Conducted to Discuss Suitability and Availability of Item(s) (Yes/ No), Written Permission Received to Use Item(s) (Yes/No), Estimated Government Manpower Required (only work years not paid for through this agreement)

2. Database may be in contractor-developed format.

3. Database shall be delivered to the FCS ACE or other mutually agreed upon repository.

4. Draft database shall be submitted at contract award; final at Program Definitization.

A. Contract Line Item No.	B. Exhibit	C. Category

0001	Attachment 2	Other	
D. System/Item. Future Combat Systems		E. Agreement/PR NO. DAAE07-03-9-F001	F. Contractor The Boeing Company
1. Data Item No. A062	2. Title of Data Item: Technical Report – Study / Services	3. Subtitle: FCS ACE Metrics	
4. Authority (Data Acquisition Document No.) DI-MISC-80508	5. Agreement Reference Attachment 1, 3.1.4.6		6. Requiring Office SFAE-GCS-FCS

7. Transmtl Mthd	8. APP Code	9. Frequency	10. As of Date	11. Date of First Submission	12. Date of Subsequent Submission
ACE	A	Quarterly	See Remarks	90 Days AAA	Quarterly

13. REMARKS

1. Define develop, track and report metrics for the FCS ACE to monitor the utility, the support, and the user satisfaction. Shall also maintain a current roster, including members, on the ACE for all chartered organizations.

2. Metrics may be in contractor-developed format using block for as a guide.

3. Metrics shall be delivered to the FCS ACE and approved via the workflow process.

G. PREPARED BY	H. DATE 28-05-2003	I. APPROVED BY	J. DATE

DAAE07-03-9-F001 ATTACHMENT 3

DEPARTMENT OF DEFENSE
CONTRACT SECURITY CLASSIFICATION SPECIFICATION
(The requirements of the DoD National Industrial Security Program Operating Manual apply to all security aspects of this effort.)

1. CLEARANCE AND SAFEGUARDING
a. FACILITY CLEARANCE REQUIRED: Top Secret
b. LEVEL OF SAFEGUARDING REQUIRED: Top Secret

2. THIS SPECIFICATION IS FOR: *(X and complete as applicable)*

X	a. PRIME CONTRACT NUMBER: DAAE07-03-9-F001	
	b. SUBCONTRACT NUMBER	
	c. SOLICITATION OR OTHER NUMBER	DUE DATE (YYMMDD)

3. THIS SPECIFICATION IS: *(X and complete as applicable)*

X	a. ORIGINAL *(Complete date in all cases)*		DATE (YYYYMMDD): 20030515
	b. REVISED *(Supersedes all previous specs)*	Revision No.	DATE (YYYYMMDD)
	c. FINAL *(Complete item 5 in all cases)*		DATE (YYYYMMDD)

4. IS THIS A FOLLOW-ON CONTRACT? YES X NO. If yes, complete the following:
Classified material received or generated under Preceding Contract Number) MDA972-02-9-0005 is transferred to this follow-on contract.

5. IS THIS A FINAL DD 254? YES X NO. If yes, complete the following:
In response to the contractor's request dated , retention of the identified classified material is authorized for the period of

6. CONTRACTOR *(Include Commercial and Government Entity (CAGE) Code)*

a. NAME, ADDRESS, AND ZIP CODE	b. CAGE CODE	c. COGNIZANT SECURITY OFFICE (Name, Address, and Zip Code)
McDonnell Douglas Corporation aka The Boeing Co. JS McDonnell Blvd. & Airport Rd. Building 100 St. Louis, MO 63134	28980	Defense Security Service Central Region, Midwest Sector 610 S. Canal Street, Room 908 Chicago, IL 60607-4599

7. SUBCONTRACTOR

a. NAME, ADDRESS, AND ZIP CODE	b. CAGE CODE	c. COGNIZANT SECURITY OFFICE (Name, Address, and Zip Code)

8. ACTUAL PERFORMANCE

a. NAME, ADDRESS, AND ZIP CODE	b. CAGE CODE	c. COGNIZANT SECURITY OFFICE (Name, Address, and Zip Code)
SEE ATTACHMENT "F"		

9. GENERERAL IDENTIFICATION OF THIS PROCUREMENT
Perform work as the Future Combat Systems' (FCS) Lead System Integrator (LSI) to execute the FCS Increment I Systems Development and Demonstration (SDD) Phase as delineated in the Statement of Work.

10. THIS CONTRACT WILL REQUIRE ACCESS TO:	YES	NO	11. IN PERFORMING THIS CONTRACT, THE CONTRACTOR WILL:	YES	NO
a. COMMUNICATION SECURITY (COMSEC) INFORMATION	X		a. HAVE ACCESS TO CLASSIFIED INFORMATION ONLY AT ANOTHER CONTRACTOR'S FACILITY OR A GOVERNMENT ACTIVITY		X
b. RESTRICTED DATA		X	b. RECEIVE CLASSIFIED DOCUMENTS ONLY		X
c. CRITICAL NUCLEAR WEAPON DESIGN INFORMATION		X	c. RECEIVE AND GENERATE CLASSIFIED MATERIAL	X	
d. FORMERLY RESTRICTED DATA		X	d. FABRICATE, MODIFY, OR STORE CLASSIFIED HARDWARE	X	
e. INTELLIGENCE INFORMATION:			e. PERFORM SERVICES ONLY		X
(1) Sensitive Compartmented Information (SCI)	X		f. HAVE ACCESS TO U.S. CLASSIFIED INFORMATION OUTSIDE THE U.S., PUERTO RICO, U.S. POSSESSIONS AND TRUST TERRITORIES		X
(2) Non-SCI	X		g. BE AUTHORIZED TO USE THE SERVICES OF DEFENSE TECHNICAL INFORMATION CENTER (DTIC) OR OTHER SECONDARY DISTRIBUTION CENTER	X	
f. SPECIAL ACCESS INFORMATION	X		h. REQUIRE A COMSEC ACCOUNT	X	
g. NATO INFORMATION	X		i. HAVE TEMPEST REQUIREMENTS	X	
h. FOREIGN GOVERNMENT INFORMATION	X		j. HAVE OPERATIONS SECURITY (OPSEC) REQUIREMENTS	X	
i. LIMITED DISSEMINATION INFORMATION		X	k. BE AUTHORIZED TO USE THE DEFENSE COURIER SERVICE	X	
j. FOR OFFICIAL USE ONLY INFORMATION	X		l. OTHER *(Specify)* Follow and Implement: 1. AIS Processing Requirements for Unclassified, SAP & SCI 2. Program Protection Plan (PPP) Requirements	X	
k. OTHER *(Specify)* Controlled Unclassified Information (CUI)	X				

DD Form 254, DEC 99 *Previous editions are obsolete.*

DAAE07-03-9-F001 ATTACHMENT 3

12. PUBLIC RELEASE. Any information (classified or unclassified) pertaining to this contract shall not be released for public dissemination except as provided by the National Industrial Security Program Operating Manual or unless it has been approved for public release by appropriate U.S. Government authority. Proposed public releases shall be submitted for approval prior to release

☐ Direct X Through (specify):

NO PUBLIC RELEASE OF SAP OR SCI INFORMATION IS AUTHORIZED.
PCO at Program Executive Office, Ground Combat Systems, SFAE-GCS-FCS Mail Stop 515, ATTN: Gary Tucker, 6501 E. 11 Mile Road, Warren, MI 48397-5000 To PAO.

Requests for release of SCI will be through the SCI Contract Monitor: Julia A. Kraus @ PEO-GCS, SFAE-GCS-FCS-WS M/S 290, 6501 E. 11 Mile Road, Warren, MI 48397-5000
to the Directorate for Freedom of Information and Security Review, Office of the Assistant Secretary of Defense (Public Affairs)* for review.
*In the case of non-DoD User Agencies, requests for disclosure shall be submitted to that agency.

13. SECURITY GUIDANCE. The security classification guidance needed for this classified effort is identified below. If any difficulty is encountered in applying this guidance or if any other contributing factor indicates a need for changes in this guidance, the contractor is authorized and encouraged to provide recommended changes; to challenge the guidance or the classification assigned to any information or material furnished or generated under this contract; and to submit any questions for interpretation of this guidance to the official identified below. Pending final decision, the information involved shall be handled and protected at the highest level of classified assigned or recommended. (Fill in as appropriate for the classified effort. Attach, or forward under separate correspondence, any documents/guides/extracts referenced herein. Add additional pages as needed to provide complete guidance.)

Estimated Completion Date: September 2009

The Boeing Company facilities authorized to perform on this contract: See Attachment "F".

Access to FCS information (not authorized for Public Release) by foreign interests (as defined by the NISPOM) is prohibited unless authorized by a valid export authorization.

Item 10.a - Access to classified COMSEC information requires a final US Government clearance at the appropriate level. Further disclosure of COMSEC information by a contractor, to include subcontracting, requires prior approval of the contracting activity.

Item 10.e (1) – SENSITIVE COMPARTMENTED INFORMATION: See Attachment "A".

Item 10.e (2) – NON-SCI: See Attachment "B".

Item 10.f – SPECIAL ACCESS INFORMATION: See Attachment "C".

CONCUR: _____
Julia A. Kraus
SCI Contract Monitor

CONCUR: _____
Donald Venneman
CSE Operations Chief

CONTINUED

14. ADDITIONAL SECURITY REQUIREMENTS. Requirements, in addition to NISPOM requirements, are established for this contract. (If Yes, identify the pertinent contractual clauses in the contract document itself, or provide an appropriate statement which identifies the additional requirements. Provide a copy of the requirements to the cognizant security office. Use Item 13 if additional space is needed.) YES X NO

The contractor will abide by DCID's 1/19, 6/9, and 6/3 for all SCI material. Also, see the SCI Addendum identified as Attachment "A" to this DD Form 254. This program is also an acknowledged SAP. The options identified "ACKNOWLEDGED" in the NISPOM Overprint are now made mandatory.

15. INSPECTIONS. Elements of this contract are outside the inspection responsibility of the cognizant security office. (If Yes, explain and identify specific areas or elements carved out and the activity responsible for inspections. Use Item 13 if additional space is needed.) X YES NO

For SCI, see the SCI Addendum identified as Attachment "A" to this DD Form 254. Otherwise, the Defense Security Service (DSS) has cognizance of this contract. However, the DSS representative must be briefed to the SAP. The Government Program Security Manager reserves the right to inspect the program facility. AR 380-10, NISPOM Overprint and AR 380-381 are documents governing the accreditation of contractor's AIS.

16. CERTIFICATION AND SIGNATURE. Security requirements stated herein are complete and adequate for safeguarding the classified information to be released or generated under this contract effort. All questions shall be referred to the official named below.

a. TYPED NAME OF CERTIFYING OFFICIAL	b. TITLE	c. TELEPHONE (Include Area Code)
Nancy A. Chaplin	Program Security Manager	586-574-3830

d. ADDRESS (Include Zip Code)
PEO-GCS
ATTN: SFAE-GCS-FCS-WS / MS 290
6501 E. 11 MILE ROAD
WARREN, MI 48397-5000

e. SIGNATURE

17. REQUIRED DISTRIBUTION
- [X] a. CONTRACTOR
- [ ] b. SUBCONTRACTOR
- [X] c. COGNIZANT SECURITY OFFICE FOR PRIME AND SUBCONTRACTOR
- [ ] d. U.S. ACTIVITY RESPONSIBLE FOR OVERSEAS SECURITY ADMINISTRATION
- [X] e. ADMINISTRATIVE CONTRACTING OFFICER
- [X] f. OTHERS AS NECESSARY TMO, 902nd

DD Form 254 Reverse, DEC 99

Sent By: FCS; 586 574 3827; May-16-03 12:45PM; Page 1/1

DAAE07-03-9-F001 NO.859 P.3 ATTACHMENT 3

12. PUBLIC RELEASE. Any information (classified or unclassified) pertaining to this contract shall not be released for public dissemination except as provided by the National Industrial Security Program Operating Manual or unless it has been approved for public release by appropriate U.S. Government authority. Proposed public releases shall be submitted for approval prior to release.

☐ Direct X Through (Specify):

NO PUBLIC RELEASE OF SAP OR SCI INFORMATION IS AUTHORIZED.
PCO at Program Executive Office, Ground Combat Systems, SFAE-GCS-FCS Mail Stop 515, ATTN: Gary Tucker, 6501 E. 11 Mile Road, Warren, MI 48397-5000 To PAO.

Requests for release of SCI will be through the SCI Contract Monitor: Julia A. Kraus @ PEO-GCS, SFAE-GCS-FCS-WS M/S 290, 6501 E. 11 Mile Road, Warren, MI 48397-5000

13. SECURITY GUIDANCE. The security classification guidance needed for this classified effort is identified below. If any difficulty is encountered in applying this guidance or if any other contributing factor indicates a need for changes in this guidance, the contractor is authorized and encouraged to provide recommended changes; to challenge the guidance or the classification assigned to any information or material furnished or generated under this contract; and to submit any questions for interpretation of this guidance to the official identified below. Pending final decision, the information involved shall be handled and protected at the highest level of classification assigned or recommended. (Fill in as appropriate for the classified effort. Attach, or forward under separate correspondence, any additional guidance or rationale. Add additional pages as needed to provide complete guidance.)

Estimated Completion Date: September 2009

The Boeing Company facilities authorized to perform on this contract: .See Attachment "F".

Access to FCS information (not authorized for Public Release) by foreign interests (as defined by the NISPOM) is prohibited unless authorized by a valid export authorization.

Item 10.a - Access to classified COMSEC information requires a final US Government clearance at the appropriate level. Further disclosure of COMSEC information by a contractor, to include subcontracting, requires prior approval of the contracting activity.

Item 10.e (1) -- SENSITIVE COMPARTMENTED INFORMATION: See Attachment "A".

Item 10.e (2) -- NON-SCI: See Attachment "B".

Item 10.f -- SPECIAL ACCESS INFORMATION: See Attachment "C".

CONCUR: Julia A. Kraus
SCI Contract Monitor

CONCUR: Donald Vannieman
CSE Operations Chief
16 May 03 CONTINUED

14. ADDITIONAL SECURITY REQUIREMENTS. Requirements, in addition to NISPOM requirements, are established for this contract. (If Yes, identify the pertinent contractual clauses in the contract document itself, or provide an appropriate statement which identifies the additional requirements. Provide a copy of the requirements to the cognizant security office. Use Item 13 if additional space is needed.) YES X NO

The contractor will abide by DCID's 1/19, 6/9, and 6/3 for all SCI material. Also, see the SCI Addendum identified as Attachment "A" to this DD Form 254. This program is also an acknowledged SAP. The options identified "ACKNOWLEDGED" in the NISPOM Overprint are now made mandatory.

15. INSPECTIONS. Elements of this contract are outside the inspection responsibility of the cognizant security office. (If Yes, explain and identify specific areas or elements carved out and the activity responsible for inspections. Use Item 13 if additional space is needed.) X YES NO

For SCI, see the SCI Addendum identified as Attachment "A" to this DD Form 254. Otherwise, the Defense Security Service (DSS) has cognizance of this contract. However, the DSS representative must be briefed to the SAP. The Government Program Security Manager reserves the right to inspect the program facility. AR 380-10, NISPOM Overprint and AR 380-381 are documents governing the accreditation of contractor's AIS.

16. CERTIFICATION AND SIGNATURE. Security requirements stated herein are complete and adequate for safeguarding the classified information to be released or generated under this contract effort. All questions shall be referred to the official named below.

a. TYPED NAME OF CERTIFYING OFFICIAL	b. TITLE	c. TELEPHONE (Include Area Code)
Nancy A. Chaplin	Program Security Manager	586-574-3830

d. ADDRESS (Include Zip Code)	17. REQUIRED DISTRIBUTION
PEO-GCS ATTN: SFAE-GCS-FCS-WS / MS 290 6501 E. 11 MILE ROAD WARREN, MI 48397-5000	☐ a. CONTRACTOR ☐ b. SUBCONTRACTOR ☒ c. COGNIZANT SECURITY OFFICE FOR PRIME AND SUBCONTRACTOR ☐ d. U.S. ACTIVITY RESPONSIBLE FOR OVERSEAS SECURITY ADMINISTRATION ☒ e. ADMINISTRATIVE CONTRACTING OFFICER ☒ f. OTHERS AS NECESSARY TMO, 802nd
e. SIGNATURE Nancy Chaplin	

DD Form 254 Reverse, DEC 99

Post-it™ brand fax transmittal memo 7671 | # of pages ▸ 1

To GARY TUCKER	From PAM KLECEK
Co.	Co.
Dept.	Phone #
Fax #	Fax #

CONTINUATION OF BLOCK 13 OF THE DD FORM 254

Item 10.g – NATO INFORMATION: Access to classified NATO information requires a final US Government clearance at the appropriate level and shall be handled in accordance with Chapter 10, Section 7 of the NISPOM. In addition, prior to accessing NATO information, the facility has to be NATO Certified by the Defense Security Service. Subcontracting of NATO information requires prior approval of the Government Program Security Manager.

Item 10.h – FOREIGN GOVERNMENT INFORMATION: Access to classified Foreign Government Information (FGI) requires a U.S. Government clearance at the appropriate level, and shall be handled in accordance with Chapter 10, Section 3 of the NISPOM. Prior approval of the contracting activity is required before any subcontracting is allowed.

Item 10.j – FOR OFFICIAL USE ONLY (FOUO) INFORMATION: "FOR OFFICIAL USE ONLY" (FOUO) is not a classification marking. It identifies unclassified DoD information that is exempt from public disclosure. It must not be given general circulation without receiving public release authority in accordance with Block 12 above. FOUO information will be marked, transmitted, safeguarded and disposed on in accordance with AR 25-55, dated 1 November 1997. Also, see Attachment "D".

Item 10.k – CONTROLLED UNCLASSIFIED INFORMATION (CUI): See Attachment "E"

Item 11.c - Collateral classified information generated in support of this contract shall be classified in accordance with the source material used or the FCS Security Classification Guide, (provided under separate cover) and protected in accordance with the National Industrial Security Program Operating Manual (NISPOM), DoD 5220.22-M, the NISPOM COMSEC Supplement, the NISPOM Carrier Supplement, the Program Protection Plan, the FCS OPSEC Plan and this DD Form 254.

Item 11.g – DEFENSE TECHNICAL INFORMATION CENTER (DTIC): The contractor must prepare and forward DD Forms 1540 and 2345 to the COR for authorization before the services may be requested. Technical information on file at DTIC will be made available to the contractor if the contractor requires such information. The contracting officer will certify the field of interest relating to the contract.

Item 11.h – REQUIRE A COMSEC ACCOUNT: Contractor is authorized the use of secure telephones (STU-III / STE) with fax, encryption equipment and keying material for the ACE and encryption equipment and keying material to support international efforts.

Item 11.i – TEMPEST REQUIREMENTS: Prior to the implementation of any TEMPEST countermeasures or expenditure of funds, a TEMPEST vulnerability assessment will be conducted at locations processing SAP and/or SCI information. The DA Form 7453, Facility Technical Threat Assessment (FTTA) Worksheet will be provided under separate cover. These completed documents will be forwarded to the FCS Security Office for processing.

Item 11.j – OPERATIONS SECURITY (OPSEC) REQUIREMENTS: The contractor will provide an annex to the FCS OPSEC Plan within 60 days of receipt of the government's FCS OPSEC Plan. This annex will address specific threats and protection countermeasures at facilities performing on FCS. This requirement will be flowed down to all subcontractors.

Item 11.l (1) – AUTOMATED INFORMATION SECURITY: If processing SCI Information on an AIS, consult Attachment "A". When processing SAP information on an AIS, the NISPOM SUP, NISPOM SUP Overprint and the CLI Program Security Guide will be followed. Processing collateral classified information will be in consonance with the NISPOM. For access to Government systems, see below.

CONTINUATION OF BLOCK 13 OF THE DD FORM 254

PERSONNEL SECURITY REQUIREMENTS FOR ADP ACCESS:

Contractor personnel, to include subcontractors and consultants, meeting the requirements of an automated data processing position (ADP I, II, III), must satisfy certain personnel security standards regardless of whether or not the information processed by the automated information system (AIS) is classified. Criteria for security position sensitivity and ADP designation of positions is as follows:

Critical Sensitive (CS):

(1) Access to TOP SECRET information and/or
(2) Category I Automated Data Processing (ADP) Positions: Those positions in which the Incumbent is responsible for the planning, direction, and implementation of a computer security program; major responsibility for the direction, planning and design of a computer system, including the hardware and software; or, can access a system during the operation or maintenance in such a way, and with a relatively high risk for causing grave damage, or realize a significant personal gain.
(3) Investigation: Single Scope Background Investigation (SSBI) is required.

Non-Critical Sensitive (NCS):

(1) Access to SECRET or CONFIDENTIAL information and/or
(2) Category II Automated Data Processing (ADP) Positions: Those positions in which the incumbent is responsible for the direction, planning, design, operation, or maintenance of a computer system, and whose work is technically reviewed by higher authority (ADP-I)
(3) Investigation: National Agency Check or National Agency Check with Inquiries, is required.

Non-Sensitive (NS):

(1) All other positions involved in Federal computer processing activities.

(2) Category III Automated Data Processing (ADP) Positions. Contractor employees who do not have a personnel security clearance and need access to UNCLASSIFIED / SENSITIVE INFORMATION or EQUIPMENT (Automated Data Processing, Integrated Data Environment)

(3) Investigation: National Agency Check, Entrance National Agency Check, or National Agency Check with Inquiries is required.

Position sensitivity and ADP categories are determined by the employee's supervisor/manager. The Investigation must be successfully completed prior to assigning an individual to any ADP I or II duties unless a waiver has been granted through PCO channels. If hired within two years of a separation from the government, military or another defense contractor, a contractor's prior investigation may meet the investigative requirements of an ADP position.

Item 11.l (2) – PROGRAM PROTECTION PLAN (PPP) REQUIREMENTS: This plan is effective immediately and is mandatory for use by all FCS program participants, field activities and matrix support personnel at all FCS locations. This plan, or derivative plans developed by the LSI or the LSI's subcontractors, will cover all locations where CPI is researched, manufactured, stored, processed or tested, and a derivative DRAFT PPP will be forwarded to the FCS Security Office for approval within 30 days of receipt of the FCS PPP. A final derivative PPP will be provided the FCS Security Office 30 days after receipt of comments and recommended changes to the draft derivative PPP. The derivative PPP will be reviewed annually, updated as necessary, and

CONTINUATION OF BLOCK 13 OF THE DD FORM 254

forwarded the FCS Security Office for approval. The plan will address all development or operational environments from concept to demilitarization. The threat analysis will cover both current and future considerations for intelligence collections and sabotage/terrorism in both peacetime and combat environments. The vulnerabilities identification and countermeasures development efforts will include traditional counterintelligence and security disciplines to assist in the protection of all CPI from unauthorized collection efforts. The CPI security risk assessment process will utilize robust system security engineering processes. The implementation of the comprehensive scope of the PPP will ensure adequate protection of CPI and it will also enable international cooperative efforts (when and if applicable). The derivative PPPs submitted will be marked, at a minimum, FOR OFFICIAL USE ONLY (FOUO), consistent with the information disclosed.

Item 12 – PUBLIC RELEASE: One (1) paper copy and one (1) electronic copy on disk with full text and graphics must be provided at least eleven (11) working days prior to the requested release date. If all or part of the information was generated by another organization, their written release authorization must accompany the request.

Prior to subcontracting at the Top Secret, COMSEC, SCI, NON-SCI, NATO, FGI or SAP level, the contractor will obtain concurrence on the subcontract DD Form 254 from the Government Program Security Manager.

Reports of loss, compromise or suspected compromise shall be provided to the Government Program Security Manager's Office within 24 hours of the incident, in addition to the reporting requirements outlined in the NISPOM.

COMPLETION OF CONTRACT: The GPSM Office will be contacted for instructions on destruction, retention or transfer of FCS classified and unclassified information (documents, media, hardware, software, vehicles, etc.). A final DD Form 254 will be issued providing detailed guidance.

ATTACHMENT "A"

SCI INFORMATION

US ARMY SCI ADDENDUM TO DD FORM 254, 12 February 2003

XXX (1) This contract requires access to Sensitive Compartmented Information (SCI). The Commander, US Army Intelligence and Security Command (INSCOM), acting on behalf of the DA Deputy Chief of Staff (DCS), G-2 as the Cognizant Security Authority (CSA) for the US Army, has exclusive security responsibility for all SCI released to the contractor or developed under the contract and held within the Contractor's SCI Facility (SCIF) or Co-utilization Agreement (CUA) SCIF. The Defense Intelligence Agency (DIA) has security inspection responsibility for SCI and the Defense Security Service (DSS) retains responsibility for all collateral information released or developed under the contract and held within the DoD Contractor's SCIF. The manuals, regulations and directives checked below provide the necessary guidance for physical, personnel, and information security for safeguarding SCI, and are part of the security classification specification for this contract:
XXX DoD 5105.21-M-I, SCI Security Manual, Administrative Security
XXX DoD TS-5105.21-M-2, SISR (Signals Intelligence Security Regulation)
XXX DoD TS-5105.21-M-3, National Imagery and Mapping Agency Policy Series
XXX DCID 6/3, Protecting Sensitive Compartmented Information within Information Systems
XXX DCID 6/9, Physical Security Standards for Sensitive Compartmented Information Facilities
____ DIAM 50-4, DoD Intelligence Information System.
XXX DIAM 50-24, Security for Using Communications Equipment in a SCIF.
XXX AR 380-19, Information System Security
XXX AR 380-28, DA Special Security System
XXX AR 380-381, Special Access Programs (SAPS).
XXX Army Handbook for SCI Contracts.
____ Other

XXX (2) Contract estimated completion date: January 2004 **(NOTE: Section "F" of the contract normally provides the Period of Performance. Option years are not to be included, as an option is not valid until exercised by the government.)**

XXX (3) The name, telephone number, email address and mailing address of the Contract Monitor (CM) for the SCI portion of this contract is: CM - Ms. Julia Kraus, PEO-GCS, ATTN: SFAE-GCS-FCS M/S 290, Warren, MI 48397 Phone: 586-574-3821 / krausju@tacom.army.mil. The CSSO is Mr. Lynn Pochert, 253-773-4827,

XXX (4) All DD Forms 254 prepared for subcontracts involving access to SCI under this contract must be forwarded to the CM for approval and then to HQ INSCOM, ACofS Security, G2, Contractor Support Element (CSE) for review and concurrence prior to award of the subcontract.

XXX (5) The contractor will submit the request for SCI visit certifications through the CM for approval of the visit. The certification request must arrive at the Contractor Support Element at least ten (10) working days prior to the visit.

XXX (6) The contractor will not reproduce any SCI related material without prior written permission of the CM.

XXX (7) Security Classification Guides or extracts are attached or will be provided under separate cover.

XXX (8) Electronic processing of SCI requires accreditation of the equipment in accordance with DCID 6/3, DIAM 50-4, and AR 380-19 (Note: Check only if item 111 indicates that a requirement exists for SCI AIS processing.)

XXX (9) This contract requires a contractor SCIF.

XXX (10) This contract requires X (SI) X (TK) _(G) _(HCS) (Add others as required)

XXX (11) The contractor will perform SCI work under this contract at the following locations: TBD

ATTACHMENT "B"

Security Requirements for Intelligence Information

1. Intelligence material released under this contract remains the property of the U.S. Government and may be withdrawn upon notice.

2. A record shall be maintained of all the intelligence material (regardless of classification) released to your custody. Annual verification of all materials released under this contract shall be provided to the cognizant Foreign Intelligence Division (FID). This requirement shall provide opportunity for update of materials as well as security verification.

3. Intelligence material shall not be reproduced without the express written FID. When written permission is received to reproduce intelligence materials, control and accountability for such reproductions shall be maintained in the same manner as pertains to the originals. All intelligence information stored or utilized in Automated Information Systems (AIS) programs shall be controlled and accounted for under the above procedures.

4. Prior to granting a contractor employee access to intelligence materials, they will be briefed on the obligation of comply with these procedures and shall be debriefed when access to the material is terminated. A permanent list of all employees having had access to the intelligence materials during this contract shall be maintained by the company security officer. This record shall be used to provide current access reporting to the cognizant FID and shall be available for Defense Security Service (DSS) inspections.

5. Intelligence material shall not be released by contractor to any activity, employee, contractor, subcontractor, consultant, government agency, private individual or organization. Material shall not be released to foreign nations or non-U.S. citizens. All release of intelligence must be made by the cognizant FID.

6. Intelligence material released to you shall not be destroyed unless written authorization and instruction for such destruction is provided by the cognizant FID.

7. Upon expiration of the contract, all intelligence materials released to under this contract will be returned to the FID. In the event the contract is extended or that a new similar contract is made requiring intelligence information, it is the responsibility of the contract monitor to document the change with the FID.

8. The name and address of the Intelligence Officer, TACOM is as follows:

   US Army Tank-automotive and Armaments Command
   ATTN: Fred Schwarz
   AMSTA-CM-XSF / mail stop 105
   6501 E. 11 Mile Road
   Warren, MI 48397-5000
   Phone: (586) 574-6502

ATTACHMENT "C"

SPECIAL ACCESS INFORMATION

1. All SAP material generated or received will be marked and controlled in accordance with the CLI PSG (dated 24 Feb 03), CLI SCG (draft dated 3 May 02), CLI OPSEC Plan (draft dated 3 May 02), NISPOM, NISPOM SUP and NISPOM SUP Overprint. SAP documents will be provided under separate cover. When subcontracting at the SAP level, the GPSM's Office will forward the SAP documents mentioned above to the subcontractor.

2. All SAP work will be performed only in an area designated by that specific SAP's Program Manager. This includes, but is not limited to, performance of engineering design efforts, Automated Information Services (AIS) processing, and administrative efforts for the SAP. All SAP processing will comply with the program specific PSG.

3. Personnel approved for access to Army and non-Army SAPs may be subject to random polygraph examinations.

4. SAP information and knowledge that a SAP is associated with this contract is not releasable to foreign entities, governments, nationals, or representatives of a foreign government or nation.

5. SAP information is not releasable to the Defense Technical Information Center or any other information service.

6. Defense contractor personnel who require access to Army Special Access Program (SAP) information, as defined by AR 380-381, must agree to undergo random counterintelligence scope polygraph examinations, when requested by proper authority, to determine suitability for receiving and/or maintaining access to SAP information. Contractors will certify prior to contract award or subsequent to award but prior to the commencement of duties for new employees, that all personnel so identified have freely consented to such examination. Contractor personnel who withdraw their consent at any time during their period of access must be immediately removed from access to SAP information and such action must be promptly reported to the contracting officer or such party as he may direct. Additional information about polygraphs, and DD Forms 254 for SAPs is contained in AR 380-381, including the requirements for distribution of a copy of all DD Forms 254 in support of SAP contracts to be forwarded to HQDA (DACS-DMP), Room D711, 200 Army Pentagon, Washington, DC 20310-0200. Additionally, any requirement that contractor personnel must undergo polygraph examination needs to be clearly stated in the contract document.

7. Army SAP facilities are subject to inspection and monitoring under select Arms Control Treaties. A notification process must be in place.

8. SAP classified material shall be transmitted outside the contractor's facility in a manner that prevents loss or unauthorized access.

9. Downloading of unclassified information to unclassified media from an AIS approved to process SAP information is not permitted.

ATTACHMENT "D"

SAFEGUARDING "FOR OFFICIAL USE ONLY (FOUO)" INFORMATION

(Provided by the G-2)

1. The "FOR OFFICIAL USE ONLY" marking is assigned to information at the time of its creation in a DOD User Agency. It is not authorized as a substitute for a security classification marking but it is used on official Government Information that may be withheld from the public under exemptions 2 through 9 of the Freedom of Information Act.

2. Other non-security markings such as "Limited Official Use" and "Official Use Only" are used by non-DOD user Agencies for the same type of information and should be safeguarded and handled in accordance with instructions received from such agencies.

3. Use of the above markings does not mean that the information cannot be released to the public, only that it must be reviewed by the Government prior to its release to determine whether a significant Government purpose is served by withholding the information portions of it.

4. **IDENTIFICATION MARKINGS:**

a. Wholly unclassified documents and material containing FOUO information will be marked as follows:

(1) An unclassified document containing FOUO information will be marked "FOR OFFICIAL USE ONLY" in letters larger than the rest of the text, where practical, at the bottom of the front cover (if any), the title page (if any), on the first page, on each page containing FOUO information, on the back page, and on the outside of the back cover (if any). The abbreviation, "FOUO" will not be used as a footer.

(2) Pages of the document which contain FOUO information will be marked "FOR OFFICIAL USE ONLY" at the bottom.

(3) Material other than paper documents, for example, slides, computer media, films, etc., will bear markings which alert the holder or viewer that the material contains FOUO information.

b. Within a classified document, an individual page that contains FOUO and classified information will be marked at the top and bottom with the highest security classification appearing on the page. If an individual portion contains FOUO information but no classified information, the portion may be marked "FOUO".

c. Any "FOR OFFICIAL USE ONLY" information released to a contractor by a DOD User Agency is required to be marked with the following statement prior to transfer.

THIS DOCUMENT CONTAINS INFORMATION EXEMPT FROM MANDATORY DISCLOSURE UNDER THE FOIA. EXEMPTIONS_____APPLY.

d. Removal of the "FOR OFFICIAL USE ONLY" marking can only be accomplished by the originator or other competent authority. When "FOR OFFICIAL USE ONLY" status is terminated, all known holders will be notified to the extent possible.

5. **DISSEMINATION:** Contractors may disseminate "FOR OFFICIAL USE ONLY" information to their employees and subcontractors who have a need for the information in connection with a classified contract.

6. **STORAGE:** During working hours "FOR OFFICIAL USE ONLY" information shall be placed in an out-of-sight location if the work area is accessible to persons who do not have a need for the information. During non-working hours, the information shall be stored to preclude unauthorized access. Filing such material with other unclassified records in unlocked files or desks is adequate when internal building security is provided during non-working hours. When such internal security control is not exercised, locked buildings or rooms will provide adequate after hours protection or the material can be stored in locked receptacles such as file cabinets, desks or bookcases.

7. **TRANSMISSION:** "FOR OFFICIAL USE ONLY" information may be sent via first-class mail or parcel post. Bulky shipments may be sent fourth-class mail. Electronic transmission of FOUO information by voice, data, facsimile or similar means, should be by approved secure communications systems whenever possible.

8. **DISPOSITION:** When no longer needed, FOUO information may be disposed of by tearing each copy into pieces to preclude reconstructing, and placing it in a trash container or as directed by the User Agency.

9. **UNAUTHORIZED DISCLOSURE**: Unauthorized disclose of "FOR OFFICIAL USE ONLY" information does not constitute a security violation but the releasing agency should be informed of any unauthorized disclosure. The unauthorized disclosure of FOUO information protected by the Privacy Act may result in criminal sanctions.

ATTACHMENT "E"

CONTROLLED UNCLASSIFIED INFORMATION

Controlled Unclassified Information (CUI) provided to or generated pursuant to the FCS Program will be controlled. The procedures for the protection of CUI are as outlined below.

Definition: Unclassified information to which access or distribution limitations have been applied according to national laws, policies and regulations of the US Government. It includes US information that is determined to be exempt from public disclosure or that is subject to export controls according to the International Traffic In Arms Regulation (ITAR), the Export Administration Act (EAA), and/or the Arms Export Control Act (AECA). Examples include but are not limited to: Competition Sensitive, For Official Use Only (FOUO), Sensitive But Unclassified (SBU), Commercial In Confidence, technical data.

Following are the minimum requirements for the protection of CUI:

- STORING/HANDLING
  - CUI must be locked in a desk, file cabinet, office or any other means to preclude unauthorized access, when not in use.
  - CUI may not be displayed in a public place, such as an airport, airplane, restaurant or train station.
  - Computers used for processing CUI do not need to be accredited for classified use. However, personal computers are not authorized for processing CUI.
- DISPOSAL
  - Disposal requires that the information be destroyed in such a manner so as not to be easily reconstructed (i.e. shredding).
  - Computer disks must be reformatted, shredded or degaussed before being disposed of or transferred to another office.
- TRANSMISSION
  - Transmission may be through normal mail channels or handcarried without formal courier orders.
  - Electronic transmission of CUI by voice, data, facsimile or similar means, should be by approved secure communications systems whenever possible.
  - CUI may NOT be transmitted through electronic mail on the INTERNET. Requests to use commercial encryption systems for this purpose will be reviewed on a case-by-case basis by the FCS Program Security Office.

UNAUTHORIZED DISCLOSURE OF CUI.
Unauthorized disclosure of CUI does not constitute an unauthorized disclosure of classified information for security purposes. Administrative action shall be taken, however, to ensure that the unauthorized disclosure of information is contained, and appropriate re-education and/or disciplinary action is taken against those responsible. The unauthorized disclosure shall be reported to the FCS Program Security Office.

Prior to authorizing the further release of Controlled Unclassified Information to subcontractors, vendors, suppliers, etc., ensure they are legally bound to control such information in accordance with these provisions.

ATTACHMENT "F"

BOEING FACILITIES AUTHORIZED TO PERFORM ON THIS CONTRACT

LOCATIONS AUTHORIZED TO STORE / PROCESS:

COLLATERAL and SPECIAL ACCESS PROGRAM INFORMATION -

LOCATION / ADDRESS	CAGE CODE
The Boeing Company 3370 Miraloma Avenue Anaheim, CA 92803	94756
The Boeing Company P.O. Box 3707 Seattle, WA 98124	81205
Boeing Company Rotocraft P.O. Box 16858 Philadelphia, PA 19142	77272
The Boeing Company 1200 Wilson Blvd. Arlington, VA 22209	1D020
The Boeing Company 5301 Bolsa Ave. Huntington Beach, CA 92647	18355
The Boeing Company P.O. Box 516 St. Louis, Mo. 63166	28980

SENSITIVE COMPARTMENTED INFORMATION -

LOCATION / ADDRESS	CAGE CODE
The Boeing Company 3370 Miraloma Avenue Anaheim, CA 92803	94756
The Boeing Company P.O. Box 3707 Seattle, WA 98124	81205

COLLATERAL INFORMATION -

LOCATION / ADDRESS	CAGE CODE
The Boeing Company Helicopter Systems 5000 E. McDowell Rd. Mesa, AZ 85215-9797	8V613
The Boeing Company 499 Boeing Blvd P.O. Box 240002 Huntsville, AL 35824-6402	3A768
The Boeing Company 3700 Bay Area Blvd. Houston, TX 77058	2B884

Attachment 4

SDD GFX Item Description/Part Number	Quantity	Need Date	IPT	Providing Agency	Deliver To	Complementary Program ?
TRANSPORTATION (Deployment)E-LIST	1	All SDD	Logistics	TRANSCOM, Doug Barbour, (757)599-1663, douglas.barbour@tea.army.mil	Logistic Directorate, FCS, Logistics Products Manager (Attn: Rick Wong), 20403 68th Avenue S, Kent, WA. 98036	N
ULTRALOG	1	All SDD	Logistics	DARPA, ULTRA Log, Mark Greaves (703)526-6623, mgreaves.@darpa.mil or Tony Rozga, (703)526-6622, trozga@lmi.org	Logistic Directorate, FCS, Logistics Products Manager (Attn: Rick Wong), 20403 68th Avenue S, Kent, WA. 98038	N
LOGNET (now WEBLOG) links to Logistics Integrated Database	1	All SDD	Logistics	LOGSA, William Chaplow, (256)955-9685, william.chaplow@logsa.army.mil	Logistic Directorate, FCS, Logistics Products Manager (Attn: Rick Wong), 20403 68th Avenue S, Kent, WA. 98050	N
Modernized Integrated database (MIDB)	12 Licenses	NLT June 04	C4ISR	Sue Hilmer Michael Roberge (202)231-3145		N
Aggregate Level Command and Control (C2) Environment Server (ALCES)	1	Jun 03 + Periodic Updates thru PoP	IS&T	CECOM Arnie Bard (732)427-4469 Gregory Ilaria 732-427-4209 Gregory.Ilaria@mail1.monmouth.army.mil	ACE and SAIC VA location	N
Comprehensive Mine & Sensor Simulator (CMS2) – and all associated runtime and initialization data	1	6/1/2003 + Periodic Updates thru PoP	IS&T	Dave Poole (703)704-2436	ACE or Mutually agreed to media	N
Intelligence Modeling and Simulation for Evaluation (IMASE) – and all associated runtime and initialization data	1	6/1/2003 + Periodic Updates thru PoP	IS&T	Intelligence Electronic Warfare Test Directorate- Jimmy Smith	ACE or Mutually agreed to media	N
Janus – and all associated databases, runtime and initialization data	1	6/1/2003	IS&T	National Simulation Center Janus Team Chief (913) 684-8132	ACE or Mutually agreed to media	N

VIC - Vector in command – and all associated runtime and initialization data	1	6/1/2003 + Periodic Updates thru PoP	IS&T	Individual Forces Research Unit Ft. Benning	ACE or Mutually agreed to media	N
All ammunition (off-the-shelf and developmental) required to support systems and system-of-systems testing as specified in the FCS TEMP	will evolve as individual test plans are developed in support of TEMP	Per TEMP	Lethality/ Soldier Systems	Army PEO-Ammo IPT rep is Robin Gullifer, SFAE-AMO, robin.gullifer@us.army.mil	Test sites	N
SUO/SAS Radio Terminal	25	Jan-04 through Sept-08	C4ISR	PM FCS Networks, Ft. Monmouth, NJ 07703 Russell Langan, Chief Engineer, (732)427-4239	Boeing (Huntington Beach Facility) Classified Address: 5301 Bolsa Ave. Huntington Beach, Ca. 92647 Unclassified Address: 5222 Rancho Road, Huntington Beach, Ca. 92647 Building 40 ATTN: Raymond J. Moore 714-896-4113	N
Access to SIPRNET with Identified accounts at 4 Boeing sites TBD	1 drop each for 4 sites), 12 Users Accounts	NLT June 04	C4ISR	Beverly Gibson, Gerry Melendez (732) 427-2900		N

Attachment 4a

CTD Transferred GFX Item Description/Part Number	Quantity	Need Date	IPT
Joint Virtual Battlespace (JVB) suite of simulations	1	6/1/2003 + Periodic Updates thru PoP	IS&T
CASTFORM	1	6/1/2003 + Periodic Updates thru PoP	IS&T
JCATS	1	6/1/2003 + Periodic Updates thru PoP	IS&T
Eagle Combat Model	1	6/1/2003 + Periodic Updates thru PoP	IS&T
OneSAF Test Bed (OTB) -- and all associated databases, runtime and initialization data	1	6/1/2003 + Periodic Updates thru PoP	IS&T
Threat documents that describe red force capabilities (Incl STAR references)	all	6/1/2003 + Periodic Updates thru PoP	IS&T
Documents that describe blue force capabilities (external to UA)	all	6/1/2003 + Periodic Updates thru PoP	IS&T
Scenarios - Including updates - Balkans, Caspian Sea, etc. Threats (STAR) Day/Night Weather Terrain	all	6/1/2003 + Periodic Updates thru PoP	IS&T
ARMY Material System Analysis Activity (AMSAA) data disks . FCS related system description data disks	all	6/1/2003 + Periodic Updates thru PoP	IS&T

ATTACHMENT 5

RESERVED.

ATTACHMENT 6
DATA OR SOFTWARE TO BE FURNISHED WITH RESTRICTIONS

Technical Data or Computer Software to be Furnished with Restrictions	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
Flow Analysis Model	Developed at private expense	Restricted Rights	The Boeing Company

ATTACHMENT 7
OFFICE SPACE AND ADMINISTRATIVE SUPPORT

A. Army Installations Requiring Boeing On-Site Support

1. The work required to successfully perform the SDD Phase necessitates that the LSI provide full-time, on-site personnel distributed at the below listed Army installations.

2. Following are the Army installations where Post support will be required:

No.	Army Installation	Quantity (People)	Need Date	IPT
1.	Ft. Knox (UAMBL)	4	6/1/2003	Training Systems
2.	Ft. Knox	15	6/1/2003	Force Development
3.	Ft. Monroe	2	6/1/2003	Force Development/SSEI Architectures
4.	Ft. Sill	1	6/1/2003	Force Development
5.	Ft. Lee	1	6/1/2003	Force Development
6.	Ft. Leavenworth	2	6/1/2003	Force Development
7.	Ft. Leonard Wood	1	6/1/2003	Force Development
8.	Ft. Benning	2	6/1/2003	Force Development
9.	Ft. Gordon	1	6/1/2003	Force Development
10.	Ft. Rucker	1	6/1/2003	Force Development
11.	Ft. Huachuca	1	6/1/2003	Force Development
12.	Ft. Eustis	1	6/1/2003	Training Systems
13.	Ft. Monroe	2	6/1/2003	C4ISR
14.	Ft. Belvoir	3	6/1/2003	C4ISR
15.	Ft. Monmouth	5	6/1/2003	C4ISR

3. The Government agrees to provide, as a minimum, the Post access, office space, furniture, telephone and computer equipment, services, miscellaneous office supplies, miscellaneous administrative support, etc. described below. The requested support identified below is per-person.

(a) Post access shall be provided, as appropriate, to allow LSI on-site personnel to perform their assigned duties. Post access to include vehicle decals, personal identification and badging. Parking shall be provided within a reasonable distance to office spaces.

(b) Office space provided shall be equal to those provided to Government personnel of similar rank or title, performing similar type work activities. Offices spaces shall be heated, cooled, ventilated and lighted as is provided for Government employees.

(c) Office furniture provided shall include, as a minimum, (1) four (4) 110v receptacles, (2) standard desk and ergonomic chair, (3) computer table designed for such use, (4) standard work table and two (2) visitor chairs, (5) a two (2) drawer filing cabinet and a two (2) shelf bookcase, and (6) coat rack.

(d) Telephone equipment provided shall be multi-line and have voice mail, speaker, conference call and headset capability and the ability to dial direct and long-distance. Use of a secure telephone will be provided, as required.

(e) Computing resources shall include Post LAN access to Army resources and Internet access same as is provided for site Government employees. Hardware and software technical support will be provided as required. Access to printers, plotters, fax machines, copiers and other office equipment, will be provided.

(f) FCS SECRET network systems, with provision for classified storage, as otherwise available at that location.

(g) Miscellaneous office supplies and administrative support shall be provided, as required.

B. Boeing Locations Requiring Government On-Site Support

1. Following are the Boeing locations where Government support will be required:

TBD

ATTACHMENT 8

INTEGRATED MASTER PLAN

1.0 INTRODUCTION

1.1 IMP DESCRIPTION

The FCS Integrated Master Plan (IMP) implements the product orientation of the Integrated Product and Process Development (IPPD) philosophy. The IMP was developed to provide a product development logical sequence to our statement of work and product oriented WBS. All our the FCS Integrated Product Team (IPT) leaders and members collaborated with the Systems of Systems Engineering and Integration (SEI) Integrated Product Development (IPD) planners and the government representatives to develop the IMP and Integrated Master Schedule (IMS), so it contains an effective and implementable logical series of Program Events (PE), Significant Accomplishments (SA), Accomplishment Criteria (AC), and allocated tasks for the total period of performance for the FCS SDD program.

The IMP PEs, SAs, and ACs provide the logical roadmap and sequential flow necessary to manage the entire program. The IMP/IMS development approach utilizes a single master scheduling database that includes the IMP and supporting IMS tasks. All IPTs perform tasks that roll up and are directly traceable to the IMP PEs, SAs and ACs.

It is our intention for the responsible IPTs to have Program Office counterpart-participants who will first hand observe the IPTs accomplishment of tasks, ACs and SAs. The IPT leaders monitor and control the completion using Earned Value Management System (EVMS), internal audits, risk management, and other supporting processes and metrics to status progress. The IPTs efforts culminate in an event closure evidence and recommendation of closure acceptance to the next higher level IPT within the product team structure.

The definitions of PEs, SAs and ACs are as follows:

• **Program Events** – PEs represent significant progress decision points that relate system maturity with continued system development. PEs are distributed throughout the performance period of the Agreement and define specific FCS control gates and milestones.

• **Significant Accomplishments** – SAs represent the closure (i.e., accomplishment) of sequenced interim and critical activities that must be completed as entry-level or exit-level constraints for the completion of a PE. They provide a logical path toward product completion. Completion demonstrates that the appropriate closure criteria were achieved and products are ready to be used as building blocks for subsequent activities. SAs define interim and final steps on the path to define, design, develop, produce, integrate, test, and verify the product or system in support of the SOW and other agreement documentation. SAs are organized around the product and event to be supported. Closure of all SAs is a requirement for passage of the event to which they belong.

• **Accomplishment Criteria** – ACs are definitive measures that are used to judge the completion of each SA and demonstrate results. When all of the ACs that define an SA are met, then the SA is satisfactorily completed. ACs are used to highlight specific areas of the work effort collected into sets. These sets make management and management control-tool products (for example, technical parameter tracking, risk monitoring, and critical process or incremental product verification) more effective to monitor and control. Standard verbs associated with ACs are defined clearly in Table 1-1, so that all parties understand the requirements for successful AC completion.

1.2 IMP STANDARD VERB LIST

The standard list of verbs used in the FCS IMP to express closure of the SAs and ACs is shown in Table 1-1, together with a verb description.

Table 1-1. List of Standard FCS IMP Verbs

Verbs Verb Description for IMP activity

Agreed Upon

An authorized party of the Contractor enters into an agreement with the customer, the customer's government, the U.S. government, other companies, or with organizations within the Contractor and the agreement is documented in writing and signed by all parties.

Allocated The subject parameter has been subdivided or apportioned into parts according to the appropriate product manager. A document that shows the allocation and acceptance has been prepared and is available in Advanced Collaborative Environment (ACE) or other media as required for timely and complete access to the information.

Analyzed The subject parameter has been technically evaluated through equations, charts, and reduced data.
Approved The subject configuration item, data, or document has been submitted to the appropriate authority, which has notified the team that it is acceptable.
Available The subject configuration item, tool, or process is in place or operational. The subject data or document has been added to, and it is accessible in ACE or other media as required for timely and complete access to the information.
Baselined The subject design, parameter, concept, or configuration item has been finalized, received management approval and is under configuration control.
Compiled Information/dates have been gathered, cleaned up, and put together to form a definitive document and/or analysis.
Completed The subject configuration item, data, or document has been prepared and reviewed by contractor management and is available in ACE or other media as required for timely and complete access to the information.
Conducted The subject event or review has been held and minutes completed.
Defined The subject configuration item, data, or document has been described in an appropriate description document, which is available in ACE or other media as required for timely and complete access to the information.
Delivered The subject configuration item, data, or document has been accepted in the form and at the location specified in the contract.
Demonstrated The subject configuration item, data, or document has been shown to be in accordance with contract requirements through measures where success or failure is determined by observation.
Developed The subject configuration item, data, or document has been produced through a sequence of activities that may include planning, design, test, and verification.
Documented The subject area has been compiled, edited, and put into a draft format for review or in final form.
Established The subject has been created and set in place in a manner consistent with its intended use (e.g., procedures, baselines established).
Evaluated A measured comparison of the subject with contract requirements has been completed, and results are in ACE or other media as required for timely and complete access to the information.
Finalized The subject data or document is complete, has contractor management approval, and may not be changed without formal revision control.
Generated Data has been created or results have been established or information has been made available to satisfy a goal or expectation.
Identified The characteristics of a configuration item, process, or function have been made known for the first time.
Implemented The subject policy, approach, or procedure is being regularly executed.
Incorporated Information has been obtained and included/combined into subject document/data item.
Initiated The subject approach or procedure has been started.

Verbs Verb Description for IMP activity

Integrated The subject has been consolidated into an entity (e.g., data, requirement, document, configuration item) by appropriately combining all separate requirements, functional disciplines, and configuration item considerations.
Negotiated The subject item has been proposed by one party to another, exchanges between parties have taken place and the parties have arrived at an agreement which is documented in writing and sign by both parties.
Performed A task or assignment has been carried out in accordance with directions, guidelines, and established processes.
Prepared The subject item has been created, documented, and transferred in acceptable format for review.
Provided The subject configuration item has been completed and delivered to the receiving agency.
Released The subject data or document has received all necessary Government and contractor IPT approvals, has been completely distributed, and is available through ACE or other means as required for timely and complete access to the information.
Resolved Successful determination or solution to an issue or problem declared in writing
Reviewed The subject data document has been examined critically and satisfies predefined requirements.
Revised The subject configuration item, data, or document has been updated to account for new requirements and/or facts.
Submitted Provided to the customer for information or for approval when approval is required beyond that of customer participation in IPT approvals.
Supported Prime activity has been supplemented and enhanced by providing data, information, or manpower.
Updated The subject process, data, or document has been reevaluated based on later information, and adjustments have been incorporated.
Validated The subject requirement, configuration item, data, or document has been reviewed for technical compliance by the contractor, using existing approved procedures, instructions, and checklists.
Verified The subject configuration item, data, or document has been proved to be in accordance with contract requirements by analysis, inspection, demonstration, or test.

2.0 FCS INTEGRATED MASTER PLAN (IMP) LISTING

The FCS IMP indentured listing provided in Table 2-1 shows the Program Events (PE), Significant Accomplishments (SA) and Accomplishment Criteria (AC) defined for the SDD program. It also includes the unique identifier for each IMP item. This identifier is carried over into the IMS so one single integrated database can be maintained for the IMP and IMS. The FCS IMP uses a color-coding as well as an indenture to identify the PEs, SAs, and ACs. PEs are level 1 and are red, SAs are at the second level and are green, and ACs are at level 3 and are blue. In addition, the listing identifies the IPT with primary responsibility for each AC. The IPT code definitions are contained in Table 2-2.

Table 2-1. FCS IMP Listing

Lev Code IPT Description
1 Program Event
2 Significant Accomplishment
3 Accomplishment Criteria
1 B01 System of Systems Requirements Review
2 B01.010 O&O and ORD updates evaluated
3 B01.010.010 FDV UA O&O and ORD - LSI Inputs Updated
3 B01.010.020 FDV ORD Update impacts on SoS and FoS Requirements evaluated
3 B01.010.030 FDV Product Requirements and Development Impacts evaluated
3 B01.010.040 FDV System Assessment impacts Analyzed
3 B01.010.050 FDV Program impacts evaluated
3 B01.010.060 FDV Recommendations completed
2 B01.020 SoS requirements and architecture updated and provided to TRADOC
3 B01.020.010 FDV SoS Operational Views Baselined
3 B01.020.020 FDV SoS force requirements updated
3 B01.020.030 SEI SoS requirements updated
3 B01.020.040 SEI SoS specification updated
3 B01.020.050 SEI Interface documentation updated
3 B01.020.060 SEI SoS architecture updated
3 B01.020.070 SEI SoS Engineering specialty requirements defined
3 B01.020.080 SEI Specification and product trees revised
3 B01.020.090 SEI ORD to SoS requirements traceability documented
3 B01.020.100 SEI SoS requirements to Complementary programs traceability documented
2 B01.030 FOS functional allocation updated
3 B01.030.010 SEI SoS to FOS functions allocated
3 B01.030.020 SEI SoS Software development document updated
2 B01.040 Initial Segment Requirements and Plans Prepared
3 B01.040.010 SEI Initial C4ISR, training & Sustainment Segment Specs prepared
3 B01.040.020 C4I Preliminary system design generated
3 B01.040.030 C4I System Integration Laboratory Facility Planning Completed
2 B01.050 UAV requirements reviewed
3 B01.050.010 UAV UAV requirements data reviewed & prepared
2 B01.060 UGV requirements reviewed
3 B01.060.010 UGV UGV requirements data reviewed & prepared
2 B01.070 MGV requirements reviewed
3 B01.070.010 MGV MGV Software SRR Activities completed
3 B01.070.020 MGV Systems Engr/AIT review of architecture and requirements from CTD completed
3 B01.070.030 MGV MGV Common Subsystems requirements reviewed
3 B01.070.040 MGV MGV Mission Variant requirements reviewed
3 B01.070.050 MGV Initial IATCO Operational requirements reviewed
3 B01.070.060 MGV CTD NLOS-C requirements reviewed
3 B01.070.070 MGV MGV Platform requirements reviewed
Lev Code IPT Description
2 B01.080 Weapons & munitions requirements reviewed
3 B01.080.010 LET Weapons & munitions by Core: Complementary to core/UA/UE identified
3 B01.080.020 LET Initial Weapons and munitions requirements identified
2 B01.090 Soldier Systems integration requirements for increment 1 Analyzed
3 B01.090.010 SOL Soldier Systems requirements by Core: Complementary to core/UA/UE updated
3 B01.090.020 SOL Initial Soldier Systems integration requirements established
2 B01.100 Systems engineering and design products updated

3 B01.100.010 SEI System of Systems analysis plan updated
3 B01.100.020 SEI Configuration management plan updated
3 B01.100.030 SEI Systems engineering management plan (SEMP) updated
3 B01.100.040 SEI SoS Trade study plan prepared
3 B01.100.050 SEI Trade Studies Performed
3 B01.100.060 SEI FCS Incremental and spiral development plan updated
3 B01.100.070 SEI FCS Technology maturation plan prepared
3 B01.100.080 SEI SDD simulation support plan updated
3 B01.100.090 SEI SDD program plan updated
3 B01.100.100 SEI SDD risk management plan updated
3 B01.100.110 SEI FCS complementary programs management control plan updated
3 B01.100.120 SEI SDD GFP management report updated
3 B01.100.130 SEI FCS UoA system manprint updated
3 B01.100.140 SEI FCS programmatic and environmental safety and health evaluation updated
3 B01.100.150 IST Life cycle cost containment plan updated
3 B01.100.160 SEI Program protection & certification plan updated
3 B01.100.170 SEI Engineering Specialties Plans updated
3 B01.100.180 SEI FCS Interface control Plan updated
2 B01.110 SoS integration and verification documents updated
3 B01.110.010 SEI SoS Integration and verification plans updated
3 B01.110.020 IST SoS integration lab development plan updated
2 B01.120 Supportability system requirements reviewed
3 B01.120.010 SUP FCS Supportability strategy updated
2 B01.130 Training system requirements reviewed
3 B01.130.010 TRN Horizontal integration cross IPT/Supplier coordination process defined
3 B01.130.020 TRN Training system requirements reviewed
2 B01.140 System of Systems assessment updated
3 B01.140.010 SEI SoS Performance assurance analyses performed
3 B01.140.020 SEI SoS affordability analysis performed
3 B01.140.030 SEI SoS Effectiveness analysis performed
3 B01.140.040 SEI SoS Scenarios and threats updated
3 B01.140.050 IST SoS Models and Sims updated
3 B01.140.060 SEI SoS Engineering specialty analyses performed
3 B01.140.070 SEI SoS risks assessments and mitigation plans documented
3 B01.140.080 SEI KPPs and TPMs evaluated
2 B01.150 System of Systems requirements review conducted
3 B01.150.010 SEI Meeting conducted, and agreed upon action items/closure plans documented
1 B02 Program Definitization
2 B02.010 Kickoff Completed
3 B02.010.010 BUS Management Plans and Processes Established
3 B02.010.020 BUS Organization Established
3 B02.010.030 ACE ACE Established
3 B02.010.040 BUS EVMS interim (4-6 mo) baseline established
3 B02.010.050 BUS IMP/IMS Updated
3 B02.010.060 BUS SoW Updated
3 B02.010.070 BUS WBS Updated
3 B02.010.080 BUS Kick-Off Conducted
2 B02.020 Contract negotiation Completed
3 B02.020.010 BUS IMP Definitization Completed
Lev Code IPT Description
3 B02.020.020 BUS Contract Negotiated
3 B02.020.030 BUS SOW Definitization Completed
2 B02.030 IMP/IMS Updated
3 B02.030.010 ACE ACE IMP/IMS Updated
3 B02.030.020 BUS BUS IMP/IMS Updated
3 B02.030.030 SMP SM&P IMP/IMS Updated
3 B02.030.040 SEI SEI IMP/IMS Updated
3 B02.030.050 OPS OPS IMP/IMS Updated
3 B02.030.060 FDV Force Dev IMP/IMS Updated
3 B02.030.070 IST IS&T IMP/IMS Updated
3 B02.030.080 LET Lethality IMP/IMS Updated
3 B02.030.090 SOL Soldier Systems IMP/IMS Updated

3 B02.030.100 C4I C4ISR- IMP/IMS Updated
3 B02.030.110 MGV MGV IMP/IMS Updated
3 B02.030.120 SUP Supportability - IMP/IMS Updated
3 B02.030.130 TRN Training- IMP/IMS Updated
3 B02.030.140 UAV UAV IMP/IMS Updated
3 B02.030.150 UGV UGV IMP/IMS Updated
3 B02.030.160 SEI Complementary Programs IMP/IMS integration updated
3 B02.030.170 SEI IMP exit criteria established
3 B02.030.180 BUS IMP/IMS Integration Completed
3 B02.030.190 BUS Supplier IMP/IMS integration plan developed
2 B02.040 EVMS Performance Measurement Baseline (PMB) Developed
3 B02.040.010 BUS WBS technical efforts defined
3 B02.040.020 BUS Budget Allocation and Management Reserve Established
3 B02.040.030 BUS Business - PMB Developed
3 B02.040.040 OPS Operations - PMB Developed
3 B02.040.050 ACE ACE PMB Developed
3 B02.040.060 SMP SM&P PMB Developed
3 B02.040.070 SEI SEI PMB Developed
3 B02.040.080 FDV Force Dev PMB Developed
3 B02.040.090 IST IS&T PMB Developed
3 B02.040.100 LET Lethality PMB Developed
3 B02.040.110 SOL Soldier Systems PMB Developed
3 B02.040.120 C4I C4ISR- PMB Developed
3 B02.040.130 MGV MGV PMB Developed
3 B02.040.140 SUP Supportability - PMB Developed
3 B02.040.150 TRN Training- PMB Developed
3 B02.040.160 UAV UAV PMB Developed
3 B02.040.170 UGV UGV PMB Developed
3 B02.040.180 SEI Complementary programs PMB Developed
3 B02.040.190 BUS PMB Integration Completed
3 B02.040.200 BUS Supplier PMB integration plan developed
2 B02.050 Risks and Mitigation Plans Updated
3 B02.050.010 BUS Business - Risks and Mitigation Plans Updated
3 B02.050.020 ACE ACE Risks and Mitigation Plans Updated
3 B02.050.030 SMP SM&P Risks and Mitigation Plans Updated
3 B02.050.040 OPS OPS Risks and Mitigation Plans Updated
3 B02.050.050 SEI SEI Risks and Mitigation Plans Updated
3 B02.050.060 FDV Force Dev Risks and Mitigation Plans Updated
3 B02.050.070 IST IS&T Risks and Mitigation Plans Updated
3 B02.050.080 LET Lethality Risks and Mitigation Plans Updated
3 B02.050.090 SOL Soldier Systems Risks and Mitigation Plans Updated
3 B02.050.100 C4I C4ISR-Risks and Mitigation Plans Updated
3 B02.050.110 MGV MGV Risks and Mitigation Plans Updated
3 B02.050.120 SUP Supportability - Risks and Mitigation Plans Updated
Lev Code IPT Description
3 B02.050.130 TRN Training- Risks and Mitigation Plans Updated
3 B02.050.140 UGV UGV Risks and Mitigation Plans Updated
3 B02.050.150 UAV UAV Risks and Mitigation Plans Updated
3 B02.050.160 SEI Complementary Program - Risks and Mitigation Plans Updated
2 B02.060 Major Subcontracting Activities performed
3 B02.060.010 SMP Approved subcontract management plan released
3 B02.060.020 SMP Major critical subcontracts definitization completed
3 B02.060.030 SEI Draft Complementary Programs Group 1 MOUs/MOAs developed
3 B02.060.040 SMP Market research plan developed
2 B02.070 PMB Verification and IBR Preparations Completed
3 B02.070.010 BUS Business -IBR Training & Documentation Completed
3 B02.070.020 ACE ACE IBR Training & Documentation Completed
3 B02.070.030 SMP SM&P IBR Training & Documentation Completed
3 B02.070.040 OPS OPS IBR Training & Documentation Completed
3 B02.070.050 SEI SEI IBR Training & Documentation Completed
3 B02.070.060 FDV Force Dev IBR Training & Documentation Completed
3 B02.070.070 IST IS&T IBR Training & Documentation Completed

3 B02.070.080 LET Lethality IBR Training & Documentation Completed
3 B02.070.090 SOL Soldier Systems IBR Training & Documentation Completed
3 B02.070.100 C4I C4ISR-IBR Training & Documentation Completed
3 B02.070.110 MGV MGV IBR Training & Documentation Completed
3 B02.070.120 SUP Supportability - IBR Training & Documentation Completed
3 B02.070.130 TRN Training- IBR Training & Documentation Completed
3 B02.070.140 UAV UAV IBR Training & Documentation Completed
3 B02.070.150 UGV UGV IBR Training & Documentation Completed
3 B02.070.160 SEI Complementary Program IBR Training & Documentation Completed
3 B02.070.170 BUS PMB integrity validated
3 B02.070.180 BUS EVMS usage implemented
2 B02.080 IBR Conducted
3 B02.080.010 BUS Meeting conducted, and agreed upon action items/closure plans documented
1 B03 System of Systems Functional Review
2 B03.010 Expanded ACE capabilities implemented
3 B03.010.010 ACE Initial DPD capability implemented
3 B03.010.020 ACE Initial classified environment implemented
3 B03.010.030 ACE Initial knowledge management capability implemented
3 B03.010.040 ACE Initial workflow capabilities implemented
3 B03.010.050 ACE Initial application capability implemented
2 B03.020 O&O and ORD updates evaluated
3 B03.020.010 FDV UA O&O and ORD - LSI Inputs Updated
3 B03.020.020 FDV ORD Update impacts on SoS and FoS Requirements evaluated
3 B03.020.030 FDV Product Requirements and Development Impacts evaluated
3 B03.020.040 FDV System Assessment impacts Analyzed
3 B03.020.050 FDV Program impacts evaluated
3 B03.020.060 FDV Recommendations completed
2 B03.030 SoS requirements and architecture baselined
3 B03.030.010 SEI SoS requirements updated
3 B03.030.020 SEI System of Systems specification updated
3 B03.030.030 SEI Interface documentation updated
3 B03.030.040 SEI System of Systems architecture updated
3 B03.030.050 SEI SoS Engineering specialty requirements updated
3 B03.030.060 SEI Specification and product trees updated
3 B03.030.070 SEI ORD to SoS requirements traceability updated
3 B03.030.080 SEI SoS requirements to Complementary programs traceability updated
2 B03.040 FOS requirements allocation updated
3 B03.040.010 SEI SoS to FOS requirements allocation established
3 B03.040.020 SEI SoS to FOS functional allocation updated
Lev Code IPT Description
3 B03.040.030 SEI FoS interface control documents updated
3 B03.040.040 SEI SoS software development document updated
3 B03.040.050 SEI Draft FoS prime item development specifications prepared
3 B03.040.060 SEI Preliminary FoS CI functional allocation prepared
3 B03.040.070 SEI SoS to FOS requirements traceability updated
2 B03.050 C4ISR Architecture and Requirements Updated
3 B03.050.010 C4I Architecture updated
3 B03.050.020 C4I System Design Baselined
3 B03.050.030 C4I Specification, ICD and PCD Updated
3 B03.050.040 C4I Software Requirements Defined
3 B03.050.050 C4I Software Operational Concept & Architecture Defined
3 B03.050.060 C4I C4I C4ISR Integration Laboratory Hardware Design Completed
2 B03.060 Software SoSFR activities completed
3 B03.060.010 SWE SW metrics updated
3 B03.060.020 SWE SoS SDP updated
3 B03.060.030 SWE Software Risks & Mitigation Plans in Risk Mngmt System baselined
3 B03.060.040 SWE Initial Software Life Cycle Objective (LCO) review for inception completed
3 B03.060.050 SWE Software Management planning updated
2 B03.070 MGV SoSFR activities completed
3 B03.070.010 MGV MGV Software SoSFR Activities completed
3 B03.070.020 MGV Systems Engr Initial Engineering plans, ICDs available
3 B03.070.030 MGV MGV Common Subsystems initial functional analysis reviewed

3 B03.070.040 MGV MGV Mission Variant initial functional analysis reviewed
3 B03.070.050 MGV MGV IATCO operational analysis completed
3 B03.070.060 MGV CTD NLOS-C SFR (5-29-3) data available
3 B03.070.070 MGV MGV Platform SoSFR activities completed
2 B03.080 UAV SoSFR activities completed
3 B03.080.010 UAV Subcontracts Evaluated/Negotiated
3 B03.080.020 UAV Systems specification updated
3 B03.080.030 UAV Interfaces Identified
3 B03.080.040 UAV Systems Verification/Validation defined
3 B03.080.050 UAV Systems Analysis Plan Developed
3 B03.080.060 UAV Software SoSFR Activities completed
3 B03.080.070 UAV Systems Design Reviewed
2 B03.090 UGV SoSFR activities completed
3 B03.090.010 UGV Subcontracts Evaluated/Negotiated
3 B03.090.020 UGV Systems specification updated
3 B03.090.030 UGV Interfaces Identified
3 B03.090.040 UGV Systems Verification/Validation defined
3 B03.090.050 UGV Systems Analysis Plan Developed
3 B03.090.060 UGV Software SOSFR Activities completed
3 B03.090.070 UGV Systems Design Reviewed
2 B03.100 Weapons & Munitions requirements defined
3 B03.100.010 LET Weapons & munitions by Core: Complementary to core/UA/UE reviewed
3 B03.100.020 LET Lethality Trade Studies updated
3 B03.100.030 LET Complementary programs reviewed
2 B03.110 Soldier Systems requirements defined
3 B03.110.010 SOL Soldier Systems integration by Core: Complementary to core/UA/UE reviewed
3 B03.110.020 SOL Soldier Systems integration increment 1 requirements established
3 B03.110.030 SOL Lethality Trade Studies updated
3 B03.110.040 SOL Complementary programs to Soldier Systems reviewed
2 B03.120 Key complementary programs evaluated
3 B03.120.010 SEI
Evaluation of individual Complementary programs system engineering processes
completed
3 B03.120.020 SEI Evaluation of individual Complementary programs design progress completed
3 B03.120.030 SEI Risks/conflicts identified
Lev Code IPT Description
2 B03.130 Systems engineering and Design products updated
3 B03.130.010 SEI Interoperability and IERs reviewed
3 B03.130.020 SEI FCS incremental and spiral development plan reviewed
3 B03.130.030 SEI SE Products Updated
3 B03.130.040 SEI SDD GFP management report updated
3 B03.130.050 SEI FCS UoA system manprint updated
3 B03.130.060 SEI FCS programmatic and environmental safety and health evaluation updated
3 B03.130.070 IST Life cycle cost containment plan updated
3 B03.130.080 SEI SoS interface control documents updated
3 B03.130.090 SEI Preliminary System of Systems design data incorporation into SSDD completed
2 B03.140 Integration and verification Plans updated
3 B03.140.010 SEI FoS preliminary test and integration results reviewed
3 B03.140.020 IST SoSIL facility development reviewed
3 B03.140.030 SEI SoS integration and verification plans updated
3 B03.140.040 SEI SoS TEMP update supported
2 B03.150 Supportability Architecture established
3 B03.150.010 SUP Supportability analyses updated
3 B03.150.020 SUP Performance Based Logistics (PBL) metrics established
3 B03.150.030 SUP Logistics data base requirements updated
3 B03.150.040 SUP
Logistics Decision Support System (LDSS) requirements for Systems, Platforms, and
Subsystems demonstrated
3 B03.150.050 SUP
Platform Soldier/Mission Readiness System (PS/MRS) requirements for Systems,
Platforms, and Subsystems demonstrated
3 B03.150.060 SUP

Interactive Electronic Technical Manuals (IETMs) requirements for Systems,
Platforms, and Subsystems demonstrated
3 B03.150.070 SUP Logistics Demonstrations planning completed
3 B03.150.080 SUP Logistics Modeling & Simulation performed
3 B03.150.090 SUP Reliability, Availability, Maintainability, Testability (RAM-T) analyses updated
3 B03.150.100 SUP Initial fielding planning established
3 B03.150.110 SUP Transportability and Deployability Assessments updated
2 B03.160 Training system design established
3 B03.160.010 TRN Training requirements for deferred systems allocated
3 B03.160.020 TRN Inputs to customer training support documents developed
3 B03.160.030 TRN Training SIL established
3 B03.160.040 TRN Training system software requirements and architecture updated
3 B03.160.050 TRN
Horizontal integration cross IPT/Supplier system requirements (ICV, C2V, MCS,
NLOS-C, Mule, SUGV) allocated
3 B03.160.060 TRN Collective training TSP products baselined
3 B03.160.070 TRN Key SoS and FoS interfaces and architecture requirements defined
3 B03.160.080 TRN Training task analysis process baselined
3 B03.160.090 TRN Common components baselined
2 B03.170 System of Systems assessment performed
3 B03.170.010 SEI SoS performance assurance analyses updated
3 B03.170.020 SEI SoS affordability analysis updated
3 B03.170.030 SEI SoS effectiveness analysis updated
3 B03.170.040 IST SoS scenarios and threats updated
3 B03.170.050 IST SoS models and sims updated
3 B03.170.060 SEI SoS engineering specialty analyses updated
3 B03.170.070 SEI SoS risks assessments and mitigation plans updated
3 B03.170.080 SEI KPPs and TPMs assessment updated
2 B03.180 System of Systems functional review conducted
3 B03.180.010 SEI Meeting conducted, and agreed upon action items/closure plans documented
1 B04 System OF Systems Preliminary Design Review
2 B04.010 O&O and ORD updates evaluated
3 B04.010.010 FDV UA O&O and ORD - LSI Inputs Updated
3 B04.010.020 FDV ORD Update impacts on SoS and FoS Requirements evaluated
3 B04.010.030 FDV Product Requirements and Development Impacts evaluated
3 B04.010.040 FDV System Assessment impacts Analyzed
Lev Code IPT Description
3 B04.010.050 FDV Program impacts evaluated
3 B04.010.060 FDV Recommendations completed
2 B04.020 FOS requirements allocation updated
3 B04.020.010 SEI ORD to SoS requirements traceability updated
3 B04.020.020 SEI SoS and FoS Architectures updated
3 B04.020.030 SEI SoS to FOS requirements allocation updated
3 B04.020.040 SEI SoS to FOS functional allocation updated
3 B04.020.050 SEI FoS Interface control documents completed
3 B04.020.060 SEI SoS software development document updated
3 B04.020.070 SEI FoS prime item development specifications completed
3 B04.020.080 SEI FoS CI development specification completed
3 B04.020.090 SEI FoS C4ISR specification completed
3 B04.020.100 SEI SoS to FOS requirements traceability updated
2 B04.030 C4ISR Preliminary Design Completed
3 B04.030.010 C4I Specifications and ICDs revised
3 B04.030.020 C4I Baseline Design Approved
3 B04.030.030 C4I Design Drawing released
3 B04.030.040 C4I Software Requirements & Architecture for Build 1 Inception Updated
3 B04.030.050 C4I Initial Software Design Review Completed
3 B04.030.060 C4I C4ISR Test Requirements Generated
3 B04.030.070 C4I System Integration Laboratory C4ISR Simulations Completed
3 B04.030.080 C4I System of System (Phase 1) Integration and Test Completed
3 B04.030.090 C4I C4ISR Integration and Test Plans Developed
3 B04.030.100 C4I Software Requirements & Architecture for build 2 completed
3 B04.030.110 C4I Software Build 2 / Milestone C design review completed

2 B04.040 Software Preliminary Design Completed
3 B04.040.010 SEI SoS SDP updated
3 B04.040.020 SWE Updated Software Risks & Mitigation Plans in Risk Mngmt System reviewed
3 B04.040.030 SWE Initial Software Life Cycle Architecture (LCA) review for inception completed
3 B04.040.040 SEI SW metrics updated
3 B04.040.050 SWE Software Management Planning updated
3 B04.040.060 SWE Initial SoS Software Design reviewed
2 B04.050 MGV Preliminary designs completed
3 B04.050.010 MGV MGV Software PDR completed
3 B04.050.020 MGV Systems Engr update of CTD to establish initial design completed
3 B04.050.030 MGV MGV Mission Equipment initial design established
3 B04.050.040 MGV MGV Common Subsystems initial design established
3 B04.050.050 MGV MGV IATCO operational inputs into variant PDRs completed
3 B04.050.060 MGV MGV Platform PDRs completed
2 B04.060 UAV Systems' Preliminary Design Review Completed
3 B04.060.010 UAV SoS requirements verified
3 B04.060.020 UAV Requirements definition updated
3 B04.060.030 UAV Detail design definition developed
3 B04.060.040 UAV Software PDR Activities Completed
3 B04.060.050 UAV Systems preliminary design review completed
2 B04.070 UGV Systems' Preliminary Design Review Completed
3 B04.070.010 UGV SoS requirements verified
3 B04.070.020 UGV Requirements definition updated
3 B04.070.030 UGV Detail design definition developed
3 B04.070.040 UGV UGV SW PDR Activities Completed
3 B04.070.050 UGV Systems preliminary design review completed
2 B04.080 Key complementary programs evaluated
3 B04.080.010 SEI Complementary programs MOUs/MOAs established
3 B04.080.020 SEI
Evaluation of individual Complementary programs system engineering processes
completed
3 B04.080.030 SEI Evaluation of individual Complementary programs design progress completed
Lev Code IPT Description
3 B04.080.040 SEI Readiness to build products evaluated
3 B04.080.050 SEI Risks/conflicts identified
2 B04.090 Weapons and Munitions requirements finalized
3 B04.090.010 LET Weapons & munitions requirements by core: Complementary to core/UA/UE updated
3 B04.090.020 LET Lethality studies and analyses updated
3 B04.090.030 LET Risk management plan for weapons and munitions updated
2 B04.100 Soldier Systems integration Increment 1 requirements finalized
3 B04.100.010 SOL
Soldier Systems integration requirements by core: Complementary to core/UA/UE
updated
3 B04.100.020 SOL Soldier Systems integration studies and analyses updated
3 B04.100.030 SOL Risk management plan for Soldier Systems integration updated
2 B04.110 Systems engineering and design products updated
3 B04.110.010 SEI Evaluation of prime item system engineering processes completed
3 B04.110.020 SEI Evaluation of prime item design progress completed
3 B04.110.030 SEI FCS UoA system manprint updated
3 B04.110.040 SEI SoS interface control documents completed
3 B04.110.050 SEI FCS incremental and spiral development plan updated
3 B04.110.060 SEI FCS technology maturation plan prepared
3 B04.110.070 SEI Technology Insertion Evaluated
3 B04.110.080 SEI SDD modeling and simulation support plan updated
3 B04.110.090 SEI SDD risk management plan updated
3 B04.110.100 SEI Results of RAM-T Analysis evaluated
3 B04.110.110 IST Life cycle cost containment plan updated
3 B04.110.120 SEI Program protection & certification plan updated
3 B04.110.130 SEI Engineering Specialties Plans updated
2 B04.120 Integration capabilities established
3 B04.120.010 SEI Preliminary FoS SIL results reviewed
3 B04.120.020 SEI SoS integration and verification plan updated

3 B04.120.030 SEI SoS TEMP update supported
3 B04.120.040 SEI FoS integration facilities plans completed and implementation initiated
2 B04.130 Supportability preliminary designs updated
3 B04.130.010 SUP Supportability analyses performed
3 B04.130.020 SUP Supportability Plans updated
3 B04.130.030 SUP Logistics Decision Support System (LDSS) design updated
3 B04.130.040 SUP Platform Soldier/Mission Readiness System (PS/MRS) design updated
3 B04.130.050 SUP Transportability and Deployability Assessments updated
3 B04.130.060 SUP Supportability Performance requirements updated
3 B04.130.070 SUP Logistics Database requirements updated
3 B04.130.080 SUP Logistics Decision Support System (LDSS) requirements allocated
3 B04.130.090 SUP Platform Soldier/Mission Readiness System (PS/MRS) requirements allocated
3 B04.130.100 SUP Interactive Electronic Technical Manuals (IETMs) requirements allocated
3 B04.130.110 SUP Logistics Demonstration planning completed
3 B04.130.120 SUP Fielding planning updated
3 B04.130.130 SUP Reliability, Availability, Maintainability, Testability (RAM-T) analyzed
2 B04.140 Training system preliminary design completed
3 B04.140.010 TRN Embedded Training (ET) preliminary system design completed
3 B04.140.020 TRN Training SIL implemented
3 B04.140.030 TRN
Training system common components software requirements and architecture for
Build inception updated
3 B04.140.040 TRN
Common components and architectures integration into SoS Architectures
implemented
3 B04.140.050 TRN Collective training development updated
2 B04.150 System of Systems assessment performed
3 B04.150.010 SEI SoS performance assurance analyses updated
3 B04.150.020 SEI SoS affordability analysis updated
3 B04.150.030 SEI SoS effectiveness analysis updated
3 B04.150.040 IST SoS models and sims updated
Lev Code IPT Description
3 B04.150.050 SEI SoS engineering specialty analyses updated
3 B04.150.060 SEI SoS risks assessments and mitigation plans updated
3 B04.150.070 SEI KPPs and TPMs assessment updated
2 B04.160 Preliminary design review conducted
3 B04.160.010 SEI Meeting conducted, and agreed upon action items/closure plans documented
3 B04.160.020 SEI Segment / prime item and lower level PDRs for early systems completed
1 B05 Initial System of Systems Integration Assessment
2 B05.010 Phase 1 SOS integration & test results evaluated
3 B05.010.010 SEI System integration and verification plans updated
3 B05.010.020 SEI Phase S2 Verification Objectives final for test & demo updated
3 B05.010.030 SEI Phase S3 Verification Objectives for test & demo updated
3 B05.010.040 SEI SoS verification evaluated
3 B05.010.050 SEI Phase S1Test Report completed
2 B05.020 SoS/FoS Requirements and Architecture impacts evaluated
3 B05.020.010 SEI Impacts to SOS requirements and architecture documents evaluated
3 B05.020.020 SEI Impacts to FoS requirements and architecture documents evaluated
2 B05.030 Weapons & Munitions Complementary programs & studies updated
3 B05.030.010 LET Complementary programs status on design efforts deferred until FY 04 updated
3 B05.030.020 LET Studies reviewed based on deferred programs & updated
2 B05.040 Soldier Systems Complementary programs & studies incorporated
3 B05.040.010 SOL Complementary programs status on design efforts deferred until FY 04 incorporated
3 B05.040.020 SOL Studies reviewed based on deferred programs and incorporated
2 B05.050 Key complementary programs evaluated
3 B05.050.010 SEI
Evaluation of individual Complementary programs system engineering processes
completed
3 B05.050.020 SEI Evaluation of individual Complementary programs design progress completed
3 B05.050.030 SEI Readiness to build products evaluated
3 B05.050.040 SEI Risks assessment and mitigation plans reviewed
3 B05.050.050 SEI Action/resolution closure plans established

2 B05.060 SOS overarching software development status evaluated
3 B05.060.010 SEI Segment / prime item development status reports evaluated
3 B05.060.020 SEI SW metrics updated
3 B05.060.030 SEI SWDP updated
2 B05.070 Phase 1 SoSIL HW and SW Delivered
3 B05.070.010 IST Models and simulations delivered
3 B05.070.020 C4I C4ISR HW and SW delivered
3 B05.070.030 UGV UGV SW Delivered
3 B05.070.040 UAV UAV SW Delivered
3 B05.070.050 SEI Complementary programs SW delivered
3 B05.070.060 MGV MGV SW Development to support Phase 1 Test completed
3 B05.070.070 MGV MGV simulations and phase 1 test deliveries completed
2 B05.080 Phase S1 Integration & Test Completed
3 B05.080.010 SEI SoS integration facilities completed
3 B05.080.020 IST Phase S1 Final Planning and Implementation completed
3 B05.080.030 IST
Phase S1 Early Integration for SoS Technical Testing & Audits (I/F, Design,
Functionality, & Config) completed
3 B05.080.040 IST Acceptance & installation of simulators from IPTs to SoSIL Environ completed
3 B05.080.050 IST Phase S1 SoS Integration for Test and Test Readiness Review (TRR) completed
3 B05.080.060 IST Phase S1 SoS Technical Test Series completed
3 B05.080.070 IST Phase S1 SoS Technical Test Series Assessment completed
3 B05.080.080 IST Integration Phase S1 Technical Test Assessment Review completed
2 B05.090 System of Systems assessment updated
3 B05.090.010 SEI System of Systems performance assessment updated
3 B05.090.020 SEI SoS affordability analysis performed
3 B05.090.030 SEI SoS Effectiveness analysis performed
3 B05.090.040 IST SoS Models and Sims updated
3 B05.090.050 FDV LSI inputs to the UA O&O and ORD compiled
Lev Code IPT Description
3 B05.090.060 FDV LSI inputs to the UE/OF O&O and other ORDs compiled
3 B05.090.070 FDV Suitability of Technology Insertion Evaluated
3 B05.090.080 FDV SoS Force Development Operational Analysis Updated
3 B05.090.090 SEI SoS Engineering specialty analyses performed
3 B05.090.100 SEI SOS risks assessment and mitigation plans reviewed
3 B05.090.110 SEI KPPs and TPMs evaluated
2 B05.100 Initial systems of systems integration assessment conducted
3 B05.100.010 SEI Meeting conducted, and agreed upon action items/closure plans documented
1 B06 System of Systems Critical Design Review
2 B06.010 O&O and ORD updates evaluated
3 B06.010.010 FDV UA O&O and ORD - LSI Inputs Updated
3 B06.010.020 FDV ORD Update impacts on SoS and FoS Requirements evaluated
3 B06.010.030 FDV Product Requirements and Development Impacts evaluated
3 B06.010.040 FDV System Assessment impacts Analyzed
3 B06.010.050 FDV Program impacts evaluated
3 B06.010.060 FDV Recommendations completed
2 B06.020 FOS requirements allocation completed
3 B06.020.010 SEI SoS to FOS requirements allocation completed
3 B06.020.020 SEI SoS to FOS functional allocation completed
3 B06.020.030 SEI SoS software development document completed
3 B06.020.040 SEI FoS prime item development specifications completed
3 B06.020.050 SEI FoS CI development specification completed
3 B06.020.060 SEI SoS to FOS requirements traceability updated
3 B06.020.070 SEI FoS interface control documents completed
3 B06.020.080 SEI SoS architecture products updated
2 B06.030 C4ISR Critical Design Completed
3 B06.030.010 C4I C4ISR requirements and architecture completed
3 B06.030.020 C4I C4ISR System Specifications and ICDs Document updated
3 B06.030.030 C4I
C4ISR detailed design vs. functional and performance requirement verifications
completed
3 B06.030.040 C4I Perform Verification and Validation Analysis completed

3 B06.030.050 C4I Manufacturing Capabilities Defined
3 B06.030.060 C4I C4ISR SIL Test and Integration Completed
3 B06.030.070 C4I Subsystem Test procedures released
3 B06.030.080 C4I SOS Phase S2 I & T Completed
3 B06.030.090 C4I Subsystem Test and Demonstration Requirements Generated
3 B06.030.100 C4I Sys Doc released
3 B06.030.110 C4I Detailed design vs. requirements verification completed
3 B06.030.120 C4I Fab drawings released
3 B06.030.130 C4I S/W Requirements, interfaces and architecture completed
3 B06.030.140 C4I S/W design elaboration update completed
3 B06.030.150 C4I Software incremental build 1 completed
3 B06.030.160 C4I Test Requirements Released
3 B06.030.170 C4I System Integration Laboratory test & Integrations Initiated of brassboards completed
2 B06.040 Software CDR activities completed
3 B06.040.010 SWE Updated Software Risks & Mitigation Plans in Risk Management System reviewed
3 B06.040.020 SWE SoS Software Designs updates reviewed
3 B06.040.030 SWE SW metrics updated
3 B06.040.040 SWE Software Management planning updated
2 B06.050 MGV Platforms initial design and CDRs completed
3 B06.050.010 MGV MGV Software CDR Activities completed
3 B06.050.020 MGV Review and approval of final NLOS-C, C2, ICV and MCS designs completed
3 B06.050.030 MGV MGV Common Subsystems final design incorporated
3 B06.050.040 MGV NLOS-C, C2, ICV and MCS Mission Variant input to final design completed
3 B06.050.050 MGV MGV IATCO operational inputs into CDRs completed
3 B06.050.060 MGV MGV Platforms CDRs Completed
Lev Code IPT Description
3 B06.050.070 MGV Sys Engr review and approval of NLOS-M & RSV CDRs Completed
3 B06.050.080 MGV MGV System Engineering and Analysis and Integration Final CDR completed
3 B06.050.090 MGV MGV Mission Variant (MV) final design incorporation into CDRs completed
2 B06.060 UAV Systems' Critical Design Review Completed
3 B06.060.010 UAV SoS Requirements Finalized
3 B06.060.020 UAV Requirements Definition Released
3 B06.060.030 UAV Detail Design Definition Developed
3 B06.060.040 UAV UGV SW CDR activities Completed
3 B06.060. UAV Systems critical design review completed
2 B06.070 UGV Systems' Critical Design Review Completed
3 B06.070.010 UGV SoS Requirements Finalized
3 B06.070.020 UGV Requirements Definition Released
3 B06.070.030 UGV Detail Design Definition Developed
3 B06.070.040 UGV UGV SW CDR activities Completed
3 B06.070.050 UGV Systems critical design review completed
2 B06.080 Weapons & Munitions Relevant studies & plans for weapons & munitions integrated
3 B06.080.010 LET Weapons and munitions trade studies updated
3 B06.080.020 LET Risk management plan for weapons & munitions updated
2 B06.090 Soldier Systems Relevant studies & plans for Soldier Systems integration completed
3 B06.090.010 SOL Soldier Systems trade studies completed
3 B06.090.020 SOL Risk management plan for Soldier Systems completed
2 B06.100 Key complementary programs evaluated
3 B06.100.010 SEI
Evaluation of individual Complementary programs system engineering processes
completed
3 B06.100.020 SEI Evaluation of individual Complementary programs design progress completed
3 B06.100.030 SEI Readiness to build products evaluated
3 B06.100.040 SEI Risks assessment and mitigation plans reviewed
3 B06.100.050 SEI Action/resolution closure plans established
2 B06.110 Systems engineering and design products updated
3 B06.110.010 SEI FCS UoA system manprint updated
3 B06.110.020 SEI Technology Insertion Evaluated
3 B06.110.030 SEI System of Systems design data incorporated into SSDD
3 B06.110.040 SEI SoS interface control documents completed
2 B06.120 Supportability requirements incorporated
3 B06.120.010 SUP Supportability analyses updated

3 B06.120.020 SUP Performance Based Logistics (PBL) metrics updated
3 B06.120.030 SUP Logistics data base demonstrated
3 B06.120.040 SUP
Logistics Decision Support System (LDSS) requirements for Systems, Platforms, and Subsystems updated
3 B06.120.050 SUP
Platform Soldier/Mission Readiness System (PS/MRS) requirements for Systems, Platforms, and Subsystems updated
3 B06.120.060 SUP
Interactive Electronic Technical Manuals (IETMs) requirements for Systems, Platforms, and Subsystems updated
3 B06.120.070 SUP Logistics demonstration plans updated
3 B06.120.080 SUP Reliability, Availability, Maintainability, Testability (RAM-T) analyses updated
3 B06.120.090 SUP Supportability Plans updated
3 B06.120.100 SUP Material Fielding Plan updated
3 B06.120.110 SUP Detail Transportability/Deployability assessments updated
3 B06.120.120 SUP Logistics Decision Support System (LDSS) design updated
3 B06.120.130 SUP Platform Soldier/Mission Readiness System (PS/MRS) design updated
2 B06.130 Training system Critical Design Review completed
3 B06.130.010 TRN Embedded training critical design completed
3 B06.130.020 TRN Horizontal integration cross IPT/Supplier system requirements updated
3 B06.130.030 TRN
Common components and architectures integration into SoS Architectures implemented
3 B06.130.040 TRN Software requirements, architecture, design completed for Build updated
3 B06.130.050 TRN Collective training development updated
2 B06.140 SoS/FoS Integration and verification results reviewed
Lev Code IPT Description
3 B06.140.010 SEI SoS/FoS integration lab updated
3 B06.140.020 SEI SoS verification plan updated
3 B06.140.030 SEI SoS Integration and Tests results reviewed
3 B06.140.040 SEI FoS SIL Integration and Tests results reviewed
3 B06.140.050 SEI SoS/FoS prototype/preliminary test results reviewed
2 B06.150 System of Systems assessment performed
3 B06.150.010 SEI SoS performance assurance analyses updated
3 B06.150.020 SEI SoS affordability analysis updated
3 B06.150.030 SEI SoS effectiveness analysis updated
3 B06.150.040 IST SoS models and sims updated
3 B06.150.050 SEI SoS engineering specialty analyses updated
3 B06.150.060 SEI SoS risks assessments and mitigation plans updated
3 B06.150.070 SEI KPPs and TPMs assessment updated
3 B06.150.080 SEI SoS/FoS manufacturing/produceability/quality program capabilities evaluated
2 B06.160 Systems critical design review conducted
3 B06.160.010 SEI Meeting conducted, and agreed upon action items/closure plans documented
3 B06.160.020 SEI Segment / prime item and lower level CDRs for early systems completed
1 B07 Enhanced SoS Integration Assessment
2 B07.010 Phase 2 SoSIL HW and SW Delivered
3 B07.010.010 IST Models and simulations delivered
3 B07.010.020 C4I C4ISR HW and SW delivered
3 B07.010.030 UGV UGV SW Delivered
3 B07.010.040 UAV UAV SW Delivered
3 B07.010.050 SEI Complementary programs SW delivered
3 B07.010.060 MGV MGV phase 2 emulators and test deliveries completed
3 B07.010.070 MGV MGV Embedded Training and Trainer Unit deliveries completed
2 B07.020 Phase S2 Integration & Test Completed
3 B07.020.010 IST Phase S2 Integration Planning Completed
3 B07.020.020 IST
Phase S2 Early Integration for SoS Technical Testing & Audits (I/F, Design, Functionality, & Config) Completed
3 B07.020.030 IST Acceptance installation of early emulators from IPTs to SoSIL Environ completed
3 B07.020.040 IST Phase S2 SoS Integration for Test and Test Readiness Review (TRR) defined
3 B07.020.050 IST

Acceptance and Installation of HW / SW Final Emulators from IPTs for PTFT, TFT &
IMT completed
3 B07.020.060 IST Phase S2 SoS Technical Test Series Completed
3 B07.020.070 IST Phase S2 SoS Technical Test Series Assessment Completed
3 B07.020.080 IST
Integration Phase S2 Technical Test Assessment Review & Integration Critical
Design Review Completed
2 B07.030 Phase 2 SOS integration & test results evaluated
3 B07.030.010 SEI System integration and verification plans updated
3 B07.030.020 SEI Phase S3 Verification Objectives final for test & demo updated
3 B07.030.030 SEI Phase S4 Verification Objectives for test & demo updated
3 B07.030.040 SEI SoS verification evaluated
3 B07.030.050 SEI Phase S2Test Report completed
2 B07.040 SoS/FoS Requirements and Architecture impacts evaluated
3 B07.040.010 SEI Impacts to SOS requirements and architecture documents evaluated
3 B07.040.020 SEI Impacts to FoS requirements and architecture documents evaluated
3 B07.040.030 SEI Technology Insertion Evaluation updated
3 B07.040.040 SEI FCS incremental and spiral development Plan updated
2 B07.050 Status of key complementary programs evaluated
3 B07.050.010 SEI
Evaluation of individual Complementary programs system engineering processes
completed
3 B07.050.020 SEI Evaluation of individual Complementary programs design progress completed
3 B07.050.030 SEI Readiness to build products evaluated
3 B07.050.040 SEI Risks assessment and mitigation plans reviewed
3 B07.050.050 SEI Agreed upon action items and closure plans documented
2 B07.060 SOS overarching software development status evaluated
3 B07.060.010 SEI Segment / prime item development status reports evaluated
Lev Code IPT Description
3 B07.060.020 SEI SW metrics updated
3 B07.060.030 SEI SWDP updated
2 B07.070 System of Systems assessment updated
3 B07.070.010 SEI SoS Performance assurance analyses performed
3 B07.070.020 SEI SoS affordability analysis performed
3 B07.070.030 SEI SoS Effectiveness analysis performed
3 B07.070.040 IST SoS Models and simulations updated
3 B07.070.050 FDV LSI inputs to the UA O&O and ORD compiled
3 B07.070.060 FDV LSI inputs to the UE/OF O&O and other ORDS compiled
3 B07.070.070 FDV Suitability of Technology Insertion Evaluated
3 B07.070.080 FDV SoS Force Development Operational Analysis Updated
3 B07.070.090 SEI SoS Engineering specialty analyses performed
3 B07.070.100 SEI SoS risk assessments and mitigation plans updated
3 B07.070.110 SEI KPPs and TPMs evaluated
2 B07.080 Enhanced SoS Integration Assessment review conducted
3 B07.080.010 SEI Meeting conducted, and agreed upon action items/closure plans documented
1 B08 SoS Verification Readiness Review
2 B08.010 SOS overarching software development status evaluated
3 B08.010.010 SEI Segment / prime item development status reports evaluated
3 B08.010.020 SEI SW metrics updated
3 B08.010.030 SEI SDP updated
2 B08.020 Phase 3 SoSIL HW and SW Delivered
3 B08.020.010 IST Models and simulations delivered
3 B08.020.020 C4I C4ISR HW and SW Delivered
3 B08.020.030 UGV UGV HW and SW Delivered
3 B08.020.040 UAV UAV HW and SW Delivered
3 B08.020.050 SEI Complementary programs SW delivered
3 B08.020.060 MGV MGV Prototype vehicle deliveries to support phase 3 test Completed
3 B08.020.070 MGV MGV Emulators and test deliveries to support phase 3 test Completed
3 B08.020.080 MGV MGV Embedded Test and Test trainer deliveries to support phase 3 test Completed
2 B08.030 Phase S3 Integration & test Readiness Completed
3 B08.030.010 IST Phase S3 Integration Planning completed
3 B08.030.020 IST

3 B10.040.030 SEI SoS Effectiveness analysis performed
3 B10.040.040 IST SoS Models and Sims updated
3 B10.040.050 FDV LSI inputs to the UA O&O and ORD compiled
3 B10.040.060 FDV LSI inputs to the UE/OF O&O and other ORDS compiled
3 B10.040.070 FDV SoS Force Development Operational Analysis Updated
3 B10.040.080 SEI SoS Engineering specialty analyses performed
3 B10.040.090 SEI SoS risk assessments and mitigation plans reviewed
3 B10.040.100 SEI KPPs and TPMs evaluated
2 B10.050 Initial Integrated Prototypes SoS Verification assessment conducted
3 B10.050.010 SEI Meeting conducted, and agreed upon action items/closure plans documented
1 B11 Initial Production Readiness Review
2 B11.010 O&O and ORD updates evaluated
3 B11.010.010 FDV UA O&O and ORD - LSI Inputs Updated
3 B11.010.020 FDV ORD Update impacts on SoS and FoS Requirements evaluated
3 B11.010.030 FDV Product Requirements and Development Impacts evaluated
3 B11.010.040 FDV System Assessment impacts Analyzed
3 B11.010.050 FDV Program impacts evaluated
3 B11.010.060 FDV Recommendations completed
2 B11.020 MGV LRIP Readiness Review completed
3 B11.020.010 MGV Candidate LRIP items identified
3 B11.020.020 MGV LRIP Readiness review completed
2 B11.030 UAV LRIP Readiness Review Completed
Lev Code IPT Description
3 B11.030.010 UAV Candidate LRIP items identified
3 B11.030.020 UAV LRIP Readiness review completed
2 B11.040 UGV LRIP Readiness Review Completed
3 B11.040.010 UGV Candidate LRIP items identified
3 B11.040.020 UGV LRIP Readiness review completed
2 B11.050 Acceptable performance in DT&E Phase for LRIP Candidate Prime Items Demonstrated
3 B11.050.010 SEI Prime Item Verification (tests, analysis, demos, inspections) performed
3 B11.050.020 SEI Risk assessment of open requirements verification completed
3 B11.050.030 SEI Prime Item Support Equipment Testing Completed
2 B11.060 Acceptable performance in Operational Assessment and inter operability Demonstrated
3 B11.060.010 SEI SoS I&T phase 3 completed
3 B11.060.020 SEI Limited User Testing (LUT) #1 completed
3 B11.060.030 SEI Support Army ATEP testing completed
2 B11.070 Mature software capability Demonstrated
3 B11.070.010 SEI S/W verification and validation at platform level performed
3 B11.070.020 SEI Risk assessment of open platform requirements verification completed
3 B11.070.030 SEI
Integrated Network S/W at SoS level demonstrated in sufficient detail to ensure
stable interfaces and basic network interoperability
3 B11.070.040 SEI Detailed Build Plan for full functionality Completed
2 B11.080 LRIP procurements defined
3 B11.080.010 SMP Bidder's List for LRIP identified
3 B11.080.020 SMP Procurement requirements defined
3 B11.080.030 SMP LRIP procurement RFPs released
3 B11.080.040 SMP LRIP evaluation & selection plan/schedule generated
2 B11.090 Manufacturing Risks Assessment Completed
3 B11.090.010 SEI Produceability assessment completed
3 B11.090.020 SEI Plan for LRIP tooling and Manufacturing completed
3 B11.090.030 SEI Long lead parts on order and support manufacturing plan completed
3 B11.090.040 OPS Supplier production & quality reviews completed
3 B11.090.050 SEI Incremental technology insertion plan completed
3 B11.090.060 SEI Transition Plan to adequate and efficient full-rate production completed
3 B11.090.070 SEI Initial production base for the systems/prime items established
3 B11.090.080 SEI
Production Plan for orderly increase in production rate leading to full-rate production
completed
3 B11.090.090 SEI Complementary programs manufacturing risk evaluated
3 B11.090.100 LET Government furnished weapons & munitions risks evaluated
3 B11.090.110 SOL Government furnished Soldier Systems risks evaluated

2 B11.100 Acceptable operational supportability Demonstrated
3 B11.100.010 SEI Supportability plan and analyses completed
3 B11.100.020 SEI Necessary equipment completion plan supports FUE
3 B11.100.030 SEI Performance-based Logistics Implementation Plan completed
3 B11.100.040 SEI Interactive Electronic Technical Manuals Class V Framework demonstrated
3 B11.100.050 SEI Interactive Electronic Technical Manuals completion plan supports FUE
2 B11.110 Supportability Strategy validated
3 B11.110.010 SUP Supportability data base validated
3 B11.110.020 SUP Interactive Electronic Technical Manuals (IETM) validated
3 B11.110.030 SUP Logistics Decision Support System (LDSS) validated
3 B11.110.040 SUP Platform Soldier/Mission Readiness System (PS/MRS) validated
3 B11.110.050 SUP Logistics Model validated
3 B11.110.060 SUP Supply Chain Management validated
2 B11.120 Training LRIP readiness review completed
3 B11.120.010 TRN NRFTTs critical design reviews conducted
3 B11.120.020 TRN Training common components integration and testing completed
3 B11.120.030 TRN Embedded Training integration and test completed
3 B11.120.040 TRN Individual and collective TSPs for LUT I completed
2 B11.130 LRIP Source Selection Completed
3 B11.130.010 SMP Source Selection Team established
Lev Code IPT Description
3 B11.130.020 SMP Proposals Evaluated
2 B11.140 System Life Cycle affordability Demonstrated
3 B11.140.010 SEI Life-cycle Cost Containment Report and analyses completed
3 B11.140.020 SEI Affordability analyses completed
2 B11.150 LRIP and Production Funding Estimates Updated
3 B11.150.010 BUS LRIP Long Lead funding estimates updated
3 B11.150.020 BUS Production Long Lead funding estimates updated
3 B11.150.030 BUS LRIP funding estimates updated
3 B11.150.040 BUS Production funding estimates updated
3 B11.150.050 BUS LRIP and Productions proposals submitted
2 B11.160 IP Readiness Review Event Review Conducted
3 B11.160.010 SEI Meeting conducted, and agreed upon action items/closure plans documented
1 B12 Expanded Integrated Prototypes SoS Verification Assessment
2 B12.010
Weapons & Munitions Complementary programs HW and SW deliveries schedules
verified
3 B12.010.010 LET Core programs managed outside the LSI schedules verified
3 B12.010.020 LET Complementary programs hardware and software schedules verified
3 B12.010.030 LET Risk avoidance through alternative weapons and munitions programs identified
3 B12.010.040 LET Risk mitigation activities for weapons and munitions identified
2 B12.020 Soldier Systems Hardware and software deliveries schedules verified
3 B12.020.010 SOL Core programs managed outside the LSI schedules verified
3 B12.020.020 SOL Complementary programs hardware and software schedules verified
3 B12.020.030 SOL Risk avoidance through alternatives to Soldier Systems identified
3 B12.020.040 SOL Risk mitigation activities for Soldier Systems identified
2 B12.030 Status of key complementary programs evaluated
3 B12.030.010 SEI Evaluation of individual Complementary programs design progress completed
3 B12.030.020 SEI Readiness to build products evaluated
3 B12.030.030 SEI Risks assessment and mitigation plans reviewed
3 B12.030.040 SEI Agreed upon action items and closure plans documented
2 B12.040 Phase 4 SW Developed
3 B12.040.010 SWE Build 4 Software construction completed
3 B12.040.020 SWE Build 4 Software transition completed
3 B12.040.030 SWE Software Requirements & Architecture for Build 5/ IOC inception completed
3 B12.040.040 SWE Software Design Elaboration for Build 5/ IOC completed
2 B12.050 Phase 4 SoSIL HW and SW Delivered
3 B12.050.010 IST Models and simulations delivered
3 B12.050.020 C4I C4ISR HW and SW Delivered
3 B12.050.030 UGV UGV HW and SW Delivered
3 B12.050.040 UAV UAV HW and SW Delivered
3 B12.050.050 SEI Complementary programs SW delivered

3 B12.050.060 MGV MGV Phase 4 SW Available
3 B12.050.070 MGV MGV Prototype Vehicle deliveries to support phase 4 test completed
3 B12.050.080 MGV MGV Emulators and test deliveries to support phase 4 test Completed
3 B12.050.090 MGV MGV Embedded Test and Test trainer deliveries to support phase 4 test Completed
2 B12.060 Phase S4 Test Readiness Review Completed
3 B12.060.010 IST Phase S4 Planning and Implementation Completed
3 B12.060.020 IST
Phase S4 Early Integration for SoS Technical Testing & Audits (I/F, Design,
Functionality, & Config) Completed
3 B12.060.030 IST Acceptance installation of early emulators from IPTs to SoSIL Environ completed
3 B12.060.040 SEI HW/SW deliveries validated
3 B12.060.050 SEI Preliminary integration results reviewed
3 B12.060.060 IST Phase S4 SoS Integration for Test and Test Readiness Review (TRR) completed
2 B12.070 Phase S4 Integration & Test completed
3 B12.070.010 IST
Acceptance and Installation of HW / SW Final Emulators and Developmental
Prototypes from IPTs for PTFT & TFT completed
3 B12.070.020 IST Technical Test S4 SoS Technical Test Series completed
3 B12.070.030 IST Phase S4 Limited User Test#2 and Log Demo completed
Lev Code IPT Description
3 B12.070.040 IST Technical Test S4 SoS Technical Test Series Assessment completed
3 B12.070.050 IST Integration Phase S4 Technical Test Assessment Review completed
2 B12.080 Phase 4 SOS integration & test results collected & evaluated
3 B12.080.010 SEI System integration and verification plans updated
3 B12.080.020 SEI Phase S5.1 Verification Objectives final for test & demo updated
3 B12.080.030 SEI Phase S5.2 Verification Objectives for test & demo updated
3 B12.080.040 SEI SoS verification evaluated
3 B12.080.050 SEI Phase S4 Test Report completed
2 B12.090 SoS/FoS Requirements and Architecture impacts evaluated
3 B12.090.010 SEI Impacts to SOS requirements and architecture documents evaluated
3 B12.090.020 SEI Impacts to FoS requirements and architecture documents evaluated
3 B12.090.030 SEI FCS incremental and spiral development plan updated
2 B12.100 SOS overarching software development status evaluated
3 B12.100.010 SEI Segment / prime item development status reports evaluated
3 B12.100.020 SEI SW metrics updated
3 B12.100.030 SEI SDP updated
2 B12.110 System of Systems assessment updated
3 B12.110.010 SEI SoS Performance assurance analyses performed
3 B12.110.020 SEI SoS affordability analysis performed
3 B12.110.030 SEI SoS Effectiveness analysis performed
3 B12.110.040 IST SoS Models and Sims updated
3 B12.110.050 FDV LSI inputs to the UA O&O and ORD compiled
3 B12.110.060 FDV LSI inputs to the UE/OF O&O and other ORDS compiled
3 B12.110.070 FDV Suitability of Technology Insertion Evaluated
3 B12.110.080 FDV SoS Force Development Operational Analysis Updated
3 B12.110.090 SEI SoS Engineering specialty analyses performed
3 B12.110.100 SEI SoS risk assessments and mitigation plans updated
3 B12.110.110 SEI KPPs and TPMs evaluated
2 B12.120 Expanded Integrated Prototypes SoS Verification Assessment conducted
3 B12.120.010 SEI Meeting conducted, and agreed upon action items/closure plans documented
1 B13 Enhanced Software SoS Verification Assessment
2 B13.010 Phase 5.1 SOS integration & test results collected & evaluated
3 B13.010.010 SEI System integration and verification plans updated
3 B13.010.020 SEI Phase S5.2 Verification Objectives final for test & demo updated
3 B13.010.030 SEI SoS verification evaluated
3 B13.010.040 SEI Phase S5 Test Report completed
2 B13.020 Status of key complementary programs evaluated
3 B13.020.010 SEI Evaluation of individual Complementary programs design progress completed
3 B13.020.020 SEI Readiness to build products evaluated
3 B13.020.030 SEI Risks assessment and mitigation plans reviewed
3 B13.020.040 SEI Agreed upon action items and closure plans documented
2 B13.030 SOS overarching software development status evaluated

3 B13.030.010 SEI Systems'/platform development status reports evaluated
3 B13.030.020 SEI SW metrics updated
2 B13.040 Phase 5 SW Developed
3 B13.040.010 SWE Build 5/ IOC Software Design reviewed
3 B13.040.020 SWE Build 5/ IOC Software construction completed
3 B13.040.030 SWE Build 5/ IOC Software transition completed
2 B13.050 Phase 5.1 SoSIL HW and SW Delivered
3 B13.050.010 IST Models and simulations delivered
3 B13.050.020 C4I C4ISR HW and SW Delivered
3 B13.050.030 UGV UGV SW Delivered
3 B13.050.040 UAV UAV SW Delivered
3 B13.050.050 SEI Complementary programs SW delivered
3 B13.050.060 MGV MGV Software update Phase 5.1 test activities completed
2 B13.060 Phase S5.1 Integration & Test completed
Lev Code IPT Description
3 B13.060.010 IST Phase S5.1 Integration Planning Completed
3 B13.060.020 IST
Phase S5.1 Early Integration for SoS Technical Testing & Audits (I/F, Design,
Functionality, & Config) Completed
3 B13.060.030 IST
Acceptance installation of Software Build 4 from Suppliers & emulators (upgraded)
from IPTs to SoSIL Environ completed
3 B13.060.040 IST Phase S5.1 SoS Integration for Test and Test Readiness Review (TRR) Completed
3 B13.060.050 IST Technical Test S5.1 SoS Technical Test Series completed
3 B13.060.060 IST Technical Test S5.1 SoS Technical Test Series Assessment completed
3 B13.060.070 IST Integration Phase S5.1 Technical Test Assessment Review completed
2 B13.070 SoS/FoS Requirements and Architecture impacts evaluated
3 B13.070.010 SEI Impacts to SOS requirements and architecture documents evaluated
3 B13.070.020 SEI Impacts to FoS requirements and architecture documents evaluated
3 B13.070.030 SEI FCS Incremental and spiral development plan updated
2 B13.080 System of Systems assessment updated
3 B13.080.010 SEI SoS Performance assurance analyses performed
3 B13.080.020 SEI SoS affordability analysis performed
3 B13.080.030 SEI SoS Effectiveness analysis performed
3 B13.080.040 IST SoS Models and Sims updated
3 B13.080.050 FDV LSI inputs to the UA O&O and ORD compiled
3 B13.080.060 FDV LSI inputs to the UE/OF O&O and other ORDS compiled
3 B13.080.070 FDV Suitability of Technology Insertion Evaluated
3 B13.080.080 FDV SoS Force Development Operational Analysis Updated
3 B13.080.090 SEI SoS Engineering specialty analyses performed
3 B13.080.100 SEI SoS risk assessments and mitigation plans updated
3 B13.080.110 SEI KPPs and TPMs evaluated
2 B13.090 Enhanced Software SoS Verification Assessment conducted
3 B13.090.010 SEI Meeting conducted, and agreed upon action items/closure plans documented
1 B14 Final SoS Verification Assessment
2 B14.010 SoS/FoS Requirements and Architecture impacts evaluated
3 B14.010.010 SEI Impacts to SOS requirements and architecture documents evaluated
3 B14.010.020 SEI Impacts to FoS requirements and architecture documents evaluated
3 B14.010.030 SEI Evaluation of individual segment / prime item designs completed
3 B14.010.040 SEI FCS Incremental and spiral development plan updated
2 B14.020 Phase 5.2 SoSIL HW and SW Delivered
3 B14.020.010 IST Models and simulations delivered
3 B14.020.020 MGV MGV emulators delivered
3 B14.020.030 SEI Complementary programs SW delivered
3 B14.020.040 C4I C4ISR HW and SW Delivered
3 B14.020.050 UGV UGV SW Delivered
3 B14.020.060 UAV UAV SW Delivered
2 B14.030 Phase S5.2 Integration & Test completed
3 B14.030.010 IST Phase S5.2 Integration Planning completed
3 B14.030.020 IST
Phase S5.2 Early Integration for SoS Technical Testing & Audits (I/F, Design,
Functionality, & Config) completed

3 B14.030.030 IST
Acceptance installation of Software Build 5 from Suppliers & emulators (upgraded)
from IPTs to SoSIL Environ completed
3 B14.030.040 IST Phase S5.2 SoS Integration for Test and Test Readiness Review (TRR) completed
3 B14.030.050 IST Technical Test S5.2 SoS Technical Test Series completed
3 B14.030.060 IST Technical Test S5.2 SoS Technical Test Series Assessment completed
3 B14.030.070 IST Integration Phase S5.2 Technical Test Assessment Review completed
3 B14.030.080 SWE
Software Item First Article Inspection(s) (FAI) performed and Deficiency Reports
resolved
3 B14.030.090 IST LFT&E Planning and Support completed
2 B14.040 Total Increment 1 SoS & Systems' Integration & Test Results collected & evaluated
3 B14.040.010 SEI Phase 5 SoS Integration & test completed
3 B14.040.020 SEI Impacts to SoS performance evaluated
3 B14.040.030 SEI Impacts to SoS Requirements Documents evaluated
3 B14.040.040 SEI Impacts to SoS/FoS LRIP design identified
Lev Code IPT Description
3 B14.040.050 SEI S5 SoS Test Report completed
3 B14.040.060 SEI SoS verification evaluated
2 B14.050 Status of Key Complementary Programs evaluated
3 B14.050.010 SEI Evaluation of Individual Complementary Programs Development Progress completed
3 B14.050.020 SEI Risks Assessment and Mitigation Plans reviewed
3 B14.050.030 SEI Agreed upon action items and closure plans documented
2 B14.060 System of Systems assessment updated
3 B14.060.010 SEI SoS Performance assurance analyses performed
3 B14.060.020 SEI SoS affordability analysis performed
3 B14.060.030 SEI SoS Effectiveness analysis performed
3 B14.060.040 IST SoS Models and Sims updated
3 B14.060.050 FDV LSI inputs to the UA O&O and ORD compiled
3 B14.060.060 FDV LSI inputs to the UE/OF O&O and other ORDS compiled
3 B14.060.070 FDV Concept Evaluation Programs Supported
3 B14.060.080 FDV Suitability of Technology Insertion Evaluated
3 B14.060.090 FDV SoS Force Development Operational Analysis Updated
3 B14.060.100 SEI SoS Engineering specialty analyses performed
3 B14.060.110 SEI SoS risks assessments and mitigation plans documented
3 B14.060.120 SEI KPPs and TPMs evaluated
2 B14.070 System of System Performance Verified
3 B14.070.010 SEI FoS Specification Compliance Verified
3 B14.070.020 SEI Increment 1 SoS Specification Compliance verified
2 B14.080 Final SoS Verification Assessment conducted
3 B14.080.010 SEI Meeting conducted, and agreed upon action items/closure plans documented
1 B15 SDD Closeout
2 B15.010 SoS requirements and architecture supported
3 B15.010.010 SEI Interface Control Working Groups (ICWGs) Supported
3 B15.010.020 SEI Interface control documentation updated
2 B15.020 Increment 1 Requirements Documentation Released
3 B15.020.010 SEI Final Increment 1 SoS specification released
3 B15.020.020 SEI Systems' PIDS, ICDS, IERS released
2 B15.030 C4ISR SDD Completed
3 B15.030.010 C4I Final PIDS, CIDS, CSCIs and ICDs Completed
3 B15.030.020 C4I Production Capability Approved
3 B15.030.030 C4I Software Final Increment Build 4 Construction Completed
3 B15.030.040 C4I C4ISR Platform Integration and Testing for LRIP Completed
3 B15.030.050 C4I SOSIL Integration and Test Support for LRIP Completed
2 B15.040 MGV SDD completed
3 B15.040.010 MGV MGV Software SDD Activities completed
3 B15.040.020 MGV MGV System Engineering and Analysis and Integration SDD completed
3 B15.040.030 MGV MGV common subsystems integration into SDD completed
3 B15.040.040 MGV MGV Mission Variant inputs into SDD completed
3 B15.040.050 MGV MGV IATCO inputs into variant SDD completed
3 B15.040.060 MGV Misc SoS Event support completed
3 B15.040.070 MGV MGV subcontracts Completed

Phase S3 Early Integration for SoS Technical Testing & Audits (I/F, Design,
Functionality, & Config) completed
3 B08.030.030 IST Acceptance installation of early emulators from IPTs to SoSIL Environ completed
3 B08.030.040 IST
Acceptance and Installation of HW / SW Final Emulators & Dev Prototypes from IPTs
for PTFT & TFT completed
3 B08.030.050 IST Phase S3 SoS Integration for Test and Test Readiness Review (TRR) completed
2 B08.040 SoS Verification Readiness evaluated
3 B08.040.010 SEI SoS & FoS Integration and test results reviewed
3 B08.040.020 SEI FoS Verification plans reviewed
3 B08.040.030 SEI SoS Verification plans reviewed
1 B09 LRIP Long Lead Readiness Review
2 B09.010 Prime item / segment data evaluated
3 B09.010.010 SEI Prime item / segment design progress evaluated
3 B09.010.020 SEI Prime item / segment system engineering processes evaluated
3 B09.010.030 SEI Assessment of prime item / segment LRIP long lead requests completed
3 B09.010.040 SEI Prototype manufacturing processes and progress results evaluated
3 B09.010.050 OPS Supplier production & quality reviews completed
3 B09.010.060 SEI Affordability/life cycle cost analysis evaluated
3 B09.010.070 SEI FoS Risks assessment and mitigation plans evaluated
2 B09.020 System of Systems products and analysis updated
3 B09.020.010 SEI SOS requirements documents updated
3 B09.020.020 SEI System of Systems performance assessment updated
3 B09.020.030 SEI SOS risks assessment and mitigation plans reviewed
3 B09.020.040 SEI System of Systems design documents updated
3 B09.020.050 SEI FCS incremental and spiral development plan updated
Lev Code IPT Description
2 B09.030 LRIP and Production Funding Estimates Updated
3 B09.030.010 BUS LRIP Long Lead funding estimates updated
3 B09.030.020 BUS Production Long Lead funding estimates updated
3 B09.030.030 BUS LRIP funding estimates updated
3 B09.030.040 BUS Production funding estimates updated
2 B09.040 LRIP LL procurements initiated
3 B09.040.010 SMP Final Bidder's List for LL LRIP identified
3 B09.040.020 SMP LRIP procurement requirements defined
3 B09.040.030 SMP Final LL procurement requirements defined
3 B09.040.040 SMP LRIP LL procurement RFPs approved
3 B09.040.050 SMP LRIP LL evaluation & selection plan/schedule generated
2 B09.050 LRIP LL Readiness Review conducted
3 B09.050.010 SEI Meeting conducted, and agreed upon action items/closure plans documented
1 B10 Initial Integrated Prototypes SoS Verification Assessment
2 B10.010 Phase S3 Integration & Test completed
3 B10.010.010 IST Phase S3 SoS Technical Test Series completed
3 B10.010.020 IST Phase S3 Limited User Test#1 and Log Demo Completed
3 B10.010.030 IST Phase S3 SoS Technical Test Series Assessment completed
3 B10.010.040 IST
Integration Phase S3 Technical Test & Interim SoS Integration Assessments Review
completed
2 B10.020 Phase 3 SOS integration & test results evaluated
3 B10.020.010 SEI System integration and verification plans updated
3 B10.020.020 SEI Phase S4 Verification Objectives final for test & demo updated
3 B10.020.030 SEI Phase S5 Verification Objectives for test & demo updated
3 B10.020.040 SEI SoS verification evaluated
3 B10.020.050 SEI Phase S3 Test Report completed
2 B10.030 SoS/FoS Requirements and Architecture impacts evaluated
3 B10.030.010 SEI Impacts to SOS requirements and architecture documents evaluated
3 B10.030.020 SEI Impacts to FoS requirements and architecture documents evaluated
3 B10.030.030 SEI FCS incremental and spiral development plan updated
3 B10.030.040 FDV Suitability of Technology Insertion Evaluated
2 B10.040 System of Systems assessment updated
3 B10.040.010 SEI SoS Performance assurance analyses performed
3 B10.040.020 SEI SoS affordability analysis performed

2 B15.050 UAV SDD Completed
3 B15.050.010 UAV Hardware and Software SDD activities completed
3 B15.050.020 UAV UAV Program Management performed
2 B15.060 UGV SDD Completed
3 B15.060.010 UGV Hardware and Software SDD activities completed
3 B15.060.020 UGV UGV Program Management performed
2 B15.070 Software SDD Completed
3 B15.070.010 SWE Updated Software Risks & Mitigation plans in Risk Mgmt System reviewed
3 B15.070.020 SWE Impact of LRIP SW changes evaluated
2 B15.080 Subcontract close-out completed
3 B15.080.010 SMP Subcontract open items defined
Lev Code IPT Description
3 B15.080.020 SMP Subcontract SCLINs & SDRLs status evaluated
3 B15.080.030 SMP Government property disposition completed
3 B15.080.040 SMP Subcontract deliveries verified
3 B15.080.050 SMP Purchase contract close-out folder compiled
2 B15.090 SDD Contract Complete and Final SOS Design Delivered
3 B15.090.010 BUS BUS Management and tasks completed
3 B15.090.020 MGV MGV management and tasks completed
3 B15.090.030 SMP SMP Management and tasks completed
3 B15.090.040 UAV UAV management and tasks completed
3 B15.090.050 UGV UGV management and tasks completed
3 B15.090.060 SUP Supportability management and tasks completed
3 B15.090.070 TRN Training management and tasks completed
3 B15.090.080 LET Lethality management and tasks completed
3 B15.090.090 SOL Soldier Systems management and tasks completed
3 B15.090.100 SEI Complementary Programs management and tasks completed
3 B15.090.110 ACE ACE management and tasks completed
3 B15.090.120 SEI SE management and tasks completed
3 B15.090.130 IST IS&T management and tasks completed
3 B15.090.140 C4I C4ISR management and tasks completed
3 B15.090.150 SWE Software management and tasks completed
3 B15.090.160 PMO Program Management management and tasks completed
3 B15.090.170 OPS Operations management and tasks completed
3 B15.090.180 FDV Force Development management and tasks completed
3 B15.090.190 SEI Final Verified Increment 1 Design Delivered

Table 2-1. IPT Code Definitions

IPT Code	**Definition**
ACE	Advanced Collaborative Environment IPT
BUS	Business IPT
C4I	C4ISR IPT
FDV	Force Development IPT
IST	Integration, Simulation and Test IPT
LET	Lethality IPT
MGV	Manned Ground Vehicles IPT
OPS	Operations IPT
PMO	Program Management
SEI	Systems-of-Systems Engineering and Integration IPT (includes Complimentary Programs)
SMP	Supplier Management and Procurement IPT
SOL	Soldier Systems IPT
SUP	Supportability IPT
SWE	Software Engineering IPT
TRN	Training IPT
UAV	Unmanned Air Vehicles IPT
UGV	Unmanned Ground Vehicles IPT

ATTACHMENT 9

DIRECTED SUBCONTRACTS

Directed Subcontractor	Purpose	Authorization Date
United Defense LP	Manned Ground Vehicle Integrated Design Team	January 23, 2003
General Dynamics Land Systems	Manned Ground Vehicle Integrated Design Team	January 23, 2003

ATTACHMENT 10

GOVERNMENT MANPOWER SUPPORT TO IPTs

Government Employee Name	Assigned IPT	Area of Expertise	Assignment to be Performed	Period of Performance

ATTACHMENT 11
COMPLEMENTARY PROGRAMS

CPID	SIPT Name	Bin
CP145	(DoD) Distributed Collaborative Tool Suite (DCTS)	D
CP1	Advanced Aviation Forward Area Refueling System (AAFARS)	C
CP147	Advanced Field Artillery Tactical Data System (AFATDS)	D
CP14	Advanced Precision Kill Weapon (APKWS)	D
CP7	Aerial Common Sensor	D
CP149	Air and Missile Defense Workstation (AMDWS)	D
CP151	Air Defense System Integrator (ADSI)	D
CP153	Air Force Weather Agency (NTFS) New Tactical Forecast Sys (AFWA)	D
CP157	All Source Analysis System (ASAS)	D
CP15	Army Airborne Command and Control System (A2C2S)	D
CP17	Army Command Training Information Architecture-and Army Command Training Information Architecture-M	B
CP23	Army Knowledge Enterprise Architecture	B
CP25	Army Learning Management System	B
CP389	Army Tactical Missile System (ATACMS, MSLS)	D
CP162	Automated Deep Operations Coordination System (ADOCS)	D
CP163	Automated Field Artillery/Fire Support & C3 System (German) (ADLER)	D
CP166	Aviation Mission Planning System/Joint Mission Planning Sys (AMPS/JMPS)	C
CP167	Battlefield Artillery Target Equipment System (UK System) (BATES)	D
CP171	Battlefield Video Teleconference (BVTC)	D
CP31	Black Hawk (UH-60)	D
CP173	Blue Force Tracking (BFT)	C
CP33	Bridge Site Mobility	D
CP175	C4 Army System (C2 System for Spain) (SIMACET)	D
CP108	C4ISR A/B-kits for non FoS UoA Platforms	A
CP41	Chemical, Biological, Radiological, Nuclear Reconnaissance System (CBRNRS)	D
CP43	Chinook (CH-47)	D
CP49	CLASS 4A SIGINT Payload (Tactical SIGINT Payload)	A
CP334	Class IV EO/IR (aka Adv EO/IR, ASTAMIDS)	A
CP336	Class IV SAR/MTI	A
CP286	Comanche (RAH-66)	C
CP179	Combat Service Support Control System (CSSCS)	D
CP181	Command & Control Personal Computer (C2PC)	D
CP80	Common Training Instrumentation Architecture (CTIA)	B
CP61	Compact Kinetic Energy Missile (CKEM)	B
CP64	Constructive Simulation (TACSIM)	B

CP185	Defense Integrated Military Human Resource System (DIMHRS)	D
CP187	Defense Medical Logistics Standard Support (DMLSS)	D
CP195	Digital Topographic Support System (DTSS)	D
CP86	Distributed Common Ground System - Army (DCGS-A)	B
CP197	Distributed Learning System (DLS)	B
CP143	Emitter Mapping (Prophet 2/3)	C
CP201	Engineer Vehicle (Bridging and Obstacle Neutralization)	D
CP102	Excalibur	B
CP205	F/A-22 Raptor Aircraft	D
CP207	Family of Interoperable Operational Pictures (FIOP)	B
CP104	Family of Medium Tactical Vehicles (FMTV)	C
CP408	FCS platform to non-FCS Platform Combat ID	A
CP401	Firefinder Radar (Q36)	C
CP211	Force XII Battle Command Brigade & Below (FBCB2)	C
CP213	Forward Area Air Defense Command, Control, Communications and Intelligence (FAAD C3I)	D
CP219	Global Broadcast System (GBS)	D
CP118	Global Combat Service Support-Army (GCSS-A)	B
CP223	Global Command & Control System (GCCS)	D
CP391	GMLRS Rockets (GMLRS, MSLS)	D
CP387	Ground Standoff Minefield Detection system (GSTAMIDS)	B
CP81	HEMTT (wrecker, resupply, NLOS-LS, refuel, ammo)	C
CP85	High Mobility Artillery Rocket System (HIMARS)	D
CP130	High Mobility Engineer Excavator (HMEE)	D
CP415	HIPPO	D
CP87	HMMWV (C2V, support & ambulance)	C
CP413	HSTAMIDS	C
CP134	HTI-2d GEN FLIR ED	C
CP136	IEW Tactical Proficiency Trainer	B
CP376	Improved Positioning and Azimuth Determination System (IPADS)	C
CP148	Institutional Resource Center linkage to AKE	C
CP235	Integrated Consumable Item Support – Defense Logistics Agency ICIS (DLA)	D
CP237	Integrated Meteorological System (IMETS)	D
CP241	Intelligence Analysis System (Marines) (IAS) *(Marine Corps Air Ground Intelligence System MAGIS)*	D
CP150	Intelligent Munition System (IMS)	A
CP89	Javelin P3I	B
CP160	Joint Biological Point Detection System	C
CP164	Joint Chemical Agent Detector (JCAD)	C
CP412	Joint Common Missile -air	D
CP253	Joint Land Attack Cruise Missile Defense Elevated Netted Sys (JLENS)	D
CP168	Joint Service Lightweight Stand-off Chemical Agent Detector	C
CP261	Joint Special Operations Forces C2 (JSOF C2)	D
CP265	Joint Tactical Ground Station (JTAGS)	D
CP403	Joint Tactical Radio Systems (Cluster 1) (JTRS)	B

CP176	Joint Tactical Radio Systems (Cluster 5) (JTRS)	B
CP402	Joint Tactical Radio Systems (JTRS)	B
CP99	JWARN	C
CP271	Land Force C2 Information System (Canadian System) (LFC2IS)	D
CP180	Land Warrior Block II	B
CP379	LHS Modular Fuel Farm (LHS Modular Farm)	C
CP184	Lightweight 120mm Cannon for Mounted Combat System	A
CP277	Lightweight Forward Entry Device w/Forward Observer Sys (LFED/FOS)	C
CP186	Lightweight Laser Designator/Rangefinder (LLDR)	C
CP414	Lightweight Water Purifier (LWP)	D
CP107	Longbow Apache (AH-64)	D
CP279	Low Level Air Picture Interface (German System) (LLAPI/FAST)	D
CP411	Maintenance Truck (Contact Truck)	
CP366	Man Machine Command and Control software (M2C2)	D
CP281	Maneuver Control System (MCS)	D
CP283	Marine Corps Target Identification System (MCTIS)	D
CP196	Medical Communications for Combat Casualty Care (MC4)	B
CP285	Medium Extended Air Defense System (MEADS)	D
CP206	Mid Range Munition/Extended Range Munition	B
CP210	MILES XXI	C
CP392	MOFA - Artillery Fuze	B
CP214	Mongoose	D
CP289	Mortar Fire Control System XM-95 (MFCS)	C
CP220	MOUT OIS	C
CP138	Movement Tracking System	C
CP293	Multiple-Launch Rocket System (MLRS)	D
CP295	Naval Fire Control System (NFCS)	D
CP216	Non-Lethal 120mm Mortar Munition	B
CP248	Non-Lethal 155mm Cannon Munition	B
CP254	Non-Line-of-Sight Launch System (NLOS-LS)	A
CP341	ONE Tactical Engagement Simulation System (OneTESS)	C
CP264	OneSAF Objective System	B
CP301	Paladin Automatic Fire Control System	D
CP117	Palletized Loading System (PLS)	C
CP128	Palletized Loading System Trailer	C
CP303	Patriot	D
CP270	Phoenix Battlefield Sensor System (Q47)	D
CP280	Precision Guided Mortar Munition (PGMM)	B
CP377	Profiler	D
CP284	Radiac Set AN (UDR-13)	B
CP418	Radio Frequency Tags	D
CP119	Rapidly Emplaced Bridging System (REBS)	D
CP298	SECOMP-I / Joint Enroute Mission Planning and Rehearsal System (JEMPRS)	B
CP315	Sentinel Phased Array Radar (AN/MPQ-64)	C
CP417	Short Range Air Defense (SHORAD)	D

CP321	Single Channel Ground & Airborne Radio System (SINCGARS)	C
CP323	Single Integrated Space Picture (SISP)	D
CP416	Soldier System	D
CP409	Soldier to FCS Platform Combat ID	B
CP410	Soldier to Soldier Combat ID	B
CP312	Standard Army Mgmt Information System (STAMIS)	D
CP331	Standing Joint Forces Headquarters (SJFHQ)	D
CP333	Tactical Air Operations Module and Modular Control Equipment (AN/TYQ-21(V)1) (TAOM/MCE)	D
CP335	Tactical Airspace Integration System (TAIS)	D
CP337	Tactical Combat Operations Systems (Marines C2) (TCO)	D
CP339	Tactical Electric Power (TEP)	C
CP343	Tactical Exploitation System (TES)	D
CP353	Theater High-Altitude Area Defense System (THAAD)	D
CP378	Theater Support Vessel (TSV)	D
CP351	Theatre Battle Management Core System (Air Force) (TBMCS)	D
CP330	Training Unique Ammo	B
CP357	Transportation Coordinator's Automated Information for Movement System II (TC-AIMS-II)	D
CP332	UA linkage AKE	C
CP133	Unit Water Pod System (CAMEL)	D
CP352	Unmanned Aerial Vehicle - Class IV-b ILO	D
CP356	Warfighter Information Network - Tactical (WIN-T)	B
CP260	XM307 (Objective Crew Served Weapon)	A

Contractor:
The Boeing Company

Agreement #DAAE07-03-9-F001
Initial Agreement Award

ATTACHMENT 12
ACCOUNTING / APPROPRIATION DATA FOR PAYMENT OFFICE

[Agreement Cross-Reference: Article V, Section B.]

PART A. ACCOUNTING DATA FOR *THIS ACTION* (Award or Modification)

Identification of *THIS ACTION*: Initial Agreement Award (30 May 2003)

1. Accounting Data for *THIS ACTION* is presented below in two views: By CLIN and By ACRN.

Accounting Data By CLIN

LINE ITEM	PRON & JON	Amd No.	ACRN	FCS USE	PRIOR AMOUNT	INCREASE / DECREASE AMOUNT	CUMULATIVE AMOUNT THIS CLIN
0001AA	BU3GFD05BUEH	01	AA		$ -0-	$ 113,109,880.00	$113,109,880.00
	3GFD05						
0001AB	BU3GFD05BUEH	01	AA		$ -0-	$ 6,756,048.00	$ 6,756,048.00
	3GFD05						
0001AC	BU3GFD05BUEH	01	AA		$ -0-	$ 10,134,072.00	$ 10,134,072.00
	3GFD05						
					NET CHANGE:	$ 130,000,000.00	

Accounting Data By ACRN

ACRN	Accounting Classification	Accounting Station	INCREASE / DECREASE AMOUNT	
AA	21 32040 0000 35R5R06P654645255Y S20113	W56HZV	$ 130,000,000.00	
		NET CHANGE:	$ 130,000,000.00	

2. Net Obligation Change (Increase/Decrease) to Agreement for *THIS ACTION*:

Total Prior Agreement Obligation:	$ - 0 -
Net Obligation THIS ACTION:	$ 130,000,000.00
Current Cumulative Obligation:	$ 130,000,000.00

Contractor:
The Boeing Company

Agreement #DAAE07-03-9-F001
Initial Agreement Award

PART B. FUNDS ALLOTTED / OBLIGATED

1. The total amount of all funds currently allotted to this Agreement is: $ 130,000,000.00.
This is the same amount as the "Total Government Funds Obligated To Date" block on the face page of the original Agreement, considering all Agreement modifications issued.

2. Notes Regarding Funds Allotted / Obligated.

a. Initial Funding, FY03. The Parties agreed and acknowledged at time of original Agreement award that $130,000,000.00 was all the funding that was expected to be available from date of award through 30 Sep 2003.
b. FY04 Funding. TBD

PART C. OBLIGATION REFERENCE TABLES (Including *THIS ACTION*, Part A., above)

The two tables below are for reference only--an aid to tracking obligations made under this Agreement. They merely depict what has already happened, and where to find details. These tables will be updated, as appropriate, with each relevant Agreement modification.

1. By CLIN

CLIN	ACRN	Cumulative Obligation This CLIN	Last Action Affecting This CLIN
0001AA	AA	$ 113,109,880.00	Initial Award
0001AB	AA	$ 6,756,048.00	Initial Award
0001AC	AA	$ 10,134,072.00	Initial Award
Total For All CLINS		$ 130,000,000.00	

2. By ACRN

ACRN	Accounting Classification	Accounting Station	Cumulative ACRN Obligation	Last Action Affecting This ACRN
AA	21 32040 0000 35R5R06P654645255Y S20113	W56HZV	$ 130,000,000.00	Initial Award

[End of Attachment 12]

ATTACHMENT 13

RESERVED.

MODEL / WORKING DRAFT / PREDECISIONAL

MEMORANDUM OF AGREEMENT
BETWEEN
PROGRAM EXECUTIVE OFFICER GROUND COMBAT SYSTEMS
AND
PROGRAM EXECUTIVE OFFICER XXX

Subject: Collaboration in Support of the Future Combat Systems Program Management, Planning and Execution

1. General. Program Executive Officer (PEO) Ground Combat Systems (GCS) and PEO XXX agree to collaborate in the management, program planning, and execution of the U. S. Army Future Combat Systems (FCS) Program. This Agreement becomes effective upon signature of the parties and remains in effect until the completion of the FCS System Development and Demonstration (SDD) Phase. The parties of this MOA recognize The Boeing Company and its representatives as the Lead System Integrator (LSI) for the FCS. The LSI obligation under the FCS SDD Other Transaction Agreement (OTA) is to integrate selected programs under the control of PEO XXX into the Unit of Action (UA) or as an external interface to the UA. Neither this MOA nor any subordinate MOA can alter the terms and conditions of the SDD OTA with the LSI or the respective PM's XXX prime contractor's contract. Any change to the SDD OTA with the LSI shall be made pursuant to the Modifications Article contained therein.

2. Purpose/Scope. The scope of this MOA is limited to the period of performance of the FCS SDD Phase in the FCS SDD OTA. The overall goal of this MOA is to ensure the successful incorporation of the PEO XXX system(s) with the FCS UA in the FCS SDD Phase.

3. Program Management. The PEO GCS, , and PEO XXX will cooperate to incorporate Complementary PEO XXX programs with the FCS UA according to the following guidelines:

a. Management:

(1). PEO XXX manages and executes system development programs identified by PM FCS and the LSI. on the attached list (ATTACHMENT 1) of PEO XXX complementary programs.

(2). For each identified complementary program, PEO XXX identifies a program/project/product manager or their representative empowered to enter into subordinate MOAs. PEO GCS will identify its empowered PM to enter into program level MOAs. The parties shall use ATTACHMENT 1 to record the empowered PM Managers for each PEO XXX complementary system.

(3). Systems development for the identified programs is collaboratively staffed and worked through the FCS IPT process. The program/project/product manager or representative will have a voice in the FCS program as a participating member of the FCS IPT and a voice on items affecting their specific Program(s). The LSI FCS IPT members are invited to attend Program XXX program level reviews and meetings.

b. Conflict Resolution:

Whenever disputes, disagreements, or misunderstandings arise, the parties first shall attempt to resolve the issue(s) involved by discussion and mutual agreement as soon as practicable. If the parties cannot reach agreement, then the parties shall elevate the dispute/disagreement in accordance with their standard operating procedure.

4. Management Information & Exchange Mechanisms. PEO XXX participates as a member of the FCS Board of Directors (BOD).

a. Management of the FCS program is executed within the FCS IPT structure. PEO XXX personnel participate in the appropriate FCS IPTs and/or Working Groups. PEO XXX provides program cost, schedule and performance status for its complementary programs to the FCS IPT of which it is a member.

b. PM FCS and the LSI provide appropriate Advanced Collaborative Environment (ACE) access to the key PEO XXX personnel identified by PEO XXX. PEO XXX agrees to populate ACE with data as requested in the subordinate MOAs . PM FCS shall fund key PEO XXX personnel ACE licenses.

c. PEO XXX personnel and FCS PM personnel are responsible for complying with the security requirements as depicted in the latest versions of their Program's Security Classification Guides.

5. Subordinate MOAs. Subordinate MOAs will be developed between PM FCS and PEO XXX Program/Project/Product managers identified in ATTACHMENT 1 to define responsibilities, funding, schedule, deliverables, and organizational relationships for specific technology/system development programs. Based on these Subordinate MOAs, PM xxx will modify the contracts they have to execute these programs to correspond to the FCS Program needs and require the Contractor(s) to cooperate with the LSI to plan and execute those scope revisions, including providing cost and schedule data for managing the activity. PM FCS recognizes PEO XXX's requirement to fund program changes. PEO XXX recognizes the need to assure the designated PM and the contractor perform with the high quality and priority that the UA integration requires. PEO XXX and PM FCS will coordinate funding and any incentives for the integration/interfacing of System XXX and the FCS UA and incorporate that agreement into this document by attachment.

6. Effective/Termination Date. This MOA is effective as of the date of the last signature below, and will remain in effect through the LSI SDD OTA completion or termination. Modifications to this MOA can be made by mutual agreement of the parties.

7. Signatures. Primary signatures to oversee execution of this MOA:

JOSEPH V. YAKOVAC, JR. MG, USA Program Executive Officer, Ground Combat Systems	date	Name	date

Coordinated:
Dennis A. Muilenburg
Program Manager FCS SDD
The Boeing Company

ATTACHMENT 1

PROGRAM	NOMENCLATURE	POC	ADDRESS	PHONE/EMAIL

SUBORDINATE MEMORANDUM OF AGREEMENT
BETWEEN
PROGRAM MANAGER, FUTURE COMBAT SYSTEMS
AND
PROJECT MANAGER, YYY

DRAFT

SUBJECT: Collaboration for the Integration of System YYY with the FCS Unit of Action

1. General. Under authority of the MOA between the Program Executive Officer of Ground Combat Systems (PEO-GCS) and PEO-XXX, dated , the FCS Program Manager and YYY Program Manager enter into this Subordinate MOA (SMOA) for the purpose of providing YYY Systems to the FCS Unit of Action (UA),or the purpose of establishing an interface internal or external to the Unit of Action (UA). This SMOA defines the operational and support relationships between the Program Manager Future Combat Systems (PM FCS) and the Program Manager YYY (PM YYY) during the SDD phase of FCS Increment I.

2. Purpose/Scope. The overall goal of this SMOA is to ensure the successful integration of YYY Systems with the FCS UA during the FCS SDD Phase.

3. Program Management.

a. Management of the FCS program is executed within the FCS IPT structure.. PM YYY personnel participate in the appropriate FCS IPTs and/or working Groups. Each SMOA is managed by the lead IPT within the FCS program identified in this SMOA in ATTACHMENT 1. For each identified complementary program, PM YYY identifies a program/project/product representative to be the PM representative on the applicable IPT. The parties shall record the empowered representative for each IPT involved with the complementary system on ATTACHMENT 1. Other IPT involvement will be in a supporting role.

b. PM YYY provides program cost, schedule, and performance status to the SMOA lead FCS IPT for the UA integration efforts of YYY System integration tasks specified in the Associate Contractor Agreements (ACA) between the LSI and the PM's complementary program contractor.

c. All parties will support risk mitigation efforts in the SDD Program to reduce risks to successful completion of the FCS SDD phase and design potential future risks out of the FCS Program.

4. Responsibilities:

a. PM FCS will:

1.Provide resources and information to PM YYY to negotiate PM YYY Prime Contractor support to the LSI. Funding is required prior to contract changes

unless the scope of work or requirements is included in the current contract scope of work and the PM YYY has informed the PM FCS no additional funding is required.

2. Provide and coordinate the Scope of Work (RDT&E, deliverables, services, or interface only) from the LSI to PM YYY. Initial effort by the LSI will be to negotiate an ACA with the PM YYY Complementary Program (CP) contractor.
3. All PM YYY FCS integration CP contractor direct costs will normally be charged to the PM YYY/ CP contractor contract. LSI costs are funded by the FCS SDD OTA. The LSI's and PM YYY's CP contractor's respective disclosure statements and accounting practices define charging of costs.

b. PM YYY will:

1. Facilitate ACA negotiations between the LSI and PM YYY contractors.
2. Upon negotiation of an ACA between the PM YYY CP contractor and the LSI, the PM YYY/CP contractor contractual agreement will be modified to incorporate the ACA terms by reference and fund the PM YYY CP contractor FCS efforts.
3. Include Complementary Program requirements associated with FCS in the PM YYY budget requests to fund the ACA.
4. Provide subject matter experts on their system(s) or products to the LSI and to PM FCS as may be requested.

c. The Boeing Company (LSI) will:

1. Negotiate and execute ACAs with the PM YYY Contractor(s) identified by PM YYY to encompass the funded effort in the PM YYY program that pertains to the FCS UA scope of work.
2. Fully cooperate with PM YYY contractors to ensure the development, production, and testing of PM YYY FCS UA requirements are on schedule.
3. Encourage PM YYY contractors to support LSI requirements.

d. The PM FCS and PM YYY shall come to a mutual agreement on funding the Complementary Program PM's Contractor effort supporting the LSI, to include PM YYY and PM FCS funding currently available and future Program budget requests. This agreement will be in writing and included in this SMOA as ATTACHMENTs 2, 3, 4 and 5.

5. Conflict Resolution. Whenever disputes, disagreements, or misunderstandings arise, the parties first shall attempt to resolve the issue(s) involved by discussion and mutual agreement as soon as practicable. If the parties cannot reach agreement, then the parties shall elevate the dispute/disagreement in accordance with their standard operating procedure.

6. Effective/Termination Date. This SMOA is effective as of the date of the last signature below, and will remain in effect through the LSI SDD OTA completion or termination. Modifications to this SMOA can be made by mutual agreement of the parties.

APPROVAL SIGNATURES:

DONALD F. SCHENK BG, USA Program Manager Future Combat Systems	Date Name Date Rank Program Manager, System/Technology YYY

Coordinated:

Dennis Muilenburg Date
SDD Program Manager
Future Combat Systems
The Boeing Company

ATTACHMENT 1

PROGRAM NOMENCLATURE:

	FCS PM IPT Leader	PM YYY IPT Member	PM YYY POC	LSI IPT Leader
Name				
Address				
Telephone				
E-Mail				
LEAD IPT				

PROGRAM: NOMENCLATURE:

	FCS PM IPT Leader	PM YYY IPT Member	PM YYY POC	LSI IPT Leader
Name				
Address				
Telephone				
E-Mail				
LEAD IPT				

Special Provisions:

ATTACHMENT 2 -- RESPONSIBILITY MATRIX
Development, Integration, Production and Delivery of the ZZZZZ
for PM Future Combat System

5/20/2003 13:13

	EFFORT	PM FCS	PM XXX	REMARKS
1	Life Cycle System Mgmt and responsibility for meeting overall performance objectives.	overall systems		
2	Manage design, development, test, procurement, QA, ILS for the entire system	X		PM XXX will provide support for their items of equipment, as requested.
3	Develop overall guidelines, schedules, goals & dates for IPRs with input from PM XXX	X		PM XXX will support PM FCS in this effect, as requested.
4	Configuration Management control of overall system to include chairing of ICWG	X		
5	Plans, directs and controls config mgmt of each PM XXX supplied component with FCS vehicle hardware configuration and interfaces. Provides necessary data to support PM FCS in dev & integ of their components (spec, ICD, drawings).		X	
6	Manages test and evaluation program to include simulation	X		
7	Develops and executes TEMP	X		PM XXX will support TEMP development, as required
8	Chairs the Test & Evaluation IPT (which includes simulation plans)	X		PM XXX will participate in the T&E IPT, as required
9	Identify ECPs & other changes to the XXX managed mission equipment and their support products to the extent that they impact the IAV variants/configurations.		X	

10	Chairs Supportability and NET IPTs	X		PM XXX provides subject matter coverage from ILS Mgr, Equip & Provisioning & Supply Specialists for the component, its down parts and its supportability products, as required
11	Supports PM FCS development of integration kits for XXX managed mission equipment and provides components and integration engineering support		X	PM XXX serves as integration engineering SME as requested.
12	Provide funding to execute approved work packages	X		PM XXX will provide work packages to include cost, schedule & performance info to PM FCS.
13	Provide components per the quantity and schedule in attached work packages		will provide to fielding teams	PM XXX will serve as the SME for fielding information concerning these items coming to the FCS.
14	Participate in New Material Intro Briefing (NMIB)		X	As requested

	EFFORT	PM FCS	PM XXX	REMARKS
15	Participate in the Table of Organization & Equipment (TOE) scrub and subsequent Material Requirement List (MRL) Review		X	PM XXX will work with Gaining Command to determine initial issue fielding rqmts
16	Participate in Material Fielding Teams	X	X	PM XXX, as required, to resolve issues to assure complete customer satisfaction.
17	Supports New Equipment Training, as necessary	X	X	Funding for this will be provided by PM FCS as required
18	Provide support to vehicle testing as needed		X	Will include technical manuals and engineering support
19	Provide technical support for the LSI IPT		X	PM XXX will participate as needed.
20	Provide FSR/TSR Support to critical events (I.e., testing, NET, fielding, etc.)		X	
21	Ensure that the items comply with the National Environmental Policy Act (NEPA)		X	

22	Obtain a Nuclear Regulatory Commission (NRC) license as necessary and ensure that IAV production, fielding & test locations are included as part of the license.		X	

Attachment 3: Identification of Components and Quantities for Integration and Cost by Fiscal Year

ITEM: Nomenclature of Item

COST: Cost will be borne by PM XXX

FY $$$$	Nomenclature	NSN	LIN	Quantity	Total Q
2003					0
2004					0
2005					0
2006					0
2007					0
2008					0
2009					0
2010					0

* FY2003 quantity includes X SoSIL sets

Attachment 14

MODEL / WORKING DRAFT / PREDECISIONAL

	Attachment 4- Cost of General Government Support Matrix			" EXAMPLE "			
	Reimbursable Matrix/General Support Items From: PM, XXX						
	Work Year(s)						
				CY03			
Group	Responsibility	Name	Grade	Work Year	Direct Labor	TDY/M'tl	Total
XXX IPT			NOTIONAL	Weapon IPT, Test & Qualification			
PM YYY	IPT SME	TBD	GS-14		$ -	$0	$ -
PM YYY	M67 Sight, Fielding & Doc. (TC, MR)	TBD	GS-13		$ -	$0	$ -
PM YYY	Project Engineer	TBD	GS-13		$ -	$0	$ -
PM YYY	Test Engineer	TBD	GS-13		$ -	$0	$ -
PM YYY	Weapon Engineer (Recoil Mechanism)	TBD	GS-14		$ -	$0	$ -
PM YYY	Test Engineer (Intern)	TBD	GS-07		$ -	$0	$ -
PM YYY	Product Quality Assurance	TBD	GS-14		$ -	$0	$ -
PM YYY	Product Quality Assurance	TBD	GS-13		$ -	$0	$ -
PM YYY	Product Quality Assurance (Key Inspection)	TBD	GS-12		$ -	$0	$ -
PM YYY	Weapon Design Engineer	TBD	GS-13		$ -	$0	$ -
PM YYY	Weapon Technician	TBD	GS-11		$ -	$0	$ -
PM YYY	Structural Engineer	TBD	GS-13		$ -	$0	$ -
PM YYY	Aeroballistics	TBD	GS-13		$ -	$0	$ -
PM YYY	Aeroballistics (BOP & Noise)	TBD	GS-13		$ -	$0	$ -
PM YYY	Firing Tables Branch	TBD	GS-13		$ -	$0	$ -
PM YYY	Packaging	TBD	GS-12		$ -	$0	$ -
PM YYY	Human Factors	TBD	GS-12		$ -	$0	$ -
PM YYY	Safety Engineer/Life Cycle Environ.	TBD	GS-12		$ -	$0	$ -
PM YYY	Metal Parts Engineer	TBD	GS-13		$ -	$0	$ -
PM YYY	Maintanance Engineer	TBD	GS-13		$ -	$0	$ -
PM YYY	Logistics Engineer	TBD	GS-13		$ -	$0	$ -
PM YYY	Systems Readiness	TBD	GS-12		$ -	$0	$ -
		Shipping					
		Weapon Subtotal		0.00	$ -	$ -	$ -

Attachment 5-Total Cost of PM XXX Support

Fiscal Year	Total General Salary Support Cost From Attachment 4	Other Costs	Total Cost
2003		$0	$0
2004		$0	$0
2005		$0	$0
2006		$0	$0
2007		$0	$0
2008		$0	$0
TOTAL	$0	$0	$0

This chart will be a summation of work package costs.

END STRENGTH

14. Senator MCCAIN. General Schoomaker, you are redesigning the U.S. Army and growing the number of brigades to meet the challenges of the new century. Why does your budget not reflect this?

General SCHOOMAKER. Lessons from Operation Iraq Freedom (OIF) and Operation Enduring Freedom (OEF) have taught us that we need more agile forces, capable of operating in a joint environment, and we need them as soon as possible. We did not arrive at a decision to implement the redesign until after the budget was finalized. Because of the immediacy of the requirement, we plan to reconfigure OIF 1 units during their reset process. Some of these units may deploy to meet OIF 3 force requirements, so we need to reconfigure them immediately. As this requirement is directly related to continuing the global war on terrorism, we believe supplemental funds are appropriate.

15. Senator MCCAIN. General Schoomaker, paying for the 30,000 increase in troops is not included in the budget. Do you plan on relying on supplemental spending bills for the next 4 years to pay for this increase?

General SCHOOMAKER. This requirement is directly related to the global war on terrorism and is being made under emergency authority. Because the increases are above authorized strength, we believe the supplemental appropriations are a proper way to fund them.

16. Senator MCCAIN. General Schoomaker, supplemental bills are submitted by the administration for emergency spending requests. Why is future end strength considered an emergency-spending request?

General SCHOOMAKER. As we fight the global war on terrorism, we must adapt our forces and our methods to best engage our enemy. We need to implement the lessons that we have learned in Iraq and Afghanistan as soon as possible. We need to change the way our units are organized and how they fight now. The associated requirement for a strength increase is a direct result of the global war on terrorism and its immediate, but temporary nature, is our reasons for using supplemental funds.

17. Senator MCCAIN. General Schoomaker, every outside independent expert has called for increasing Army end strength. The demands of the global war on terror have stretched our military thin. Will the administration continue to oppose legislative efforts by Congress to increase end strength?

General SCHOOMAKER. While I oppose a permanent increase in the Army's end strength, I strongly support a temporary increase of 30,000 that allows the necessary flexibility for the Army, while fighting the global war on terrorism, to increase the number of Active Force Brigade Combat Teams (BCTs) from 33 to 43 between now and fiscal year 2007. A determination for an additional 5 BCTs (for a total of 48) will be made at a later date. This temporary measure will enable the Army to field standardized unit designs and transition to a unit-based personnel management system. Our intent is to make the Army more ready and relevant for the unpredictable nature of the emerging strategic environment. Once this restructuring is complete, the Army will return to their authorized strength by fiscal year 2009.

18. Senator MCCAIN. General Schoomaker, we are relying more and more on our reservists. According to the testimony of General Myers, "some missions like the ones in Bosnia and Kosovo are almost exclusively made up of Reserve and Guard units." Reports indicate that nearly 40 percent of the soldiers in the Iraqi and Afghan theaters are reservists or guardsmen. I am concerned about the retention problems that may arise in the near future due to this reliance. What are you doing to encourage reservists to re-enlist?

General SCHOOMAKER. The Army Selected Reserve (SELRES) strength was 211,380 as of January 29, 2004, or 3.1 percent above its congressionally mandated end strength objective. The Army Reserve began to notice a drop in attrition and increase in strength soon after the first round of calls to active duty (January 2003) in support of Operations Noble Eagle (ONE) OEF. Since this time, the Army Reserve has been in a continuous state of mobilization with an average of 28 percent of its troop program unit (TPU) strength called to active duty in support of ONE/OEF/OIF rotations. On average, 1.9 percent of the SELRES strength attrits each month. The mobilized population has not been able to follow this "normal pattern" of attrition and may act on this "pent-up" attrition upon their return. The Army Reserve is expecting losses between 22 percent and 34 percent of pent-up attrition

(based on 12 to 18 months of mobilization) from this population within 7 to 9 months of their return. Based on these expected demobilization losses, the Army Reserve end strength is projected to fall to between 203,490 and 207,481 by the end of the fiscal year and within the 2 percent congressional allowance by the beginning of the fourth quarter, depending on the timing of demobilization losses and the attrition patterns experienced.

The Chief, Army Reserve (CAR), tasked the Office of the Chief, Army Reserve (OCAR) Retention Transition Division to form a Retention Task Force to develop and institute initiatives to retain as many of these demobilizing soldiers as possible. Some of the ongoing initiatives include:

(1) Completion of a demobilization survey, administered by a retention and transition noncommissioned officer (NCO), by each returning soldier.

(2) Counseling provided to each soldier during the demobilization process pointing out that they could immediately use tuition assistance upon their return, and identifying opportunities in the Army Reserve to continue their careers, such as the Active Guard Reserve program, warrant officer program, or options for commissioning.

(3) Free marriage retreats, conducted by Army Reserve chaplains, offered to all redeploying soldiers and their spouses.

(4) Retention and transition NCOs are contacting redeployed soldiers during the 90-day reconstitution period giving these soldiers a chance to share their mobilization experience and to encourage them to stay in the Army Reserve.

(5) Family readiness groups and commanders are conducting welcome home activities during the first Army Reserve training assembly scheduled after redeployment.

The Army Reserve realized improvements in first term reenlistment figures in February; however, it remains below mission for the second straight month and for the year. Additionally, careerists lagged for the 4th straight month. Upon review of the causes of the careerist shortfall, it was discovered that the systems used to update reenlistment dates had not caught up to the change in policy requiring Reserve component soldiers in ranks of staff sergeant or above to reenlist for an indefinite term. There are currently over 1,000 reenlistment contract packets awaiting input into the personnel accounting systems. A software change package is due out at the end of March 2004. This will enable the Army Reserve to remedy the situation by the end of April 2004. Retention of demobilizing soldiers continues to be monitored closely to determine the effects of mobilization on retention.

19. Senator McCain. General Schoomaker, the biggest strength of our military is the men and women who serve. We have major commitments across the globe including 330,000 Army troops deployed to 120 countries. The United States will have a major presence in Iraq and Afghanistan for the foreseeable future. Are the budget priorities of the Service in line with the increased demands we are putting on our soldiers?

General Schoomaker. Absolutely. The fiscal year 2005 budget emphasizes manning the force, taking care of our soldiers and their families, and sustaining the quality of the force. The Army's request reflects a strength increase of 2,400 in the active component as authorized in the National Defense Authorization Act for Fiscal Year 2004. This budget also provides soldiers with an average pay increase of 3.5 percent.

The Army is transitioning to an improved manning system designed to increase unit readiness by increasing stability and predictability for unit commanders, soldiers, and families. The Army is also implementing incentives and manning initiatives to meet recruiting and retention goals in order to enhance warfighting capabilities.

The fiscal year 2005 budget begins a rebalancing of the active and Reserve components based on rapid response operations, high demand units, and rotational requirements. To improve force manning in the active component in fiscal year 2005, we will increase authorizations to equal requirements by adding 1,043 authorized spaces to existing active units. This initiative will bring them to their full requirement level in fiscal year 2005 ensuring their campaign quality capabilities. Additionally, beginning in fiscal year 2005, the Army will bring the Reserve component force structure allowance under programmed end strength. This initiative will improve manning and readiness and will reduce operational tempo (OPTEMPO) stress in the remaining units types. The Army will also convert 917 Reserve component spaces from less used structure such as field artillery to high demand units such as MPs and civil affairs.

While we are at war and addressing global war on terrorism emergency requirements, these initiatives will relieve some of the pressure on our soldiers, while still providing the right mixes of capabilities for our Army.

20. Senator MCCAIN. Admiral Clark, I am a little concerned that the Navy is going to face a problem training new aviators over the next couple of years. There have been stories of the Navy turning away hundreds of qualified aviators already in the aviation pipeline. Currently, few pilots are leaving the Navy to fly commercially because the airlines are not hiring. When this trend changes and the commercial airlines start to hire, the Navy is going to have a shortage of junior officers. What is being done to ensure that there are an adequate number of junior aviators?

Admiral CLARK. We access enough junior officers as prospective aviators each year to allow for training attrition and to properly fill first-tour requirements in each squadron. We are continuously updating our models to validate actual performance while taking measures to incentivize the behaviors we want to optimize our investment in naval aviators. This includes a continuing commitment to a robust bonus program that helps lessen the economic disadvantage for a pilot serving in the military. We have worked hard to improve the quality of service for all of our dedicated professionals, including those in naval aviation where we are experiencing record retention. As a result, we now have an opportunity to both increase the level of experience in our squadrons and more selectively choose department heads and executive/commanding officers in key aviation leadership billets that those junior aviators will aspire to.

21. Senator MCCAIN. General Hagee, I was recently contacted by the father of a constituent who expressed concern that his son is being redeployed to Iraq. On his son's first deployment, he flew F–18s, but now he is being sent back to Iraq as a MP. Are the Marines that short of troops that we are now sending aviators back to Iraq to serve on the ground? Is this not a perfect example of why we need to increase end strength?

General HAGEE. I can assure you that the Marine Corps is not sending our F–18 pilots back to Iraq as MPs. We have embedded within our ground combat units, billets for naval aviators to serve as air officers. These Marine aviators advise the unit commanders on the employment of all types of aviation support from close air support to helicopter resupply, medical evacuation, etc. It is not uncommon to take advantage of our aviator's recent combat experience by rotating pilots from the cockpit to the ground combat units to take advantage of their expertise. This relationship has always been an important part of our air-ground team philosophy and been in existence since the introduction of aviation into the Marine Corps. This is how we normally do business and is not related to any shortfall in end strength.

NATIONAL CALL TO SERVICE

22. Senator MCCAIN. General Schoomaker, since you are pursuing a temporary increase in manpower levels for the Army which will need to be phased out in a short time and could well reside in the Reserves, does it not make sense to employ the 18–18–18 National Call to Service (NCS) Act to augment the required end strength you are pursuing?

General SCHOOMAKER. The Army has implemented a National Call to Service Program (NCSP) and established a 1-year test of the program so we can quantify the impacts of this program. We want to allow the NCSP to mature and to complete the 1-year test to help us make better decisions on the program and its place in the Army. Currently, our force stabilization and modularity efforts are key. The temporary strength increase of the Army will need to occur across all parts of the military structure not just the initial entry soldier. Our solution is focused on long-term results for shaping the Army as a whole.

23. Senator MCCAIN. General Schoomaker, Admiral Clark, General Jumper, and General Hagee, I would like you to discuss the implementation of the 18–18–18 plan that Senator Bayh and I included in the National Defense Authorization Act for Fiscal Year 2003. In particular, what percentage of your total force will be made up of personnel under this type of contract?

General SCHOOMAKER. Since implementation of the NCSP on October 1, 2003, the Army has had 250 soldiers enlist under this option. Overall, the fiscal year 2004 goal for the NCSP is 1,450, which equals 2 percent of the initial fiscal year 2004 accession mission and 0.3 percent of the total Active Force.

Admiral CLARK. In this first year of implementation of NCSP, the Navy's goal of 1,000 NCSP accessions was achieved. This represents 2.5 percent of the Navy's entire fiscal year 2004 accessions and 0.3 percent of fiscal year 2004 total active enlisted strength.

We are embarked on an effort to develop a 21st century human resources strategy which will baseline how we acquire, develop and retain the people needed to keep our Navy the best the world has known. We intend to assess the 18–18–18 methodology to see how we can better exploit opportunities to show young people the benefits of service.

General JUMPER. Senator, the 18–18–18 plan was included in the National Defense Authorization Act for Fiscal Year 2003 as the NCSP. I am proud to say the Air Force hit the ground running with this program. We were the first Service to bring someone on active duty and have not let up since then. We have accessed approximately 300 airmen since the program began on October 1. Our plan is to access 370 airmen this fiscal year and an additional 365 next year. This will be 1 percent of our non-prior service enlisted accessions each of those years.

General HAGEE. The Marine Corps is currently planning on recruiting up to 1 percent of our yearly accession mission via the NCSP. We are implementing this program over a 3-year period; 175—fiscal year 2004, 275—fiscal year 2005, and 350—fiscal year 2006.

24. Senator MCCAIN. General Schoomaker, Admiral Clark, General Jumper, and General Hagee, do you envision expansion of this program?

General SCHOOMAKER. The Army approached this program somewhat differently than the other Services. On behalf of the Army, Rand Corporation is conducting a 1-year study that ends on September 30, 2004, to determine market expansion as well as effects this program might have on our other enlistment programs. We placed this program in 10 of our 41 recruiting battalions. The Rand report will follow in the December 2004/January 2005 timeframe. We project expanding this program nationwide on October 1, 2004. Upon completion of the study, the number of personnel allowed into the program could very well grow, but at this time, we want this program to mature.

Admiral CLARK. Yes, we currently plan to double the NCS accession next year.

General JUMPER. We are taking a cautiously optimistic view of the program and do anticipate the program's expansion in the future. We are interested in establishing some type of metric to indicate what the majority of these enlistees will choose to do at the end of their training plus 15-month commitment. This will allow us to better establish a plan to ensure sustainment of these Air Force Specialty Codes is not affected.

General HAGEE. At this time, the Marine Corps does not envision expansion of this program. We will continue to evaluate this position.

25. Senator MCCAIN. General Schoomaker, Admiral Clark, General Jumper, and General Hagee, what is the role of the 18–18–18 plan playing in each of the Services?

General SCHOOMAKER. The NCSP was implemented to give applicants a chance to serve the Nation for a limited amount of time (15 months plus training). If they chose not to reenlist for active duty, they would then serve 2 years in the Selected Reserves and the rest of their service in the Individual Ready Reserve or a national service program.

The Army continues to shape its programs to attract high quality men and women to serve as soldiers. The NCSP is a short-term enlistment option that we are focusing on the college markets. The NCSP currently has 30 percent of its enlistees with some college versus 25.7 percent of the Army's total year to date enlistments. This program will benefit both the Active and Reserve component in today's Army and well into our future Army.

Admiral CLARK. Sailors enlisted under the NCSP plan play a key role in filling critical skill shortages within the Naval Reserve. For fiscal year 2004, we have dedicated fully of our NCSP enlistment quotas toward two skills most urgently needed in the Selected Reserves: Hospital Corpsman (HM) and Master at Arms (MA). U.S. Navy Reserve has a long-term priority need for corpsmen with both training and follow-on experience. NCSP HMs will directly support the Reserve mission of providing field medics to Marine Corps units (many of which are engaged in OEF and OIF). Those recruits enlisted as NCSP HMs will not only have received required formal technical schooling, they will also bring an additional 15 months of Fleet or Fleet Marine Force experience with them as they affiliate with their Reserve units. The NCSP MAs will also serve to beef up the Navy antiterrorism/force protection mission, for much the same reason as HMs—a combination of formal technical

training coupled with follow-on fleet experience in a variety of assignments. The remaining 12 percent of this fiscal year's NCSP enlistees are dedicated (in smaller numbers) to other Reserve Force missions including intelligence, anti-mine warfare, and naval aviation. For fiscal year 2005, Navy plans to double the number of NCSP enlistees, with those sailors continuing to be enlisted into ratings and skills in high demand in the Reserves.

General JUMPER. This program has provided our recruiters with another tool to try and reach more of America's finest youths. We are encouraged by the results but the trends are unclear. Our desire was to bring in people that would not have otherwise considered the Air Force as a career option. While this is true in some situations, the trend indicates most young people would have enlisted either way but opted for the NCSP believing it provided the greatest incentives. One of the roles we hoped this program would play is to help with manning our Air Reserve component forces. We will not know how this succeeds until the first of these airmen become eligible to make those career decisions late in fiscal year 2005.

General HAGEE. At this time, the Marine Corps is using the NCSP as an additional incentive program to attract the "best and brightest" youth into our Marine Corps. We continue to evaluate the success of the program and are looking at innovative ways to use the program to possibly attract critical skill personnel to support our Selected Marine Corps Reserve Units such as intelligence and MPs. The Marine Corps has a Total Force Working Group looking at this issue.

MUNITIONS

26. Senator MCCAIN. General Schoomaker, you have directed a "blank sheet approach" to determine the "real" requirement for munitions. When will you program the "real" requirement into the budget process?

General SCHOOMAKER. We will program the new warfighting requirement in the fiscal year 2006 budget submission. I have given guidance relative to this year's programming efforts to conduct an operational assessment of planning factors and modeling results used to determine war reserve munitions requirements. The intent is to tightly link the munitions risk assessment and prioritization decisions to projected warfight requirements informed by the current operational environment. As the Army matures its thinking about the best way to approach the war reserve munitions requirement, we will work with OSD to document the modifications required of the process, as laid out in DOD Instruction 3000.4, DOD Munitions Requirements Process.

Additionally, we have identified an fiscal year 2005 unfunded requirement (UFR) to fill high-priority training ammunition shortfalls in small and medium calibers and mortar rounds.

27. Senator MCCAIN. General Jumper, why has the Air Force chosen to leave a joint program after development is complete and the weapon is integrated on five Air Force platforms in favor of a single-service development program which has yet to be developed or integrated on any platform?

General JUMPER. Joint Stand-Off Weapon (JSOW)–A is integrated on four United States Air Force (USAF) platforms, but with numerous restrictions, issues, and "workarounds." After 12 years in the JSOW program, the USAF has dropped zero in combat. Based on program documentation, combat, and developmental and operational test data, JSOW's operational utility for the USAF, and successful integration on USAF platforms, has not been proven. The USAF based its decision to end JSOW–A procurement on capability requirements and analyses of a wide range of platforms and weapons that can provide the required capabilities. We balanced capabilities, cost, and risk during the fiscal year 2005 program objective memorandum (POM). We analyzed numerous platforms and weapon options to ensure the required capabilities (direct attack, standoff outside point, area and theater defenses) are being provided and procured, and Wind Corrected Munitions Dispenser Extended Range (WCMD–ER) is just one of the many technical solutions being applied by the USAF to provide the required capabilities. Defense budget plans, the Integration Capability Review and Risk Assessment process, and Air Force Studies and Analyses Agency studies support the decision. The analyses showed the capability requirements could be met with a mix of existing and planned platforms and weapons. The planned JSOW–A procurement (475 through fiscal year 2004) will provide an effective "bridge" until other capabilities reach sufficient inventories.

28. Senator McCAIN. General Jumper, given the Navy's success with the JSOW in OIF, how can you justify the risk of weapon development when an existing joint program is established and already integrated on multiple platforms?

General JUMPER. The USAF analyzed numerous platforms and weapon options to ensure the required capabilities (direct attack, standoff outside point, area and theater defenses) are being provided and procured, and WCMD–ER is just one of the many technical solutions being applied by the USAF to provide the required capabilities.

JSOW is integrated on four USAF platforms, but with numerous restrictions, issues, and "workarounds." The USAF has used zero in combat after 12 years of participation in the JSOW program. Based on program documentation, combat, and developmental and operational test data, JSOW's operational utility for the USAF, and successful integration on USAF platforms, has not been proven.

29. Senator McCAIN. General Jumper, how does the Air Force plan to deal with the unexploded ordnance issue for the BLU–97 sub-munitions in WCMD and WCMD–ER?

General JUMPER. The reliability of the USAF's current cluster bombs is approximately 95 percent. The USAF is further improving the reliability of its current cluster bombs with the use of WCMD kits and the procurement of a new cluster bomb, Sensor Fuzed Weapon (SFW), which has a reliability of 99 percent.

One of the biggest issues in the past with cluster munitions was that we did not have guided delivery systems to ensure precision. The baseline, and now the extended-range WCMD allows the USAF to deliver the submunitions to precise locations (inertial navigation system and Global Positioning Satellite (GPS) guidance), which make it easier for the troops to avoid unexploded ordinances as they advance. After the conflict ends, clean up is much safer and efficient. In addition, there are sensors in SFW that look for targets vice the BLU–97 Combined Effects Munition's generalized explosion on impact. The weapon also has three built in self-destruct modes if no target is found. This combination of features has improved the reliability of the USAF's cluster bombs to 99 percent.

30. Senator McCAIN. General Jumper, can you explain why the BLU–97 submunition unexploded ordnance hazard issue does not make the existing submunitions inventory obsolete?

General JUMPER. The reliability of the USAF current cluster bombs is approximately 95 percent. The USAF is further improving the reliability of its current cluster bombs with the use of WCMD kits, WCMD–ER kits, and the procurement of a new cluster bomb, SFW, which has a reliability of 99 percent through three redundant self-destruct/deactivation features. Just like SFW, any cluster weapon submunitions the USAF may procure in the future would comply with all established policies and directives.

The baseline, and now the WCMD–ER allows the USAF to deliver the submunitions to precise locations (inertial navigation system and GPS guidance), which make it easier for the troops to avoid unexploded ordinances as they advance. After the conflict ends, clean up is much safer and efficient.

31. Senator McCAIN. General Jumper, have you conducted a business case analysis which shows a clear cost-benefit advantage to the DOD (not the USAF) to pursue WCMD–ER over JSOW–A, which includes development and integration costs?

General JUMPER. The Air Force decision to cancel the JSOW–A was not based on a comparison between WCMD–ER and JSOW–A. Rather, the USAF performed a Capability Requirements and Risk Assessment (CRRA) of our delivery platforms and munitions. This in-depth analysis determined JSOW–A provides a redundant capability relative to a number of other weapons and delivery platforms. The planned USAF inventory offers several capable and less expensive standoff alternatives to JSOW, such as Small Diameter Bomb (SDB) and WCMD–ER, as well as Joint Direct Attack Munition (JDAM), WCMD, and Joint Air-to-Surface Standoff Missile (JASSM) that could be dropped from stealth aircraft. All these weapons are existing programs established and funded by Congress.

Collectively, these programs mitigate the near term risk with JSOW cancellation. No single weapon addresses the entire target set—some are adequate for parts of the target set and are significantly less expensive. One business case consideration is we already have over 100,000 rounds for tactical munitions dispensers which can be converted to WCMD for $20,000 each, or WCMD–ER for $68,000 each versus JSOW which is well over $200,000 each.

Thus, the final USAF decision was to maintain our total buy of JSOW–As at 475 missiles and redirect $398 million of savings toward other priorities. OSD and JCS/

J–8 validated the decision, but directed the Air Force transfer $100 million to the Navy to offset program costs incurred by Air Force withdrawal and ensure continuance of ongoing production (i.e., maintenance of minimum sustaining rate).

32. Senator MCCAIN. General Jumper, we understand that in recent conflicts, enemy air defenses have not been very capable. However, in future conflicts that is likely to change. How much does WCMD–ER decrease the survivability of the aircraft compared to JSOW–A given the high radar cross section of WCMD–ER?

General JUMPER. The USAF based its decision to end JSOW–A procurement on capability requirements and analyses of a wide range of platforms and weapons that can provide the required capabilities. We balanced capabilities, cost, and risk during the fiscal year 2005 POM. The USAF analyzed numerous platforms and weapon options to ensure the required capabilities (direct attack, standoff outside point, area and theater defenses) are being provided and procured, and WCMD–ER is just one of the many technical solutions being applied by the USAF to provide the required capabilities.

Like question #33, this question was addressed in the USAF's analyses during the fiscal year 2005 POM and prior performance comparisons for area attack weapons. The WCMD and WCMD–ER provide more submunitions per delivery truck than JSOW, or, in other words, more probability of damaging the target per weapon. The USAF also looked at the target sets and concluded that a mobile target set (troops or vehicles on the move) are protected by mobile anti-aircraft artillery or surface-to-air missile systems, and both JSOW and WCMD–ER have similar survival capabilities in this scenario. Due to the increased firepower with WCMD–ER, as well as similar survival capabilities as JSOW against mobile threats, USAF analyses showed the requirement for fewer aircraft sorties to complete wartime campaigns. This translates to lower platform attrition and increased aircrew survivability.

33. Senator MCCAIN. General Jumper, how does WCMD–ER's range, approximately half of JSOW's range, adversely effect survivability and mission effectiveness?

General JUMPER. The USAF based its decision to end JSOW–A procurement on capability requirements and analyses of a wide range of platforms and weapons that can provide the required capabilities. They balanced capabilities, cost, and risk during the fiscal year 2005 POM. The USAF analyzed numerous platforms and weapon options to ensure the required capabilities (direct attack, standoff outside point, area and theater defenses) are being provided and procured, and WCMD–ER is just one of the many technical solutions being applied by the USAF to provide the required capabilities.

This question was addressed in the USAF's analyses during the fiscal year 2005 POM and prior performance comparisons for area attack weapons. The WCMD and WCMD–ER provide more submunitions per delivery truck than JSOW, or, in other words, more probability of damaging the target per weapon. The USAF also looked at the target sets and concluded that a mobile target set (troops or vehicles on the move) are protected by mobile anti-aircraft artillery or surface-to-air missile systems, and both JSOW and WCMD–ER have similar survival capabilities in this scenario. Due to the increased firepower with WCMD–ER, as well as similar survival capabilities as JSOW against mobile threats, USAF analyses showed the requirement for fewer aircraft sorties to complete wartime campaigns. This translates to lower platform attrition and increased aircrew survivability.

34. Senator MCCAIN. General Jumper, with the large Air Force investment in stealth technology on aircraft and other weapons such as JASSM, why would the Air Force choose to develop a non-stealth weapon that cannot be carried inside the bay of the Joint Strike Fighter (JSF)?

General JUMPER. The utility of stealthy platforms is the ability to avoid or minimize the aircraft's exposure to enemy threats. The USAF's "kick down the door" concept of operations (CONOP) relies on stealth technology to penetrate enemy defenses and roll them back. This will allow less stealthy platforms to conduct follow-on operations with reduced risk. WCMD, which will be carried internally on the JSF, contains the same number of submunitions as WCMD–ER, so the stealthy platform with WCMD carried internally meets the initial roll back concept, and WCMD–ER, carried externally on JSF and non-stealthy platforms, continues the attacks with standoff capability.

DEPOT MAINTENANCE

35. Senator MCCAIN. General Schoomaker, the Army budget submission funds depot maintenance at 72 percent of the requirement (1 percent more than last year) and BOS services to 70 percent of requirement (4 percent more than last year). Will your continued underfunding of this requirement not drive us toward a hollow force?

General SCHOOMAKER. The Army's depot maintenance program is funded in accordance with Army priorities and is balanced against other high priority Army programs. In fiscal year 2004, the Army received $1.2 billion emergency supplemental funding for depot-level reset in addition to the peacetime budget for depot maintenance. The reset workload is specifically being driven by planned unit rotations into the Iraqi theater of operations. A key portion of the Army's depot maintenance funding is the $491 million for recapitalization requirements, which bring equipment back to a near-new condition.

DD(X)

36. Senator MCCAIN. Admiral Clark, how is the Navy progressing in selecting a hull design for the DD(X) and what are some of the dilemmas that you are facing?

Admiral CLARK. The Wave Piercing Tumblehome Hull (WPTH) has been tentatively selected as the baseline for the Ship Preliminary Design Review (PDR). Scale model testing to validate predictions that the WPTH will meet stability and stealth criteria is due for completion later this month.

As risk mitigation, we have designed and are still testing a Semi-Wave Piercing Tumblehome Hull (SWPTH) as an alternative, credible back-up to the revolutionary WPTH.

37. Senator MCCAIN. Admiral Clark, crew size will be dramatically reduced on the DD(X). Do you see any potential threats in reducing the crew size to around 100?

Admiral CLARK. No truly revolutionary program is entirely without risk. That said, the potential benefits of this program—from improvements in precise, time-critical strike and joint fires to leap-ahead technologies like the integrated power system and electric drive—are integral to our success in the future, joint battlespace. This ship will command more than 110 times the area of today's naval fire support systems, with the growth potential to accommodate new capabilities such as the electromagnetic rail gun at lower future development cost. Our crew size objective for DD(X) is 125 personnel and we have established a threshold of 175. DD(X) will not only deliver substantially more combat power ashore than today's combatants which require twice that crew size, it will lower total ownership costs and will provide a baseline for spiral development of technology and engineering to support a range of future seaframes including the Littoral Combat Ship (LCS) and CG(X). Further, we are conducting extensive analysis of all ship functions, including damage control, to mitigate the risk associated with a small crew size by automating many of the systems operated manually in today's fleet.

38. Senator MCCAIN. Admiral Clark, an argument could be made that designing a new destroyer is not the most cost-effective way to bring the Navy's fleet of ships into the 21st century. Why do you believe that the DD(X) fulfills the needs of the Navy better than continuing to build the DDG–51, which only costs $750 million?

Admiral CLARK. The DDG–51 is an outstanding multi-mission platform that has served this Nation well and will continue to do so far into this century. It is the Air and Missile Defense backbone of our Carrier and Expeditionary Strike Groups (ESGs), and it provides substantial strike capacity with its Vertical Launching System. But the reality is that the DDG–51 was originally designed for 20th century missions in blue water, leaving us with a capability gap in the littoral and in projecting precise, persistent combat power well inland in response to the 21st century needs of this Nation. DD(X) helps fill the gap where the DDG–51 cannot. DD(X) will command more than 110 times the area of today's naval fire support systems, with the growth potential to accommodate new capabilities such as the electromagnetic rail gun and directed energy weapons at lower future development cost. While the DDG–51 may have a lower initial production cost than DD(X), we estimate that we will achieve significant reductions of 25–50 percent in operations and support costs over the life of the DD(X) as compared to the DDG–51. The DD(X) is the right ship for our future.

TRANSFORMATION

39. Senator MCCAIN. General Schoomaker, Admiral Clark, General Jumper, and General Hagee, I notice in the new budget there are large increases in funding for already existing programs. How does this year's budget proposal figure into your long-term transformation plans?

General SCHOOMAKER. The Army views its transformation as a continuous process encompassing the entire force. It combines advanced technologies, organizations, highly adaptive leaders and soldiers, and improved processes with new concepts to create sources of dominant military power that are responsive, deployable, agile, versatile, lethal, survivable, and sustainable.

The Army continues to make difficult choices to cancel and restructure programs to invest in transformational capabilities. In the fiscal year 2005 budget we are terminating 14 systems and restructuring 15 systems to realign $423 million. Some of these investments are already providing results in the form of new capabilities today, such as in the new Stryker BCT formations being fielded and operating in Iraq.

Other major fiscal year 2005 future force related R&D and acquisition efforts include Stryker, which is funded in fiscal year 2005 to buy 310 vehicles for Stryker BCT 5, (2nd Brigade, 25th Infantry Division, Hawaii) to begin fielding in fiscal year 2006; and $1.2 billion for aviation modernization. The budget request also funds procurement of high-mobility multipurpose wheeled vehicles (HMMWVs). $156.3 of the $303.7 million for HMMWVs will used to procure 818 Up-Armored HMMWVs (UAHs). This increased funding for UAHs is due to lessons learned from recent operations.

This budget request puts us one step closer to realizing a more responsive modularized force. The modularized brigades are strategically responsive, joint interdependent, precision force, dominant across the full range of military operations that we envision as necessary in the future global security environment.

Admiral CLARK. The Navy budget request for fiscal year 2005 reflects a shift in focus to transformational surface combatants and sea basing capabilities. Offensive capabilities include DD(X), CVN 21, and nuclear-powered cruise missile attack submarine (SSGN) which will incorporate innovative technologies and concepts to project joint fires and Special Operations Forces faster and to significantly greater distances than today. LCS will utilize novel warfighting modules to transform maritime dominance in the littorals against increasing numbers of mines, submarines, and small combatants. The Multi-mission Maritime Aircraft (MMA) will revolutionize broad-area anti-submarine and surveillance coverage.

To link these platforms into a networked force, we've requested funding for FORCEnet enablers such as Deployable Joint Command and Control and Joint Tactical Radio Systems. Unmanned Airborne and Underwater Vehicles (UAV/UUV) such as the Long-term Mine Reconnaissance System (LMRS) and Broad Area Maritime Surveillance (BAMS) UAV will provide persistent and pervasive reconnaissance and surveillance capabilities to the joint force. These existing programs exemplify the intention of the Navy's 2005 budget request to accelerate investments for a transformed, joint, netted, and sea-based force.

General JUMPER. Transformation is a process of constant change and adaptation, integrating revolutionary technologies with revolutionary organizations and operational concepts. The Air Force fiscal year 2005 budget proposal is carefully balanced to support this transformative process, both today and over the long-term. It recognizes that key capability areas are in different stages of maturity. Some are in very early S&T stages that will not be deployed for decades to come. Some are in advanced stages of production and deployment as we speak, and others are somewhere in between.

Almost half ($16.7 billion) of the USAF's $36 billion fiscal year 2005 modernization request is for new "enabling" technologies supporting transformation in all the Services. It includes more than $2 billion for space systems such as GPS II and GPS III and the Transformational Communications Satellite; almost $2 billion in research, development, test, and evaluation (RDT&E) for directed energy, hypersonics, and Joint Battlespace Infosphere; and more than $57 million for Airborne Electronic Attack. Likewise, half of the inflation-adjusted Air Force increase from fiscal year 2004 to fiscal year 2005 targets programs forming the leading edge of joint transformation today, like Link 16, the Global Hawk UAV, F/A–22, and precision munitions like JDAM.

These current and future capabilities (which also include the Advanced Extremely High Frequency (AEHF) communications satellite, Automated Intelligence, Surveillance, and Reconnaissance (ISR), Combat Information Transport System, Distributed Common Ground System, Joint Tactical Radio System, E–10, and Space-Based

Radar (SBR)) produce "transformation" when they combine in the seamless machine-to-machine integration of all systems. They are dramatically reshaping warfare by enabling joint forces to produce the effects of mass without having to mass forces. They achieve an order of magnitude increase in the number of targets affected per sortie and dramatically reduce the time it takes to put the cross hairs over a target from hours to minutes—and do it much more precisely. They greatly reduce the forward logistics footprint, protect our information systems, protect our Nation and forces from ballistic and cruise missile attacks, and rapidly deploy forces anywhere in the world.

The USAF Transformation Flight Plan details all these efforts.

General HAGEE. The fiscal year 2005 President's budget sustains the Marine Corps focus of main effort; current readiness and warfighting excellence, while also funding key transformational concepts like Seabasing and Expeditionary Maneuver Warfare. Working with our Navy partners, these concepts will provide America assured access around the globe and revolutionize the way we deploy and employ forces both in peacetime and in conflict. The current budget supports the continued development and fielding of key systems like the MV–22 Osprey, the Expeditionary Fighting Vehicle (EFV), and the short takeoff vertical landing (STOVL) JSF. When these and other critical enabling systems enter service with the Corps, they will significantly enhance the already potent capabilities represented by today's naval expeditionary forces.

QUESTIONS SUBMITTED BY SENATOR JEFF SESSIONS

READINESS

40. Senator SESSIONS. General Schoomaker, this committee applauds the performance of the Army's deployed men and women in OIF, OEF, and the global war on terrorism. A lingering concern I have is not the readiness of the soldiers in uniform, but rather the readiness of their equipment and the substantial reset effort faced by the Army. In the past the Army harvested significant dollars from current force programs to pay for the future force. Army systems are now accumulating a year's worth of wear and tear in a month, a decade in a year, in what is acknowledged to be some of the harshest environment on Earth. Most of the deployed track and wheeled vehicle equipment is now in need of overhaul, rebuild, and upgrade. I am told in the Army budget brief that the Army has approximately $1.8 billion planned for the restoration of 10/20 standards. But I am deeply concerned that 10/20 standards are not acceptable repair levels for our key combat systems, many of which will need complete rebuilding of suspensions systems, engines, and the black boxes that run them following their arduous duty in Iraq. These systems are well beyond the 10/20 standard of repair, which I am told is being applied to most equipment returning from Iraq. What is your plan to have the industrial base and their public-private partnerships bring this equipment back to the depot condition our soldiers deserve?

General SCHOOMAKER. The Army covers depot maintenance requirements by funding major end items, (tanks, helicopters, wheeled vehicles and communications equipment) and secondary components (engines, transmissions, and suspension systems). Both programs deliver a product in accordance with national maintenance program standards that ensure all deterioration and damage are restored and repaired to a serviceable condition. In fiscal year 2004, the Army received $1.2 billion emergency supplemental reset funding for depot level overhauls and rebuilds in addition to our peacetime budget for depot maintenance. The U.S. Army Forces Command also received $251.6 million in reset funding specifically targeted for 10/20 level work. The Army is using reset funding to have its industrial base and industry partners restore key combat systems to the 10/20 standard condition our equipment was in when it deployed with our soldiers. To date, the Army has expanded its industrial base by establishing over 40 partnerships between the Army's depots and private industry.

COMANCHE

41. Senator SESSIONS. General Schoomaker, I know that Comanche has had a troubled past within the Army, in part due to increased requirements and in part due to it serving as a "bill-payer" for other programs. It seems the Army finally got it right with this last restructure, that the program is doing well and meeting all performance criteria. So well in fact, that the Army fully funded it once again in the latest budget. Tell me what the Office of Management and Budget (OMB) review means?

General SCHOOMAKER. Senator, the study was directed by OMB as part of their response to the fiscal year 2005 budget submission. They directed OSD to conduct the study, but did not divulge their reasoning for the study to the Army, nor did they direct any tasks to the Army.

42. Senator SESSIONS. General Schoomaker, will the Comanche remain the critical part of the future force we expect it to be?

General SCHOOMAKER. Armed reconnaissance is a critical component that will allow the Future Force to see first, understand first, act first and finish decisively. The Comanche is the platform the Army currently envisions for this role.

43. Senator SESSIONS. General Schoomaker, can you comment on whether the Comanche is in fact meeting its key performance parameters and milestones as outlined in the restructured program?

General SCHOOMAKER. The Comanche is performing well in its current phase of development. It is expected to meet key performance parameters.

JSTARS

44. Senator SESSIONS. General Jumper, we understand Joint Surveillance Target Attack Radar System (JSTARS) aircraft are crucial to U.S. forces and played a pivotal role in sandstorm battles during OIF. JSTARS's contribution was so important that aircrew members incurred additional risk continuing missions over hostile territory with engines shut down. The E–8C aircraft have known mission-degrading problems with aging engines. While the entire aircraft was reworked previously, the engines were not. Congress suggested that the Air Force study the best fix for the problem. Are you close to a cost-effective decision to remedy the situation?

General JUMPER. The Air Force intends to address our preferred JSTARS engine approach in the fiscal year 2006 POM. Meanwhile, we have prepared and are staffing the DOD's response to Congress' request for a study of three JSTARS re-engining options. The three potential options are: (1) maintain the current engine, (2) lease a replacement engine, or (3) purchase a replacement engine. Information to include associated costs are included in the response to Congress.

45. Senator SESSIONS. General Jumper, what are the associated costs and when will you begin to execute a creditable program to remedy the situation?

General JUMPER. The Air Force intends to address our preferred JSTARS engine approach in the fiscal year 2006 POM. Meanwhile, we have prepared and are staffing the DOD's response to Congress' request for a study of three JSTARS re-engining options. The three potential options are: (1) maintain the current engine, (2) lease a replacement engine, or (3) purchase a replacement engine. Information to include associated costs are included in the response to Congress.

SHIPBUILDING PROGRAM

46. Senator SESSIONS. Admiral Clark, our Navy has performed superbly, carrying the fight to the enemy, surging quickly, and bringing impressive sea power to the global war on terrorism. I am happy to see that shipbuilding and aircraft programs continue to provide for recapitalization of your equipment that is badly needed. I am concerned however that your ship inventory will drop to 290 ships. Is the shipbuilding program keeping pace sufficiently to deliver the force structure needed?

Admiral CLARK. We are on the right track with this year's shipbuilding program to deliver the kind of force structure that we need for the 21st century. That said, we cannot undo history. We simply did not buy enough ships in the 1990s. Over that decade, our shipbuilding budget averaged just over $6 billion per year, all while the Congressional Budget Office (CBO) was estimating that $12 billion in shipbuilding per year was necessary merely to sustain the force structure as it was. While I don't think that the 290 ships that we are projecting for fiscal year 2005 are enough to meet the long-term needs of this Nation, our budget request provides for a steady rise in that number beyond fiscal year 2005, and it will continue to rise as we build the new ships in the program.

47. Senator SESSIONS. Admiral Clark, must we act to provide the advanced appropriations this year for the Amphibious Assault Ship Replacement (LHA(R))?

Admiral CLARK. The Navy/Marine Corps Team would benefit from an advanced appropriations approach to the procurement of LHA(R). Fiscal pressures experienced in this budget build, and the full-funding policy for ship procurement, caused

us to move the planned procurement of LHA(R) from fiscal year 2007 to fiscal year 2008. In doing so, we have added some risk to the maintenance of a stable industrial base. Split-funding would allow us to mitigate this workload risk and avoid the potential for the layoff and rehiring of the skilled workers that will be needed to build these ships in the future.

TRANSFORMATION PLANS

48. Senator SESSIONS. General Schoomaker, I support Secretary Rumsfeld's efforts to transform the DOD and have been informed that the Army is aggressively operationalizing the concepts of a lighter force and evolution into the BCT units of action. However, I have two concerns:

First, I am aware that as part of your reorganization you have developed plans to fundamentally change the mission tasking of over 100,000 troops or 20 percent of the Army. In this process you intend to eliminate the following types of units or battalions: 24 artillery, 10 air defense, 11 engineer, 19 armor, and 65 ordnance. In addition, you intend to convert these for high demand units such as 149 MP companies, 16 transportation units, and several civil affairs units. I believe that as we move forward, we need to know the specific impacts this massive change will have on Army procurement requirements for major end items. I am especially concerned about armor, wheeled vehicles, and aviation requirements for the Future Years Defense Program (FYDP) as projected. In addition, a sense of the impact to operating costs, spares, and training dollars as the old units are eliminated and new units are created is necessary.

Second, I have seen in the press that the manning for the BCT will be between 4,000 and 5,000 troops. At 48 brigades, this accounts for about only half of the Army's current authorized end strength or approximately 240,000 troops at most. What then are the specific transformation plans for the other half of the Army?

General SCHOOMAKER. The 100,000 troops restructured to address the rebalancing of force structure within the active component/Reserve component affects about 12 percent of the Army's combat structure. This initiative has been captured in three major phases: global war on terrorism requirements; Secretary of Defense guidance on utilization and employment of Reserve component forces; and recent Army efforts to minimize impacts on high demand units, establishing trainees, transients, holdees, and students (TTHS) accounts in both the Army National Guard and the Army Reserve; and decreasing Reserve component over structure to help shape more ready and relevant Reserve component forces. These types of force structure changes are typical of the force sizing analysis and programming the Army goes through for each FYDP submission. The equipping impacts for the force structure changes generated in phase two required reprogramming $181.2 million of equipment procurement in the POM 2005–2009. The impacts on manning, equipping, and training generated by the changes in phase three will be captured in the upcoming POM. Armor, wheeled vehicles, and aviation requirements for the FYDP, as previously projected, will reflect these approved force structure changes. However, projected requirements from these changes should have minimal impacts on the procurement of major end items due to the projected cascading of equipment and the force designs of the BCT units of action. Additionally, equipment for units designated for inactivation or conversion will cascade to fill shortages as the Army reorganizes to meet global war on terrorism operational demands and evolves structure to the new BCT units of action. Major aviation end items are not eliminated, but rather restructured under a new design. Overall, this initiative will rebalance the forces and improve their readiness to meet operational demands.

Army transformation is a comprehensive effort intended to reinvent the Army at strategic, operational, and tactical levels. The 48 BCTs (43 maneuver brigade units of action and 5 Stryker BCTs) will comprise the "tip of the spear" at the tactical level, but they require command and control and a broad range of support to deploy and successfully accomplish their assigned missions. By fiscal year 2009, the strength of the 48 BCTs is estimated at approximately 168,000 soldiers. The remainder of the deployable operating force will total approximately 171,000 soldiers and will include Special Operations Forces (SOF), combat support, combat service support, and command and control elements.

Combat support and combat service support elements will be organized under support units of action (SUAs) and doctrinally configured to operate with and in support of the maneuver brigade units of action. Variants of the SUA will include the Aviation SUA (full spectrum multifunctional aviation operations), Protect SUA (force protection and security to lines of communication and rear areas), Reconnais-

sance and Surveillance SUA, Strike SUA (lethal and non-lethal strikes), and Sustain SUA (logistical support).

The nature of modern operations requires that Army command and control formations become more flexible than our current divisions and corps. Above the BCT level, two higher units of employment (UEx and UEy) will orchestrate tactical engagements into battles, major land operations, and when designated as a joint task force, campaigns. The design of both the UEx and UEy incorporates the capability for either to become a joint task force for smaller scale contingencies with little or no augmentation.

The generating force constitutes the part of the Army, which is generally nondeployable, but performs title 10 functions and provides critical support to the operating force. Accomplishing such functions as recruiting, institutional training, acquisition, and power projection platform operations, the generating force will support the transformation, becoming more efficient, and declining in military strength to approximately 85,000 by fiscal year 2009.

Finally, as a consequence of force stabilization initiatives, the Army anticipates reducing the number carried as TTHS from 63,000 to 58,000.

QUESTIONS SUBMITTED BY SENATOR SUSAN COLLINS

SHIP PROCUREMENT

49. Senator COLLINS. Admiral Clark, I very much appreciate the commitment you have shown in your budget to fully fund the construction of three DDG–51 *Arleigh Burke*-class destroyers. We are entering a very crucial period as the DD(X) destroyer program begins to ramp up. I appreciate that the DOD's fiscal year 2005 budget submission begins the funding for the construction of the first DD(X) destroyer. I am, however, concerned about the DOD future shipbuilding plan, specifically the transition between the DDG and DD(X) programs. The Navy is apparently slipping the construction of the second DD(X) destroyer 1 year, from fiscal year 2006 to fiscal year 2007. If this occurs, it will be the first year in over 20 years that our Navy will not be procuring a major surface combatant. This threatens to exacerbate an already significant problem with regard to overall fleet size, as well as significantly disrupt our Nation's industrial base. I would like you to comment on the impact a year without destroyer procurement would have on the continuing reduction in the size of the fleet and the viability of our industrial base.

Admiral CLARK. I am on record before Congress as saying that I do not believe we have enough ships in the inventory for the needs of this Nation, and we are doing all that we can to make up for the acquisition holiday in shipbuilding during the decade of the 1990s. This budget request puts us on the right track—in the form of $11.1 billion in the Shipbuilding and Conversion, Navy (SCN) account—to deliver the kind of force structure that we need for the 21st century. That said, fiscal year 2006 is going to be a tough year for us. We are going to have to make some hard decisions, and one of those decisions is about the procurement of a DD(X). If I thought we had the money to accelerate the procurement of DD(X) while balancing that against our other commitments, then we certainly would do that. At this point, it appears that we will not have that kind of flexibility. Let me assure you, however, that I am sensitive to the business needs of our partners in the shipbuilding industry as well as to the importance of maintaining the unique skills required to build the best surface combatants in the world. In order to mitigate the impact of the transition on the industrial base, we have developed a DD(X) acquisition strategy to provide the best value for the Navy with considerations for industrial base viability. This includes a portion of the lead ship detail design and construction effort being performed at General Dynamics Bath Iron Works, as well as Northrop Grumman Ship Systems.

50. Senator COLLINS. Admiral Clark, as of January 30, 2004, our fleet consists of only 294 ships. You have suggested that a more appropriate fleet size would be approximately 375 ships to meet current and future threats. The current rate of Navy ship procurement falls far short of meeting this goal. I realize that the ships of the future will have greater capability than those ships built only a decade or two ago, but part of a fleet's capability is its numbers, particularly when the U.S. might face multiple challenges in different parts of the world and worldwide presence has long been a mission of the Navy. How do you envision the U.S. Navy's capability to meet current and growing worldwide threats with less than a 300-ship Navy?

Admiral CLARK. The shipbuilding program provides for investment in new construction to deliver the kind of force structure we need for the 21st century. Fun-

damentally, that means a force structure measured in terms of aggregate capabilities as well as the number of hulls. However, as you have correctly pointed out, numbers do matter if we are to have sufficient capacity to deliver those capabilities to the far corners of the Earth. Our budget request provides for a steady rise in that number, reaching 308 in fiscal year 2009.

The most pressing challenge we face is obtaining the new capabilities we need to shape the Navy of the future and address the threats you have addressed. We need the DD(X) and LCS capabilities in the fleet as soon as possible. LCS in particular provides the kind of platform that is designed to take on the enemies we face in the post-September 11 environment. We are at risk without it. In the interim, we are maximizing our existing capability to meet the challenging threats. This past year led to the restructuring our training and maintenance processes under the Fleet Response Plan (FRP) and Sea Swap in order to derive the maximum amount of operational availability from each of our ships and air wings.

MARITIME NORAD

51. Senator COLLINS. Admiral Clark, I've been following with interest your thoughts about a "maritime" North American Aerospace Defense Command (NORAD). Do you anticipate that idea will become policy?

Admiral CLARK. While I cannot say for sure that this will become policy, such an approach has three elements that I consider important in providing homeland security and force protection. First, is my view that the Nation needs to develop the global maritime awareness that can reduce our port vulnerability. We can best do this by partnering with the U.S. Coast Guard (USCG) and with our allies to ensure timely dissemination of intelligence and by assisting in littoral identification and tracking of contacts of interest and/or concern. Second, we need to better define and enhance naval roles in global merchant ship tracking in relation to Navy homeland security/homeland defense missions. The third element would be to identify, in conjunction with the USCG, the technologies required for global surface vessel tracking and identification and develop a concerted plan for their implementation.

52. Senator COLLINS. Admiral Clark, you noted in one speech that on a small scale, San Diego has a maritime warning center staffed by the Navy, Coast Guard and harbor police. Is there a maritime surveillance infrastructure in place that covers the Nation and the world that would serve as a basis for a "maritime NORAD"?

Admiral CLARK. We do not have an integrated national maritime surveillance infrastructure in place today. The San Diego warning center you are referring to is one of two prototype Joint Harbor Operations Center (JHOCs), with the second prototype in Hampton Roads, Virginia. Navy and Coast Guard have worked together closely on this, and have agreed to co-share costs for development of these two sites. Our goal is to enable Navy and Coast Guard to more closely support each other in our shared harbor security responsibilities.

"ONE SHIPYARD"

53. Senator COLLINS. Admiral Clark, I would like you to bring us up to date on the "One Shipyard" concept and how that will improve the capability, efficiency, and the viability of our naval shipyards, such as Portsmouth Naval Shipyard in Kittery, Maine, which has been designated as a center of excellence for the overhaul and refueling of our nuclear submarines.

Admiral CLARK. "One Shipyard" is our conceptual approach to improved use of the ship.maintenance and construction industrial base through resource and infrastructure sharing.

Our objective is to capitalize on shipyard availability and employee skill sets in a way that provides more effective and efficient use of the limited maintenance resources needed to support our readiness; to provide better workload predictions and stability to our public and private shipyards; and, to leverage unique employee skill sets across the span of the industry in a way that lets us minimize some of the personnel strain of homeport shifts for our sailors between deployments.

This should result in improved health and stability for both our private and public shipyards, the right readiness for our Navy and better employee opportunity.

BALLISTIC INSERTS

54. Senator COLLINS. General Schoomaker, given that the U.S. has been in Iraq for nearly a year and that we had some indication that we would possibly go into

Iraq for several months prior to that, how is it that the number of ballistic inserts for the troops' body armor failed to keep up with the number of troops in-theater?

General SCHOOMAKER. Prior to the war, the Army was procuring and fielding Interceptor Body Armor (IBA) to all units preparing to participate in OIF. During the first part of the war, the major combat operations phase, our soldiers were adequately equipped with IBA. Our requirement for IBA was considerably less at the onset of the war because tank crews and other armored vehicle crews did not require IBA as their vehicles protected them. Since major combat operations have ended, our requirements for IBA have substantially grown due to a different operational environment and guidance from the commanders directing OIF. Today, most of our soldiers are dismounted from their armored vehicles as they conduct dismounted patrols throughout the Iraqi countryside in an effort to have closer contact with the Iraqi people.

55. Senator COLLINS. General Schoomaker, why didn't we have enough ballistic inserts for the troops' body armor?

General SCHOOMAKER. Prior to the war, the Army had set different procurement objectives for the Outer Tactical Vest (OTV) and the Small Arms Protective Inserts (SAPI), the two major components of IBA. Since then, the Army's updated procurement objectives for both OTVs and SAPI are now the same. Therefore, our SAPI procurement was accelerated to our current rate of 25,000 sets per month in order to meet our current IBA requirements. Given the absolute critical nature of this lifesaving equipment, we must allow the manufacturers' requisite time to meet quality production standards. The strictest quality control measures are in place to ensure no soldier or civilian is needlessly placed at risk in a substandard piece of body armor.

56. Senator COLLINS. General Schoomaker, how can we change the procurement system to ensure that our troops have the necessary gear when they are sent into combat, not a year after it started? I ask this question not only for the body armor, but other equipment needs which may emerge as well.

General SCHOOMAKER. We can do two things. First, we can plan for potential requirements beyond those in approved program levels and second, we can add options into critical contracts to allow for accelerated production. This will encourage more proactive thinking about contingency requirements and potential obstacles to rapid production and may reduce risk. However, this will not eliminate all risk. The noncontiguous urban threat of OIF necessitated that every soldier and DOD civilian in theater receive body armor. This was a divergence from the original guidance to issue only combat soldiers body armor. Once we recognized an increased risk, the requirement changed and the procurement system then used all possible means to respond. We will work to improve our procurement system, but we cannot eliminate all risk from changing threats.

REPORTS OF ABUSE

57. Senator COLLINS. General Schoomaker, The Denver Post has recently reported that female soldiers are returning from Iraq and seeking assistance from civilian rape-crisis centers. I know Secretary Rumsfeld has ordered an inquiry, but can you tell me what the Army is doing to investigate these reports and ensure that women who wear the uniform are protected from such abuse?

General SCHOOMAKER. Our U.S. Army Criminal Investigation Command is actively investigating or has completed investigations in 86 sexual assault crimes reported in the U.S. Central Command (CENTCOM) area of responsibility (AOR). When the evidence warrants, our Army takes a tough and aggressive stance on prosecuting sexual assault cases. Our Army is committed to providing strong support to victims of all crimes whether in a deployed environment or in garrison. As with all criminal allegations, there is a presumption of innocence until a case is fully investigated and, if appropriate, tried in a court of law. As you are well aware, the system that you have given us—through the Uniform Code of Military Justice (UCMJ)—provides commanders with the necessary process to ensure good order and discipline in our force. By protecting the rights of the accused and victims alike, the UCMJ provides the tools necessary to ensure the integrity of our investigatory and military justice system.

The Army is committed to ensuring that the victims of sexual assault are properly cared for and treated and that their medical and psychological needs are properly met. Currently, we are assessing our Army's policies and programs to determine whether they properly provide appropriate support services to victims both in garri-

son and in a deployed environment. To ensure that our current policies and programs are effective, the acting Secretary of the Army has directed the establishment of a task force to conduct a detailed review of the effectiveness of our Army's policies on reporting and properly addressing allegations of sexual assault. This review will examine our policies, programs, procedures, and training with regard to the prevention of sexual assault. The task force will further review the processes in place to ensure a climate exists where victims feel free to report allegations and leaders at every level understand their responsibilities to support those victims. This task force will render its report by the end of May 2004. However, if the task force identifies actions, which can be taken sooner to improve the Army's policies, programs, or procedures, our Army will implement them as appropriate.

QUESTIONS SUBMITTED BY SENATOR SAXBY CHAMBLISS

VISION FOR THE NAVY RESERVE

58. Senator CHAMBLISS. Admiral Clark, the Navy deserves great credit for thinking innovatively about how to manage the increased demands placed on the fleet and your sailors, and in developing the FRP to allow for greater availability, deployability, and surge capacity of our carriers and air wings. The other Services have similar challenges as the Navy and are also taking steps and thinking creatively about how to meet increased demands without increasing people or resources. The Reserve components play a major role in all of our Services and have made enormous contributions over the past several years. Although I believe the Reserves should be managed in a unique way from a personnel standpoint, I am in favor of giving the Reserve components the same robust responsibilities and demanding of them the same level of performance as the Active Force. With this comes resourcing the Reserves with adequate hardware and committing them to high-level training requirements. If we do not do this, we cannot expect reservists to want to stick around just to "pinch-hit" or perform tasks that no one else wants to do. With this in mind, can you share your vision for how you plan to take advantage of your Navy Reserve sailors in a way that truly capitalizes on their capabilities and desire to serve the Navy and the United States?

Admiral CLARK. My vision for the future is a seamlessly integrated and balanced Active and Reserve Force rather than the two-tiered system that has resulted in separate standards and procedures in place today. This is a two-way integration. We will balance the force by instilling one standard for training and readiness, ensuring Reserve Forces have access to front-line equipment, and streamlining headquarters functions in a way that will support the seamless integration of Reserve Forces when they are needed.

C–17 PUBLIC-PRIVATE PARTNERSHIP

59. Senator CHAMBLISS. General Jumper, I believe that public-private partnerships provide great synergy between the government and industry and represent a great capability to provide extended depot maintenance for our military hardware. I am pleased with the progress the Air Force has made with the C–17 partnership in particular and am very pleased to hear that the Air Force will consider software as a "core" requirement and resource our air logistics centers appropriately to accomplish this core workload. Can you outline how software maintenance and sustainment for the C–17 program will be accomplished and how the government and industry can partner together to ensure the Air Force's logistics and sustainment requirements in this area continue to be met?

General JUMPER. The C–17 System Program Office (SPO) has developed preliminary strategies and requirements necessary to establish Government organic software support capability for the C–17 aircraft. In the near term, the Air Force and Boeing Company will be partnering to develop C–17 component diagnostics software Test Program Sets (TPSs) at all three Air Logistic Centers. In the long-term, the Air Force and the Boeing Company will partner to establish C–17 aircraft operational flight program software maintenance capability.

QUESTIONS SUBMITTED BY SENATOR LINDSEY GRAHAM

AIR NATIONAL GUARD

60. Senator GRAHAM. General Jumper, since the 1950s, the Air National Guard has followed a policy of maintaining at least one flying mission in every State. This

policy is no doubt due to the invaluable contributions that the Guard provides not only to the national defense but also in recognition of the positive role Guard members play in their communities offering most individuals their only exposure to the military. Do you intend to continue that longstanding policy?

General JUMPER. I appreciate your long-standing support for our Nation's men and women in uniform as well as your concern for the continued relevance of our citizen airmen of the Air National Guard. The support of Congress will be critical as we transform the DOD to meet the national security requirements of the 21st century.

The DOD anticipates an overall reduction in the number of manned aircraft as we transform. This is due not only to constrained resources, but also the capabilities the Nation will require from the DOD in the future. Information age warfare requires a different portfolio of capabilities than industrial age warfare, and we are transforming the joint force to meet that challenge. Also, the aircraft the DOD is planning on procuring will be vastly more capable than our current legacy systems, which will result in a lower number of aircraft being procured. The DOD is also very interested in the potential of unmanned systems.

The USAF is committed to ensuring the Air National Guard is a full and equal partner in the Air Force of the future. I strongly support their efforts to ensure the future relevancy of the Air National Guard in their transformation plans. Our shift to capabilities based planning and the resulting shift in focus away from legacy systems require a commensurate change of focus by the Air National Guard. Lieutenant General James has developed a strong transformation vision and I am confident that his approach will help to ensure a relevant Air National Guard.

The Air Force and Air National Guard assure me their intent is to maintain a Guard flying unit in every State; however, first and foremost, they are committed to providing a relevant and more capable Air National Guard presence in every state, to provide required capabilities to the joint force. While it has always been a goal, there is no stated policy to keep a flying unit in each State. The DOD believes such a policy would not be in the best interests of the Nation. The Air Force and Air National Guard leadership require the flexibility to transform the Air National Guard to ensure it has the required capabilities needed for the future.

61. Senator GRAHAM. General Jumper, in addition, can you provide me with a list of the facilities on the east coast that offer opportunities for blackout, runway, and field operations?

General JUMPER. Senator Graham, we have two Air National Guard facilities on the east coast which have backup power generators in case of blackout that can be used for field operations. The two units are the 102nd FW, Otis AGB, Massachusetts and the 169th FW, McEntire AGS, South Carolina.

MILITARY RETENTION

62. Senator GRAHAM. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, in your opinion, what effect will the lack of targeted pay raises have on military retention in light of improving economy and the current strain on military forces?

General SCHOOMAKER. Attitude and opinion surveys of the active Army have consistently shown that the amount of basic pay is one of the top reasons why soldiers report that they are leaving or thinking about leaving the Army before retirement. In the fall 2003 Sample Survey of Military Personnel, 14.4 percent (second most important) of enlisted personnel and 6.7 percent (third most important) of officers cited amount of basic pay as one of the most important reasons for leaving or thinking about leaving the Army before retirement.

Admiral CLARK. Although our analysis may support further targeted pay raises in the coming years, it really is too soon to tell what, if any, effect the lack of targeted pay raises may have on retention this year. But, I can tell you that retention in the Navy has never been better, thanks in large part to the support of your committee for both targeted and uniform pay raises. Together, we have made great strides in closing the gap between military and private sector pay for those with comparable levels of education and experience.

The Secretary of Defense is appointing an Advisory Committee on Military Compensation to examine, among other things, future targeted raises. I do believe that targeted pay raises and other incentive pays will be incredibly important in our future, not only for retention, but for our ability to shape and develop the kind of skills and behaviors we will need for our high-tech future as well.

General HAGEE. The targeted pay raises provided in fiscal year 2000 through fiscal year 2004 accomplished their objectives to adjust basic pay for those grades where the pay differentials needed to be comparable to the private sector and ensure quality force retention. At this time, we should be able to concentrate on across the board pay raises for all pay grades. Judicious use of special pays and retention bonuses should be pursued in those exceptional cases where recruitment or retention are challenges.

General JUMPER. Targeted pay raises over the past several years have made tremendous strides in closing the gap between military and comparably educated civilians. The pay gap currently exists with our mid and senior enlisted grades. Over the past 2 years, our retention in these grades has improved and we anticipate retention remaining stable. Over the past 3 years we have heavily targeted these grades to close the gap, in an effort to meet the recommendations of the 9th Quadrennial Review of Military Compensation (QRMC). The 9th QRMC recommended that military pay reach the 70th percentile of what comparably educated civilians earned. The 2001 targeted pay raises closed the gap by 23 percent and subsequent targeting has made significant progress. The administration's fiscal year 2005 3.5 percent across-the-board pay raise, coupled with past targeting efforts, will close the gap by 70 percent.

63. Senator GRAHAM. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, what effect do you believe the current stop-losses will have for long-term recruiting and retention goals?

General SCHOOMAKER. We believe recruiting and retention goals for the Army's stop-loss programs will not affect the long-term. Stop loss does not normally affect the accessions achievement mission. However, prior service recruiting into the National Guard and Army Reserve has been affected because of regular Army stop loss.

It is still too early to determine whether Army stop-loss programs have negatively impacted active Army retention program. We are slightly below glide path with regards to our annual retention mission, but remain guardedly optimistic we will achieve the mission by the end of the fiscal year. As the Army implements force stabilization initiatives, the need to use stop-loss programs will diminish over time.

Admiral CLARK. Because Navy's use of stop-loss was in effect for only 1 month and affected only 2,600 Navy Field Medical Service Technicians (Hospital Corpsman) out of our total Active and Reserve Force of more than 463,000 personnel, we do not believe it will have an impact on long-term recruiting nor on retention.

General JUMPER. Air Force stop-loss ended in June 2003 and by January 2004, all affected personnel either retired, separated, reenlisted, or decided to stay. Today, no Air Force personnel are affected by stop-loss. Stop-loss has had little or no negative impact on retention and recruiting as the Air Force is currently exceeding both retention and recruiting goals.

General HAGEE. The Marine Corps has not used stop-loss in fiscal year 2004.

64. Senator GRAHAM. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, could you comment on the plan mentioned by Secretary Rumsfeld and General Pace to restructure the Reserve component to utilize the "most pertinent skill-sets?" How do you plan to accomplish this goal in light of the DOD's stated goal of managing/reducing its reliance upon the Guard and Reserve?

General SCHOOMAKER. The Army actively seeks to rebalance its current active component/Reserve component mix to best match the current strategy and 1–4–2–1 force sizing construct. For fiscal years 2004–2009, the Army made significant headway in reducing the stress placed on existing high demand units, both active component and Reserve component, by converting about 19,500 spaces in less utilized force structure. In response to the directives set forth in the Secretary of Defense's July 9, 2003, memorandum on Rebalancing Forces, the Army took actions through two program change packages, to rebalance approximately 10,000 spaces of active component and Reserve component force structure required in the first 15 days of a rapid response operation. This mitigates stress on select Reserve component high-demand units. The Army intends to convert an additional 80,000 spaces of lower priority force structure to meet future operational requirements. In addition to these actions, I directed a thorough review of all Army force structure with the intent of improving the readiness and deployability of Army units and ensuring a correct balance between active component and Reserve component forces. The end state of these self-initiated actions will be a more relevant Army, properly balanced and postured as a full joint warfighting partner.

Admiral CLARK. These two goals are not mutually exclusive. In fact, I see them as complementary. We are reducing our overall reliance upon the Reserves by rebalancing the force in some key areas; specifically:

- Anti-Terrorism/Force Protection (AT/FP): Active component strength increases in our dedicated security forces (officer, enlisted, and civilian), permit us to meet day-to-day or elevated AT/FP requirements. Even in situations requiring the highest levels of force protection readiness, we can fulfill those requirements for a short period with active component personnel before resorting to Reserve component augmentation.
- Naval Coastal Warfare (NCW): We have created additional NCW capability in the active component by establishing the Mobile Security Force (MSF), and reapportioning end strength from accelerated ship decommissionings. Having an active component NCW capability relieves the Reserve component from meeting each and every short-term and short-notice NCW requirement.
- Naval Aviation: Planning is underway to merge certain aviation missions that are resident in both the active component and Reserve component by converting some independent Reserve component squadrons into active component squadron augment units. This will have the benefits of populating active component squadrons with highly experienced Reserve component pilots, improving equipment commonality, and reducing (but not eliminating) the need for Reserve component maintenance personnel and infrastructure.
- Fleet Marine Force (FMF) (HM8404) Corpsmen: Several hundred Reserve component HM8404 corpsmen billets in support of Reserve Marine Corps units have been reclassified as Functional Area Code (FAC) A, meaning that in the event of mobilization, active duty HM8404 corpsmen will transfer from shore duty at naval hospitals to fill these requirements. Their hospital billets will be backfilled with Reserve component corpsmen as necessary to sustain hospital operations. The HM8404 classification is historically difficult to recruit, train, and retain in the Reserves. This change will ensure Reserve Marine Corps units are properly manned when required, and will effectively employ Reserve component corpsmen at naval hospitals using skills that are easier to gain and maintain in the Reserves.

General HAGEE. The Marine Corps is unique due to the fact that our Reserve component mirror images our active component and has the primary mission to augment and reinforce it. We traditionally integrate our active component/Reserve component units within our Marine Air-Ground Task Forces using the Total Force approach. In regard to the active component/Reserve component mix, we are constantly reviewing our mix based on lessons learned. We are currently getting ready to kick-off a general officer lead review within the Marine Corps to address this specific problem.

General JUMPER. The Air Force has always had a strong relationship with our Reserves. The Air National Guard and Air Force Reserve operate side-by-side with our Active Force, both in times of peace and times of conflict. We continue to enjoy a great spirit of volunteerism that complements the Active Force, and hinges on the professionalism, readiness, and front-line equipment of our Active Reserve Component (ARC). We seek to preserve the relevance of the ARC, while not overtaxing them with an operational tempo that is insensitive to the part-time nature of the Reserves. We are transforming as a Total Force Team—in the technologies we all use, the operational concepts we employ, and the structures under which we are organized. Given the increased capabilities of newer weapon systems and the fiscal realities, the Air Force is not necessarily planning to recapitalize our fleet on a one-for-one basis. Furthermore, the pending Base Realignment and Closure (BRAC) actions will focus on reducing excess capacity in our installations across our total force. These factors, combined with the increased crew ratios called for by the capabilities of our emerging weapon systems, call for innovative management of our most valuable asset, our people. The Air Force plans to capture the talent and experience of our reservists and guardsmen by integrating our active and Reserve units as both migrate into the newest weapons systems.

As we move units into emerging mission areas, we are consciously placing guardsmen and reservists in missions least disruptive to their dual status as members of both the military and the civilian workforce—those areas that exploit reach-back to the United States while supporting operations abroad. An example of this would be the increased use of the Guard and Reserve in space, intelligence, and even UAVs. These efforts also capitalize on the high tech skills these members bring from their civilian experience. As we make these changes, we are mindful of the unique cul-

tures of the Guard and Reserve. We seek to preserve those cultures and their associated strengths. We are aggressively working our force development programs to ensure they address the needs of our total force, at both the personal and organizational level. We take great pride in leading the DOD in the integration of our Reserve component, and will make the pertinent skill sets of the Air National Guard and Air Force Reserve central to our transformational efforts.

EARMYU

65. Senator GRAHAM. General Schoomaker, recently, retired Sergeant Major of the Army Jack Tilley said eArmyU was the best thing the Army has ever done for its enlisted soldiers. Currently, how many posts offer eArmyU, and do you believe the program should be extended Army-wide?

General SCHOOMAKER. eArmyU is currently implemented at 14 installations. However, soldiers have rotated and are participating from locations Army-wide, to include Iraq. The program is a good retention tool—21 percent of participants have reenlisted or extended to be eligible. By offering unprecedented access, choice, and flexibility in an online learning environment, we are attracting soldiers who have never taken college courses before at a rate of 27 percent. Student satisfaction surveys indicate that soldier morale has improved. Expanding eArmyU will increase soldier access to education enabling them to fit their continuing education around their duties, family time, field training, and other obligations. Because we do not know what the total demand for this program is, it is difficult to determine the cost. We are currently assessing the cost for program expansion.

REDUCTION IN TRAINING DOLLARS FOR RESERVE SOLDIERS

66. Senator GRAHAM. General Schoomaker, we are all cognizant of the very significant contributions of the Reserves to ongoing contingency operations in Afghanistan and Iraq as well as other locations in the global war on terrorism. Indeed, it is very clear to me that we could not effectively wage this war without our citizen soldiers, sailors, airmen, and marines.

I am certain that you and your colleagues in the DOD have long since carefully calculated the offsets resulting from members of the Reserve component being placed on active duty and mobilized and paid with active duty appropriations. I further assume that the President's budget request reflects those offsets.

What I am concerned about is the need to train those members of the force who have not yet been mobilized and those who have been mobilized and returned home to their units. Can you assure the members of this committee that there is sufficient funding in the Reserve component's budget for fiscal year 2005 to support the training requirements to maintain and restore their mobilization readiness?

General SCHOOMAKER. The fiscal year 2005 Reserves training budget ensures the funds necessary to conduct military occupational specialty (MOS) training (individual training), professional military education (PME) training (leader training), and the necessary OPTEMPO to support collective training for those units preparing for mobilization and deployment while in a Reserve status, as well as, enabling recently demobilized units to maintain their readiness edge. As the OIF/OEF missions stabilize and the Army moves to a train-alert-deploy strategy, ample time will be available for Reserve component soldiers and units to meet C1/C2 readiness standards prior to mobilization.

67. Senator GRAHAM. General Schoomaker, I know that the cost is significant and that the Reserves' training budget reflects a reduction of more than $600 million in fiscal year 2005. Can you give me some idea of how you may have reached the requested budget figure and how it is related to the level of funding needed to support the readiness training for those who remain in and return to their Reserve unit? I would hate to see the vital recruiting and retention efforts of our Reserve Forces undermined by funding reductions in their training accounts, reductions that sap readiness and morale and penalize the very men and women who have served so bravely and so well at such sacrifice to themselves, their families, and communities.

General SCHOOMAKER. The offsets for the fiscal year 2005 reduction of $600 million in Reserve component training budget reflects the projected mobilization and deployment of 150,000 Reserve soldiers to support the ongoing global war on terrorism missions. The $600 million represents a cost avoidance of the drill pay and annual training pay for those soldiers mobilized since their pay and allowances are paid from the active duty military pay account. As I mentioned above, the fiscal

year 2005 Reserve training budget ensures the funds necessary to conduct MOS training (individual training), PME training (leader training), and the necessary OPTEMPO to support collective training for those units preparing for mobilization and deployment while in a Reserve status, as well as enabling recently demobilized units and soldiers to maintain their readiness edge.

QUESTIONS SUBMITTED BY SENATOR ELIZABETH DOLE

END STRENGTH

68. Senator DOLE. General Schoomaker, while end strength is certainly an area of concern, I am more concerned about force mix particularly, the total force of active, Reserve, and Guard. How are you addressing the short-term issue of manning high demand career fields?

General SCHOOMAKER. The Army is committed to manning skills critical to the successful execution of the global war on terrorism. Thus, the Army has taken several steps to ensure these jobs remain filled. First, when possible, individual active Army soldiers are reassigned to deployed units to fill critical requirements. To minimize the need for replacements, the Army offers monetary bonuses to soldiers willing to reenlist in, or re-classify to, many high-demand career fields. Concurrently, recruiting efforts focus on enlisting soldiers into these skills. However, it takes time to recruit and train these new soldiers, and they do not have the experience or advanced training necessary for some jobs.

The Army also relies upon Individual Mobilization Augmentee (IMA) and Individual Ready Reserve (IRR) soldiers, retiree recalls, various other voluntary mobilizations, and mobilized Reserve and National Guard units to augment the manning efforts. An IMA is an individual reservist who is pre-assigned to an active Army, DOD, or other government agency. The IRR is an Army manpower pool primarily consisting of individuals who have had training, have served previously in the active component or the SELRES, and may have some period of mandatory military service obligation remaining. The IRR consists of trained soldiers who may be called upon to replace soldiers or fill vacancies in Reserve or active units.

69. Senator DOLE. General Schoomaker, in your proposal to reassign some units (namely air defense and artillery units) to units such as MP and civil affairs, are we sacrificing a capability of a core mission in order to meet a short-term requirement?

General SCHOOMAKER. No, the defense strategy emerging from the 2001 Quadrennial Defense Review (QDR) had significantly different requirements than the previous strategy. The Army recognized a need for change to support a new force-sizing construct and made plans to divest of cold war structure to meet the demands of the emerging strategic environment. We conducted extensive analyses to ensure we retain the required capabilities, including air defense and artillery, to conduct the full range of missions.

GUARD AND RESERVE

70. Senator DOLE. General Schoomaker, with this month's deployment of North Carolina's 30th Heavy Enhanced Separate Brigade, I have been made painfully aware of some of the problems faced by our National Guard units as they mobilize. What are you doing to guarantee that these service members are expediently transitioned to active duty payrolls and that their lodging and subsistence are of the same quality as the active units training on the same bases?

General SCHOOMAKER. The Army National Guard is doing what it can to ensure that the transition to active duty is as smooth as possible. For example, we coordinate with the Power Projection Platforms to obtain the best lodging, subsistence, and training available. We also send support teams as necessary to solve problems. As regards to what the active component is doing in this area, we do not have information on that.

71. Senator DOLE. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, with the proposed 20–25 percent reduction in domestic facilities with BRAC and movement away from large, forward operating bases (FOBs), how are you planning to accommodate Guard and Reserve training, basing, and quality-of life needs when worldwide operations require a manpower "spike"?

General SCHOOMAKER. A 20–25 percent reduction in domestic facilities through BRAC is not an official Army policy. Although there may exist excess capacity in

DOD facilities, that excess does not equate to a comparable reduction in facilities through BRAC. The BRAC committee is taking into consideration all scenarios in developing recommendations for closures. Reserve units are not moved/changed as liberally as active units when it comes to domestic facilities. They are built around communities that can support and maintain a unit structure within a particular population. Once the BRAC recommendations are approved, the Army station and installation plans will have to be updated to take care of the future requirements of possible spikes in manpower.

Admiral CLARK. Because the majority of our Reserve training is conducted at the supported fleet active command, at designated training sites, or through the use of distance learning, there should be little impact on training accomplishment. With respect to basing, if Naval Reserve Activities (NRAs) are closed or reduced in numbers, we will seek efficiencies though joint base ventures with the other military Services in order to optimize resources across DOD. This same kind of collaborative effort applies to quality of life needs as well, through the use of other Service Family Support Centers, military health care facilities, recreational facilities, etc.

General JUMPER. First, as you are aware, there are no specific Air Force goals or target lists for the upcoming 2005 congressional authorized BRAC. Not only does the BRAC process allows us to dispose of excess facilities, it frees up valuable funds to fully sustain our needed facilities and systems so they remain effective through their expected life. We owe to our professional airman who voluntarily serves the Air Force and their nation a steady investment program to restore and modernize our critical facilities and infrastructure systems, while continually advancing our ability to protect our people and resources from the growing threat of terrorism. Second, today's airmen realize deployments are a vital part of the Air Force's critical mission of projecting air and space power globally. Our goal is to provide these expeditionary airmen and their families with the training, tools, and quality of life they need to continue to successfully sustain the mission. As we continue to support ongoing operations and prepare for an uncertain future, we are examining and acting on lessons learned from our recent experiences.

We are continuing to pursue seamless Air Reserve component and active duty integration at home, leveraging the capabilities and characteristics of each component, while allowing each to retain their cultural identity. We continue to explore a variety of organizational initiatives to integrate how our Active, Guard, and Reserve Forces are based and trained. These efforts are intended to expand mission flexibility, create efficiencies in our Total Force, and prepare for the future. Today's Future Total Force team included a number of blended or associate units that are programmed or in use.

Finally, the combat readiness of our forces is a direct result of the strides made in terms of quality of life for our airman and our families. For instance, the Air Force Reserve participated in the Federal Long Term Care Insurance Program to better provide long term care insurance coverage for its members and their families. This program affords members of the Air Force Reserve and Air National Guard insurance coverage for a variety of home and assisted living care requirements. Additionally, the National Defense Authorization Act for Fiscal Year 2004 provided improvements to the TRICARE Program in support of Air National Guard and Air Force Reserve members. These will pay dividends in the quality of life for our Guard and Reserve members.

General HAGEE. The Secretary of Defense has established a process for the 2005 round of BRAC that will assess all U.S. installations, both active and Reserve, equally. He has also established and published the final selection criteria to be used in the analytical process for making realignment and closure recommendations. These criteria include among others the ability to accommodate contingency, mobilization, and Future Total Force requirements at both existing and potential receiving locations to support operations and training. I believe the BRAC process will assure that sufficient and appropriate infrastructure is retained, as needed.

72. Senator DOLE. General Schoomaker, while I understand the temporary nature of many of the facilities now housing our Guard and Reserve units training for deployment, the deplorable state of some of those facilities is not understandable. How does this budget remedy this situation?

General SCHOOMAKER. The Army has a sustained, ongoing program to demolish excess facilities, especially World War II temporary wooden barracks and facilities. Unfortunately, the global war on terrorism has forced us to use some of the remaining World War II temporary wooden buildings. Recognizing the unacceptable state of some of those facilities, we are vigorously working to upgrade them with operations and maintenance, Army (O&MA) funds from the supplemental appropriation that supports global war on terrorism. In addition, we are developing a long-term

solution to rebuild key mobilization and power projection centers at selected installations with military construction funds.

Using available O&MA funds, the Army has repaired and upgraded temporary buildings and support facilities at installations where Reserve soldiers deploy, as well as other locations. These installations include Fort Lewis, Washington; Fort Leonard Wood, Missouri; Fort Carson, Colorado; Fort Benning, Georgia; Fort Stewart, Georgia; Fort Drum, New York; Fort Dix, New Jersey; Fort Eustis, Virginia; Camp Atterbury, Indiana; and Aberdeen Proving Ground, Maryland. Typical improvements involve latrines, showers, heating and air conditioning systems, smoke alarms, plumbing and electrical systems, lighting, floor coverings, ceilings, windows, and roofs. We will continue in fiscal year 2005 to improve the facilities from which our soldiers deploy.

73. Senator DOLE. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, while our latest military innovations have been significant in "winning the war," we seem to have a way to go in "keeping the peace." How does your Service's transformation vision address the need to maintain post-war stability operations or peacekeeping capabilities?

General SCHOOMAKER. The Army's transformation plan will provide us with a range of modular, interchangeable formations that can operate across the spectrum of warfare. We are adjusting our force structure, particularly that of the Army National Guard, to reduce our Cold War-era capabilities set with one more suited to current and future threats and missions. As an example, we are deactivating 22 National Guard field artillery battalions and using that opportunity to increase our force structure in such capabilities as MPs and civil affairs.

Admiral CLARK. The Navy transformation vision reflects a supporting role for stability operations and peacekeeping activities. The Navy will maintain maritime dominance gained during combat operations, such as by the mission-reconfigurable LCS and advances in undersea warfare. Where fire support is called for, warships like DD(X) and aircraft like the Naval JSF and FA–18E/F will support joint and coalition ground forces operating at significantly greater ranges inland. From the safety of the sea military and humanitarian/commercial material can rapidly enter the area. Lastly, distributed and networked naval forces will achieve an additional long term effect in support of the President's Proliferation Security Initiative, denying the use of the high seas to those trying to transport weapons of mass destruction (WMD) into or from the area.

For sailors who regularly operate on or close to the shore in post-combat situations, the Navy works closely with other Services to provide effective protection. Naval Special Warfare, Naval Coastal Warfare, and Explosive Ordnance Disposal units utilize state-of-the-art force protection equipment and technologies to protect personnel. This not only includes such items as weapons, chemical, biological, and radiological (CBR) equipment, body armor and up-armored vehicles, but detection systems that provide forewarning and afford preemptive actions against various threats. Ships used to monitor sea lanes during stability operations are provided a variety of small arms, halogen lights, body armor, and night vision devices to aid force protection. The Shipboard Protection System will provide increased capability through incremental technology insertions.

General HAGEE. The institutional agility and tactical flexibility demonstrated by the Marine Corps' participation in ongoing stability operations in Iraq and Afghanistan reflect our larger and ongoing Marine Corps transformation process. Stability and peacekeeping operations are not new to the Corps, with a history that includes the Boxer Rebellion in China, the "Banana Wars" in the Caribbean, and multiple armed interventions in Haiti, the Dominican Republic, and Lebanon. More recently, marines and Marine units have supported peacekeeping and peace enforcement operations at length in both Bosnia-Herzegovina and Kosovo. Today, the Navy-Marine Corps Team continues to play a critical role in the global war on terrorism and in the establishment of stability and security throughout the world. During this past year, the Marine Corps, both active and Reserve, was engaged in stability and peacekeeping operations in the Arabian Gulf, the Horn of Africa, Liberia, the Georgian Republic, Colombia, Guantanamo Bay, and the Philippines.

As the Nation's "Force in Readiness," we principally prepare to fight and win our country's first battles. As a learning organization, however, we relentlessly adapt to develop the capabilities required to meet the demands of tomorrow, and there is no question that capabilities for peacekeeping and stability operations will continue to be required. While we constantly transform our total force, ongoing changes to our organization, equipment, and training will provide us with greatly enhanced capabilities for stability and peacekeeping in the Marine Corps of the next decades.

Organizationally, we have recently conducted a Force Structure Review of the entire Corps, and are implementing a number of changes that will provide us an increased ability to more effectively accomplish missions across the range of operations. The reestablishment of our first active component civil affairs billets in decades along with additional Reserve civil affairs forces will provide us with the systematic ability to plan, coordinate, and conduct the civil-military operations (CMO) so necessary in these environments. Similarly, the addition of active component information operations (IO) and psychological operations (PSYOP) personnel will add non-destructive alternatives to our commanders' "toolboxes" during stability and security operations. By growing and reorganizing our intelligence, counterintelligence, and human intelligence (HUMINT) capabilities, we will enable our deployed operating forces to be both more effective and more efficient. A substantial increase in our explosive ordnance disposal forces will enhance our ability to deal with the common threats peacekeeping forces face, and we continue to examine alternatives to provide additional MP units. Finally, by increasing the number of our maneuver units, including additional infantry and light armored reconnaissance formations, we extend our ability to better influence action where it most matters—along city streets and across farmer's fields.

The most decisive factor in success of these units will be the ability of the individual marine and his small unit leaders. Recent improvements in technology provide these marines with a wider array of capabilities. For example, the tactics and abilities of the junior leader are significantly enhanced by the fielding of the Advanced Combat Optical Gunsight (ACOG), the Personal Role Radio (PRR), and the PRC–148 radio. The ACOG is an internally adjustable, compact telescopic sight that can be used easily in low light or at night and enables more discriminate use of small-arms fire. The PRR is a small transmitter-receiver that allows patrolling warfighters to communicate over short distances, even through thick walls or heavy cover, without shouting, hand signaling, or relaying messages. The PRC–148 radio is a multi-band compatible squad system that has ultra-high frequency (UHF) and very high frequency (VHF) capabilities, enabling small unit users to link to the support and heavy weapons of the entire joint force. Each of these items are examples of the equipment we are aggressively pursuing to enable the rapid development and immediate distribution of information required to make decisions at the lowest level, where stability operations are won or lost.

Real transformation depends upon a change in culture, however, not a change in equipment. The ongoing training for stability deployments and operational experience our marines are now developing will have a critical impact on our stability operations and peacekeeping capabilities for years to come. Our Project Metropolis (ProMet) Team has rigorously trained units for stability operations in Iraq, especially in urban environments. As part of our naval transformation vision of the increased joint and coalition unity of effort typical of peacekeeping, preparation for these deployments also includes an extensive training program involving the participation of our partner militaries. Our transformational technologies have recently been used in joint training exercises with British, Canadian, and Australian units as well. Each of these efforts is teaching a great number of our future leaders how to be "No Better Friend, No Worse Enemy," lessons they are internalizing today for tomorrow's requirements of organizing, training, and equipping our future Corps.

In short, we anticipate a continued need for the capabilities that are required for stability and peacekeeping operations, and are actively adapting our force with these requirements in mind. The Marine Corps does not look upon these as new competencies, however, and will employ them according to our maneuver warfare philosophy and expeditionary heritage. Our transformation will provide our future leaders with greater depth and additional options with which to place our adversaries on the "horns of a dilemma" during combat or peacekeeping. However, these options will increasingly include non-kinetic effects, Horn 10 and PSYOP to CMO and the training of local forces. We continue to believe that every operation requires an aggressive combined-arms approach, and the recognition that they remain an often-bloody contest of human will. The innovation, change and adaptation we depend upon will continue to create the capabilities required across the range of tomorrow's operations, and ensure the Corps continues it role as the Nation's total force in readiness.

General JUMPER. The Air Force's transformation plan identifies the capabilities we need to prevail in the future security environment. While broadly conceived, many of them, especially our joint force "enabling" capabilities, are directly relevant to future stability and peacekeeping operations. Our agile airlift fleet, for example, will be a key conduit of external aid and support, while giving joint and coalition forces needed mobility in areas of poor or nonexistent infrastructure. Our global Command, Control, Communications, Computers, Intelligence, Surveillance, and Re-

connaissance (C^4ISR) umbrella will lend clarity to an often chaotic operating environment by linking together distributed "blue" forces and furnishing them with precision navigation; establishing a coherent joint logistics picture; and providing persistent situational awareness against dispersed threats in urban areas and other complex terrain. Our ability to inflict a wide range of effects, including non-kinetic, non-lethal effects, will be a critical force multiplier for a Joint Force Commander (JFC) striving to establish order and security in the post-conflict phase.

As DOD refines its vision for stability operations through the draft Stability Operations Joint Operating Concept, the Air Force will continue to identify Air Force capabilities crucial in enabling this aspect of transformation. All of our projected transformational capabilities are detailed in the USAF Transformation Flight Plan.

74. Senator DOLE. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, the welfare of the military family is undoubtedly a key to the success of our All-Volunteer Force. I would like to take this opportunity to thank the countless volunteers and military family advocacy employees for their dedicated work during OEF and OIF. How are your Services formalizing the family advocacy mission and how is this mission included in you transformation vision?

General SCHOOMAKER. Taking care of families is a dynamic and integral part of Army Transformation and the "Installations as Our Flagships" focus area. Army Community Service provides a full range of services to help soldiers and families adapt to the military lifestyle. The Army is adjusting family programs and resources to better support our soldiers and their families and to meet our goal to provide them the same qualify of life as is afforded the society they are pledged to defend.

Admiral CLARK. The Navy's Family Advocacy Program (FAP) is formally established through Secretary of the Navy and Chief of Naval Operations (CNO) instructions. It is a mandated program addressing the issue of child maltreatment and domestic abuse/domestic violence, including prevention, reporting, intervention, follow-up, and evaluation. Service to military families is formalized through longstanding fleet and family support programs provided on all Navy bases. Reservists who are deployed are informed of services available at each Navy base.

For families living in remote areas, we have implemented a "One Source" program, which allows active and Reserve members of the Navy family to contact a professional counselor via toll-free telephone numbers for a wide range of assistance, including timely referral and assistance to the broad array of FAP resources.

General JUMPER. The Community Readiness Consultant (CRC) model will optimize resources and meet validated community level needs at each installation. CRC allows Family Support Centers (FSCs) to be proactive in individual/community support. Our current system encourages families to be passive recipients rather than active participants in their own lives and in the life of the community. The CRC model will allow FSC staff to provide services in the FSC and at the units. CRCs and Community Readiness Technicians provide more efficient and effective delivery of counseling/consulting services to Total Force members and families.

Additionally, the program delivery fits community/family needs with more flexible tools to respond to changing and emerging needs of families/communities. The CRC utilizes the FSC automated Management Information System to assist with assessments, performance based measures and return on investment. The CRC model will provide a multi-skilled FSC staff to help build a strong, vibrant community through collaboration with other agencies, ensuring cost effective utilization of resources; thus meeting the community needs through outcome measures.

General HAGEE. The military lifestyle is challenging. The Marine Corps works very hard to provide "combined arms support"—integrating the programs that address prevention and intervention needs for Marines and their families. In addition to the "hometown" support that families enjoy on our bases and stations, Marine Corps Community Services (MCCS) offers numerous programs that are specifically focused on prevention of domestic violence. Formally established in 1986, the FAP is a commander's program designed to prevent and treat domestic violence. The centerpiece of this program is a philosophy of Coordinated Community Response (CCR) that involves the command and brings to bear the host of supporting agencies and civilian community support resources to effectively address domestic violence.

Prevention of family violence is our primary focus with initiatives such as the Mentors in Violence Prevention (MVP) program and the New Parent Support Program, as well as local training and education efforts. The MVP program was established to encourage the participation of male marines in efforts to prevent rape, battering, sexual harassment, and all forms of male violence against women. The MVP program is a "marines helping their fellow marines" program, which encourages marines to become involved when they see abusive situations. For the past 2 years the MVP program courses have been offered at the Senior NCOs' Academies, the 1st

Sergeants' Courses, The Career Courses (NCOs) and the Advanced Courses (SNCOs).

The New Parent Support Program helps "replace" the extended family available to new parents. It educates and supports families with children up to 6 years of age. It gives our new parents someone to call if they have questions, problems or concerns—questions that if in their hometowns they might have asked Mom, Grandma, or an older sister. This program consists of home visitation, classes and outreach through Play Morning, Single Parent Support Groups, Mom's Basic Training, Parenting Classes, and Daddy's Baby Boot Camp. The program successfully reduces the number of child abuse/neglect cases.

75. Senator DOLE. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, given that our current deployments are drawing heavily on Guard and Reserve Forces, what are you doing to ensure necessary and appropriate support for all families, especially those from rural communities who live long distances from military installations?

General SCHOOMAKER. The Army's goal is to provide accessible services and information for all family members. We are currently developing a multi-component family support network that will optimize information flow and program support to active, Guard, and Reserve families regardless of their proximity to Army installations.

The Army's family and soldier readiness system includes assistance centers, readiness groups, rear detachments, and unit liaisons. Army Community Service (ACS) provides Reserve component family program personnel with information, training, and other assistance, and unit commanders use ACS and other resources to ensure soldiers and families are prepared and supported before, during, and after deployments.

Army One Source (AOS) is one example of a program that meets the needs of geographically dispersed families. AOS is a 24-hour, 7-day-a-week toll-free information and referral telephone service available to soldiers, deployed civilians, and their families worldwide. AOS refers individuals to local civilian counselors for assistance as needed.

Admiral CLARK. We have recently implemented a program called, "Navy One Source," which is particularly helpful for families of active and Reserve personnel in remote or isolated areas who require information/referral services. The program offers access to highly qualified staff of consultants through a toll-free telephone number and via the World Wide Web. A wide range of assistance is available, including, but not limited to, guidance on preparing for the arrival of a new born, preparing for deployment, counseling on relationship or financial difficulties, locating qualified child care resources and purchasing an automobile. The program's response is tailored to the callers' needs, is fully confidential, and is provided at no cost to users.

General JUMPER. We make every effort to ensure we stay in contact with and provide great support to our families, and especially those far removed from military installations. Our FSCs serve as the core of our outreach and care to these families before, during, and after deployments. They collaborate with appropriate State, and local resources to maximize support and services with our affected families. We have Family Readiness NCOs specifically trained to provide family assistance during times of crisis such as war, real world contingencies, and natural disasters. We facilitate as much family communication as possible to keep the family ties strong—especially during deployments. Our FSCs offer email connectivity, morale call programs, letter writing programs, video phones, and phone cards to encourage family communication. We also keep family members informed using unit spouse support groups, key spouse training, and town hall meetings. Families of the Air Force Reserve and Air National Guard also benefit from the services coordinated by Family Readiness Directors assigned to our Reserve units as well as Guard Family Assistance Centers throughout the U.S.

We rely heavily on our technology-based systems to increase our capability to address the needs of our geographically separated families. Air Force Crossroads, (www.airforcecrossroads.com) our community Web site developed in 1999, posts updated information on family readiness and all of our family support resources from childcare and parenting, to job search and managing finances. Through Air Force Crossroads, we host a very active Spouses Forum Give chat room for spouses to meet, share concerns and support each other. Participants are able to quickly link to FSC staff if needed. Air Force One Source, (www.airforceonesource.com) launched earlier this year, is a geography-independent, 24-hour call center, and interactive Web-based service. Twenty-four hours a day, our total force and their families can use either a toll-free telephone number or the web to contact staff for counseling

and referral on issues including deployment/reunion, parenting/child care, grief/loss, education, older adult care/information, legal, financial, and emotional well-being.

General HAGEE. Over the past year, the Marine Corps has gathered lessons learned on family support from OEF and OIF 1. We will continue to refine this support for all future deployments, but have established family outreach through multiple communication mechanisms (i.e., touch, virtual, voice, etc.) to address the different needs of our Marine Corps families.

Our Key Volunteer Network (KVN) served as the official communication link between deployed commands and the families. The KVN is primarily a spouse-to-spouse connection that commanders use to pass important, factual, and timely information on the status and welfare of the operational unit. As spouse leaders, the key volunteers respectively interact with the commander regarding the welfare of the command's family members.

The establishment of an OIF Family Information Hotline that has been re-activated for OIF 2 and a deployment support Web site assist with today's vast information and public contact requirement, regardless of the location of the caller or user. Both are specifically designed to sort the information needs of callers or users, and re-direct them to specific response or support capabilities. The Marine Corps is also very fortunate to have MCCS OneSource, a DOD employee assistance pilot program operated for the Marine Corps by Ceridian Corporation, as yet another touch point for family member support. Available Corps-wide in January 2003, over 26,000 uses occurred by telephone, email, or online in 2003, with increased uses in the months of March and April during the height of the conflict. This program can be especially useful for remote users such as the families of activated reservists. The program is available 24/7/365 via toll free telephone and Internet access.

The most frequently asked about areas were in the categories of deployment status, parenting, childcare, everyday issues, and education. The families of activated reservists found helpful information on military programs such as TRICARE and other benefits and services. In addition to the expanded communications tools such as hotlines, Web site, and MCCS One Source, families of deployed Marines have access to the established family support programs on Marine Corps installations as well as through Unit Family Readiness Officers and Peacetime Wartime Support Team members located at each of our Reserve Training Centers.

The scope and hours of operation of morale, welfare, and recreation (MWR) programs are adjusted as necessary during deployments. Families can receive pre-deployment briefs in person or online, as well as assistance in developing proactive, prevention-oriented plans such as family care plans, powers of attorney, family financial planning, and enrollment in the Dependent Eligibility and Enrollment Reporting System (DEERS) to minimize the stress of everyday decisions after the Marine has deployed. For post-deployment, the Marine Corps has also set up a Return and Reunion program to assist marines, sailors, and family members in transitioning to a more normal lifestyle. Additional services are provided to those who need respite childcare, assistance coping with separation, or specialized support in areas such as spiritual guidance, coping, and social skills.

ADVANCED THREAT INFRARED COUNTERMEASURES/COMMON MISSILE WARNING SYSTEM (ATIRCM/CMWS)

76. Senator DOLE. General Schoomaker, in light of the threats posed by Iraqi insurgents to our helicopters, could you elaborate on the Army's November 2003 decision to stick with its multiyear procurement of the ATIRCM/CMWS?

General SCHOOMAKER. In the months leading up to the November 2003, low-rate initial production (LRIP) decision for ATIRCM, the Army evaluated all cost, performance, and schedule implications of the program. This included an evaluation of all competing systems. The Army decided to stay with the multiyear procurement of the ATIRCM/CMWS because it was the only system that fully met all technical and scheduled requirements of the program, no other system could be fielded faster, and ATIRCM was 50 percent cheaper than any competitor. Concurrent with this decision, the Army decided to accelerate the installation of aircraft survivability equipment on all deployed aircraft. The modular design of the ATIRCM/CMWS equipment facilitated the execution of that decision by allowing near-term CMWS deployment to better counter existing threats while the ATIRCM jam head could continue through its scheduled development and testing program for deployment against future threats.

77. Senator DOLE. General Schoomaker, this system is not available for conventional units until 2010. By not accelerating this program, are we passing up an opportunity to provide our troops better protection in helicopters?

General SCHOOMAKER. Our conventional Army Aviation forces are scheduled to start receiving the CMWS with the Improved Countermeasure Munitions Dispenser (ICMD) in the fourth quarter fiscal year 2004. This will be accomplished under an accelerated fielding of aircraft survivability equipment approved by the acting Secretary of the Army on January 15, 2004. This system will provide an enhanced countermeasure capability against all known manportable air defense missile threats. To supplement CMWS/ICMD, the Army has also approved the accelerated fielding of a multi-band laser jammer, known as the ATIRCM, for fiscal year 2007. Together, these systems will provide our aircraft with a comprehensive flare/laser countermeasure capability for the future.

78. Senator DOLE. General Schoomaker, while we wait on the development and acquisition of future technologies, are there any interim systems available that could bridge this gap or are you finding that the threat (possibly small arms fire and rocket propelled grenades (RPGs)) requires a lower-tech solution?

General SCHOOMAKER. In early December 2003, the Army selected the ALE–47 Flare Dispenser Countermeasure System for installation on Chinook (CH–47) aircraft operating in theater. This effort is ongoing and will include all type aircraft scheduled to deploy for future operations. Concurrent with this activity, the Army has also upgraded a fleet of C–23 fixed-wing aircraft with a missile warning and flare dispenser system. In addition, the Army recently approved funds for procuring ballistic protection systems (BPS) for both the CH–47 and Black Hawk (UH–60) aircraft operating in theater. The BPS lines the cargo/passenger compartment of the aircraft types noted and will provide enhanced protection against small arms projectiles.

STRATEGIC LIFT

79. Senator DOLE. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, each of your Services are transforming and investing heavily towards the next generation of capabilities. Yet less than 5 percent of the procurement and RDT&E budget, across the Services, is dedicated to strategic lift. Our national military strategy requires our forces to be capable of operating in multiple theaters at varying levels of conflict. Do you believe the defense budget request sufficiently resources and programs strategic lift to support our national security strategy and your Service's needs?

General SCHOOMAKER. Current directives, policy, guidance and vision beginning with the National Security Strategy (NSS) and National Military Strategy (NMS), require the military to be able to overcome or defeat enemy anti-access and area denial efforts. To meet the requirements of the combatant commanders, lethal ground combat formations must arrive intact and ready for immediate employment.

The DOD should continue efforts to modify and improve current inter-theater (strategic lift) and intra-theater lift platforms, and field technologies that increase the number of usable theater entry points. The Army continues to facilitate joint interdependence in support of the combat commander's requirements by engaging the OSD and Service counterparts for support of Army strategic/intra-theater lift requirements.

The Mobility Requirements Study for fiscal year 2005, finalized in January 2001, validated the sea and airlift requirements in a pre-September 11 environment. The new Mobility Capabilities Study, to be completed in June 2005, will validate lift requirements throughout DOD. With regard to strategic airlift, the Army supports the Air Force's position that at least 222 C–17s are required. Greater capabilities for strategic lift platforms and intra-theater lift platforms will enable us to deliver combat power faster into austere environments. Inter-theater and intra-theater lift capabilities are linked and must be complementary to meet the JFC's requirements. Super short take-off and landing, heavy-lift vertical take-off and landing, and high-speed shallow draft vessels, are developing technologies that support the Army's Future Force.

Admiral CLARK. In an unconstrained environment we could see needs that would suggest more spending on strategic lift. However, we are living with constraints and the budget presented presents a balanced approach that we believe properly resources strategic lift. We have asked for $117.0 million in the R&D account under the National Defense Sealift Fund (NDSF). This represents an increase of $103.6 million over the amount appropriated in fiscal year 2004. The bulk of this increase

is to fund the concept development for the Maritime Prepositioning Force (Future) (MPF(F)) platform—which is envisioned to be the prepositioned centerpiece of our sea basing efforts in the coming years. In addition, we have requested $140.3 million to maintain our 8 Fast Sealift Ships (FSSs) and 11 large medium-speed roll-on/roll-off (LMSR) ships in a 4-day readiness status. Finally, we have requested $221.5 million to maintain the 68 ships of the Maritime Administration's Ready Reserve Force (RRF) in near-term readiness status. We expect to continue our extensive analysis of this critical area in the fiscal year 2006 budget build.

General HAGEE. The Director, OSD Program Analysis and Evaluation (PA&E) and Director of Logistics (J4), Joint Staff are conducting the Mobility Capabilities Study (MCS) that will answer these questions with a substantial degree of accuracy. The overall study, which will be completed in March 2005, will examine the global mobility platforms and enablers needed to execute the defense strategy and support service transformation in the 2012 time frame. The study will identify mobility capability gaps, overlaps, or excesses and provide associated risk assessments; and recommend mitigation strategies where possible. The study will also identify and quantify alternatives in mobility capabilities to support the defense strategy from point of origin to point of use and return. Upon completion of the study, the Marine Corps will be able to accurately and with specificity, respond to the questions you raise.

General JUMPER. Our capability to project power anywhere in the world at any time is a key to meeting the current and anticipated challenges facing this Nation. These capabilities include the ability to airlift materiel and personnel across strategic distances and provide air refueling support to our own and coalition forces. Currently, the requirements to obtain these capabilities are defined in studies such as the Mobility Requirements Study-05. However, this study was based on earlier versions of the NSS and defense planning that did not anticipate the OPTEMPO of our post-September 11 world. To address the environment we find ourselves in today, the Air Force is engaged with the OSD and Joint Staff in a new and comprehensive MCS. We anticipate results will be available in the summer 2005 timeframe.

The Air Force has allocated approximately 14 percent of procurement and RDT&E funding in the fiscal year 2005 budget proposal for strategic lift capabilities (C–17, C–5, and Materiel Handling Equipment). The MCS will refine our airlift and air refueling requirements and the Air Force will continue to balance priorities, risk and resources to sustain our critical mobility capability.

80. Senator DOLE. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, I applaud the support given by each Service in the effort to privatize housing for military families. Not only does this budget provide our military families with better living conditions but it does so at a lower cost to our taxpayers. In North Carolina this privatization plan calls for transferring, renovating, replacing, or building well over 8,000 family residences in just the next decade. Are the installation commanders being allowed to tailor these privatization projects for their respective communities?

General SCHOOMAKER. Installation commanders are encouraged to develop a project that meets local codes and installation design criteria. The Army has set minimum standards for a few basic criteria such as overall unit size but other aspects are within the installation purview and are negotiated at the installation.

Admiral CLARK. Yes. Installation commanders are instrumental in concept development and in the determination and articulation of the needs their communities.

General HAGEE. Marine Corps installation commanders are actively engaged in the development and execution of privatization projects for their communities. Installation commanders and their personnel participate in the development of the scope of work required and in determination of neighborhood phasing plans for larger privatization projects that will be executed in phases over a period of 2 or 3 years. Installation commanders approve the privatization concepts for their bases or stations prior to concept approval by Headquarters Marine Corps. Installation commanders or their designees, as well as command sergeants major, are also involved in the source selection and negotiation process.

General JUMPER. The installation commander and his staff play a critical role throughout the privatization of an installation's housing. Their role starts with collecting and validating the data, for the Housing Marketing and Requirements Analysis (HRMA), which determines the number of on-base housing units required to support the installation. The staff is also integral in the development of the Housing Comprehensive Plan (HCP), which identifies the construction and renovation requirements needed to bring the installation's housing to an adequate condition.

Once the determination is made that a privatization initiative is feasible at a particular installation, the commander and staff serve as members of the Project Devel-

opment Team (PDT) along with representatives from the Major Command and Air Force Center for Environmental Excellence. The PDT is charged with defining the scope and desired amenities to be included in the concept and request for proposal. Following concept approval, representatives from throughout the installation serve as members of the Acquisition Support Team reviewing proposals and serve as advisors. Finally, once an offer or is selected, installation personnel become the main focus as the terms of the transaction are finalized, the transition process is initiated, and development/long-term operations commence. This direct involvement of the installation commander and staff throughout the privatization process ensures the sustained success of the installation's housing privatization initiative.

81. Senator DOLE. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, how is the construction of new schools and other necessary support facilities being factored into privatization plans?

General SCHOOMAKER. The Army engages local school authorities early and continuously throughout the planning process to assess possible impacts of added or shifting student loads on school requirements. The Army provides development scope and schedule information to school officials to assist with planning for school requirements. The Army does not include school construction in the privatization development plan; however, the Army may offer land and infrastructure support for schools.

Admiral CLARK. Privatization projects are subject to the review requirements imposed by the National Environmental Policy Act (NEPA). The normal NEPA process includes coordination with local officials to assess any consequent impacts on schools and other necessary support facilities. The Department of the Navy factors into our privatization projects the normal development fees or impact fees customarily charged to all residential construction developers. Our projects include all costs normally associated with any other private development in the community. In situations where a new school is proposed to accommodate an increased student loan the Navy may make land available to the school district through the privatization process. In some circumstances the Navy may include funding for specific infrastructure improvements in the cost of the project. In New Orleans, for example, the Navy privatization project included a little more than $1 million for the construction of a sewage lift station to support the 545 new homes being constructed.

General HAGEE. Marine Corps privatization projects to date have not resulted in a requirement for construction of new schools because much of the privatization has been rehabilitation/reconstruction of existing stock, with limited deficit reduction. As a result, there has been little increased demand put on the local school systems. Each of the projects has, however, included construction of community support and recreation facilities. As Public-Private Venture (PPV) projects are developed, an assessment of environmental impacts, which include school impacts must be completed. As part of this process we engage local officials, including those representing schools to ensure their requirements are considered. Also, local school districts generally receive a higher level of school impact aid for children of military families living in privatized military housing located on government-land leased to the private partner than they would receive from traditional military housing.

General JUMPER. The Air Force looks upon its housing privatization projects as community developments, not just houses. The community as a whole is examined to determine the housing requirements as well as the requirement for ancillary facilities. These ancillary facilities can include schools, community centers, playgrounds, recreational areas, and other support-type facilities. Identified requirements are then worked into the project in order to provide a full, complete neighborhood community for the military member and their family.

At the current time, none of our projects have determined the need for additional schools beyond what the local community can provide. However, they have determined the need for other ancillary facilities such as swimming pools, community centers, and playgrounds. These requirements have been included in the privatization process. The Air Force is conscious of our responsibility to the American taxpayer and ensures that the community requirements included in our projects are consistent with those found in similar housing developments privately owned in the local community.

JOINT WARFIGHTING CAPABILITIES

82. Senator DOLE. General Hagee, in preparation for OIF 2, you mentioned that the Marines are drawing on lessons learned from your sister Services, coalition partners, inter-departmental agencies, and the Marine Corps' own "Small Wars" experi-

ence. According to recent news articles, the Marine Corps is planning to take a "fresh" approach as it prepares to take over in areas currently occupied by the United States Army (for example, emphasizing restraint and cultural sensitivity while living among the Iraqi population in platoon size elements). Does this mean that the Marines and the Army will deliberately employ different strategies in OIF 2? If so, isn't this contrary to your priority of enhancing joint warfighting capabilities?

General HAGEE. The Marine Corps continually evaluates new techniques and technology to address the unique requirement of this operational environment. This includes the re-evaluation and potential incorporation or modification of previously utilized strategies. This includes the Marine Corps' own historical lessons learned as well as other Services, as applicable to Marine Corps contribution to joint operations in OIF 2.

QUESTIONS SUBMITTED BY SENATOR JOSEPH I. LIEBERMAN

JOINT SYSTEM DEVELOPMENT

83. Senator LIEBERMAN. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, it is my understanding that the Joint Requirement Oversight Council's (JROC) primary functions are to assist the Chairman of the Joint Chiefs of Staff in providing you the best possible guidance on the degree to which budget proposals conform to the warfighting community's requirements and to ensure that joint warfighting capabilities and joint interoperability issues are highlighted in your budget guidance to Congress. In the National Defense Authorization Act for Fiscal Year 2001, Congress required the DOD to address perceived shortcomings in the joint weapons development process, specifically with the definition of joint (i.e. non-stove piped) requirements:

— First, to shift the JROC's primary focus towards more strategic issues;
— Second, to integrate joint experimentation activities fully into each new defense program's requirements, capabilities, and acquisition process; and
— Finally, to shift the focus of Joint Warfighting Capability Assessment (JWCA) teams to directly support the JROC in analyzing broader, future joint warfighting requirements.

Since 2001, I have not heard nor have I seen notable progress in the efficiencies and successes of developing testing and fielding new and innovative weapons programs. What progress has the DOD made in the joint development arena?

General SCHOOMAKER. The issue of progress in gaining efficiencies and successes in developing, testing, and fielding of new and innovative weapons programs can be addressed in several ways. These issues are directly tied to the JROC's role in defining future joint requirements and program development. The JROC has already directed numerous changes to joint training and experimentation. It is extremely rare for any weapons program to reach fruition in a short 3-year time period. Programs which had the most visibility over the past few years had their roots and origins in developmental concepts and warfighting concepts that were in place long before 2001. Clearly, there is both good and bad to this situation. This more deliberate approach ensures that the right weapon for the right purpose, integrated in the right way, is put in the hands of the Joint Force. The Joint Force is an incredibly complex entity with countless moving parts. Accelerating the acquisition and fielding of systems for the Joint Force introduces some risk into the process. Sometimes those risks are worth taking as evidenced by the progress made in confronting the improvised explosive device threat in Iraq. This is a clear case of how the JROC can directly influence the rapid development and fielding of urgently needed capabilities.

Most often, the Joint Force requires a more mature system and concept before it can safely and cost efficiently procure and field a new capability. To this end, the JROC has implemented significant procedural changes to the Services' acquisition processes that ultimately ensure a joint synergy which spans the spectrum of capability development.

In 2001, the chairman's vision of the future was encapsulated in a document known as the Joint Vision. Between the strategic level of thought about warfighting contained in the Joint Vision and the actual development of service concepts and programs, there was very little guidance. The Secretary of Defense expressed his concern that, by the time major acquisition programs rose to the level where he could impact them, they were too far into development and the Services were so deeply invested he had no opportunity to make influential decisions. Most importantly, the Secretary was constrained to merely deciding whether to allow a program to proceed (and at what level) or to kill a program.

Implementation of the new Joint Capabilities Integration and Development System (JCIDS) is rapidly rectifying this situation. At fruition, JCIDS will ensure the Services develop programs that are designed from inception to support overall requirements of the Joint Force and facilitate effective integration of these programs into the Joint Force. The management process that accompanies JCIDS, a group of Functional Capabilities Boards, which subsume the JWCAs, is directly focused on those issues that you highlighted from the 2001 National Defense Authorization Act. These boards ensure that, early in a program's life, it is determined to what extent that program fills a critical gap in our joint capabilities, or to what extent it provides a complimentary or redundant capability. This same Functional Capabilities Board process will determine the relative value of increasing our capability in a specific area, and whether the increase in capability is worth the investment.

JCIDS will do all of this at fruition. Obviously, JCIDS represents a significant cultural change to previous methods of developing, prioritizing, and fielding new capabilities. Inculcating this new and more efficient process will take some time. The analytical tools that support decisions made under JCIDS are being implemented concurrently and require Service-wide dissemination. This is well under way. Programs presented to the JROC are now subjected to a level of scrutiny that is more detailed, more focused, and more prescriptive than at any time in the past. Programs that started as "service centric" capabilities have been returned to the Services for revision or cancellation. Some of these revised programs will be reborn as a more efficient and cost effective joint capabilities.

Combat developers and programmers are learning that the time to find out what the other services may want or need from an Army system is early in the program development cycle as opposed to when it is ready for production. The Services are learning to effectively leverage capabilities of other Services to avoid developing a service unique solution.

The Army and its sister Services have worked very closely with the JROC and the Joint Staff to develop a set of concepts that provide a common framework which delineates how the Joint Force will fight in the future. This conceptual framework provides the critical link between individual Service efforts and the Joint Vision. Equally important, it integrates combatant commanders into the JROC process. The creation of Joint Operating Concepts provides an opportunity for the combatant commanders to directly influence the development of future warfighting concepts. The creation of Joint Functional Concepts has provided a much more detailed framework for understanding the common needs and purposes of Service capabilities, and for understanding those cases that require Service-unique needs and capabilities. The integration of these concepts into a jointly agreed upon, integrated framework provides the foundation for a truly Joint Force. These concepts will not answer every warfighting question or issue. They will provide a succinct focus to our experimentation community and provide them a clearly defined process by which to evaluate lessons learned.

Admiral CLARK. Progress in the joint development arena is exemplified, but not limited to the following programs; each is included in the President's budget request, and each has a record of meeting notable joint and cross service requirements. In each example, warfighting effectiveness and economic efficiencies were gained through the joint development process.

JSF. The JSF is part of the family of tri-service, next-generation trike aircraft that will be the single fighter airframe for DOD.

Joint Aerial Common Sensor (JACS). JACS is a research, development and acquisition program designed to replace our aging EP–3 airborne information warfare and tactical signals intelligence (SIGINT) aircraft.

Joint Tactical Radio System (JTRS). JTRS is a software programmable, multiband, multi-mode family of net-workable radios, capable of simultaneous voice, data, video communications and mobile ad hoc networking.

Deployable Joint Command Control System (DJC2). DJC2 will provide a standing, fully deployable, scalable, and standardized command and control (C2) capability to the Regional Combatant Commanders (RCCs) and JFCs.

General HAGEE. Since 2000, there have been many changes in the processes that identify and validate joint capabilities. This will have a significant effect on joint development, testing and fielding of new and innovative weapons systems. In June 2003, the chairman implemented the JCIDS (CJCSI 3170.1C). The procedures established in the JCIDS support the chairman and the JROC in identifying, assessing and prioritizing capabilities needs as specified in title 10. JCIDS implements a capabilities-based approach that better leverages the expertise of all government agencies, industry, and academia to identify improvements to existing capabilities and to develop new warfighting capabilities. JCIDS is an enhanced methodology utilizing joint concepts that will identify and describe existing or future shortcomings

and redundancies in warfighting capabilities, describe the attributes of effective solutions and identify the most effective approach or combination of approaches to resolve those shortcomings. The process inherently promotes efficiency while enhancing capabilities of the joint warfighter particularly important while faced with current fiscal challenges.

One example of the JCIDS process at work to achieve efficiencies and successes in the development, testing, and fielding of new and innovative weapons programs is evident in the JROC's recent action to combine two similar, but different, programs, namely the Army's FCS and the Marine Corps' MAGTF Expeditionary Future Fighting Vehicle (MEFFV). To optimize research and development efforts, the JROC recommended forming a Joint Program Office (JPO). While the Army's FCS is an integrated family of vehicles, personal equipment, sensors and C2 devices, the Marine Corps' MEFFV is being developed as a replacement for our aging feet of main battle tanks and light armored vehicles. Despite the similarities, each Service has different warfighting capability needs based upon specific methods of employment, performance parameters, missions, and organizational structure. JCIDS ensures that similarities are leveraged thus reducing the cost of redundant development efforts. We expect to achieve efficiencies in management, research, development and acquisition with the combining of these two future programs.

General JUMPER. The Air Force continues to look for ways to maximize joint development and testing, working with the Navy, Army, Marine Corps, and SOF community to identify opportunities. Interoperability is one of the most important factors as we move toward a capabilities based and network centric construct, which continues to be reviewed and directed by the JROC and the Air Force. We are also increasing the emphasis on joint programs and the use of one Service's program to satisfy the requirements of multiple Services. There are many examples, but some are of particular note. The Air Force-Navy JSF program will be developed with three variants for use by the Air Force, Navy, and Marine Corps, all of which maximize common parts, components, and maintenance. The Air Force's Family of Advanced Beyond Line of Sight Terminals (FAB–T) will develop and field satellite communications (SATCOM) terminals to replace the current U.S. Military Communications Satellite Program (MILSTAR) Command Post Terminals for all Services, the Joint Staff and OSD. At the same time, the Air Force is procuring Tactical UHF, Multi-Band, Multi-Mode Radios (MBMMRs) from the U.S. Special Operations Command (SOCOM) Program Office. The Air Force and Navy are also working very closely on developing joint weapons such as the JASSM and the JDAM. The Department is also pursuing programs such as the JTRS, which uses a common waveform repository to ensure interoperability while greatly reducing development costs. We have also changed the Air Force's focus on operational testing, working now to get the operational testers, from all affected Services, involved in the development effort as soon as possible. In this way, many potential issues are identified early in the program, allowing the opportunity to address them. As a result, our success in operational testing continues to improve, enabling us to get critical capabilities into the field as quickly, and safely, as possible.

84. Senator LIEBERMAN. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, do you see an evolving and more substantive role for the JROC in future joint requirement definitions and program development? Please share with me the recent and future innovations the DOD has or is currently pursuing to promote more effective joint experimentation/training.

General SCHOOMAKER. The changes emanating from the National Defense Authorization Action of 2001 has led to concrete deliverables, in terms of weapon systems, by mid–2004. Most systems being delivered today do not reflect these changes. However, the systems of the future, especially those systems currently funded for research, development, and acquisition in the POM have been affected by the changes begun in 2001. The maturation of the JCIDS process ensures the force you see in 2010 will be vastly more jointly integrated, efficient, and capable than any force designed and programmed under the old way of doing business.

Admiral CLARK. Yes, there is an evolving and more substantive role for the JROC. The JCIDS, recently codified in Chairman's Instruction 3170.01C on June 24, 2003, provides an enhanced role for JROC in future requirements definition and program development. All new Service programs are vetted through a joint review process that validates and approves new requirements and programs that bridge identified gaps in joint warfighting capabilities. This new process, which includes participation from all Services, the OSD, and other applicable agencies, assists the Chairman of the Joint Chiefs of Staff and the JROC in identifying, assessing, and prioritizing joint military requirements.

Regarding innovations that promote more efficient joint experimentation and training, the JROC works closely with all combatant commanders, especially with United States Joint Forces Command (JFCOM), on joint experimentation and training. JFCOM serves as DOD's experimentation, joint training, interoperability and force provision "transformation laboratory." One innovation promoting more efficient joint training is JFCOM's Joint National Training Capability (JNTC). Identified in the DOD's training transformation plan, this effort broadens and deepens the reach of joint force training through a networked collection of interoperable sites and nodes that synthesize personnel, doctrine and technology. This initiative will provide the participants with a global, network-centric capability that strengthens military transformation efforts, which promote joint warfighter effectiveness.

General JUMPER. In the summer of 2003, the JROC changed from a requirements-based system to a capabilities-based system. A capabilities-based process implements rigorous up-front analysis, ensuring more programs get visibility of the joint community. This new process drives jointness from the top-down, strengthening joint warfighting capabilities; links strategic direction to strategic investment decisionmaking; provides an engine for force transformation, and integrates material and non-material solutions to capability gaps and shortfalls. These are all challenges the new processes were created to meet. The long-term objective is for "born joint" capabilities development to drive system acquisitions. We are on our way to making this a reality.

The Air Force has taken many steps to ensure more effective joint experimentation and training. We have stood up an Air Force Liaison office at JFCOM to help facilitate our efforts to assist them with concept development and the joint experimentation roadmap. A product of this relationship is our partnering with JFCOM to co-host the Air Force's primary wargame, Unified Engagement 04.

General HAGEE Yes. The JROC is taking an evolving and more substantive role in future joint requirement definitions and program development through the JCIDS. Under the JROC's direction the new JCIDS process replaced the old Requirements Generation System. JCIDS ensures greater visibility of capability proposals and established programs across each of the Services and agencies. The new process was established based on the need for a joint concepts-centric capabilities identification process that will allow joint forces to meet the full range of military challenges of the future. Meeting these challenges involves a transformation that requires the ability to project and sustain joint forces and to conduct flexible, distributed and highly networked operations. The process must produce capability proposals that consider the full range of doctrine, organization, training, materiel, leadership and education, personnel, and facilities (DOTMLPF) solutions to advance joint warfighting. Joint experimentation is used to validate the concepts that feed the JCIDS process. Joint experimentation explores concepts to identify joint and component DOTMLPF change recommendations and capabilities needs. Experimentation provides insight and understanding of concepts and capabilities that are possible given the maturity of specific technologies.

JFCOM has been a major component of the joint concept development and experimentation program for the DOD since 1999. On October 1, 2002, the JFCOM was designated as the DOD's agent for transforming our Nation's joint warfighting forces. As such, their mission is to participate in the larger DOD effort to craft a military force in which combatant commanders, Service branches, and multinational partners work in concert to develop and produce new concepts and prototypes for waging war.

An important catalyst for transforming military capability is the joint Concept Development and Experimentation (CDE) Campaign. This campaign aims to collaboratively develop concepts that, through vigorous debate, refinement, and experimentation, can be translated into warfighting capabilities that strengthen the effectiveness of combatant commanders in the field. Perhaps more important than fostering the creation of new concepts, the campaign serves as a mechanism to synchronize the efforts of combatant commanders, Services, and interagency partners as we collectively develop concepts and plan experiments in the course of transforming the military.

JCIDS, under the JROC's direction, will continue to be a critical process to ensure the DOD is responsibly and efficiently meeting our national security requirements.

The Marine Corps has historically conducted concept-based experimentation to help chart future combat development and deliver advanced capabilities to the operating forces. The Marine Corps premier wargame for 2004, "Sea Viking," continues this tradition with a series of events designed to inform senior leaders on key issues affecting the Future Joint Force. JFCOM, in collaboration with the Services, has been tasked with developing the joint forcible entry capability enhancements required to overcome a potential range of anti-access/area denial strategies. The Sea

Viking campaign will assess future Sea Based Marine Expeditionary capability sets, ESG/Force capability sets, and Sea Based Command and Control capability sets required for joint forcible entry operations. This will help inform the ongoing Joint Staff, Joint Forcible Entry Capabilities Based Assessment.

OFFICE OF FORCE TRANSFORMATION

85. Senator LIEBERMAN. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, the Director of the DOD's Office of Force Transformation (OFT), Vice Admiral Arthur Cebrowski, has said recently that military transformation, "lies at the heart of our new approach to defense" and that it "is not [just] a goal for tomorrow, it is a fundamentally important endeavor that we must embrace in earnest today." I agree. However it remains to be seen exactly how the OFT is furthering military transformation and how exactly it works collaboratively with the JROC and JFCOM to promote a unified path for the development, test, and implementation of joint force doctrine. Please explain to me the current projects, near- and long-term objectives, and the process used by OFT to coordinate with the Service branches and combatant commands.

General SCHOOMAKER. Vice Admiral (Retired) Cebrowski's office has been an advocate and a catalyst for advancing Defense transformation. OFT promotes synergy between the Services and JFCOM ensuring that transformation strategy is open to challenge by a wide range of innovative ideas. OFT regularly meets and coordinates with the Services and JFCOM to facilitate transformation roadmap development. Using these roadmaps, and other sources, OFT provides recommendations and revisions to the Strategic Planning Guidance ensuring U.S. forces continue to operate from a position of overwhelming military advantage. OFT also conducts an annual Strategic Transformation Appraisal of Defense Transformation. In this appraisal, OFT identifies key barriers to military competition that are systemic across the DOD and identifies joint capabilities gaps. OFT's Transformation Trends highlights new and emerging issues for key decisionmakers within the Department, the military services, commercial industry, and the technology world.

Admiral CLARK. The Navy interacts directly with OFT to produce the Naval Transformation Roadmap. This is an annual DOD requirement and includes our current projects and near- and long-term objectives. OFT analyzes the service and joint roadmaps and provides feedback to the services individually and to DOD leadership collectively. Additionally, OFT leads a congressionally-mandated study of Naval Architecture this year. Navy officials have provided briefings and data to the OFT in support of this effort.

General JUMPER. OFT is a key player in most aspects of OSD's transformation strategy articulated in Secretary Rumsfeld's Transformation Planning Guidance. It regularly meets and coordinates with the Services and JFCOM to help guide transformation roadmap development. OFT uses these roadmaps, which include the Air Force Transformation Flight Plan, as well as DOD science and technology efforts and other sources, to conduct the annual "Strategic Appraisal" of DOD transformation. In this appraisal, OFT identifies major issues or shortfalls that may exist across the DOD impeding transformation progress. These shortfalls provide inputs to OSD's Strategic Planning Guidance, which, in turn, informs future Service POM development. Finally, OFT initiates rapid RDT&E programs through the Transformation Initiative Program and the Joint Rapid Acquisition Program.

With regard to the Air Force specifically, OFT is collaborating with us on several programs. OFT and the Air Force Research Laboratory (AFRL) are working together to develop the new Rapid Response Launch Vehicles for tactical satellites (launch is scheduled for May). We are also working with OFT on developing airborne relay mirrors; adding transformation to our academy and professional military education curriculums; and in inserting transformational concepts into our Service wargames.

General HAGEE. The OFT has a direct role in influencing how our transformational objectives will be pursued. Under the guidance from certian documents like the Transformation Planning Guidance, as well as, joint documents such as the Joint Operations Concepts, and the Joint Operating Concepts, the Marine Corps, in conjunction with the Navy, develops an annual Naval Transformation Roadmap. Shortly thereafter, OFT conducts a strategic appraisal of the DOD, that provides valuable feedback on the capabilities and strengths of each Service's transformational plans in the current-, near-, and far-term. By performing these efforts, OFT ensures that the individual service efforts match the joint environment and the goals set forth by the Secretary of Defense.

The ultimate objective is a rational, sustained effort to create and maintain a concept-based force development system. By setting transformational goals early in the

planning process, prioritized decisions can be made to ensure that the right initiatives are pursued in support of our vision of the future joint force.

Additionally, certain joint transformational concepts are championed by OFT and influence our naval concepts, as well as, our capabilities development. For instance, the Sense and Respond Logistics concept is an OFT-sponsored initiative to improve our naval concept of sea basing and at the same time provides joint capability enhancements for the JFC. Sense and Respond Logistics is envisioned as an approach that yields adaptive, responsive demand and support networks that operate in alternate structures that recognize operational context and coordination.

SUPPORT TO NATIONAL GUARD AND RESERVE FORCES

86. Senator LIEBERMAN. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, I realize that a great deal of effort has been put on the fielding of IBA and up-armored HMMWVs to all of our military and civilian personnel engaged in combat operations world-wide. The DOD has made progress working with industry officials and greatly increasing production of these critical force protection supplies. This good work, however, does not excuse the fact that our military was woefully unprepared and ill-equipped to engage in a low intensity type conflict, as we are currently experiencing in Iraq. Furthermore, I have received countless correspondences from concerned Connecticut residents, whose loved-ones are valiantly serving in deployed Guard and Reserve units supporting OIF. However, these men and woman have not been adequately provided critical assets needed to perform their duties: ammunition, personal protection devices, armored vehicles, etc. With the military promoting a Total Force concept, where Guard and Reserve units play an active and important role in conducting operations as Active-Duty Forces, it is inexcusable that these brave men and women are not adequately supported by there leadership. What are you doing to ensure that this situation does not occur in future combat or peacekeeping deployments?

General SCHOOMAKER. We can do two things. First, we can plan for potential requirements beyond those in approved program levels and second, we can add options into critical contracts to allow for accelerated production. This will encourage more proactive thinking about contingency requirements and potential obstacles to rapid production and may reduce risk. However, this will not eliminate all risk. The noncontiguous urban threat of OIF necessitated that every soldier and DOD civilian in theater receive body armor. This was a divergence from the original guidance to issue only combat soldiers body armor. Once we recognized an increased risk, the requirement changed and the procurement system then used all possible means to respond. We will work to improve our procurement system, but we cannot eliminate all risk from changing threats.

Admiral CLARK. We undertook a comprehensive effort to ensure all of our personnel participating in OIF were properly equipped for the types of operations they were asked to perform. Based on lessons learned from last year, we have restructured unit allowance lists for many of these units, such as Naval Construction Force ("Seabees") and Expeditionary Logistics Support Force (cargo handling) units, to upgrade their personnel protection capabilities to meet new mission requirements. Navy resource sponsors have realigned current year funds to provide the identified new, or additional, gear to those units. The Navy makes no distinction in equipping its Active and Reserve Forces for deployment to OIF. Like units with like missions, are equipped the same to safely perform their operational duties. Additionally, we have made every effort to ensure that all Navy individuals enroute to the CENTCOM theater receive everything needed to maximize their safety while on the ground by sending them through one of the two Army continental United States (CONUS) Replacement Centers (Reserve components). As our missions evolve in the future, we will continue to evaluate planned operating environments and to resource Active and Reserve Forces to safely and effectively perform their designated missions.

General HAGEE. The Marine Corps is completely committed to ensuring that our Reserve Forces are equipped equally with their active duty counterparts. In particular, our procurement strategies for ammunition, personal protection devices and armored vehicles have been designed to provide Marine Forces Reserve, with the same equipment as I, II, and III Marine Expeditionary Forces (MEFs), the active duty commands to which our Reserve units join upon mobilization. Allow us to be more precise.

1. Ammunition: Again sir, there is no distinction between active duty and Reserve marines for ground ammunition. Each marine receives sufficient ammunition assets to conduct all pre-deployment training including: weapons handling, individual live

firing with known distance, unit cohesion engagement skills and any other type training deemed appropriate by any and all commander's from the unit level to the combatant commander. Live ammunition is initially issued in bulk and is referred to as a Combat Load. A Combat Load is the quantity of ammunition that can be carried on the individual marine's body or transported with organic vehicles. For example: the M16A2 Rifle Combat Load is 350 rounds of ball ammunition, ten rounds of tracer ammunition. Additionally, commanders at any level have the authority to increase Combat Loads, based on their personal threat assessment, without recourse. Ammunition re-supply or sustainment is provided daily in sufficient quantities to regenerate each marines original Combat Load. The Marine Corps has sufficient quantities of ammunition in the CENTCOM AOR to sustain all deployed Marine forces for extended periods at intense (assault) engagements levels. Globally, the Marine Corps has no shortages of ground ammunition to support deployed forces. To date, since the inception of the global war on terrorism (OEF, OIF 1, OIF 2), there has been no ammunition shortages for Marine Corps Forces deployed during combat operations. We are confident that our ammunition processes and funding profile will continue to ensure that sufficient ammunition is available for future combat or peacekeeping operations for both our Reserve and Active Forces.

2. Personal Protection Devices: As in the case of ammunition there is no distinction between active duty and Reserve marines in terms of equipment for personal protection. Essentially, when we refer to personal protection in regard to the global war on terrorism (OEF, OIF 1, OIF 2) we are referring to the procurement and issue of SAPI plates and the OTV in which the SAPI plates are worn. At the outset of OIF the USMC was already producing SAPI plates and OTVs to equip all our forces. However, the surge demand for combat in OIF 1 required us to not only shift our fielding plans to focus all items coming off the production lines to I MEF's Reserve and active duty units but to also direct some redistribution of SAPI plates and OTVs from the other MEFs in support of I MEF. To date, the Marine Corps has completed the SAPI plate fielding push required to meet the OIF 2–1 requirement, resulting in all active and Reserve marines deployed in theater having two SAPI plates and one OTV. We are now returning to the established fielding rate of 4,800 plates per month over the next year. In addition, we are preparing to let a contract, in support of OIF 2–2, for an additional 14,000 plates with delivery this summer. We anticipate an estimated delivery of 18 months to meet our acquisition objective of 267,154 plates. In the interim, the Marine Corps will redistribute plates as necessary to both Reserve and active duty units in order to meet any emergent contingencies requiring future combat or peacekeeping deployments.

3. Armored Vehicles: As with all our efforts to equip our forces there have been no distinctions with our active duty and Reserve marines in regard to armored vehicle procurements. As we saw in OIF 1, the balance of armored vehicles to unarmored vehicles within our Marine formations (i.e., Tanks, Assault Amphibious Vehicles (AAVs), Light Armored Vehicles (LAVs), armored HMMWVs versus un-armored HMMWVs and trucks) served us very well in the swift defeat of Iraqi conventional formations. As we are just now beginning the re-introduction of Marine Forces back into Iraq in support of OIF 2–1, the USMC has accomplished a surge effort to augment vehicle hardening armor within our tactical wheeled vehicle fleet (i.e., HMMWVs and trucks) ensuring that every Marine HMMWV and truck with I MEF's Reserve and active duty units in Iraq will have armor kits available by March 19. Concurrently, we are reassessing our long-term tactical wheeled vehicle armoring strategy and have directed the Marine Corps Combat Development Command to recommend an appropriate mix of armored to unarmored tactical wheeled vehicles for foreseeable future contingencies. In the interim, we are confident that if necessary to support imminently emergent future combat or peacekeeping operations we will be able to conduct another surge effort to provide "just-in-time" armor kits.

In closing, I want to assure you, yet again, that inside the Marine Corps there is no differentiation between our Active-Duty Forces and our Reserve Forces when it comes to equipment for combat, especially in regard to efforts to prepare for future combat. Our transformation efforts whether through our Marine Corps Warfighting Lab, through Advanced Concept Technology Demonstrations (ACTD) or through other venues consistently rely on Reserve participation and input. Each marine's welfare and success in battle is foremost in our efforts and every marine will receive our unstinting efforts in their behalf now and in the future.

General JUMPER. The Air Force remains committed to ensuring all our airmen (Active Duty, Guard and Reserve) are equipped to meet current and future requirements across the realm of military operations. We strive to ensure Air Force solutions to capability and equipment shortfalls are "total force" solutions that provide continuous seamless integration of the Air Reserve component when called to action.

The challenges our airmen are facing in OIF both demand and deserve our utmost attention and we are committed to solving those issues. The Air Force is working aggressively to equip all of our warfighting airmen to ensure mission accomplishment at the least possible risk. For example, we have provided 8,000 sets of IBA to our deployed personnel and we are focused on completing a $100 million central purchase of IBA. We are also working closely with the Army and the Joint Staff to reallocate limited resources, such as up-armored vehicles, to ensure those critical assets are available for the combatant commanders' highest priority missions.

POST-CONFLICT OPERATIONS

87. Senator LIEBERMAN. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, in response to the many lessons learned from the military's difficulties in post-war Iraq, I understand that the Pentagon has begun an investigation into the creation of a military force specializing in peacekeeping and reconstruction activities following future conflicts. What can you tell me about your overall vision for this capability?

General SCHOOMAKER. Rather than have a portion of our forces specialized in a niche array of tasks, the Army's modular brigade units of action will be organized to perform in a variety of roles and missions. In order to maintain our flexibility and a depth of capabilities for long-term rotational operations, our forces will be multi-functional rather than narrowly focused. Our objective is to create a force that can sustain a rotational campaign-level of effort, in which forces can rapidly transition from traditional combat operations, such as raids and deliberate attacks to stability and other support and stability tasks, such as presence patrols and reconstruction efforts. Our recent experiences tell us we must be able to transition literally overnight—to the point of executing combat operations in one sector, while simultaneously performing stability operations in an adjacent sector. In fact, our successes in stability and support operations have been greatly enabled by our ability to rapidly shift from traditional peacekeeping tasks in order to conduct decisive offensive action.

Admiral CLARK. My vision for the future of these operations ashore is fundamentally and necessarily about how we will conduct operations at, and from the sea. By providing a joint, networked and secure sea base from which to apply persistent sensors, command and control, strike and logistics, we can ensure that we have not just a smaller logistic and support footprint ashore, but the right footprint ashore. Additionally, by moving a large proportion of supporting fires and tactical aircraft to sea, we could reduce our force protection requirements as well. Thus, we can focus more of our marines and soldiers on the ground toward accomplishing, rather than supporting the mission.

This is part of what I like to call the strategic speed and operational agility that we, along with our number one joint partner, the United States Marine Corps, are in the process of improving. Together, we are working toward a naval force that can rapidly seize the initiative on the kinds of non-contiguous and chaotic battlefields that are so prevalent in Iraq. We will achieve that kind of speed and agility by getting lighter, by investing in C^4ISR and precision fires, and by fundamentally altering our concepts of operation.

General HAGEE. Marine Forces are trained and equipped for success in the full spectrum of combat operations. We view peacekeeping and reconstruction activities as routine operational requirements which are encompassed within our scope of operations. Our troops are adept at transitioning from combat operations to peacekeeping and reconstruction operations. We view peacekeeping and reconstruction operations as the foundation for the successful re-establishment of stabilization in a post combat environment and are prepared to remain until civil authorities become capable of providing the basic needs of their society. We remain committed to maintaining our dedication to warfighting excellence in these operational areas.

General JUMPER. The Air Force currently operates at all levels of the spectrum of operations providing a diverse range of capabilities from close air support to humanitarian assistance to ISR. The Air Force studied lessons learned from Afghanistan and was able to incorporate those lessons directly into Iraqi operations. Logistics planning allowed a comprehensive base draw down, while at the same time effectively supporting humanitarian airlift operations. The use of radio frequency tags enhanced in-transit visibility and automated decision tools allowed airlift planners to maximize limited staging space. Additionally ISR operations, especially UAVs provided valuable support in reconnaissance and surveillance of potential hotspots. All the while, space systems provided precise location for GPS equipped units and equipment, and over the horizon communications. The Air Force has placed airmen

in Combined Joint Task Force-7 (CJTF–7) and CENTCOM to ensure that the full range of air and space power meets the combatant commander needs. Because of the flexibility of the Air Force's projected force structure, the Air Force will continue to make substantial contributions to efforts to attain stability and restore conditions that can promote democracy and liberty.

88. Senator LIEBERMAN. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, what level of interaction do you foresee this capability having with international forces, either through the United Nations (U.N.) or North Atlantic Treaty Organization (NATO)?

General SCHOOMAKER. We are designing our forces and command modules to be capable of joint and coalition operations. If the global war on terrorism continues at its current pace, we foresee significant interaction with coalition forces in order to achieve our common goals and objectives.

Admiral CLARK. I anticipate that we are going to have to continue to be able to work well with international forces if we are going to be successful in these types of operations. Ongoing NATO missions in Afghanistan, the Mediterranean Sea, and the Balkans demonstrate the high degree of interaction and interoperability required for international post-conflict operations. We expect that the interoperability between NATO forces, gained over many years of cooperative training and operations, will continue as a key element to our success in this regard. We have also gained important experience working with non-NATO forces in the post-conflict environment. In fact, since May 2003, there have been 85 maritime assets from 15 nations (see Table 1) employed by the Commander, U.S. Naval Forces, CENTCOM in support of OEF and OIF.

One of the outcomes of all of this practical experience has been the emergence of a need to enhance our ability to exchange secure data with our friends and allies. Given the level of interaction with them that we expect in future operations, we have pursued a technology called the Combined Enterprise Regional Information Exchange System (CENTRIXS). This is a standing global network allowing U.S. and coalition nations to share secure operational and intelligence information in support of combined planning and decision making in multinational operations. CENTRIXS, already being used by several partner nations, is scheduled for full certification in the fall of 2004.

CENTCOM AOR Non-U.S. Ships / MPA / Submarine Support of OEF & OIF 01 May 03 thru 15 May 04	
Surface	Assets
AUSTRALIA	5 (3x - FFG, 1x - LST, 1x - FF)
CANADA	5 (4x - FFG, 1x - DDG)
DENMARK *	1 (1x - FFG)
FRANCE	17 (10x - FFG, 5x - DDG, 2x - AOR)
GERMANY	5 (4x - FFG, 1x - AOR)
GREECE *	2 (2x - FFG)
ITALY	9 (3x - FFG, 1x - DDG, 1x - AOR, 1x - LPD, 1x - OPV, 2x - MHC)
JAPAN	12 (4x - AOR, 6x - DDG, 2x - DD)
THE NETHERLANDS *	1 (1x - FFG)
NEW ZEALAND	2 (2x - FF)
PAKISTAN	1 (1x - DDG)
POLAND *	1 (1x - AK)
SINGAPORE *	1 (1x - LPD)
SPAIN	5 (5x - FFG)
UNITED KINGDOM	18 (10x - FFG, 5x - MHC, 2x – AO, 1x - MSC)
*** Denotes no ships currently supporting OEF or OIF operations in the CENTCOM AOR.**	
MPA	**Assets**
AUSTRALIA	2 (2x - P-3 aircraft at any given time)
CANADA *	2 (2x - P-3 aircraft at any given time)
FRANCE	1 (1x - Atlantique aircraft at any given time)
GERMANY *	1-3 (1-3x - Atlantique aircraft at any given time)
THE NETHERLANDS *	1 (1x - P-3 aircraft at any given time)
NEW ZEALAND *	1 (1x - P-3 aircraft at any given time)
SPAIN *	1 (1x - P-3 aircraft at any given time)
UNITED KINGDOM	1-3 (1-3x - NIMROD aircraft at any given time)
*** Denotes no MPA currently supporting OEF or OIF operations in the CENTCOM AOR.**	
Submarine	**Assets**
DENMARK *	1 (1x - SS)
FRANCE *	1 (1x - SSN)
THE NETHERLANDS *	1 (1x - SS)
UNITED KINGDOM *	3 (3x - SSN)
*** Denotes no submarines currently supporting OEF or OIF operations in the CENTCOM AOR.**	

Table 1

General HAGEE. The Marine Corps continually evaluates new techniques and technology to address the unique requirement of this operational environment. This includes the re-evaluation and potential incorporation or modification of previously utilized strategies. This includes the Marine Corps' own historical lessons learned as well as other Services, as applicable to Marine Corps contribution to joint operations in OIF 2.

General JUMPER. The U.S. Armed Forces historically rely on international forces, whether in coalition or alliances, to provide forces and capabilities to accomplish each military operation's strategic objectives and end-state. Throughout the operations of the last decade we have learned the positive impact regular training interaction brings to multinational operations culminating in unity of effort. I will con-

tinue to ensure any capabilities developed for the Air Force will account for the fact we are likely to deploy and employ in a multinational environment. As much as possible we will stress compatibility, interoperability, interchangeability, and commonality with not only NATO and the U.N., but other regional forces as well.

89. Senator LIEBERMAN. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, what progress has the DOD made in developing a concept for transforming and implementing our military's post-conflict force structure?

General SCHOOMAKER. The OSD has introduced several initiatives to shape transformation. OSD Transformation Planning Guidance and Strategic Planning Guidance (SPG) will help the Services properly structure their forces for the emerging strategic environment. We are implementing initiatives to transform our force, e.g., modularity, force stabilization, military to civilian conversions, and active component/Reserve component rebalancing which complement OSD's efforts. These Army initiatives will improve our broad-spectrum capabilities for both combat and post-conflict operations by increasing high demand capabilities such as infantry, military police, SOF, and various support units. They will improve our force readiness, decrease turbulence, and enhance our ability to respond quickly. Overall, the initiatives will yield a force that is more ready and relevant to the Nation's needs in war and peace.

Admiral CLARK. In light of our lessons learned from OEF and OIF, we are working with JFCOM, in concert with the Joint Staff, the other Services and the combatant commanders, to develop a set of concepts for conducting stability operations. When completed, these concepts will be integrated into the joint process to identify capability and supportability shortfalls, compare alternatives for improving joint capabilities, and lead to appropriate resource decisions.

The Navy-Marine Corps team is working now to develop the concepts and design the structure that will help provide a joint, networked and secure sea base from which to apply persistent sensors, C^2, strike and logistics. This would allow us to have not just a smaller logistic and support footprint ashore, but the right footprint ashore. Additionally, by moving a large proportion of supporting fires and tactical aircraft to sea, we could reduce our force protection requirements ashore as well. Thus, we can focus more of our marines and soldiers on the ground toward accomplishing, rather than supporting the mission.

This is part of what I like to call the strategic speed and operational agility that we, along with our number one joint partner, the Marine Corps, are in the process of improving. Together, we are working toward a naval force that can rapidly seize the initiative on the kinds of noncontiguous and chaotic battlefields that are so prevalent in Iraq. We will achieve that kind of speed and agility by getting lighter, by investing in C^4ISR and precision fires, and by fundamentally altering our concepts of operation.

General HAGEE. With regard to transformation plans and implementing our military's post-conflict force structure, the following is submitted. This is an excerpt from the February 12, 2004, Deputy Commandant, Plans, Policies, and Operations draft statement to the Subcommittee on Military Readiness of the House Armed Services Committee that was delivered on March 11, 2004.

Opportunities for modernization are rare, and opportunities for true transformation come but once in a generation, if at all. That is why we feel compelled to emphasize here the importance of our acquisition priorities and program initiatives such as the MV–22 Osprey, our number one aviation priority, the KC–130J, representing a significant increase in operational efficiency and enhanced refueling and assault support capabilities, the EFV which will reduce the vulnerability of our naval forces and greatly enhance operational and tactical mobility for our surface assault elements, the STOVL JSF which represents a great improvement in reliability and combat capability over existing legacy platforms, the Lightweight 155mm Howitzer, a more capable, deployable, survivable, and accurate weapon than current indirect fire systems, and the CH–53X and UH–1Y/AH–1Z aircraft which promise greater safety, survivability, and supportability over the current fleet of aging airframes.

Concepts like Tactical Air integration, Logistics Modernization and Command and Control, and improvements in intelligence and information operations are equally essential to true transformation, and we are focusing our efforts on the technology and processes that facilitate transformation.

Most important of all to our future readiness are our sea basing initiatives in partnership with the Navy. We hold a deep and abiding conviction that sea basing initiatives hold the greatest promise for transforming the Marine Corps-Navy team into a more flexible, responsive crisis response force, able of projecting power across the full spectrum of operational capabilities anywhere in the world.

This year, the Marine Corps has continued to refine plans for the Marine Expeditionary Brigade of 2015, in concert with our concept for sea-based operations. Similarly, the analysis of alternatives for our Maritime Pre-positioning Force (Future), a critical component of sea basing, will provide valid choices for achieving sea basing capabilities. These initiatives will complement, rather than replace, the amphibious lift and forcible entry capacity of the LHA(R), LPD–17, and LHD, and will provide the Nation a deployment and employment capability unmatched in the modern world.

In addition to the above items, the Commandant of the Marine Corps has recently directed experimentation with a concept for distributed operations, whereby Marine Forces will be able to operate in a more decentralized manner with smaller tactical units to better extend operation reach and control in an extended battlespace.

General JUMPER. The Air Force is not planning to create a separate military force to deal with post-conflict operations. The USAF currently operates at all levels of the spectrum of operations providing a diverse range of capabilities from close air support to humanitarian assistance to ISR. The USAF took lessons learned from Afghanistan and was able to incorporate those lessons directly into Iraqi operations. Logistics planning allowed a comprehensive base draw down while at the same time effectively supporting humanitarian airlift operations. The use of radio frequency tags enhanced in-transit visibility and automated decision tools allowed airlift planners to maximize limited staging space. Additionally ISR operations, especially UAVs, provided valuable support in reconnaissance and surveillance of potential hotspots. All the while, space systems provided precise location for GPS equipped units and equipment, and over the horizon communications. The USAF has placed airmen in CJTF–7 and CENTCOM to insure that the full range of air and space power meets the combatant commander needs. The built-in flexibility of the projected force structure will allow the Air Force to substantially contribute to efforts to attain stability and restore conditions that can promote democracy and liberty.

RESEARCH AND DEVELOPMENT OFF-SHORING

90. Senator LIEBERMAN. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, many experts in the defense and intelligence communities are seriously concerned about the loss to the U.S. economy of the high-end semiconductor chip-manufacturing sector to East Asian countries, the likely subsequent loss of the semiconductor research and design sectors, and the grave national security implications that this would entail. The composition of the global semiconductor industry has changed dramatically in recent years. National trade and industrial policies of East Asian countries which have capitalized on these changes are driving a migration of semiconductor manufacturing to that region, in particular to China, through a large array of direct and indirect subsidies to their domestic semiconductor industry. This migration is occurring at a time when these components are becoming a crucial defense technology advantage to the U.S., due to the present and future needs of advanced processors in the defense and intelligence communities. Informed elements of the military and intelligence sectors have made clear that relying on semiconductor integrated circuits fabricated outside the U.S. (e.g. in China, Taiwan, and Singapore) is not an acceptable national security option. Is the DOD engaged in analyzing this issue and are you planning to outline the potential long-term solutions of this problem with respect to the DOD?

General SCHOOMAKER. This is an effort led by the OSD, in which the Army participates. On October 10, 2003, the Acting Deputy Secretary of Defense for Acquisition, Technology, and Logistics (AT&L) established a strategy to ensure access to trusted suppliers of leading edge, critical integrated circuits in sensitive defense weapons. That strategy consists of identifying dependable producers and exploring needed refinements to the strategy.

Admiral CLARK. The DOD is engaged in this issue. On October 10, 2003, the Deputy Secretary of Defense established a formal approach to ensure access to trusted suppliers of leading edge, critical integrated circuits for use in defense systems. The Department is actively exploring alternatives and has established a Defense Science Board Task Force to examine the subject, which began its study in March 2004.

General HAGEE. The Marine Corps depends on the semi-conductor chip industry for processing and delivering critical information and appreciates the national security implications of the industry's domestic decline and the potential security implications of relying on development and manufacture of semiconductor chips in foreign countries. The Marine Corps, however, has not yet linked this concern to the loss or threat of capability nor developed a service-specific solution to this situation and, as the matter effects the whole of the DOD, we respectfully defer to the leader-

ship of the Joint Staff and/or the expertise of the National Security Agency (NSA) to address any long-term solutions the DOD has undertaken.

General JUMPER. The Air Force analyzes source of supply issues on a case-by-case basis and has not addressed the semiconductor industry as a whole or focused on the movement of production capability offshore. However, this is an area being studied by the DOD and the current approach calls for establishing a "trusted foundry" to ensure critical defense systems have a trusted source of semiconductor components—a source that can manufacture sensitive defense designs in confidence, ensuring these components have not been modified or their integrity compromised, and can guarantee these components and the underlying technology are available when needed by the DOD.

Where there is concern is in the move offshore of the materials and components used in building these integrated semiconductor components-a large portion of the companies manufacture items such as ceramic packages, high-purity silicon wafers, die materials, quartz products, resins, and optical equipment are foreign-based or foreign-owned. These items are not unique to military parts and the commercial market drives their economics and technology. However, with an annual world market for semiconductors and semiconductor equipment of almost $300 billion, the industrial base for these components should remain strong. As for the integration of these components, current military requirements are met predominately by the large vertically integrated United States defense manufacturers—companies such as Lockheed Martin, Northrop-Grumman, Raytheon, and Honeywell who have design and fabrication capabilities to ensure military unique performance and security requirements are met.

91. Senator LIEBERMAN. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, I understand that a foundry to ensure DOD access to a short- and mid-term supply of cutting edge integrated circuits may address immediate national security concerns. What kinds of long-term strategies are being considered to ensure DOD first and assured access to critical advanced components from trusted domestic sources?

General SCHOOMAKER. This is an effort led by the OSD, in which the Army participates. Long-term strategies being considered include assessing the possibility of additional research investments by the DOD and policy changes to help our integrated circuit suppliers compete in worldwide markets.

Admiral CLARK. I understand that the DOD is actively exploring long-term strategies and has established a Defense Science Board Task Force to examine this subject. These strategies will examine the root cause of offshore migration, the options for policy and DOD investment, alternatives to onshore trusted foundries and the development of requisite inspection technologies, enabling alternative inherently trustworthy processing technologies. There are currently two trusted foundries producing Rad Hard circuits in the United States. I understand the DOD is using Title III funds to upgrade these foundries to support current and future DOD Rad Hard circuit requirements.

General HAGEE. The Marine Corps is aware of the NSA proposal to establish a trusted foundry to ensure DOD first and assured access to critical advanced components from trusted domestic sources. However, long-term strategies of this nature are developed and lead by the DOD. We respectfully defer to the NSA at the DOD/agency level to provide insight on the long-term strategies to be considered and developed.

General JUMPER. Maintaining a strong industrial base for integrated circuits is a key element to ensuring the DOD with first and assured access to critical advanced components from trusted domestic sources. The DOD's Manufacturing Technology program aids in this quest by developing manufacturing technologies that enable affordable production and sustainment of current and future weapon systems.

Another option for assured access is the Defense Production Act Title III program, which establishes, maintains, and/or expands a production capability necessary for national defense. This program is currently being used to establish a domestic fabrication capability for radiation-hardened microelectronics to meet critical requirements from the combined space community, including the Air Force, the Missile Defense Agency, the National Reconnaissance Office, and the National Aeronautics and Space Administration.

92. Senator LIEBERMAN. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, what programs currently exist that address the issue of first and assured access to critical advanced components from trusted domestic sources?

General SCHOOMAKER. The principal program facilitating first and assured access to critical requirements is the Defense Priorities and Allocation System (DPAS).

This program implements authority contained in Title I of the Defense Production Act. DPAS allows us to work through the Commerce Department to require priority acceptance and performance of orders placed with domestic sources, if those orders are within their capability.

Admiral CLARK. I understand the DOD and the NSA have undertaken a pilot program to address the vulnerability of critical Application Specific Integrated Circuits (ASICs) used in mission essential defense, communications, and national security systems. The program is a first step to support in identifying short and mid-term solutions that could supply the Department with advanced technology trusted ASICs. It is consistent with the approach set forth by the Deputy Secretary of Defense on October 10, 2003. The program is further defined in the subsequent interim guidance on the use of Trusted Integrated Circuits set forth January 27, 2004, from the Office of the Under Secretary of Defense for AT&L. The pilot program covers the requirements to ensure trust from basic circuit design to the finished wafer scale devices (not yet delineated into individual dies or packaged at this stage). Additional trusted ASIC sources will be identified and certified as required in the ongoing program. If necessary, the pilot program will expand by engaging additional trusted domestic suppliers of critical high end ASICs to encourage multiple sources and increased access to the most advanced technologies.

General HAGEE. Headquarters, Marine Corps C4 Department is aware of the NSA proposal to establish a trusted foundry to ensure DOD first and assured access to critical advanced components from trusted domestic sources. We respectfully defer this response to NSA.

General JUMPER. As mentioned, the DOD's current approach to address the issue of first and assured access to critical advanced components from trusted domestic sources calls for establishing a "trusted foundry" to ensure critical defense systems have a trusted source of semiconductor components available when needed by the Department.

In addition, the DOD's Manufacturing Technology program helps strengthen the industrial base by developing manufacturing technologies that enable affordable production and sustainment of current and future weapon systems. The Defense Production Act Title III program can also assist by establishing, maintaining, and/or expanding a production capability necessary for national defense as is currently being done in the case of radiation-hardened microelectronics.

93. Senator LIEBERMAN. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, does the DOD have plans to maintain the critical semiconductor equipment industry (i.e. lithography, photo masks) in the U.S., either through a government-industry consortium or through more direct intervention?

General SCHOOMAKER. This is related to an effort led by the OSD and the Defense Advanced Research Projects Agency (DARPA). The Army participates. We understand that maintaining the critical semiconductor equipment industry will be addressed as part of an upcoming Defense Science Board study entitled: High Performance Microchip Supply. Separately, but in close coordination with OSD and DARPA, the Army does fund direct research of improved semiconductor fabrication equipment as part of our effort to achieve Army research objectives. We plan to continue that funding effort.

Admiral CLARK. The DOD does not currently have plans to address maintenance of the semiconductor equipment industry. However, if any aspect of the semiconductor industry changes in such a manner that creates vulnerabilities or diminishes capabilities, we will explore options and take necessary action.

General HAGEE. Respectfully, we must defer to the Joint Staff and/or OSD to provide information on any DOD-wide plans to support the semi-conductor equipment industry.

General JUMPER. The DOD has not formulated any plans to establish a government-industry consortium or directly intervene in the semiconductor equipment industry. Accounting for less than 2 percent of total market sales of semiconductors and associated equipment, makes it difficult for the DOD to directly influence the industry. In fact, the last major consortium effort, SEMATECH, dropped Federal sponsorship in 1996 and now includes international manufacturers. Instead, the DOD is currently pursuing a "trusted foundry" approach, which could contribute to the maintenance of a viable semiconductor industrial base.

94. Senator LIEBERMAN. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, will Congress have the opportunity to discuss the proposed solutions as they evolve?

General SCHOOMAKER. Yes.

Admiral CLARK. I expect the DOD will continue, as always, to work with Congress to explore solutions for securing trusted microelectronics for our warfighters.

General HAGEE. The Marine Corps will afford Congress the opportunity to discuss proposed solutions that are participated in and in support of the operational requirements that are of interest.

General JUMPER. As mentioned, the DOD is currently looking to existing efforts, such as the "trusted foundry" approach, its Manufacturing Technology program, and the Defense Production Act Title III program to provide for first and assured access to critical semiconductor components. Should additional solutions become necessary, Congress will be an essential element in the formulation and implementation of a national policy with regards to the semiconductor industry and other critical industries that support national defense.

QUESTIONS SUBMITTED BY SENATOR JACK REED

SCIENCE AND TECHNOLOGY INVESTMENT

95. Senator REED. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, all of the Services have reduced their investments in transformational S&T programs significantly below the fiscal year 2004 appropriated levels. What role do these S&T programs play in the transformation of our Nation's military?

General SCHOOMAKER. The fiscal year 2005 budget submission reflects the Army's sustained commitment to make leap-ahead S&T investments that will provide high payoff transformational capabilities for our soldiers. At $1.8 billion, the fiscal year 2005 S&T budget request continues the transformational programming strategy established last year.

Army S&T is committed to providing America's Army with sustained overmatch in land combat. To do so, the Army S&T retains a dynamic portfolio of technology investments that is responsive to the warfighters' needs of today and the future. The Army S&T mission is to conceptualize and develop future leap-ahead technologies that are necessary to maintain a superior land combat capability unmatched anywhere in the world while exploiting opportunities to accelerate the transition of proven innovative technologies to enhance the capabilities of the Current Force. The Army's S&T program is well balanced to provide high payoff needs of the Future Force while seeking rapid transitions for critical capabilities into the Current Force.

Admiral CLARK. The Navy S&T accounts reflect the balance of priorities among the competing fiscal requirements. The fiscal year 2005 Navy S&T budget request declines by 1.4 percent compared to the fiscal year 2004 budget request, but is well focused on supporting the warfighting capabilities outlined in the latest Naval Transformation Roadmap.

The role of naval S&T is to guide innovation that will provide technology-based options for transformational Navy and Marine Corps capabilities, including capabilities that promise to fundamentally change how we prepare for, fight and win wars. A great deal of our transformational effort towards "The Next Navy and Marine Corps" is lodged in the Future Naval Capabilities (FNCs). We have strengthened alignment of the FNC process with the naval capabilities development process that establishes our warfighting program requirements and priorities.

The relatively mature technologies involved in FNCs are in many cases the result of long term S&T investments in discovery and invention programs with 6.1 and early 6.2 funding. The focus of this discovery and invention portion of the S&T portfolio is largely on areas where the Navy is the only significant U.S. sponsor such as ocean acoustics and underwater weaponry. This stable, long term investment is essential to keeping the pipeline full of transformation enabling technologies for "The Navy and Marine Corps After Next".

The final transformational S&T investment is in the area of Innovative Naval Prototypes. Examples of these "game-changing" technologies include the free electron laser, the electromagnetic railgun, unmanned underwater vehicles, the X-Craft, and super-conducting electric drive motors.

General HAGEE. Naval S&T is pursuing innovative technology prototypes for equipment that we hope will have transformational impact in the future. There are numerous examples. We are developing a reconfigurable rotor blade for the MV–22 tiltrotor aircraft that when delivered will assist this revolutionary aircraft extend its range and load capacity to keep up with anticipated expansion of mission requirements. In effect, we are using S&T investment now to plan to upgrade a technology not yet operational.

Another example is our investment in autonomous mobile sensors—Dragon Eye UAV and Dragon Runner Unmanned Ground Vehicle—as a means of providing the tactical element on the ground to see over the next hill or around the next comer. Dragon Eye is in the process of fielding; however, when coupled with potentially transformational changes in concepts of operations for ground units our ground forces may emerge from planned experimentation over the next couple of years into a distinctly different force.

Still another example includes technologies leverage off of GPS permitting ground forces to know precisely their own location. Systems such as Blue Force Tracker—and specifically the Iridium-based Expeditionary Tactical Communications System as a surrogate for a future low-earth orbit tactical communications network, coupled with projects such as the Target Handoff System (Experimental) providing precise targeting and the ability to digitally coordinate targeting between the forces on the ground and tactical aircraft, may open the door for emerging new concepts for employing distributed operations on the future battlefield.

General JUMPER. Air Force S&T programs play a pivotal role in the transformation of our Nation's air and space force. The United States Air Force is continuing to transform to a capabilities-focused Expeditionary Air and Space Force. We are doing this through the development of the CONOPs for each of the seven major tasks the Air Force must be capable of accomplishing to support the combatant commanders. Our goal is to make the warfighting effects and capabilities we need to achieve them the drivers for everything we do. This is especially true for our S&T program. We have taken the effects and capabilities required by the seven CONOPs and transformational goals and mapped them to the long-term challenges and the short-term objectives identified in the congressionally-directed S&T planning review completed in February 2002. A prime example of the role Air Force S&T plays in this transformation is in the area of space communications technology. We have increased our investment in this area and are working to identify, develop, and demonstrate the wideband technologies needed to build a space-based laser communications network to provide higher data throughput. There are other technologies, such as directed energy, microsatellites, and more that will significantly change future warfighting capabilities.

3 PERCENT INVESTMENT GOAL

96. Senator REED. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, the DOD has again failed to meet its own goal of 3 percent investment of the DOD topline into S&T programs. Does your Service still desire to achieve that 3 percent level?

General SCHOOMAKER. The Army supports the DOD's stated goal of investing 3 percent of Total Obligation Authority (TOA) in S&T. Over the past 4 years, the Army has sustained increases to its S&T investments to accelerate fielding the FCS and other Future Force capabilities while also seeking to identify mature technologies that can be provided to the Current Force—today's soldiers.

Admiral CLARK. The fiscal year 2005 Navy S&T budget request stabilizes funding at 0 percent real growth for the first time in 3 fiscal years, and though it is not 3 percent of Navy TOA, it does provide a sufficient level of investment in this very important program for this year. Three percent remains our goal, but at the same time, we must recognize and balance competing investment priorities from year to year. We have done that in this year's budget and I expect we will continue to do so in the years to come.

General HAGEE. The Marine Corps complies with proposed Science Policy Council guidance to maintain or increase S&T investment at levels programmed in the fiscal year 2005 President's budget.

General JUMPER. The S&T funding goal of 3 percent applies to the DOD S&T program as a whole vice by individual Service. Therefore, when taking into account other non-Service S&T funding, such as funding managed by the DARPA, the individual Service goal can be lower. With respect to the Air Force S&T program, it is funded at almost 2 percent-close to a more realistic goal of 2 to 2.4 percent. At $1.9 billion in the fiscal year 2005 President's budget, Air Force S&T is funded at a level to achieve the warfighting capabilities needed to support Air Force Core Competencies. I believe this is a more meaningful yardstick by which to measure the adequacy of S&T funding.

97. Senator REED. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, is there a different investment goal that has been set for your Service?

General SCHOOMAKER. The Army is committed to a strong S&T program, but we have not set specific investment goals for S&T. We carefully evaluate our S&T investments to develop the technologies that will enable specific full spectrum capabilities for the Army's Future Force, while seeking opportunities to transition proven innovative technologies to the Current Force faster.

Admiral CLARK. The Navy's investment goal has been established by the DOD. It complies with DPG, and is consistent with the other Services.

General HAGEE. The Marine Corps complies with proposed Science Policy Council (SPC) guidance to maintain or increase S&T investment at levels programmed in the fiscal year 2005 President's budget.

General JUMPER. The Air Force has not set a formal percentage investment goal for its S&T program. However, I feel that 2 to 2.4 percent is a realistic goal and will maintain current and future warfighting capabilities.

DEFENSE LABORATORIES

98. Senator REED. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, what role do your defense laboratories and engineering centers play in the development of transformational technologies for your Service?

General SCHOOMAKER. The Army's laboratories and engineering centers play a critical role in developing and maturing the needed technologies in support of the Army's transformation objectives. A good example of the role the Army's labs and engineering centers have contributed to these objectives is the development and maturation of the Army's technology base in support of the FCS; the centerpiece of the Army's Future Force and key element of the Army's Transformation campaign plan. The Army's laboratories and engineering centers play a key role in maturing the technology base in partnership with the private sector to an adequate technical readiness level that enables the Army to proceed to a successful Milestone B system development and demonstration decision for the FCS. Additionally, the Army's laboratories and engineering centers helped to identify the critical technology areas deemed to be centrally important to successful development of the FCS architecture and its component platforms, and potential solution sources in order to achieve baseline threshold key performance parameters. The successful development of these critical technologies is essential to reduce the technical risk in the acquisition and fielding of the FCS equipped unit of action. As detailed engineering designs are developed and refined, it is expected that additional critical technologies will be identified in order to meet designated capability levels (threshold or objective). Here again, the Army's labs and engineering centers will play a major role in maturing these technologies to adequate technology readiness levels to achieve these needed capabilities for the FCS equipped unit of action.

Admiral CLARK. The labs and centers have a long history of developing technological innovations that have made significant contributions to transforming the fleet and force. The Navy's scientists and engineers continue to push the state of the art to achieve order of magnitude increases in warfighting effectiveness. As an example, the Naval Research Laboratory (NRL) continues its leadership in the development of unmanned platforms and technology for improved ISR capabilities. NRL has used its world-class expertise in these areas to deliver the Dragon Eye, a small UAV, for small unit tactical reconnaissance. The Dragon Eye is small, light, easy to transport, and easy to fly. Developed at NRL, this UAV has transitioned into the Marine Corps Force and is with the I MEF in Iraq. Scientists at NRL are continuing this effort to develop the next generation of transformational sensors and platforms in advanced tactical reconnaissance.

General HAGEE. Our laboratories and engineering centers, e.g., the NRL, Naval Surface Warfare Centers, and the Marine Corps Warfighting Laboratory, provide the synergy, expertise and coordination imperative for transformational technologies and experimentation.

General JUMPER. The various AFRL research sites are crucial in the development of the transformational technologies required as the Air Force continues to transform to a capabilities-focused Expeditionary Air and Space Force. In particular, there are many world-class research efforts ongoing across the AFRL. For example, we have completed and recently transitioned initial breakthrough work on eye and sensor laser protection developed at the Human Effectiveness Directorate, Brooks City Base, Texas, and at the Materials and Manufacturing Directorate, Wright-Patterson Air Force Base, Ohio. The information data wall currently being used in Afghanistan and Korea is the result of outstanding efforts by the Information Directorate at Rome, New York. We are also proud of our work at Tyndall Air Force Base, Florida, and their development of the Elastomeric Coating polymer, which is

capable of protecting key buildings and installations from close proximity explosions, such as air dropped weapons or truck bombs and is currently being installed in the Pentagon Reservation. In addition to conducting world-class research, the AFRL works closely with universities and industry to focus their research efforts on transformational technologies relevant to the Air Force. These are but a few of the extraordinary contributions being made in our laboratory facilities around the country.

LABORATORY PERSONNEL DEMONSTRATIONS

99. Senator REED. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, what is the status of the ongoing laboratory personnel demonstrations that are being executed at many of your Service laboratories?

General SCHOOMAKER. Since late fiscal year 1997, five Army-unique personnel demonstration projects were implemented under section 342 of the National Defense Authorization Act for Fiscal Year 1995. These demonstration projects were individualized experiments designed by each laboratory to meet its specific needs and requirements and they were "generally similar in nature to China Lake," that is, most civilian personnel management decisions were delegated to the laboratory director at each Army laboratory. Two additional Army laboratories have designed and submitted demonstration project proposals; however, those proposals were not approved due to the emergence of the OSD National Security Personnel System (NSPS) and the OSD Best Practices Initiative. One Army laboratory has been approved for a second, 5-year experiment by its local bargaining unit. Currently, OSD is in the process of replacing all Army laboratory demonstration project experiments with a personnel demonstration project known as the Best Practices Initiative. It is generally agreed that these personnel authorities have enhanced the ability of the Army laboratories to successfully discharge their mission of support to the warfighter.

Admiral CLARK. Our laboratory personnel demonstrations at the Naval Sea Systems Command Warfare Centers and the NRL are fully implemented and operating well. They will continue until such time as the DOD issues its final Federal Register notice for the DOD Best Practices Demonstration Project. Once this notice is published, the Best Practices Demonstration Project will supersede these Laboratory Demonstration Projects and both these demonstration projects and their employees will be converted to the Best Practices Demonstration Project. The conversion schedule is still to be determined.

If the Best Practices Demonstration Project is not implemented prior to October 1, 2008, the DOD NSPS may supersede the Laboratory Demonstration Projects at that time.

General HAGEE. The following is a partial excerpt of what Admiral Cohen approved: "Our current personnel demonstration projects at the Naval Sea Systems Command Warfare Centers and the NRL are fully implemented and operating well. They will continue until such time as the DOD issues its final Federal Register notice for the DOD Best Practices Demonstration Project. Once this notice is published, the Best Practices Demonstration Project will supersede these Laboratory Demonstration Projects and both these demonstration projects and their employees will be converted to the Best Practices Demonstration Project. The conversion schedule is still to be determined."

General JUMPER. At present, the Air Force Laboratory Demonstration Project, or Lab Demo, is currently ongoing and continues to provide the AFRL with flexibilities key to hiring critical S&E talent. These key flexibilities include a simplified classification system, broadband pay levels, and contribution-based compensation, all of which have been very successful and have ensured lab-unique requirements were accommodated. Once the recently authorized NSPS is implemented we anticipate it will also produce positive results in shaping our S&E workforce.

100. Senator REED. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, how have these demonstrations programs helped your laboratories fulfill their missions?

General SCHOOMAKER. The fundamental thesis of the Army's laboratory demonstration projects is to attract and retain a high-quality workforce to achieve quality Army laboratories and quality laboratory products. Army laboratories have been enhanced by providing individual laboratory directors/commanders greater managerial control over personnel functions and concurrently, expanding the opportunities available to employees through a more responsive and flexible laboratory personnel system unique to each laboratory, Specific demonstration project features which enhance the ability of the laboratory to attract high-quality employees include: (1)

market-based salary setting by managers (broad banding), (2) new appointment authorities (Distinguished Scholastic Achievement and quality grouping which has abolished the OPM's "Rule of Three"), (3) classification authority delegated to the laboratory director/commander, and (4) simplified classification which has transformed Army laboratories from antiquated classification-driven organizations to world-class performance-based laboratories, just to identify a few. Specific demonstration project features which enhance the ability of the laboratory to retain high-quality employees include: (1) compensation linked directly to employee performance which tracks straight to laboratory goals, (2) accelerated compensation for laboratory local interns, i.e., newly hired out of colleges/universities, (3) extraordinary performance recognition and compensation beyond that of the normal pay-for-performance processes, and (4) ability of the laboratory director to make a counter-offer (basic pay adjustment) as a result of a private sector employment offer to a mission-critical laboratory employee. The success of these demonstration features is illustrated by the fact that over the last 5 years, laboratories operating under provisions of personnel demonstration projects have been selected four out of five times as the Army's Research and Development Organization of the Year. These features, which mirror commercial practice, have further enabled the laboratories to become and remain competitive with their private sector counterparts.

Admiral CLARK. These demonstrations have helped personnel managers hire and retain highly skilled scientists, engineers and technicians, pay higher starting salaries as a recruitment tool, and reward high performing individuals. We believe that these tools will help us compete with the aggressive private sector jobs market for these highly skilled people.

General HAGEE. The following was what Admiral Cohen approved: "The ability to hire and retain highly skilled scientists, engineers and technicians is critical to effective execution of the tasks assigned to our laboratories and centers. The demonstration projects have had overall positive impact on laboratory effectiveness because management has the capability, flexibility, and authority to pay higher starting salaries as a recruitment tool and reward high performing individuals thus retaining more of their top performers. This is critical in these times of technical personnel shortages and an aggressive private sector jobs market for highly-skilled personnel."

General JUMPER. As mentioned, the flexibilities authorized by Congress under the laboratory personnel demonstrations projects have been very successful in enabling us to hire critical S&E talent for our workforce. This infusion of talent has helped to revitalize and bring new ideas into the S&E community, providing a larger talent pool from which to draw as we continue our transformation to a capabilities-focused Expeditionary Air and Space Force.

101. Senator REED. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, are there any other specific personnel authorities that your laboratory directors need to better accomplish their unique Service missions?

General SCHOOMAKER. The DOD laboratories have identified a number of specific personnel authorities which would certainly provide the opportunity to further enhance the Army's laboratories, to include: (1) an increase in the pay cap of difficult-to-recruit categories of DOD laboratory S&E to $200,000 (an authority provided to the National Institutes of Health); (2) an increase in the traditional 3R authorities (recruitment and relocation bonuses, and retention allowances) to 100 percent of basic pay, to permit retention allowance lump sum payments, and to permit the option of retention allowances as increases to basic pay, in order for the DOD S&T laboratories to attract and retain top quality S&E; (3) concurrently, to ensure a continuing flow of fresh new young S&E talent into the DOD laboratories by providing a financial incentive to older S&E to retire, an increase in the Voluntary Separation Incentive Pay to $50,000; (4) personnel services contracting to hire administrative and clerical labor, currently prohibited by Federal Acquisition Regulation 37–104, which would permit the laboratories to devote scarce in-house resources to the laboratory missions of research, development, and engineering support; and (5) restoration of the section 1113 authority from the National Defense Authorization Act for Fiscal Year 2001, which provides the "authority for the experimental personnel program for scientific and technical personnel" which terminates in October 2005. The full range of additional authorities for Army laboratory directors and commanders, requiring either new legislation or DOD policy revision, can be found in OSD, Research and Engineering, commissioned study titled "DOD Laboratory S&E Workforce Framework of HR Features for the Alternative Personnel System" published on September 30, 2002.

Admiral CLARK. There are two such authorities in the area of S&E candidate recruiting that would help to better accomplish our laboratory missions.

First, authorization of a Direct Appointment of National Research Council (NRC) and American Society for Engineering and Education (ASEE) Postdoctoral Fellowship Program Participants upon successful completion of their programs would eliminate a duplicative, second competitive action under current Federal Government Direct Hire or Delegated Examining Authority. This could streamline the recruitment process (reducing work hours by an estimated 24 hours per case), and reduce hiring time by 4 to 12 weeks.

Second, authorization of a Direct Appointment Authority for scientific, engineering, or medical occupations, to include an exemption from Title V hiring regulations, would provide true "on-the-spot" hiring authority. This authority would be applied only to those positions and occupations that meet the criteria of the OPM Research Grade Evaluation Guide or Part III or the OPM Equipment Development Grade Evaluation Guide and require specialized experience.

General HAGEE. Not all the labs and centers need exactly the same personnel authorities, as their staffing and recruiting challenges are often different. For example, some of the Navy's warfare/systems centers need to fill large numbers of entry-level positions every year, so the flexibility granted by their demonstration projects (categorical ranking and distinguished scholar) have been of benefit to them. In contrast, more than half of the hires made by the NRL are PhDs with specialized experience at the GS–12 level or above, so such open registers are of lower utility.

Below are two specific personnel authorities that would benefit some or all of the Navy labs and centers.

Recommendations to Improve Recruitment of S&E Candidates with Specialized Experience

(1) Authorize a Direct Appointment of NRC and ASEE Postdoctoral Fellowship Program Participants upon successful completion of their associateship programs. This proposal would allow the appointment of specially qualified NRC and ASEE participants upon completion of their associateship program. NRC and ASEE Participants compete through an extensive national recruitment effort and rigorous evaluation scheme to qualify for consideration. This competition is significantly more stringent than the competition required under the Direct Hire or Delegated Examining Hiring Authorities. This proposal, if accepted, would eliminate a duplicative, second competitive action under current Federal Government Direct Hire or Delegated Examining Authority, streamline the recruitment process (reducing work hours by 24 hours per case), and reduce hiring time by 4 to 12 weeks.

(2) Authorize a Direct Appointment Authority for scientific, engineering, or medical occupations. This proposal, which includes an exemption from Title V hiring regulations, would provide a true "on-the-spot" hiring authority for scientific and engineering research positions in professional scientific, engineering, or medical occupations that meet the criteria of the OPM Research Grade Evaluation Guide or Part III or the OPM Equipment Development Grade Evaluation Guide and require specialized experience.

General JUMPER. Previously mentioned flexibilities, such as a simplified classification system, broadband pay levels, and contribution-based compensation, have been very successful and have ensured lab-unique requirements were accommodated as we worked to hire critical S&E talent for our workforce. Once the recently authorized NSPS is implemented, we anticipate it will also produce positive results in shaping our S&E workforce. Until NSPS is fully implemented, it is too early to forecast if additional personnel authorities will be required to recruit and retain S&E talent for the laboratory.

REPAIR REQUIREMENTS

102. Senator REED. General Schoomaker, you say in your posture statement that the Army has determined repair requirements for all OIF I units, and that the resulting workload is "immense" and a "significant expansion of normal maintenance activities." You state further that Army readiness is directly dependent on the reset program, and that "continued resourcing will be needed" to ensure the Army's recovery from current operations. What is the total estimate for the Army's reset program, at present?

General SCHOOMAKER. The initial fiscal year 2004 cost estimate to reconstitute OIF and OEF equipment was based on experience from past operations, in-theater technical inspections, and emerging maintenance data emanating from current operations. The reset plan takes into consideration the full spectrum maintenance operations, from organizational level to depot. The estimate for fiscal year 2004 reset totals $5.2 billion: $2.9 billion for 10/20 and delayed desert damage, $1.5 billion for depot maintenance, and $.8 billion for Army prepositioned stocks, munitions, and

second destination charges. Estimates are for the fiscal year 2004 reset; we have not identified fiscal year 2005 reset cost requirements.

103. Senator REED. General Schoomaker, how much of this has already been funded by the fiscal year 2004 supplemental?

General SCHOOMAKER. The fiscal year 2004 emergency supplemental funded $1.2 billion in depot maintenance requirements and $2.0 billion in 10/20 level maintenance and delayed desert damage. Additionally, we received another $208 million for transportation to move equipment to the depots and to commercialize some in-theater communications capability. This was particularly important in that it permitted us to redeploy several of the Army's unique communications units who were approaching their 1-year mark for deployment. We also received $712 million in investment funds to purchase communications equipment, replacement stocks for our prepositioned equipment sets, and lethality and survivability equipment for both active and Reserve component soldiers.

104. Senator REED. General Schoomaker, how much is included in the fiscal year 2005 budget request?

General SCHOOMAKER. As I stated earlier, the fiscal year 2005 budget only addresses peacetime requirements. The Army staff is developing cost estimates for the repair of OIF 2 and OEF 4/5 equipment that will return from theater. At this point, it is too early to discuss those estimates with a high degree of confidence. I do know that the fiscal year 2005 budget request does contain $89.1 million to purchase lethality and survivability equipment for our troops.

105. Senator REED. General Schoomaker, how do you expect to fund the remainder?

General SCHOOMAKER. While we have not yet received guidance on the focus of an emergency supplemental for fiscal year, I would expect some of the reset requirements to be funded from that source. In addition to requirements for fiscal year 2005, there will still be outstanding requirements from fiscal year 2004, especially in the investment accounts. Reset requirements are incremental to normal peacetime operations and so far have been appropriate candidates for using supplemental funds. Reset is critical to future readiness. If funding for reset is not provided to the Army in a fiscal year 2005 supplemental, we will be forced to balance risk within the base budget to meet the requirement.

106. Senator REED. General Schoomaker, what is your current estimate of how much additional funding the Army would need from an fiscal year 2005 supplemental, at least for reset purposes?

General SCHOOMAKER. We have not yet received guidance from the OSD on what the focus of a fiscal year 2005 supplemental will be, but I have little reason to believe that resetting the force will be any less expensive than it will be for returning OIF I forces. Additionally, there will be some items we cannot get to in fiscal year 2004 for which the requirements will carry into fiscal year 2005.

UNIVERSITY RESEARCH PROGRAMS

107. Senator REED. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, what role do your investments in fundamental (6.1) research at small high-tech businesses and universities play in the fulfillment of your Service missions?

General SCHOOMAKER. The Army's basic research program produces new knowledge to fuel revolutionary advances and leap-ahead technology that enable Army Transformation. The program invests in world-class expertise (government, academic, and industry) and state-of-the-art equipment. It balances its investment between in-house Army unique research and leveraging external scientific research that has great potential for military applications.

The Army maintains an extramural basic research program that is balanced between its two major components: (1) the single investigator program that invests in the brightest minds at our leading universities and is a key source of next-generation of scientists and engineers with an understanding of military problems, and (2) larger scale partnerships with universities and industry to take advantage of commercial investments and the cutting edge research at outstanding universities in areas critical to the Future Force.

In regard to the second component, the external basic research program takes advantage of the power of academia and industry, focuses world-class research on

Army challenges, allows flexibility to capture new discoveries, trains the next generation of scientists and engineers critical to the advancement of Army technology, and complements internal efforts through the following centers:

- Collaborative Technology Alliances (CTAs) are industry-led 6.1 collaborations between the government, industry and academia, combining industry investment in areas critical to transformation while taking advantage of cutting edge research at universities, and the Army laboratories' understanding of military requirements to leverage state-of-the-art technology for military applications.
- University Affiliated Research Centers are university-led 6.1 and shared 6.2 collaborations between universities, industry, and Army laboratories where industrial partners provide competence in related technologies, expertise in transitioning technologies from laboratories to the industrial sector, and cost share.
- Centers of Excellence are university 6.1 research centers established by the Army, and provide partnering opportunities between academia and Industry through cooperative agreements, when there is a significant synergy between the Center and the production capabilities of industry, but only the university is funded.
- The Army's new Flexible Display Center is university-led, with strong industry participation and collaboration with Army laboratories but has 6.2, 6.3, and ManTech funding.

The Army also engages small businesses with S&T investments through the small business innovative research program; however, this involves applied research. The Army continues to exploit the opportunities created by these organizations to accelerate development of transformational capabilities to a lighter, smaller, smarter, and faster force.

Admiral CLARK. The 6.1 (S&T Account) investments that we have made, including those made in small, high-tech businesses and in universities, have assisted in the fulfillment of the Navy's mission in one of the most fundamental ways possible: they have laid the groundwork for our future. Much of the maturing technology being delivered today for incorporation into platforms, weapons, sensors, and process improvements are the result of long-term investments in research and invention programs in 6.1 and early 6.2 funding categories. These investments also serve to attract the Nation's best scientific talent, most of which resides in small, high-tech companies and in universities. This helps focus them on uniquely naval problems such as Ocean Acoustics and Underwater Weaponry that might otherwise receive little attention.

General HAGEE. The Marine Corps has no 6.1 funding. The Office of Naval Research (ONR) supports the 6.1 requirements for the Navy. However, the following was what Admiral Cohen approved "Yes, historically, The ONR's investment in basic research helps support the training of research S&E. The NRL receives a large share of the Navy's 6.1 investment (roughly $100 million annually). The Navy's warfare centers and medical labs share the ILIR program (about $15 million annually). These funds are used to help develop appropriately trained scientists and engineers in key disciplines.

In addition, ONR is working with the National Science Foundation (NSF) to start a $10 million pilot program, commencing in fiscal year 2005, that is focused on bringing into the Naval Research Enterprise the next generation of scientists and engineers. This program, called N–STAR, is focused on revitalizing connections between the Navy's research and development centers and the university community."

General JUMPER. Basic Research, or 6.1, plays a key role in the Air Force S&T program, laying the foundation for later Applied Research, or 6.2, and Advanced Technology Development, or 6.3, efforts. In fact, Air Force "core" Basic Research is funded at $217.3 million in the fiscal year 2005 President's budget—an increase of almost $13 million or almost 5 percent real growth, over the fiscal year 2004 President's budget. With approximately 70 percent of Air Force 6.1 funding going primarily to universities and some small high-tech companies, they play a fundamental role in helping to fulfill our Air Force mission.

PERSONNEL FOR COMMANDER JOINT TASK FORCE

108. Senator REED. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, I understand the decision has been made to establish a combined force headquarters in Iraq in between CJTF–7 and General Abizaid. I would like each of you to give me your military judgment about the need for an additional headquarters, as well as some estimate of how much each of your Services would

be expected to contribute and the impact of providing still more senior servicemen and women as headquarters personnel.

General SCHOOMAKER. The Army is fully supportive of the combatant commander's structuring headquarters to provide the required command and control, unity of command, and unity of effort in their area of operations. It is important to have a headquarters structured to meet these requirements as the Coalition Provisional Authority (CPA) conducts the transfer of authority in Iraq. This new headquarters will focus on coordinating the counterinsurgency campaign, civil-military operations, building Iraqi security and Armed Forces capabilities, and reconstruction efforts.

The planning for the combined force headquarters is ongoing; therefore, we do not have defined personnel requirements. It is anticipated that the new headquarters will be formed from existing headquarters, maximize the capabilities within those headquarters, and through efficiencies avoid large increased demand for additional senior soldiers.

Admiral CLARK. Senator, it is my understanding that this decision is not final. However, JFCOM has been directed to develop options and recommendations for replacing CJTF–7, the single joint headquarters currently responsible for all strategic, operational and tactical issues in Iraq, with a command structure that consists of two joint, combined headquarters: a multinational force headquarters that would tackle the strategic and politico-military issues in Iraq, and a subordinate warfighting headquarters that would focus on operational and tactical tasks.

In my view, such a structure would improve current CJTF–7 headquarters span of control challenges, enhance our effort to establish a secure and stable Iraq, and at the same time, permit General Abizaid to focus on integrating and commanding the larger war on terror and regional security efforts throughout all of CENTCOM. While the specific service manpower contribution is yet undefined, I expect to be able to address any manpower concerns as JFCOM's recommendation comes forward.

General HAGEE. As this question was generated in March 2004, it is overcome by events. CJTF–7 has become Multi-National Force Iraq (MNF–I). The Commander of the CENTCOM is the appropriate entity to answer the question on personnel and force requirements to support any combined force headquarters.

General JUMPER. Doctrine and our current command structure informs us as to what this new combined force headquarters should be, and that is the Joint Force Land Component Commander (JFLCC) and staff. The JFLCC is responsible for planning coordinating and executing all land component actions in the AOR. The Air Component, commanded by the JFACC, is prepared and primed to provide the required support to the JFLCC in this endeavor. In addition, we are prepared to provide an Air Component Coordinating Element (ACCE) in the JFLCC headquarters as we did during OIF to facilitate and synchronize our operations. We feel this is the "best practices" option and should be used in this situation, as it is the most efficient for managing limited air resources. However, we will support the combatant commander's proposed C2 structure to the best of our ability and our limited resources. We will provide a limited ACCE, but we will not be able to field a component headquarter for this new combined force headquarters, nor do we believe it is best to distribute air resources down to this new command.

BUDGET

109. Senator REED. General Schoomaker, Admiral Clark, General Hagee, and General Jumper, I understand that, at the current pace of operations in Iraq and Afghanistan, you may still be short as much as $5–10 billion beyond funds provided in the fiscal year 2004 supplemental. Is that true, and if so, how do you expect to address these shortfalls?

General SCHOOMAKER. Based on input from the field, we do have shortfalls. We are working to minimize these by asking our commanders to redouble their efforts to carefully review expenditures and reconcile supply requisitions to avoid duplication. As the field submits additional requirements, a group in the Army Staff, led by the Deputy Chief of Staff for Operations (G3), Lieutenant General Dick Cody, carefully reviews and validates them. Once requirements are validated, they are prioritized for available funding. To fund these critical, emerging priorities, we are reviewing all Army programs to determine if these new requirements are so compelling that we need to defer other planned expenditures to fund them. This is an ongoing process and it will undoubtedly continue through the remainder of the year. At mid-year, we will discuss shortfalls with OSD and we expect some relief. Right now, I believe we may need help in the range of about $3 billion for operations and main-

tenance-type requirements. Finally, we may have to come back with an omnibus reprogramming action to meet our most critical requirements.

Admiral CLARK. The fiscal year 2004 supplemental was predicated on a post-OIF pace of operations. For the Navy, this assumption has changed dramatically because of the decision to deploy a MEF and supporting Navy elements. Our current estimate is that the Navy will incur over $700 million in unplanned costs during fiscal year 2004 related to this OIF 2 deployment. This estimate is likely to change as we gain experience with the pace of operations and actual return costs. At this time, the DOD plans to realign the necessary funds, both from the amounts provided in the supplemental and the fiscal year 2004 appropriations act, to cover the increased costs of OIF 2.

General HAGEE. Our current shortfall estimate continues to evolve with recent deployments in support of OIF 2 and OEF 5. We intend to address these shortfalls with assistance from the Iraqi Freedom Fund (IFF) and internal reprogramming actions. The Marine Corps continues to work with the Under Secretary of Defense (Comptroller) to resolve the balance and address changing requirements as operating tempo and actual manpower fluctuate.

General JUMPER. The Air Force received $350 million less than requested for operations and maintenance (O&M) in the fiscal year 2004 supplemental. We have asked the DOD for $252 million from the IFF for O&M items such as airlift, combatant commander support, and our support to the Army. Provided our current O&M program is not reduced, we believe we can make it to the end of the year through prudent management. However, we will have to bypass and/or delay some items or activities we deem important, but not mission critical.

110. Senator REED. General Schoomaker, I believe that the Army is currently spending about $3.5 billion each month to support operations in Iraq and Afghanistan, and that, assuming OIF 2 develops as is currently projected (that is, no major force reductions beyond what is already anticipated), you would run through your "base budget" by as early as March 2004. What is your current estimate for how much the Army would need to support planned operations in Iraq in fiscal year 2005 and how soon do you need those funds?

General SCHOOMAKER. We are currently spending about $1 billion a month in military pay and an average of $2.5 billion a month in O&M to sustain operations in the global war on terrorism. These expenditures are incremental to our normal, peacetime operating costs. Our preliminary data for January indicates that we have a total year to date O&M expenditure, base program and global war on terrorism, of $19.4 billion. Our base O&M program for fiscal year 2004 is $25.5 billion. If we had been forced to conduct our current level of operations without having received the fiscal year 2004 supplemental early in the year, we would be in a position to "burn out" in March.

At this point, we have not received guidance from the OSD on what the parameters of a fiscal year 2005 supplemental will be. We would expect the parameters to include a cost of sustaining operations and we will develop cost estimates for resetting our returning units, but we do not know what the scope of the mission will be as we begin fiscal year 2005. If our fiscal year 2005 burn rate were similar to fiscal year 2004, we would exhaust our O&M base budget by mid-March 2005, and our military personnel, Army base budget by the end of May 2005.

111. Senator REED. General Schoomaker, how different would the impact be if you received those funds in October or November as opposed to March or April?

General SCHOOMAKER. We do not yet know the level of effort that will be required in fiscal year 2005. If we assume it will remain the same as what we are providing in fiscal year 2004, as you stated in your previous question, we would normally prefer to receive supplemental funding earlier in the year, rather than later. If forced to fund operations in support of global war on terrorism ahead of receiving a supplemental, we lose the flexibility to address critical emerging requirements and are forced to pay, in the short term, for current operations from our base appropriations. As an example, in our O&M program through end of January, a third into the fiscal year, we are 42 percent obligated overall. Without the supplemental, we would be about 76 percent obligated against our base O&M program. If we had not received the early supplemental, and with only a quarter of the base program left, we would be forced to defer nearly all spending beyond operations in the theater until supplemental funding is received.

[Whereupon, at 1:03 p.m., the committee adjourned.]

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2005

TUESDAY, MARCH 2, 2004

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

SERVICE SECRETARIES

The committee met, pursuant to notice, at 9:34 a.m. in room SH–216, Hart Senate Office Building, Senator John Warner (chairman) presiding.

Committee members present: Senators Warner, McCain, Inhofe, Collins, Chambliss, Cornyn, Levin, Akaka, and Ben Nelson.

Committee staff members present: Judith A. Ansley, staff director; and Leah C. Brewer, nominations and hearings clerk.

Majority staff members present: Brian R. Green, professional staff member; William C. Greenwalt, professional staff member; Ambrose R. Hock, professional staff member; Gregory T. Kiley, professional staff member; Thomas L. MacKenzie, professional staff member; Lucian L. Niemeyer, professional staff member; Diana G. Tabler, professional staff member; and Richard F. Walsh, counsel.

Minority staff members present: Richard D. DeBobes, Democratic staff director; Creighton Greene, professional staff member; Maren R. Leed, professional staff member; Gerald J. Leeling, minority counsel, Peter K. Levine, minority counsel; and Michael J. McCord, professional staff member.

Staff assistants present: Michael N. Berger, Andrew W. Florell, and Nicholas W. West.

Committee members' assistants present: Christopher J. Paul, assistant to Senator McCain; John A. Bonsell, assistant to Senator Inhofe; Jayson Roehl, assistant to Senator Allard; Arch Galloway II, assistant to Senator Sessions; James P. Dohoney, Jr. and Derek J. Maurer, assistants to Senator Collins; Clyde A. Taylor IV, assistant to Senator Chambliss; Meredith Moseley, assistant to Senator Graham; Russell J. Thomasson, assistant to Senator Cornyn; William K. Sutey, assistant to Senator Bill Nelson; Eric Pierce, assistant to Senator Ben Nelson; and Andrew Shapiro, assistant to Senator Clinton.

OPENING STATEMENT OF SENATOR JOHN WARNER, CHAIRMAN

Chairman WARNER. Good morning, everyone. We have a most unusual day before us. The Senate has, on the floor, a series of at least five to seven amendments. The votes start at 11:30, therefore we're going to try and get this hearing completed in 2 hours time; otherwise it would be a very considerable inconvenience to our distinguished witnesses.

So we welcome you with that cheerful news. I know how well you've prepared, and you have, each of you, a half-hour opening statement, ready for a barrage of questions. [Laughter.]

But I think, in this instance, Senator Levin and I will give short statements. We'll proceed, then, to receive hopefully somewhat abbreviated statements on your behalf, and then you'll just have to work with us as we have members coming and going through the course of the hearing.

We start this hearing this morning with news reports out of Baghdad which are quite disturbing. In our hearts and minds are the welfare of the men and women of the Armed Forces and a very large number of civilians, who are doing their very best to bring about a degree of democracy in that troubled part of the world. So the posture statements this morning relate, of course, to the President's defense budget, which, in itself, is subject to scrutiny here on Capitol Hill by a number of persons who have considered the overall fiscal situation facing the Nation. Acting Secretary Brownlee, Secretary England, and Secretary Roche, we welcome you.

We'll start by recognizing, again, the professionalism of the men and women of our Armed Forces, together with our coalition partners. They have been very successful in executing complex joint military operations around the world in the ongoing global war on terrorism. In Iraq and Afghanistan, our forces defeated brutal regimes quickly, with precision, and continue to provide stability and support as those nations move toward democracy. The men and women of the Armed Forces—active, Reserve, and National Guard—supported by civilian employees and contractors, have performed magnificently. This is proof of the training, equipment, and readiness that you have provided, their service, and their sacrifices, and the sacrifices of their family—we always must remember that—are deeply appreciated, most particularly by those who lost their lives and those who bear the wounds of this conflict and the conflicts, of course, in Afghanistan.

Military operations continue at a high tempo in Iraq and Afghanistan, the Balkans, and elsewhere around the world. At the same time, we must prepare now for the future, a future fraught with new threats and new challenges.

The President's budget request anticipates this uncertain future. That's why this Senator strongly supports the President's budget, at the level of $401.7 billion for defense. The budget continues the President's strong commitment to safeguard America, and sends a strong signal, to the world, of America's resolve.

Since our Nation was attacked on September 11, much has been asked of each of your respective Services. Over the past several years, we have seen hundreds of thousands of soldiers, sailors, air-

men, and marines deployed around the world, to fight the global war on terrorism, and to maintain our forward presence. At the same time, we have asked the services to transform to meet future threats. We're all aware of the hard choices you must make in your departments when deciding whether or not to trade a dollar of today's readiness to invest a dollar in modernizing for this challenging and uncertain future. I know each of you is looking for better, more efficient ways to use your limited resources, from developing new capabilities, to introducing new organizational structures, to better integrating the Guard and Reserve with the Active Force. The Army's modular brigades, the Navy's fleet response plan, and the Air Force's aerospace expeditionary force concept are but a few of the innovations and capabilities that we look forward to discussing with you today.

As Congress works its will on the President's budget request, we must be mindful of the potential problems. We are putting increased demands on our forces around the world, increased demands on their families, and increased demands on our Reserve and National Guard. We are fortunate, as a Nation, with a military that has responded to these demands with extraordinary commitment, but even the best military has its limits.

As we perform our annual budget review, we must, and we will, carefully analyze the effects of these challenges on our men and women in uniform, and their families. Congress will, I'm confident, make the investments needed to ensure we have the people, the capabilities, and the facilities necessary to meet these future threats.

There are many questions. To assist the committee, I hope each of you will address the following in your opening statements. Do we have enough people in your respective military departments, the right mix of people, and the capabilities in your departments to meet the threats of the foreseeable future? Are we doing all we can to ensure that our forces deployed overseas, both active and Reserve components, have the best possible equipment and support? Are the lessons learned from recent military operations being rapidly, real-time integrated within your departments and the operational forces? As we reposition forces to meet new global threats, do we have the facilities, the infrastructure, and the mobility that we will need? Are we doing everything we can to provide a safe, constructive environment for the patriotic young men and women who volunteer to serve our Nation? These are but a few of the issues we hope to explore with you today.

We have the best Armed Forces in the world. We don't say that boastfully. It's absolutely substantiated by fact. It can be sustained with smart investment, strong leadership, and the continued sacrifices of our individual soldiers, sailors, airmen, and marines, and their families. We will do our part by providing them the resources they need to successfully execute their missions in the cause of freedom, and to protect us here at home. I commend each of you. You've been in office now for some period of time, and I think you've done commendable performances in leadership of your respective departments.

So, Senator Levin?

STATEMENT OF SENATOR CARL LEVIN

Senator LEVIN. Thank you, Mr. Chairman. Let me join you in welcoming our witnesses and thanking them for their service to this Nation.

Our forces, as you indicate, Mr. Chairman, continue this year to be heavily engaged in ongoing operations, including a rotation of troops and equipment in and out of Iraq that has been said to be the largest since World War II. Nearly 120,000 troops will depart Iraq, to be replaced by nearly 110,000 others. The demand on the Active Force, particularly the Army, is so great that the proportion of Reserve component forces serving in Iraq will increase from the current 20 percent to nearly 40 percent of the total in this next rotation. Marine Corps units, which were withdrawn last summer, will be returning to Iraq in this rotation to replace some of the departing Army units. Those same Army units, after a very short rest, will be busy reorganizing, retraining, and refurbishing their equipment in preparation for a potential return to Iraq in a year's time.

It is reported that 11,000 U.S. troops operating in Eastern Afghanistan are coordinating offensive actions more closely with Pakistani forces operating in Western Pakistan in a renewed effort to go after the principal terrorist threat to our Nation. Additionally, almost 40,000 more U.S. troops stand their ground in Korea, confronting the undeniably-serious conventional and potential nuclear threats posed by the regime in North Korea. Thousands more serve in stability operations in the Balkans and the Sinai, and now, once again, in our own hemisphere, in Haiti.

So I join with you, Mr. Chairman and other members of this committee, in renewing our pledge to our military men and women, and to their families, that we will work to ensure that they continue to receive the best training and the best equipment that our Nation can provide, and that they and their families are appropriately compensated and supported as is befitting the service that they render to our Nation.

The President's defense budget request for $420 billion represents an estimate of the cost of the normal operations of the activities within the defense budget function for fiscal year 2005. However, the budget does not include any request to support the incremental costs that our military forces in fiscal year 2005 will incur in continuing operations in Iraq, Afghanistan, or Haiti. Administration officials have further said that they do not intend to seek any funds for a supplemental to pay for these incremental costs this calendar year. That is not a responsible way to support our troops, and it is not responsible budgeting. We should provide for those costs that we can reasonably predict that our forces will incur. We should not force our Armed Forces to rob from existing requirements to pay for these operations.

Congress provided an extra $65 billion to support operations in Iraq and Afghanistan during fiscal year 2004. It turns out that these funds will not even be sufficient to cover all the incremental costs of these operations until the end of the fiscal year. So we cannot count on any excess carryover funding to address these problems in fiscal year 2005 until a mid-year supplemental can be enacted.

At an earlier hearing before this committee, the Chiefs of Staff of the Army and Air Force, the Chief of Naval Operations (CNO), and the Commandant of the Marine Corps all expressed concerned about waiting until after the end of calendar year 2004 to submit a supplemental budget request. Hopefully, our service secretaries will tell us this morning whether they share the concerns of their service chiefs; and, if so, whether they are urging the Secretary of Defense and the President to seek such supplemental funding from Congress on an urgent and a timely basis.

The delay in requesting the supplemental is only part of the problem. Press reports indicate that administration officials plan on asking for $50 billion in supplemental funding for fiscal year 2005, but the requirement will likely be much higher. In fact, Army officials have indicated that the Army's requirement alone may equal or surpass that amount. The Army Chief of Staff testified that the Army is currently spending $3.7 billion a month in Iraq, and $900 million a month in Afghanistan. He has also testified that he received approval from the Department of Defense to temporarily increase Army end strength by 30,000 soldiers, an increase that he intends to pay through supplemental appropriations. That will potentially add an additional cost of nearly $4 billion a year.

One other point about supplementals. The current supplemental is probably insufficient to meet the current needs of the Armed Forces through September 30. Ongoing funding needs are apparently several billion dollars higher than that which the President requested from Congress and which we appropriated for the supplemental for this year. Consequently, the Army will have to find the funding in its regular budget this year to make up the sizeable difference.

This under-funding of supplemental requirements is already having an effect on the transformation effort. Recently, the Army decided to terminate its only new helicopter program, the Comanche. Although the Army leadership has said that the changing operational environment, coupled with the emerging ability of joint systems to provide the capability originally intended of Comanche were factors in that decision, it seems clear that funding constraints were of equal, if not greater, significance.

Meanwhile, the Army must still deal with significant unfunded requirements to complete armoring of trucks in Iraq and Afghanistan, and for the refurbishing of the heavily used equipment from those ongoing military operations.

Having terminated its future air-combat system, I would hate to see the Army forced to do the same to its ground future combat systems to meet requirements related to ongoing operations that may also go unfunded by future supplemental appropriations.

While perhaps not as extreme as the Army, the other services are facing similar challenges, as the leaders of those services have recently testified. We, in Congress, cannot allow those challenges to become problems through the neglect to address them on a timely basis.

So, Mr. Chairman, I, again, look forward to discussing these and other issues with our witnesses this morning.

Senator INHOFE [presiding]. Thank you, Senator Levin.

Without objection, some of you who weren't here during Senator Warner's opening statement, we will have votes at 11:30, and we're going to try to expedite this, so, if you don't mind, we won't have further opening statements, and we'll go right ahead into the opening statements of our secretaries.

We'll start with Secretary Brownlee.

Secretary Brownlee, let me mention, this morning we had an Army Caucus meeting. It was very well attended. General Schoomaker did an excellent job.

We'll recognize you now for your opening statement.

STATEMENT OF HON. LES BROWNLEE, ACTING SECRETARY OF THE ARMY

Secretary BROWNLEE. Thank you very much, Mr. Chairman.

Distinguished members of the committee, thank you for the opportunity to appear before you today, along with the Secretary of the Navy and the Secretary of the Air Force. When I appear before this distinguished committee with the wonderful public servants to my left, I have to admit, again, I feel much like a mule entered in the Kentucky Derby here, but I shall do my best.

I'm especially honored to have the opportunity to testify before this distinguished committee on the status of the Army. I have a prepared posture statement, and, with your permission, would like to submit that statement for the record.

Senator INHOFE. Without objection, all full statements will be a part of the record.

Secretary BROWNLEE. Let me begin by expressing my gratitude for your tremendous support for our soldiers, who are serving our country around the world, as well as to their families at home. This support comes from the members, as well as from your dedicated, professional, and personal staff. Your interest and involvement in the Army's activities has made a significant difference in our soldiers' welfare and their mission accomplishment. To the Members and staff of this distinguished committee, on behalf of the United States Army, thank you all.

I know that you're deeply interested in the great work our soldiers are doing, their training and morale, and how we are equipping them. In the last 9 months, I've visited our troops in Iraq three times, and those in Afghanistan twice, and traveled to our posts in Germany, South Korea, and here in the United States. I'm grateful to have the opportunity to share what I've learned with you.

As Senator Levin indicated, we have proposed to grow the Army, temporarily, by 30,000 soldiers over the next several years, using the authority in title 10, and to be paid for from supplemental appropriations. We will plan to use these resources to stand up at least ten new combat brigades over the next several years, and we ask for your support in that endeavor.

Many of you have asked me about measures we are taking to protect our forces in Iraq. I would like to address two in particular. First, the number of up-armored high-mobility multipurpose wheeled vehicles (HMMWVs) in the Central Command area of responsibility is now over 2,000, compared to about 500 last spring. You will recall that when General Schoomaker and I testified be-

fore this committee in November, we estimated then that we would be unable to satisfy the CJTF–7 requirement in Iraq of 3,000 up-armored HMMWVs until May 2005. The committee indicated that they found that unacceptable, as did we, and we have worked with the manufacturers to steadily increase production of these vehicles, and will continue to do so, going from 185 produced this month, up to 220 per month by May, which, with summary distribution, will enable us to produce the current Central Command Combined Forces Land Component Command (CENTCOM CFLCC) requirement of 4,149 vehicles by August 2004.

I've talked to the chief executive officers of these companies that build these up-armored HMMWVs, and visited their production lines. They are committed to and capable of increasing production rates to up to 450 per month to help us fill our requirements even faster. While this will require additional resources, I am working within my budget and with the Office of the Secretary of Defense (OSD) so that we can achieve this accelerated production level as quickly as possible.

Second, there has been concern about every soldier having the best-available protection against bullets and explosive fragments. To provide this protection, we increased the production of interceptor body armor last fall, and are currently producing and shipping 25,000 sets monthly to the theater of operation. There are now sufficient stocks of interceptor body armor (IBA) to equip every soldier and the Department of Defense (DOD) civilian in Iraq and Afghanistan, and we will fill our requirement for the remainder of the soldiers and DOD civilians in theater by the end of this month. In summary, we are producing enough interceptor body armor so all soldiers now rotating into theater will be issued a set of body armor either before they deploy into Iraq or immediately after arrival in Afghanistan.

Underlying everything we are doing and planning to do is the most important point I want to make here today. We are an army at war, serving a Nation at war.

Let me comment on a matter of grave importance to the senior leadership of the Army, sexual assaults on soldiers by fellow soldiers. Such attacks not only weaken unit cohesion and lessen combat power, they are wrong. They will not be overlooked, and they will not be tolerated. The Army is committed to identifying and holding accountable those who commit such actions, as well as committed to providing proper care for the victims of such attacks. We are dedicated to creating an environment and command climate where these young women feel free to report these incidents through multiple venues: the chain of command, medical channels, chaplains, as well as their peers. We will properly care for those who have been assaulted, and investigate and take appropriate action against those perpetrating these crimes. It is the right thing to do, and we are going to do it.

The Army provides relevant and ready campaign-quality land power to combatant commanders as a part of the joint force. To better do this, we are transforming the Army itself in response to lessons learned and experience gained by the Army's recent 2½ years with combat in the global war on terror, as well as the operational environments envisioned in the foreseeable future.

Last Monday, the Chief of Staff of the Army, General Pete Schoomaker, and I, announced the termination of the Comanche helicopter program as part of a major restructuring and revitalization of Army aviation. In lieu of completing development and procuring 121 Comanche helicopters in the fiscal year 2005 through fiscal year 2011 Future Years Defense Plan (FYDP), we will propose to reallocate these resources to procure almost 800 new aircraft for the active and the Reserve components. As a part of our total program over the FYDP, we will also enhance, upgrade, and modernize over 1,400 aircraft in our existing aviation fleet. This program to revitalize Army aviation reflects the changed operational environment, and will provide the modularity and flexibility we must have to achieve the joint and expeditionary capabilities that are so essential to the Army's role now and in the future.

Additionally, we are restructuring our Active and Reserve Forces to meet the challenges of the day, and to more effectively use the resources that Congress and the American people have entrusted to us. This is an ongoing process, and we will keep Congress fully informed.

The fiscal year 2005 President's budget we've submitted, when amended to reflect the termination of Comanche, represents a balanced consideration of both our current and long-term requirements, and provides our Army with the resources we need, excluding war-related costs.

The tempo of our current operations is high, and has human and material costs. We appreciate the assistance of Congress in addressing these issues as we work to restore our units and equipment to the high levels of readiness necessary to continue to meet our obligations to the Nation.

In all that the Army has accomplished, and in all that it will be called upon to do, the American soldier remains the single most important factor in our success. Today, our soldiers are present in over 120 countries around the world, representing the American people and American values with courage and compassion.

I want to express my appreciation for the service and the enormous sacrifices made by our soldiers, especially those who have given the last full measure—and their families—as we meet the challenges and risks posed by the war on terror. Our deepest thanks go to the members of our active and Reserve component units, as well as to the thousands of the Department of Army civilians who are also deployed overseas in harm's way. Regardless of where our soldiers serve, they perform as the professionals they are, with skill, courage, and dedication. They embody the values of our Army and our Nation, serving selflessly, and seeking only to do what must be done before returning home.

Despite remarkable successes, our fight is far from over. It will take time to win the war on terror. Our enemies are resolute, but hardline al Qaeda operatives in Iraq have already recognized that they cannot dislodge our forces by fear or intimidation. Our commitment to prevail in Iraq and elsewhere is unshakeable. I have seen the resolution in our soldiers' eyes, and heard the determination in their voices. We must do our part to ensure they have all they need to do the job we have set before them. When the Amer-

ican people and our leaders stand behind them, they can accomplish any task on earth.

We are transforming the Army while retaining the values critical to the Army's achievements of the past 228 years. The fiscal year 2004 defense legislation and supplemental appropriations have enabled the Army to do that which it has been asked to do. I look forward to discussing with you how the fiscal year 2005 budget request will permit us to continue meeting our obligations now and in the years to come.

Mr. Chairman, in closing, I would like to thank you and the members of this distinguished committee for your continuing support for the men and women in our Army, an army at war, and a full member of the joint team deployed and fighting terror around the world.

I appreciate this opportunity to appear before you today, and I look forward to answering your questions.

[The joint prepared statement of Secretary Brownlee and General Schoomaker follows:]

JOINT PREPARED STATEMENT BY HON. R.L. BROWNLEE AND GEN. PETER J. SCHOOMAKER

Our Nation is at war. The security of our homeland, the global war on terror, and sustained engagement around the world define today's complex and uncertain strategic environment. The future will be no less ambiguous.

We must prepare now to meet the challenges of tomorrow. Rather than focusing on a single, well-defined threat or a geographic region, we must develop a range of complementary and interdependent capabilities that will enable future Joint Force Commanders to dominate any adversary or situation. A capabilities-based approach to concept and force development, as articulated in the 2001 Quadrennial Defense Review, is the major focus of defense transformation.

Over the past year our Army has met the demands of the global war on terror, with more than 325,000 troops deployed around the world in over 120 countries. The Army was instrumental in the defeat of Saddam Hussein and the Taliban and the subsequent liberation of more than 46 million people from oppression and despair. The Army remains a central and critical participant in Operation Iraqi Freedom and Operation Enduring Freedom. Although these and other operations have stressed the force, our soldiers have responded magnificently.

Our Army's commitment to the Nation remains absolute. While we execute the global war on terror, our Army simultaneously continues its organizational and intellectual transformation to meet the challenges of the 21st Century. In support of the National Security Strategy and the National Military Strategy we are improving our warfighting readiness and ability to win decisively. We also remain dedicated to the well-being of our soldiers, their families, and our civilian workforce.

The United States Army is the most powerful land force on earth. With this power comes a great responsibility. American soldiers show by their daily actions that they understand this, and are fully worthy of the trust the American people have placed in them.

For 228 years the Army has never failed the Nation, and it never will.

R.L. BROWNLEE,
Acting Secretary of the Army.

PETER J. SCHOOMAKER,
General, U.S. Army, Chief of Staff.

PURPOSE OF THE POSTURE STATEMENT

The Army Posture Statement provides an overview of today's Army. Focusing on the soldier, the centerpiece of the force, it explains the current and future strategic environments that provide our mandate for transformation. Our core competencies and how we intend to meet our current demands and future challenges are outlined. It describes what we must become in order to provide more ready and relevant forces and capabilities to the Joint Team.

Our Nation at War

Our Nation, and our Army, are at war. It is a different kind of war, fought against a global terrorist network and not likely to end in the foreseeable future. In the days following the attacks on September 11, 2001, President Bush spoke candidly to the Nation. "These terrorists kill not merely to end lives, but to disrupt and end a way of life." He added: "The only way to defeat terrorism as a threat to our way of life is to stop it, eliminate it and destroy it where it grows."

Our Army exists to fight and win our Nation's wars. We are an integral member of the Joint Team committed to winning in fulfillment of our responsibilities to national security. We are fighting to preserve the American way of life and to safeguard the many freedoms our citizens enjoy. Our soldiers and their families have not forgotten the events of September 11, which launched us to action in Afghanistan and Iraq. They are reminded daily of the ongoing conflict through separation, concern for forward-deployed loved ones and, most regrettably, news of casualties. Our Army continues the mission and remains committed to defeating our enemy.

Our Army's Core Competencies

As our Army fights the current war and remains dedicated to transforming, we are focused on our two core competencies: (1) Training and equipping soldiers and growing leaders; (2) Providing relevant and ready land power to combatant commanders as part of the joint force.

Our Army must be an agile and capable force with a Joint and Expeditionary Mindset. This mindset is the lens through which we view our service. We must be mobile, strategically deployable and prepared for decisive operations whenever and wherever required. We must be lethal and fully interoperable with other components and our allies, as well as flexible, informed, proactive, responsive, and totally integrated into the joint, interagency, and multinational context. Our management and support processes must reflect and support these same characteristics.

Strategic Environment—Our Mandate for Transformation

At the end of the Cold War, the United States had no peer competitor. Our Army was much larger and was built around heavy, mechanized, and armored formations. Because America stood as the lone superpower during this time of global realignment, we were able to downsize our force structure. Today, the future is uncertain and presents many challenges. The emerging challenges manifest themselves as new adaptive threats, employing a mix of new and old technologies that necessitate changes to the ways in which the elements of our national power are applied.

The 21st century security environment is marked by new actors and a noteworthy proliferation of dangerous weapons, technologies and military capabilities. While threats from potentially hostile regional powers remain, increasingly non-state actors, operating autonomously or with state-sponsorship, also are able to endanger regional and global security. These forces—insurgents, paramilitaries, terrorists, narcotraffickers, and organized crime—are a growing concern. They often are networked and enabled by the same tools and information systems used by state actors. Our adversaries will rely more frequently on indirect and asymmetric methods, such as anti-access and area-denial strategies, unrestricted warfare and terrorism, to mitigate their relative disadvantage. The most dangerous of these threats are the development and proliferation of weapons of mass destruction (WMD)—including biological or chemical agents, or radiological "dirty bombs"—to attack the United States. This security environment requires that the Army have the capability to dominate throughout the spectrum of conflict and to plan for multiple future contingencies.

As a result of this adaptive enemy and our worldwide commitments, current organizations, systems and facilities are and will continue to be stressed. We now rely on our Reserve component to support our operations to a degree not seen since World War II. As of January 14, 2004, there were more than 164,000 Reserve component soldiers mobilized with over 139,000 of them serving overseas. The institutional Army is being asked to do more, applying lessons learned from current operations. These lessons are critical to our organizations and individual soldiers as they prepare for worldwide missions. Therefore, the current and future strategic environments require the Army to have the capability to dominate throughout the spectrum of conflict and to plan for multiple contingencies. These new security challenges, coupled with the current war on terrorism, require a different approach.

Army Focus Areas

Last summer, Army leaders identified immediate focus areas instrumental to adapting Army organizations and processes that will help us to better meet the Na-

tion's security requirements. All of our focus areas should be viewed in the context of our ongoing efforts to retain the campaign qualities of our Army while simultaneously developing a Joint and Expeditionary Mindset. Of these focus areas, a critical enabler is the redesign of our resource processes to be more flexible, responsive, and timely. Our goal is to be a better Army every day—better able to execute our core competencies as members of the Joint Team.

Adapting Resource and Acquisition Processes

The resource process is at the core of our Army's mission success. Our Nation faces a cunning and adaptive enemy, predictable only in his zeal and intent. We are just as cunning and our soldiers are constantly changing tactics and techniques in order to disrupt the enemy's plans. In the same way, our resource and acquisition processes must become more flexible, responsive, and timely in order to take immediate advantage of technological improvements and to sustain the quality of the force over time.

Resetting our Force

Quickly resetting our forces upon their redeployment from current operations is a strategic imperative. The reset program incorporates lessons learned from Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF), retrains essential tasks, adjusts pre-positioned stocks of equipment and ammunition, and brings unit equipment readiness back to standard. Units must recover quickly in order to provide the combatant commanders with land-power capabilities for future requirements. We will face challenges as we rotate troops from deployment to home station, while simultaneously maintaining vigilance and readiness.

Continued congressional support and adequate resources are needed to accomplish our reset tasks and to mitigate the risk we have incurred to our Current and Future Forces. The fiscal year 2004 defense legislation and supplemental appropriation delivered substantial assistance toward covering the cost of current operations and initiating the reset process. We fully appreciate the exceptional support members and their staffs have provided this year. But, the job is not complete. In fact, it has only just begun.

Mitigating Strategic Risk Through Increased Land Power Capability

Today our Army is executing operations in defense of the homeland (Operation Noble Eagle); stability and support operations in the Balkans (Stabilization Force/Kosovo Force); peacekeeping in the Sinai as part of the Multinational Force and Observers (MFO) and combat operations in Iraq and Afghanistan (Operation Enduring Freedom/Operation Iraqi Freedom). We are also forward stationed in Korea and elsewhere. Approximately two-thirds of our active and Reserve combat formations were deployed in fiscal year 2003 and will be deployed in fiscal year 2004.

These deployments, coupled with planned future rotation of units into OIF and OEF, the largest movement of Army troops since World War II, have highlighted already existing stress to our force. To mitigate risk, the Army is embarking on a series of initiatives. The first initiative is resetting forces returning from OIF and OEF to a standard higher than before their deployment. A second establishes force stabilization measures to reduce turbulence amongst soldiers, units, and their families. Third, the Army is internally rebalancing active and Reserve component forces to better posture our existing force structure to meet global commitments. Lastly, we are beginning to increase the number of available combat brigades through improved force management and modular reorganization. This increase allows the Army to improve strategic flexibility, sustain a predictable rotation cycle, and permits the Reserve component to reset.

To facilitate this end state, the Army will seek to maintain, or even to increase temporarily, its current level of manning. These measures, when resourced, will mitigate risk and ultimately provide increased capability to combatant commanders.

Conclusion

Our Nation is at war and our Army is at war; we remain ever relevant and ready to meet today's challenges. Yet there is much more to do. We are prioritizing wartime requirements, incorporating next-generation capabilities into current systems where appropriate, and preserving essential investments in the Future Force. We also are becoming more joint and expeditionary. We do not move forward alone, but as part of the Joint Team. We need the support of the American people and the U.S. Congress. With this backing, we'll continue to carry the fight to our enemies to provide security here at home.

CORE COMPETENCIES

Our Army has two core competencies, supported by a set of essential and enduring capabilities. These core competencies are: (1) training and equipping soldiers and growing leaders; and (2) providing relevant and ready land-power capability to the combatant commanders as part of the joint force. Additionally, our Army's senior leadership has established immediate focus areas and issued specific guidance for planning, preparation, and execution of actions aimed at rapidly effecting necessary transformation in support of these core competencies. See Addendum I (available at www.Army.mil) for more information on the Army's focus areas.

TRAIN AND EQUIP SOLDIERS AND GROW LEADERS

Our Army prepares every soldier to be a warrior. Our training replicates the stark realities of the battlefield in order to condition soldiers to react instinctively in combat. Such training is essential to building soldiers' confidence in themselves, their equipment, their leaders, and their fellow soldiers. Constant training in weaponry and field craft, and a continuous immersion in the warrior culture, give soldiers the skills they need to succeed on the battlefield. Mental and physical toughness are paramount to the development of the warrior ethos and apply to all soldiers from private to general. Every soldier is called upon to be a leader.

The Soldier

The American soldier remains the centerpiece of our combat systems and formations and is indispensable to the Joint Team. Adaptive, confident, and competent soldiers, infused with the Army's values and warrior culture, fight wars, and win the peace. As a warrior, every soldier must be prepared to engage the enemy in close combat; the modem battlefield has no safe areas. Our Army trains our soldiers to that standard, without regard to their specialty or unit. The soldier—fierce, disciplined, well-trained, well-led, and well-equipped ultimately represents and enables the capabilities our Army provides to the joint force and the Nation.

Our soldiers are bright, honest, dedicated, and totally committed to the mission. All share common values, a creed and a warrior ethos. Our Army defines selfless service as putting the welfare of our Nation, Army and subordinates before your own. Soldiers join the Army to serve. Most Americans do not fully realize the personal sacrifices these soldiers and their families endure. However, our soldiers know that they have done their part to secure our Nation's freedoms and to maintain the American way of life.

Our Soldiers' Creed captures the warrior ethos and outlines the professional attitudes and beliefs that characterize our American soldier. The warrior ethos is about the refusal to accept failure and the conviction that military service is much more than just another job. It defines who soldiers are and what soldiers do. It is linked to our long-standing Army values, and determination to do what is right and do it with pride.

Recruiting and Retaining a High-Quality Volunteer Force

All of our soldiers are warriors whose actions have strategic impact. Because we are at war and will be for the foreseeable future, we must recruit soldiers who have the warrior ethos already ingrained in their character, who seek to serve our Nation, and who will have the endurance and commitment to stay the course of the conflict. We must recruit and retain soldiers who are confident, adaptive, and competent to handle the full complexity of 21st century warfare.

We will continue to bring the highest quality soldier into the force. All newly enlisted soldiers are high school graduates (diploma or equivalent) and 24 percent have some college. These young Americans, who believe service to our Nation is paramount, make our success possible. They display a willingness to stand up and make a difference.

Our recruiting and retention efforts continue to be successful. The active Army met its recruiting and retention goals in fiscal year 2003. The Army National Guard exceeded its retention goals for fiscal year 2003 and simultaneously met its end strength objectives. The Army Reserve met its recruiting goals and all but one retention target in fiscal year 2003. Most importantly, all components sustained their end strength requirements.

We do not know yet the effect the high operational pace of recent months will have on our recruiting and retention in fiscal year 2004 and future years. We must carefully monitor recruiting and retention trends and adequately resource our successful recruiting and retention initiatives. Incentives such as the Enlistment Bonus Program, The Army College Fund, and the Loan Repayment Program, have successfully enabled the Army to execute precision recruiting in fiscal year 2003. Our Spe-

cial Forces Candidate "Off the Street" initiative continues to attract highly motivated and qualified warriors. Significantly, Selective Reenlistment Bonuses, such as the Present Duty Assignment Bonus and the Theater Selective Reenlistment Bonus, which are intended to enhance unit stability, have helped us realize our retention successes. For more information on recruiting, see Addendum C.

Civilian Component Enhances our Capabilities

Army civilians are an integral and vital part of our Army team. They are essential to the readiness of our Army at war and our ability to sustain operations. Our civilian employees share our Army values. They are smart, resourceful, and totally committed to supporting our soldiers and our Army to do whatever it takes to meet the challenges that come our way. These dedicated civilians perform critical, mission-essential duties in support of every functional facet of combat support and combat service support, both at home and abroad. Army civilians serve alongside soldiers to provide the critical skills necessary to sustain combat systems and weaponry. They work in 54 countries in more than 550 different occupations. In fiscal year 2003, nearly 2,000 Army civilians deployed to southwest Asia in support of Operation Iraqi Freedom, Operation Enduring Freedom, and the global war on terrorism (GWOT). They have the education, skills, and experience to accomplish the mission while ensuring continuity of operations for all commanders.

Realistic Training—Essential to Mission Success

Tough, realistic training ensures that our soldiers and units maintain readiness and relevance as critical members of the joint force. Our Army's combined-arms training strategy, including an appropriate mix of live, virtual, and constructive training, determines the resource requirements to maintain the combat readiness of our troops. We revised our training ammunition standards to allow Combat Support and Combat Service Support units to conduct live fire exercises under conditions similar to those they might encounter in combat.

The Army's tempo of operations (OPTEMPO) budget is among its top priorities. Our leadership is committed to fully executing the active and Reserve component ground and air OPTEMPO training strategies, which include actual miles driven and hours flown, as well as virtual miles associated with using simulators. The flying hour program is funded to achieve a historic execution level of live flying hours per aircrew per month. If units exceed the historic execution level, our Army will increase their funding. Thus far this year, OPTEMPO execution reports show units exceeding their programmed miles driven and hours flown. These are the units that are aggressively preparing for deployments to OIF and OEF, as well as the units who recently have returned and are preparing for future operations. Our combined arms training strategy is working and sustaining our warfighting readiness. We see the results every day in Afghanistan and Iraq.

Joint and Expeditionary

Our Army is the dominant ground component of the Joint Team and provides the Joint Force Commander a campaign quality force with unique and complementary capabilities. We are vital and indispensable members of the Joint Team first and are a Service second. We must remain aware that our Army always conducts operations—offensive, defensive, stability, and support—in a joint and expeditionary context. Acting in concert with air and naval power, decisive land power creates a synergy that produces a joint force with abilities far exceeding the sum of the individual service components. Our Army can: support civil authorities at home and abroad; provide expeditionary forces at the right time and the right place; reassure our allies and multinational partners; deter adversaries and, should deterrence fail, decisively defeat the enemy; and win the peace through post-conflict operations, in concert with interagency and multinational efforts. Our Army must continually examine the capabilities resident in and required by the joint force. We will concentrate our energies and resources on those attributes which our Army is best suited to provide to the joint force. Our Army will arrive on the battlefield as a campaign-quality force fulfilling the requirements of the Joint Force Commander—lethal, agile, mobile, strategically responsive, and fully interoperable with other components within the interagency and multinational context.

Train and Educate Army Members of the Joint Force

Our Army is taking action across a broad front to make jointness an integral part of our culture by including this concept in our education and training programs. We have always produced leaders with the right mix of unit experience, training, and education. As we look to the future, we know that, to meet our current and future leadership requirements and those of the joint force, we must redesign aspects of our Army's training and leader development programs to include lessons learned

from current operations. Our objectives are to increase our ability to think and act jointly and to provide our soldiers with the latest and most relevant techniques, procedures and equipment that will make them successful on the battlefield. Additionally, the changes acknowledge the current and projected pace of operations and deployments. As a result, we will be better prepared for the current and future strategic environments.

Maintaining a ready Current Force today and achieving a transformed Future Force tomorrow requires a shift in the way units train for joint operations. Our Army's Training Transformation Initiative (TTI), which supports the June 2003 Defense Department Training Transformation Implementation Plan, provides dynamic, capabilities-based training and mission rehearsal in a joint context.

Leader Development—Train for Certainty, Educate for Uncertainty

Leader development is an essential part of our Army's core competencies and the lifeblood of our profession. It is the deliberate, progressive and continuous process that develops our soldiers and civilians into competent, confident, self-aware, adaptive, and decisive leaders. They emerge prepared for the challenges of 21st century combined arms, joint, multinational, and interagency operations.

Army leaders at all levels bear responsibility for America's soldiers and accomplishing the mission, whatever it may be. The range of missions and their complexity continue to grow, presenting our leaders with even greater challenges than previously experienced. The evolving strategic environment, the gravity of our strategic responsibilities, and the broad range of tasks that the Army performs require us to review, and periodically to refocus, the way we educate, train and grow professional warfighters.

We have a training and leader development system that is unrivaled in the world. Our professional military education prepared our officers and noncommissioned officers to fight and win in Iraq and Afghanistan. We will continue to develop our leaders with the right mix of operational assignments and training and education opportunities that meet the current and future requirements of the Army and joint forces. Our leader training focuses on how to think, not what to think. We will maintain our investment in the future by sustaining the highest quality leader training and education for our Army.

Combat Training Centers (CTC)/Battle Command Training Program (BCTP)

The CTC program is a primary culture driver for our Army. Additionally, our CTCs are a primary enabler of, and full participant in, the Joint National Training Capability. The CTCs develop self-aware and adaptive leaders and soldiers and ready units for full spectrum, joint, interagency, and multinational operations. CTCs continuously integrate operational lessons learned into the training. Our Army enhances the training experience offered by our CTCs (National Training Center in California, Joint Readiness Training Center in Louisiana, Combat Maneuver Training Center in Germany and Battle Command Training Program based in Kansas) by increasing the focus on development of capabilities essential to joint operations. Leader training and development during CTC exercises hone the joint and expeditionary mindset and promote our Army's warrior culture.

PROVIDE RELEVANT AND READY LAND POWER CAPABILITIES TO THE COMBATANT COMMANDER AND THE JOINT TEAM

To meet global commitments across the full spectrum of military operations, our Army has mobilized more than 164,000 Reserve component soldiers. More than 325,000 American soldiers are serving overseas and more than 23,000 soldiers are supporting operations within the United States. This high operating tempo is no longer an exception. Sustained operations and deployments will be the norm for our Army forces supporting multiple and simultaneous shaping and stability operations around the globe. At the same time, we will continue to contribute to joint force execution of major combat operations, homeland security missions, and strategic deterrence.

Army Global Commitments

Our Army is engaged in more than 120 countries throughout the world. To highlight our Army's commitment, a review of the major warfighting formations of the active and Reserve component serves as a measurable benchmark. Over 24 of the Army's 33 active component brigade combat teams (BCTs), and 5 of our 15 Reserve component Enhanced Separate Brigades (ESB) were deployed in fiscal year 2003. This trend will continue in fiscal year 2004, with 26 of 33 active component BCTs and 6 of our 15 Reserve component ESB brigades projected for deployment.

The majority of these combat formations are deployed in the U.S. Central Command (CENTCOM) area of responsibility (AOR), effectively executing stability and support operations. More than 153,000 soldiers are supporting CENTCOM operations in Iraq, Afghanistan, Kuwait, and the Horn of Africa. We are currently in the middle of the largest movement of troops since WWII, as we rotate more than eight-and-a-half divisions and two ESBs to or from the theater. The approximate ratio of active to Reserve component forces today is currently 63 to 37 percent, respectively. Once our current rotation is complete, the ratio will change to approximately 54 to 46 percent, active to Reserve component. Since September 11, we have mobilized almost half of the Reserve component. They are trained, professional, and ready to execute any task.

Army support to other combatant commanders remains high. U.S. Northern Command's (NORTHCOM) Army component, U.S. Army Forces Command, provides more than 23,000 active and Reserve component soldiers for duty in the defense of our homeland. These troops are available for missions including Military Assistance to Civil Authorities (MACA), emergency preparedness, and antiterrorist operations. The Army Reserve provides to NORTHCOM significant voice and data connectivity necessary to execute real-time operations. U.S. European Command provides forces, such as V U.S. Corps, to CENTCOM; and to Stability Force (SFOR) and Kosovo Force (KFOR) in the Balkans. U.S. Pacific Command supports ongoing operations in the Philippines, as part of the global war on terrorism, in addition to maintaining more than 31,000 soldiers on the Korean Peninsula. U.S. Southern Command is fully engaged as the headquarters for 1,500 soldiers executing detainee operations at Guantanamo Bay, Cuba; has deployed 740 soldiers to Joint Task Force—Bravo at Soto Cano Airbase, Honduras; and is assisting the government of Colombia in its war on narcoterrorism. U.S. Special Operations Command's Army component provides professional, dedicated, and specially trained soldiers to each combatant commander. These soldiers, working closely with conventional forces, have been instrumental to our success in the global war on terrorism. In addition to Federal missions, our Army National Guard (ARNG) plays an important domestic role, routinely responding to State emergencies. In fiscal year 2003, there were 280 requests for emergency support, ranging from basic human needs to engineering support during natural disasters. Our ARNG has fielded 32 Weapons of Mass Destruction (WMD) Civil Support Teams (CST), which assist first responders in the event of an incident. Another 12 CSTs are due to be activated within 18 months. To date, these teams have responded to 74 different requests for support. Also, more than 8,000 ARNG soldiers have executed critical force protection duties at 148 Air Force installations in CONUS.

Resetting the Force

The extraordinary demands major combat and stability operations in Afghanistan and Iraq are placing on our equipment and personnel require that our Army quickly reset returning units for future national security needs. The reset program will incorporate lessons learned from OIF and OEF, retrain essential tasks, adjust prepositioned stocks of equipment and ammunition, and bring unit equipment readiness back to standard. The objective is to ensure our Army forces are ready to respond to near-term emerging threats and contingencies. However, reset cannot be viewed as a one-time event. Reset will continue to be key to our future readiness as our military executes our national security missions.

Through reset, all returning active duty and Army Reserve units will achieve a sufficient level of combat readiness within 6 to 8 months of their arrival at home station. The Army National Guard will take longer to achieve the desired level of readiness. The goal for these units is to reestablish pre-deployment readiness within 1 year. Our Army also will take advantage of reset as an opportunity to reorganize units into modular designs that are more responsive to regional combatant commanders' needs; that better employ joint capabilities; that reduce deployment time; and that fight as self-contained units in nonlinear, noncontiguous battlespaces. This effort began with the 3rd Infantry Division and will soon be expanded to include the 101st Airborne Division (Air Assault).

In addition to investing in new equipment to replace items that were destroyed or worn out during combat and stability operations, the reset program will repair major items used in OIF and OEF. Repair requirements have been determined for all OIF I units and the workload for this comprehensive effort is immense: about 1,000 aviation systems; 124,400 communications and electronics systems; 5,700 combat/tracked vehicles; 45,700 wheeled vehicles; 1,400 missile systems; 9 Patriot battalions; and approximately 232,200 items from various other systems. This effort represents a significant expansion of normal maintenance activities, requiring the

increased use of continental United States (CONUS) and outside the continental United States (OCONUS) based depot, installation and commercial repair facilities.

Reconfiguring existing Army prepositioned stocks for global coverage of potential missions is a major component of the reset process. The intent is for each stock to have sufficient combat power to meet the immediate threat, as well as enough materials to render relief in other contingencies.

Congressional support, in the form of supplemental appropriations, has been invaluable in beginning the reset effort. Our readiness depends directly on the successful execution of the reset program, and it will remain an ongoing priority for the foreseeable future. Continued resourcing will be needed to ensure that our Army can fight the current war and posture itself for future missions.

Transformation: Moving from the Current to the Future Force

The goals of Army transformation are to provide relevant and ready forces that are organized, trained and equipped for full-spectrum joint, interagency and multinational operations and to support Future Force development. Army transformation occurs within the larger context of changes to the entire U.S. military. To support our Army staff in the execution of transformation, the Army leadership directed the establishment of an Army Training and Doctrine Command (TRADOC) Futures Center, operational as of October 2003.

Our current force is organized, trained and equipped to conduct operations as part of the joint force. It provides the requisite decisive land power capabilities that the Joint Force Commander needs across the range of military operations: support to civil authorities at home and abroad; expeditionary forces; the ability to reassure friends, allies and multinational partners; dissuading and deterring adversaries; decisively defeating adversaries should deterrence fail; and winning the peace as part of an integrated, interagency, post-conflict effort. Our future force is the operational force the Army continuously seeks to become. Informed by national security and Department of Defense guidance, it is a strategically responsive, networked, precision capabilities-based maneuver force that is dominant across the range of military operations envisioned for the future global security environment.

As our Army develops the future force, it simultaneously is accelerating select future doctrine, organization, training, materiel, leadership, personnel, and facilities (DOTMLPF) capabilities into our current force. This process will be fundamental to our success in enhancing the relevance and readiness of our Army and prosecuting the global war on terrorism. Similarly, the operational experience of our current force directly informs the pursuit of future force capabilities.

Balancing Current and Future Readiness

Balancing risk between current and future readiness remains a critical part of our Army's transformation process and one that requires continual assessment to ensure that plans and programs are aligned with overall requirements. Without question, the issue of current operational readiness is our Army's highest priority. During the past several years, our Army made a conscious decision to accept a reasonable degree of risk to the readiness of our current force in order to permit investment in capabilities for our future force. This risk came in the form of reductions in and limitations to modernization and recapitalization programs. As part of the past four budget submissions, our Army made difficult choices to cancel and restructure programs, shifting resources to the development of transformational capabilities. Some of these investments have already produced results: for example, the new Stryker Brigade Combat Team formations now being fielded, the first of which is currently deployed on the battlefield in Iraq. Others are helping to develop emerging technologies and capabilities that will be applied to our force throughout the coming decade.

Besides the ongoing efforts related to equipping the current force, our Army also has begun other major initiatives that will improve our readiness and relevance in the future. These include an effort to realign active and Reserve component units and capabilities, in order to make our Army more readily deployable and available to Joint Force Commanders; home-basing and unit-focused stability, which will improve readiness and reduce personnel turbulence; and the reorganization of Army units into more modular and capability-based organizations.

While the previous decisions to accept reasonable risk in our current force were considered prudent at the time, the strategic and operational environment has significantly changed in light of the large-scale engagement of Army forces in Operation Iraqi Freedom and other expeditionary operations. Ever-changing demands on our force, coupled with our commitment to mitigating risk to our soldiers, have necessitated re-examination and transformation of our Army's resource process and business practices (see Addendum H at www.Army.mil).

Making the Resource Process More Responsive

The resource process is our Army's center of gravity. Without the right people, the proper equipment, top-notch installations, and adequate dollars to support all appropriately, our Army would not be able to fulfill its duty to our Nation.

In order to maintain our premier warfighting capability, Army resource processes must be flexible, dynamic, transparent, and responsive to both our requirements and those of the joint force. This is especially true in today's environment. We are at war against conventional and unconventional enemies, and simultaneously pursuing transformation. Our resource process must be transformed to allow us to keep pace with changes brought on by the enemy. Though we anticipate the battle against terrorism will last for years, possibly decades, we cannot program and budget in advance for that war. Our Army obviously cannot ignore our country's current security needs, yet it would be equally imprudent to deviate from the development and fielding of our Future Force. Balancing these requirements will be one of our toughest tasks.

The GWOT requires a host of radical paradigm shifts in the way we view the face and nature of our global operating environment, as well as in the way that we conduct operations. Responsible yet creative stewardship of our resources will remain absolutely necessary. Internal controls must be tightened and waste eliminated; outsourcing non-core functions is still an important option. Risk will continue to be a factor and our resourcing decisions must take this into account.

We must transform our resource processes and adjust our priorities to meet the challenge of the current strategic environment. Because we cannot mass-produce a volunteer Army, the retention of the right volunteer force is an imperative. This force is essential to the combat effectiveness of an increasingly complex and technologically sophisticated Army. We must refine and streamline the resource, acquisition, and fielding processes for equipment and supplies, as we cannot make up for lost time in a crisis.

Accelerated Acquisition and Fielding

We have adapted and continue to improve our acquisition and fielding processes. In 2002, as soldiers reported equipment shortages in Afghanistan and elsewhere, we implemented the Rapid Fielding Initiative (RFI) to ensure that all of our troops deploy with the latest available equipment. Equipment fielding schedules were revised to support unit rotation plans, and procurement and fielding cycles were radically compressed.

In coordination with field commanders and our soldiers, a list of more than 40 mission-essential items, including the Advanced Combat Helmet, close-combat optics, Global Positioning System receivers, soldier intercoms and hydration systems, was identified for rapid fielding. Laying the foundation for acquisition transformation, RFI already has equipped nine BCTs. In fiscal year 2004, RFI will upgrade a minimum of 18 BCTs and 8 ESBs, serving in OIF and OEF. Additionally, we are accelerating fielding of select future capabilities to our current force. These items include thermal weapon sights, enhanced night vision goggles, improved body armor, the Future Combat Rifle, and a new sniper rifle. Congressional support for regular budget and supplemental spending requests enables our Army to put this improved equipment in the hands of our soldiers.

With this support, our Army also has instituted a Rapid Equipping Force (REF) that works directly with operational commanders to find solutions to operational requirements. These solutions may be off-the-shelf or near-term developmental items that can be made quickly available. For example, the REF established a coordinated effort to supply U.S. forces with immediate solutions to counter improvised explosive device (IED) threats. Currently, IED teams are on location providing expertise and material solutions, to safeguard our soldiers. We are acting aggressively to improve the armor protection of our armored and light-skinned vehicles. Other recent examples of REF products are the Well-Cam and PackBots. The Well-Cam is a camera attached to an Ethernet cable and a laptop that enabled soldiers in Afghanistan to search wells for weapons caches. PackBots are operational robots used to clear caves, buildings, and compounds so soldiers are not unnecessarily put in harm's way.

RFI and REF provide timely support to our relevant and ready forces and to the combatant commanders, and facilitate Army transformation.

Balancing our Active and Reserve Component Force Structure

Currently, neither our active nor Reserve component is optimized for today's rapid deployability requirements. We will continue ongoing efforts to restructure our forces in order to mitigate stress; to align better with the current and projected security environments; and to offer campaign-quality land power capabilities to the

combatant commanders. By doing so, we will ensure that our Army provides the responsiveness and depth required to achieve strategic and operational objectives, while simultaneously defending our homeland.

Our Army is restructuring and rebalancing more than 100,000 positions in our active and Reserve component force structure. These conversions increase the active component capabilities available to support the first 30 days of a rapid response operation. In response to Secretary of Defense guidance, we have already completed approximately 10,000 positions. For example, the ARNG provisionally organized 18 additional military police (MP) companies. Between fiscal year 2004 and fiscal year 2009, our Army will divest approximately 19,500 positions of less frequently used active and Reserve component force structure to further resource critical high demand units such as military police, civil affairs, and Special Operations Forces. We project that future rebalancing efforts will convert an additional 80,000 positions of lower-priority force structure. Despite these changes, our Army will remain stressed to meet anticipated requirements. To ensure that our Army can fulfill its commitment to our Nation, we should have the force capability level required to facilitate rebalancing, resetting, restructuring, and transforming of the Army.

Military-to-civilian conversions are another way to improve manpower efficiency. More military personnel will fill the operational force if they are moved out of positions that can be prudently performed by civilians. To improve the Army's ability to better support worldwide commitments, it is essential to start this process now.

Our Reserve component relies heavily on full-time support (FTS) personnel to sustain support of current contingencies while restructuring the force. FTS personnel perform the vital, day-to-day organizational, administrative, training and maintenance activities that ensure the highest level of soldier and unit readiness. To guarantee that our Army's Reserve component will continue to fulfill ever-increasing demands with trained and ready units, our Army plans to raise FTS authorizations by 15 percent, from the current level of 71,928 to 85,840, by fiscal year 2012. In 2003, the Army Reserve began implementation of the Federal Reserve Restructuring Initiative. The goal is to better meet contingency requirements and to improve unit readiness.

Achieving Greater Combat Capability with Modular, Capabilities-Based Unit Designs

Modular units are interchangeable, scalable, and tailorable formations, which provide the Joint Force Commander with a strategically responsive force that greatly increases his ability to defeat any adversary. Modularity enables us to tailor our capabilities to the requirements of the situation and delivered at the right time and the right place. Modularity permits the combatant commander to optimize his warfighting tool set.

Moving toward independent, echelon-above-brigade headquarters will enhance modularity. In accordance with our unit of employment (UE) construct, a UE will provide the command-and-control structure into which modular, capabilities-based units of action (UA) are organized to meet combatant commander requirements. These UAs will incorporate essential maintenance, intelligence, and communications functions previously provided by higher-level organizations. Our UE headquarters, while able to accept joint capabilities such as a standing joint force headquarters element, will have an organic capability, depending on the contingency, to function as a joint task force or joint force land component command headquarters like we have already done in Afghanistan and Iraq.

Force Stabilization

The great demands placed on our Army have forced us to re-examine many of our long-standing personnel and basing practices. As a result, our Army is transitioning to an improved manning system, designed to augment unit readiness by increasing stability and predictability for commanders, soldiers, and families. Force Stabilization will allow Reserve component soldiers to plan for their deployments while supporting their civilian jobs and their community commitments. It places greater emphasis on building and sustaining cohesive, deployable, combat-ready forces for combatant commanders.

The home-basing initiative keeps our soldiers in their assignments at specific installations longer, thus reducing unit turbulence and increasing unit cohesion. Unit focused stability synchronizes our soldiers' assignments to their units' operational cycle, providing a more capable, deployable, and prepared unit.

Installations as Our Flagships

Our installations are an essential component in maintaining the premier Army in the world. For the warfighter, installations are the platforms from which we project military power. Our installations perform the following key missions: (1) pro-

vide effective training facilities; (2) rapidly mobilize and deploy the force; (3) provide reachback capabilities; (4) sustain and reconstitute the force; and (5) care for our families. As power projection platforms, our installations must be equipped with a robust information infrastructure that gives the deployed commander quick and efficient reach-back capabilities. All of these missions help to maintain our Army's deploy ability and fighting edge.

Historically, we have accepted risk in our infrastructure and installation services in order to maintain our current readiness. The cumulative effect on our installations is that commanders rate more than 50 percent of our facilities as "adversely affecting mission and training requirements." We have adjusted our management processes to be more effective stewards of our resources. In 2002, we established the Installation Management Agency (IMA) to create a corporate-focused structure that provides efficient installation management worldwide. The IMA uses creative management programs to sustain quality installations and maintain the well-being of the entire Army family.

The Installation Information Infrastructure Modernization Program (I3MP) enhances the installation's role in power projection and provides the architecture to address the essential reach-back requirement. Additionally, our Installation Sustainability Plan addresses ways to fulfill environmental requirements without impacting current or future training. Other important progress include modernization of barracks and housing; a Residential Communities Initiative; and divestiture of redundant facilities infrastructure and non-core utility systems through privatization.

In the past few years, the administration and Congress have helped us to begin addressing our infrastructure challenges. We requested 94 percent of funding required for sustainment of our installations in fiscal year 2004. We have made progress in improving our installations by adjusting existing programs and developing new management strategies. However, there is much still left to do in order to upgrade our installations to better support the mission, soldiers, and our families.

Army Families and Well Being

People are the heart and soul of the Army—soldiers, civilians, family members, and retirees. Our readiness is inextricably linked to the well being of our people. The Army family, for both the active and Reserve component, is a force multiplier and provides the foundation to sustain our warrior culture. We have placed significant emphasis on our Reserve component this year in recognition of their contributions to the global war on terrorism. With the help of the administration and Congress, many improvements have been made including the retention and increase of Imminent Danger Pay, Family Separation Allowance, and a sizable pay raise. Other key well-being initiatives include the Spousal Employment Partnership, new TRICARE policies for the Reserve components, and improvements in barracks and family housing. For more information on other Army well-being initiatives, see Addendum D (available at www.Army.mil)

Introducing New Capabilities into Current Force

While at war, the urgency to accelerate the development and fielding of new and enhanced capabilities to our fighting forces in the field has never been greater. Our Army is making significant strides in this regard with the employment of a new brigade combat team organization, equipped with the latest available technology, to provide the combatant commander with enhanced warfighting capabilities. The rapid fielding of the Stryker vehicle demonstrates our Army's ability to use the acquisition and resource processes to meet a combatant commander's urgent needs.

Stryker Brigade Combat Team (SBCT)

In 2003, our Army deployed our first SBCT, the 3rd Brigade, 2nd Infantry Division, to Operation Iraqi Freedom, delivering its enhanced capability to the joint force in record time: 4 years from broad concept to deployment. Exceptional support from Congress and the Office of the Secretary of Defense, along with close collaboration between the Army and industry, made this achievement possible.

Stryker brigades are our Army's first truly network-centric force, filling the capability gap between light- and heavy-force units with infantry-rich, mobile force that is strategically responsive, tactically agile, and more lethal. Improved battlespace awareness and battle-command technologies embedded in our SBCTs enhance combat effectiveness and survivability by integrating data from manned and unmanned air and ground-based sensors and providing real-time, continuous situational understanding. Planned enhancements will incorporate still-developing technologies. Significantly, our SBCTs will improve our Army's understanding of future force processes, helping us to formulate an advanced warfighting doctrine that will serve as an important bridge to the development of our unit of action, the structural foundation of our future force.

This spring, our second SECT at Fort Lewis, Washington, will become operational. Our third SECT, in Alaska, will be available in 2005. Continued OSD and congressional support will ensure that subsequent brigades in Hawaii, Louisiana, and Pennsylvania, are fielded between 2004 and 2008.

Future Capabilities

Our Army plans to field a number of systems this decade that will provide a foundation for informing the transformation of our current force capabilities into those needed by our future force. Once fielded, these systems will perform as interdependent systems of systems and will greatly enhance joint warfighting capabilities. Our future capabilities programs are designed to enhance the campaign-quality landpower capabilities that we provide to the combatant commanders. Our programs undergo continuous reviews to ensure they meet the capability requirements of the joint force. When required, we restructure programs, revise requirements and reprogram resources. The following are just a few of the key transformational systems our Army will begin to field during the next 6 years:

The Network. Our future force situational dominance will depend upon a comprehensive, ubiquitous, and joint-interoperable command, control, communications, computers, intelligence, surveillance, and reconnaissance (C^4ISR) architecture (the Network) that enables the Joint Force Commander to conduct fully interdependent and network-centric warfare. The network will provide the backbone of our future force and the future joint force, enabling the maneuver commander to effectively coordinate battlefield effects. Some of the more important systems within our network include:

- Warfighter Information Network—Tactical (WIN–T). WIN–T will be the communications network of our future force, optimized for offensive and joint operations, while providing the combatant commander the capability to perform multiple missions simultaneously.
- Joint Tactical Radio System (JTRS). JTRS is a family of common, software-defined, programmable radios that will become our Army's primary tactical radio for mobile communications.
- Distributed Common Ground System—Army (DCGS–A). DCGS–A is a single, integrated, ground-based, ISR processing system composed of joint, common hardware and software components and is part of the DOD DCGS family of systems.
- Aerial Common Sensor (ACS). This ISR system and platform will use robust sensor-to-shooter and reach links, (such as DCGS–A ground stations), to provide commanders at every echelon the tailored, multi-sensor intelligence required for joint operations.

Future Combat Systems (FCS). By extending the network capabilities into the unit of action, the FCS provide a system of systems capability that was not previously available to soldiers and commanders in joint operations. The core of our future force's maneuver unit of action is the Future Combat Systems, comprised of 18 manned and unmanned platforms that are centered around the soldier and integrated within a C^4ISR network. FCS will provide our soldiers greatly enhanced situational awareness, enabling them to see first, understand first, act first, and finish decisively. Our FCS platforms will offer the joint force networked, lethal direct fire; indirect fire; air defense; complementary non-lethal fires and effects; and troop transport capability. In May 2003, FCS moved, on schedule, into the system development and demonstration phase. Our Army is aggressively managing our FCS development effort and intends to achieve initial operational capability by the end of the decade.

Army Science and Technology

The Army Science and Technology (S&T) program provides our Army superiority in both human and materiel systems arenas—preventing technological surprise. The Army S&T program retains a dynamic portfolio of investments that are responsive to warfighter needs today and into the future. The priority for Army S&T is to pursue paradigm-shifting technologies that can alter the nature of the military competition to our advantage in the future and, where feasible, to exploit opportunities to accelerate the transition of proven technologies to our current force.

The Army S&T program exploits technology developments from the other services, defense agencies, and commercial industry as well as international communities. The S&T program focuses on technology relevant to our Army and joint capabilities. It synchronizes operational concepts development and acquisition programs through transformational business practices that speed technology fielding to the soldier. The Army's S&T program is balanced to satisfy the high payoff needs of the future force while seeking rapid transitions for critical capabilities to our current force.

Joint Operational Concepts (JOpsC)

The joint force has transitioned from independent, de-conflicted operations to sustained interoperability. It must now shift rapidly to joint interdependence. To that end, we are reviewing training requirements, traditional relationships and developmental and institutional programs. This process includes ensuring that our operational concepts are nested inside those employed by the joint force. The concepts and initiatives listed below discuss particular Army emphasis areas; these areas are not all-inclusive. Functional concepts and other Army initiatives that support the JOpsC are discussed in detail in Addendum J (available at www.Army.mil).

Actionable Intelligence

Our Army also is focused on attaining actionable intelligence—intelligence that provides situational understanding to commanders and soldiers with the speed, accuracy, and confidence necessary to influence favorably current and future operations. Actionable intelligence achieves its intended purpose of empowering greater individual initiative and self-synchronization among tactical units by fusing information across organizations and echelons—accelerating the speed of decisionmaking and the agility of operations.

Focused Logistics

Our Army's current actions around the world in support of the global war on terrorism present a view of future military operations and provide valuable insights as we transform our logistics systems from the current to the future force. The successes enjoyed during OIF were the result of the integrated logistics team of soldiers, civilians, and contractors, all of who developed innovative solutions to a range of challenges caused by four major capability gaps in the current logistics system. To sustain combat power, our Army must have the ability to "see the requirements" on-demand through a logistics data network. We require a responsive distribution system, enabled by in-transit and total-asset visibility and managed by a single owner who has positive end-to-end control in the theater. Our Army needs a robust, modular, force-reception capability—a dedicated and trained organization able to quickly open a theater and support continuous sustainment throughout the joint operations area. Lastly, we need an integrated supply chain that has a single proponent, who can reach across the breadth and depth of resources in a joint, interagency, and multinational theater. As we move from the current force to the future force, we will build confidence in the minds of the combatant commanders by delivering sustainment on time, every time.

A COMMITMENT TO OUR NATION

Our Nation and our Army are engaged in a global war on terrorism—a war of survival against an insidious and cruel enemy that threatens our civilization and our way of life. This enemy is actively targeting the interests of America and our allies, both within our own country and abroad.

Defeating this enemy require the continued, strong support of our Nation. The steadfastness of our Nation in this effort is readily apparent. Ordinary Americans are doing their part and will continue to do so. Congressional support for our troops has been critical to our success. The industrial base also has responded, accelerating production of items essential to our soldiers' protection and warfighting ability.

Our Army, too, remains committed to its heritage of preserving freedom. American soldiers display unrelenting tenacity, steadfast purpose, quiet confidence, and selfless heroism. For America to survive and flourish throughout the 21st century, our Army must defeat decisively the threats that challenge us today. To accomplish this essential task, we must recognize some important truths.

- The fight against terror will be a long one
- Our Army must simultaneously deter aggression, defeat the forces of international terrorism, and maintain our campaign qualities
- We must continue to modernize to meet the challenges of our future
- Our operational tempo is high and will remain so
- Sustained operations and deployments will be the norm for our soldiers—NOT the exception
- Old rules and operational methods may no longer apply; we will not achieve victory with a business-as-usual approach

Congressional backing for reset, our continued transformation to the future force, our rebalancing and restructuring of the active and Reserve component, and improvements to our installation infrastructure is essential to continued mission readiness. We fully appreciate the exceptional support members and their staffs provided

this past year. The support of the American people and their elected representatives in the United States Congress is essential.

Our Army's commitment to the future is certain. We will continue to provide our Nation, the President, the Secretary of Defense, and the combatant commanders a unique set of core competencies and capabilities. We remain dedicated to training and equipping our soldiers and growing leaders. We will continue to deliver relevant and ready land power to the combatant commanders and the joint force. We will protect our country and our way of life as we have for 228 years. It is our privilege, our duty, and our honor to do so.

Senator INHOFE. Thank you, Secretary Brownlee, for an excellent opening statement.

Secretary England.

STATEMENT OF HON. GORDON R. ENGLAND, SECRETARY OF THE NAVY

Secretary ENGLAND. Senator, thank you very much. I know time is short, so I'll keep my remarks also very short.

First, I do want to thank the committee for confirming me the second time and allowing me to come back to have this great privilege and honor, of course to appear before this committee, but to serve our men and women in uniform, our sailors and marines. They are absolutely magnificent. I am convinced this is the finest naval force the world has ever seen, and I thank this committee for your great support, because without your support we would not have the ability that we have to defend freedom and liberty that we all so cherish in this country. So I thank you.

I am pleased to report that the naval forces we are deploying today and that we plan to deploy for the future, which is contained in our fiscal year 2005 budget request, are vastly different, and they're also vastly better than what I reported during my first committee discussion here about 2 years ago. I can tell you that naval transformation is well underway. It is reflected in our budget, and it is crucially important as we move forward into the future. So I would appreciate your support.

I do want you to know that the Chief of Naval Operations (CNO), the Commandant, and myself are committed to being very effective and also very efficient. So you will see, in this budget, a continuation of the past 2 years, where we have continued to move money from what I call the "back end of the business" into our weapon systems. We continue to be more effective. We work very hard to be good stewards of our citizens' money, and we continue that, and you will see that reflected in the 2005 budget.

I do want to comment that people are, indeed, our most important asset. While we have a lot of requests in the budget, in terms of weapon systems, people are our most important asset. We are a strong, well-trained, and highly-motivated combat-ready force. I would like you to know that retention across the Department of the Navy is at record levels. So we are retaining our people, they want to serve in our naval forces, they want to serve our country, and our recruiting continues to be robust. We have the very best people, our morale is very high, and they are pleased to deploy, and defend and protect this great Nation.

As I sit here today, the naval forces continue to demonstrate their value to our Nation. We are today redeploying our marines to Iraq, also our naval forces, as part of Operation Iraqi Freedom

II. Of course, with what's happened in the last few days, our Marine Forces are now also in Haiti. The Navy-Marine Corps team is a force in readiness. We are prepared, at any time, to support our Nation, whenever, wherever.

So ladies and gentlemen of this very important committee, I, again, thank you for the opportunity to be here. I thank you earnestly for the opportunity to again serve my Nation as the Secretary of the Navy. Our sailors, our marines, and their families are proud to serve this Nation, and I am privileged and proud to serve them. I'm also privileged and proud to serve with the other secretaries here today, and specifically with our great CNO and our magnificent commandant.

So it's a pleasure being with you today. Thank you for your support, and I do look forward to your questions and discussion.

Thank you very much.

[The prepared statement of Secretary England follows:]

PREPARED STATEMENT BY HON. GORDON R. ENGLAND

VALUE TO OUR NATION—THE NAVY/MARINE CORPS TEAM

I. Introduction

During my last appearance before this committee in February 2002 and as reported in that statement, the Navy and Marine Corps contributions in the "War Against Terrorism" have been significant and important in the overall success of U.S. military forces. This continues to hold true today. Our Navy and Marine Corps team projects decisive, persistent, joint power across the globe, in continuing to prosecute the war on terrorism.

Projecting power and influence from the sea is the enduring and unique contribution of the Navy and Marine Corps to national security. Operation Iraqi Freedom (OIF) demonstrated the strategic agility and operational flexibility that forward deployed naval expeditionary forces provide. This committee's support has been vital for the Navy and Marine Corps team to exploit the access afforded by the seas and to respond to the full spectrum of contingencies. Congressional support has led to increased readiness which was proven in OIF, where dispersed military forces networked together fought as a single, highly coordinated joint team.

Naval warfare will continue its progression to operate in a joint environment in responding to new threats and to the increased asymmetric capabilities of our enemies. We will be bold and continue to develop new capabilities and concepts, and fund them in quantities that are relevant to tomorrow's emerging threats. We have embraced transformation. We are addressing the challenge to operationalize our vision, Naval Power 21, with technological, organizational, and doctrinal transformation.

The following statement highlights key elements of the fiscal year 2005 President's budget applicable to the Department of the Navy (DON) within the balanced scorecard approach of managing operational, institutional, force management, and future challenges risks.

II. Fiscal Year 2005 Budget Priorities—Underway with Naval Power 21.

The fiscal year 2005 Department of the Navy budget fulfills our essential warfighting requirements. We are resourced to fight and win our Nation's wars and our number one priority, the war against terrorism, is reflected across each allocation. Additionally, we continue to invest in future technologies and capabilities that are part of a broader joint warfighting perspective. The Navy and Marine Corps are continuously working with other Services to draw on the capabilities of each Service, to eliminate redundancy in acquisition, and create higher levels of military effectiveness. A prime example is our agreement with the Department of the Air Force to merge our two Joint Tactical Radio System (JTRS) programs into a single program that will produce a common family of radios for use aboard our ships, submarines, and aircraft. The following summarizes the fiscal year 2005 budget request priorities for the Department of the Navy:

Personnel Salary and Benefits

Smart, motivated, and capable people are a key element to any successful transformation effort. Our Navy and Marine Corps are increasingly a technologically ad-

vanced maritime force and we are in competition with the private sector to attract and retain the best men and women we can find. Accordingly, our budget includes a 3.5 percent basic pay raise for all military personnel. Additionally, housing allowances have been increased to buy down out-of-pocket housing expenses for our military personnel. Concurrent with this commitment to provide an appropriate level of pay and benefits to our sailors, marines, and their families is a responsibility to operate this Department as efficiently and effectively as possible. While we want the best people we can get to serve in the Navy and Marine Corps, we don't want a single person more than we need to properly operate the force. Job satisfaction comes not only just from compensation, but also from meaningful service—we owe it to our people to ensure that they are given duties and equipment appropriate to a volunteer force.

Operations and Maintenance

The operations and maintenance accounts are funded with over a $2 billion increase. The present environment requires naval forces to be both forward deployed and capable of surging when called. This account will help develop the transformational Fleet Response Plan (FRP). This is the means to institutionalize the capability to maintain a more responsive force that is ready to surge, more efficient to maintain, and able to reconstitute rapidly.

Shipbuilding Account

The Department's shipbuilding plan supports our transformational vision and increases the number of new construction ships from seven in fiscal year 2004 to nine in fiscal year 2005 plus one SSBN Engineered Refueling Overhaul (ERO). Initial LCS and DD(X) platforms are funded from the RDT&E account. Additionally, the Navy's fiscal year 2005 spending plan completes the purchases of the last 3 DDG–51 class ships for a total of 62 ships.

Aviation Account

The Department's fiscal year 2005 budget request is structured to maintain the continued aviation superiority of the Navy and Marine Corps. The naval aircraft procurement plan emphasizes replacing costly stand-alone legacy platforms with more efficient and capable integrated systems. The number of aircraft requested increases from 99 in fiscal year 2004 to 104 in fiscal year 2005 which includes 5 VXX helicopters. The budget continues to maximize the return on procurement dollars, primarily through the use of multi-year procurement (MYP) for the F/A–18E/F, the E–2C, the MH–60S, and the KC–130J programs. Development funding is provided for Joint Strike Fighter (JSF), MV–22, AH–1Z/UH–1Y, CH–53X, EA–18G, and the Multi-mission Maritime Aircraft (MMA). The budget reflects an amended acquisition strategy for the V–22 to fund interoperability issues and cost reduction initiatives.

Munitions Account

During OEF and OIF, the Department expended less precision ordnance than projected. In this environment, the precision munitions purchases for fiscal year 2005 have been decreased for JDAMs and LGBs. This decrease in procurement provides no increased risk to the DON but merely reflects the lower utilization rates of expended ordnance.

RDT&E Account

An increase of $1.4 billion reflects our commitment to future transformational capabilities and technology insertion for major platforms including DD(X), LCS, CVN–21, V–22, Joint Strike Fighter (JSF), Advanced Hawkeye (AHE), and MMA. As demonstrated in recent operations, our naval forces have been able to project overwhelming combat power because they are technologically superior. We continue to sustain a robust RDT&E effort as we transform the Navy and Marine Corps to the next generation of combat systems.

Effectiveness and Efficiency

A guiding principle in all we do is improving effectiveness to gain efficiency. The very best organizations are the most efficient organizations. If you are very efficient, you incorporate technology more quickly, you can develop new systems and capabilities, and you can bring them on line faster. Underlying all of the previous accounts and our execution of them is a continuing and concerted focus to achieve the most efficient organization. The Fleet Response Plan, TacAir Integration, and establishment of the Commander Naval Installations are a few of our initiatives to improve effectiveness within the Department.

Our objective for the fiscal year 2005 budget request is to move forward with Naval Power 21. This budget builds upon the foundation laid in the fiscal year 2004

program and reaffirms our commitment to remain globally engaged today while developing future technology to ensure our future military superiority. We are also continuing to emphasize the Department's commitment in the areas of combat capability, people, technology insertion and improved business practices. With our fiscal year 2005 budget request we are committed to executing this vision.

III. Calendar Year 2003 Operational Successes (A Nation at war)

The extraordinary capability of our joint forces to project power around the world in support of vital national objectives was demonstrated over the last year. The maritime contribution to our success in the defeat of Saddam Hussein's Baathist forces, as well as in support of other joint engagements in the global war on terrorism, was significant. The rapid deployment and the warfighting capability of your naval force in the liberation of Iraq provided an example of the importance of readiness and the responsive capabilities to support our Nation's objectives in an era of unpredictability and uncertainty. The demonstrated importance of our multi-dimensional naval dominance, our expeditionary nature, our ability to deal with complex challenges, and adaptability of our forces are illustrative of the high level of return on investment of your naval force.

The accomplishments of this past year tell the naval forces readiness story and its return on investment. The ships, aircraft, weapon systems, and readiness you funded provided our sailors and marines the tools necessary to remain the premiere maritime and expeditionary combat ready force. In preparing for and conducting operations in the Iraq theater, speed of expeditionary operations and sustainment were important military competencies. Naval forces applied dominant, persistent, decisive, and lethal offensive power in support of coalition warfighting objectives. The speed, agility, flexibility, and persistence of naval combat capability helped end a regime of terror and liberate a people during OIF.

The past year has been one of significant accomplishment. Our men and women operating in the air, on and under the sea, and on the ground are at the leading edge in the global war on terrorism. As in OEF, we once again have demonstrated naval forces' unique value in contributing to the security of our Nation and our friends and allies.

- During OIF, more than 50 percent of our force was forward deployed. The deployment of seven Carrier Strike Groups (CSGs) and eight large deck amphibious ships proved our ability to be both a surge and a rotational force demonstrating our flexibility and responsiveness.
- Navy and Marine Corps aircraft flew more than 8,000 sorties and delivered nearly 9,000 precision-guided munitions.
- Over 800 Tomahawk cruise missiles were fired from 35 coalition ships, one-third of which were launched from submarines. The highest number of TLAMs launched in 1 day occurred on March 21, 2003—nearly 400 Tomahawks.
- Navy Special Forces, MCM, Explosive Ordnance Disposal (EOD), and coalition counterparts cleared more than 900 square miles of water, ensuring the safe passage of critical humanitarian relief supplies to the Iraqi people.
- Marines from the I Marine Expeditionary Force (I MEF), supported by Sea Basing concepts, made one of the swiftest combat advances in history. They fought 10 major engagements, destroying 9 Iraqi divisions in the 450 mile advance into Iraq.
- Eleven Maritime Prepositioned Force (MPF) ships provided equipment and sustainment for over 34,000 marines and sailors and 14 amphibious ships embarked and delivered another 12,000 marines and sailors and their equipment.

Since the end of major combat operations, naval forces have been instrumental in supporting the coalition's goals of security, prosperity and democracy in Iraq. Coalition maritime forces have diligently supported the United Nations Security Council Resolution 1483. They have queried over 6,000 vessels, boarded close to 3,500 and diverted approximately 430. These forces have confiscated and returned to the Iraqi people approximately 60,000 barrels of fuel. Additionally, seaward protection of the Al Basara Oil Terminal (ABOT) is enabling the generation of critically needed oil revenue. Since re-opening, the ABOT has pumped 261,500,000 barrels of oil valued at over $7.5 billion.

Navy Seabees and Marine Engineers, as the I MEF Engineer Group, undertook construction initiatives that built and repaired major roadways and bridges, and completed major utility restoration projects. In all, 150 projects valued at $7.1 million were completed.

Naval EOD forces are working with Army counterparts in support of the coalition forces and Iraqi Police and are collecting over 2,000 pounds of unexploded ordnance per week.

IV. NAVY AND MARINE CORPS TODAY (CURRENT READINESS)

Today's naval forces exist to control the seas, assure access, and project power beyond the sea to influence events and advance American interests. Navy and Marine Corps forces continue to lead the way to secure the peace by responding with speed, agility, and flexibility. The value of naval forces continues to be demonstrated through the projection of decisive, persistent, joint power across the globe. The investment in training, maintenance, parts, ordnance, flying hours, steaming days, and combat ready days coupled with our forward presence and our ability to surge has positioned naval forces as the most effective and efficient military force.

Congress' investment in readiness over the past several years has paid large dividends for naval forces during OIF. With combat forces operating in two fronts in the GWOT our readiness investments have resulted in enhanced naval forces ready to strike on a moment's notice, anywhere, anytime. Our success in deploying 9 out of 12 aircraft carriers and 10 out of 12 big deck amphibious ships to major combat areas of operation in demanding environments is attributable to the continued improvements in current readiness.

The Department is in the process of re-deploying Navy and Marine Forces in preparation for Operation Iraqi Freedom II. Navy and Marine Forces will deploy in two 7-month rotations with the first beginning this month. This initial ground rotation will include about 25,000 marines, 3,500 marine reservists, over 5,000 active duty Navy, and 800 naval reservists.

Since the return of our forces from OIF we have invested heavily in constituting the Navy and Marine Corps team for the next fight. Continued successful programmed investment will ensure we have the most capable forces to face the unique challenges ahead. The fiscal year 2005 budget continues a broad range of modernization and readiness initiatives for naval forces.

Acquisition Programs

The Fleet and Marine Forces continue to take delivery of the most sophisticated weapon systems in the world. In 2003, the Navy launched the first of two new classes of ships, U.S.S. *Virginia* (SSN 774) and U.S.S. *San Antonio* (LPD 17), commissioned the aircraft carrier U.S.S. *Ronald Reagan* (CVN 76), and continued timely delivery of the *Arleigh Burke* class guided missile destroyers and F/A–18 E/F Super Hornets.

We are continuing to build on previous budgets to ensure we equip and train our forces to help us continue to meet the challenges of the future. What the DON budget will buy to advance our vision in Naval Power 21:

Shipbuilding

The fiscal year 2005 to fiscal year 2009 shipbuilding rate of 9.6 battle force ships per year is up from 8.4 battle force ships per year for the same period in fiscal year 2004. The fiscal year 2005 budget request closes the procurement gap and with the exception of a slight reduction in fiscal year 2006, provides an upward trend through the FYDP, procuring 17 battle force ships by fiscal year 2009. The fiscal year 2005 to fiscal year 2009 investment is an average of $13 billion per year in new construction. The fiscal year 2005 to fiscal year 2009 plan also procures three Maritime Pre-positioned Force (Future) (MPF (F)) ships and a MPF (F) aviation variant. While our build rate drops to six in fiscal year 2006, this is a reflection of a shift to the next generation surface combatants and sea basing capabilities.

The Navy has nine new ships and one SSBN refueling requested in the fiscal year 2005 budget, as well as substantial shipyard/conversion work. This investment includes:

- Three DDGs ($3.4 billion)
- One *Virginia* class submarine SSN–774 ($2.5 billion)
- One LPD–17 ($967 million)
- Two T-AKE ($768 million)
- One DD (X) ($221 million) (RDT&E funded)
- One Littoral Combat Ship (LCS) ($108 million) (RDT&E funded)
- One SSBN conversion/refueling ($334 million)

Fiscal year 2005 marks the final year of DDG 51 procurement, bringing to closure a 10-ship fiscal year 2002 to fiscal year 2005 MYP contract awarded in fiscal year 2002. The Navy will move to the DD(X) and LCS hulls as quickly as possible. In addition to vitally needed new capability, these ships will increase future shipbuild-

ing rates. Investment in these platforms will also help maintain critical industrial bases.

The Department is modernizing its existing submarine with the latest technology while, at the same time, continuing to replace aging fast attack submarines with the new *Virginia* class submarine. The *Virginia* class design is complete and the lead ship (SSN 774), will commission on schedule. Fiscal year 2004 funded the first of five *Virginia* class submarines under a MYP contract. The second submarine of the MYP contract is funded in fiscal year 2005. Consistent with congressional approval of 5 year-five ship MYP authority (fiscal year 2004 to fiscal year 2008) for SSN 774, the Navy is maintaining one submarine per year through fiscal year 2008.

The DON accelerated one LPD from fiscal year 2006 to fiscal year 2005 leveraging fiscal year 2004 advanced procurement resources provided by Congress. The lead ship detail design has been completed and lead ship construction is over 80 percent complete with a successful launch in July 2003. Production effort is focused on a November delivery. The LPD 17 class ship represents our commitment to a modernized expeditionary fleet.

The fiscal year 2005 budget request also provides for procurement of two auxiliary cargo and ammunition ships (T-AKEs) in the National Defense Sealift Fund. These will be the seventh and eighth ships of the class. Lastly, the fiscal year 2005 budget request accelerates the lead MPF (F) from fiscal year 2008 to fiscal year 2007 to reflect an emphasis on sea basing capabilities.

DD(X) is a centerpiece to the transformational 21st century Navy and will play a key role in the Naval Power 21 strategic concept. This advanced warship will provide credible forward naval presence while operating independently or as an integral part of naval expeditionary forces. The DD(X) lead ship design and initial construction contract will be awarded in fiscal year 2005.

Conversion and Modernization

The fiscal year 2005 budget request proposes advanced procurement funds for the U.S.S. *Carl Vinson* (CVN 70) Refueling Complex Overhaul (RCOH), now scheduled to begin in fiscal year 2006. CVN 70 has sufficient reactor fuel for one additional surge deployment.

Funding for the *Ticonderoga* class cruiser modernization effort began in fiscal year 2004 and continues in fiscal year 2005. The cruiser modernization effort will substantially increase the service life and capability of CG 47 class ships. The conversion will reduce combat system and computer maintenance costs, replace obsolete combat systems, and extend mission relevance service life. Fiscal year 2005 will fund advanced procurement items for the first cruiser modernization availability in fiscal year 2006.

Funding is included in fiscal year 2005 to complete the conversion of the third and the overhaul of the fourth hull of four *Ohio* class SSBNs to SSGNs. The SSGN conversion provides a covert conventional strike platform capable of carrying up to 154 Tomahawk missiles. The fiscal year 2006 budget request will complete the conversion of the last SSGN. All four of these transformed platforms will be operational by calendar year 2007.

Aircraft Production

Consistent with the fiscal year 2004 program, the fiscal year 2005 budget request reflects continued emphasis on re-capitalizing our aging aircraft. Our focused efforts to aggressively "shore up" operational readiness by providing requisite funding for our Flying Hour Program, Ship Depot Maintenance, Ship Operations, and Sustainment, Re-capitalization, and Modernization accounts continue. While we continue to make substantial investments in readiness accounts and working capital accounts, we identified the resources to procure 104 aircraft in fiscal year 2005. The Department's aircraft procurement plan emphasizes replacing costly legacy platforms with more efficient and capable integrated systems. This has resulted in significant investments in transformational aircraft and program investments across the spectrum of aviation capabilities. Such valuable investments in more capable aircraft have allowed a reduction of 40 aircraft from fiscal year 2005 to fiscal year 2009.

During the past year, we continued to enjoy the fruits of our aviation investments with the successful first deployment and operational employment of the F/A–18 E/F Super Hornet in support of OIF. Highly praised for tactical capability and platform reliability, the F/A–18 E/F program has been funded to provide a transformational radar, helmet mounted sight, advanced targeting pod and integrated weapons system improvements. Additionally, we recently awarded a second MYP contract that includes the EA–18G airframe to replace the Navy's aging EA–6B beginning in fiscal year 2009.

All helicopter missions continue to be consolidated into the MH–60R and MH–60S airframes. These helicopter platforms are the cornerstone of Navy helicopter concept of operations designed to support the CSG and ESG in various mission areas.

The Department significantly increases the funding requested for MMA. MMA will provide the Navy with strategic blue water and littoral capability by re-capitalizing the P–3 Maritime Patrol Aircraft broad area anti-submarine, anti-surface, maritime and littoral Intelligence, Surveillance, and Reconnaissance (ISR) capability.

Progress continues towards delivering a high-quality aircraft to the Marines and Special Forces including increasing capability and interoperability of the aircraft, investing to reduce production costs, and maximizing production efficiency. Since the resumption of V–22 flight-testing, in May 2002, the V–22 is satisfying the threshold levels for all its key performance parameters and reliability and maintainability measures. V–22 test pilots have recorded more than 1,100 flight hours since that time. The V–22 program will continue Low Rate Initial Production (LRIP) until the Milestone III decision expected late calendar year 2005.

The Department will continue to procure the AH–1Z/UH–1Y. These aircraft meet the Marine Corps' attack and utility helicopter requirements by providing increased aircraft agility, airspeed, range, and mission payload. They provide numerous capability improvements for the Marine Corps, including increased payload, range and time on station, improved sensors and lethality, and 85 percent component commonality. The KC–130J MYP is funded and supported in this budget. The advantages include an all digital cockpit that reduce aircrew manning requirements, a new propulsion system that provides more cargo capability, and increased fuel delivery.

Mine Warfare Programs

In keeping with the Department's goal to achieve an organic mine warfare capability in 2005, the budget request supports the development and procurement of five organic airborne systems integrated into the MH–60S helicopter: the AQS–20A Mine-hunting System, the Airborne Laser Mine Detection System (ALMDS), the Airborne Mine Neutralization System (AMNS), the Rapid Airborne Mine Clearance System (RAMICS), and the Organic Airborne and Surface Influence Sweep (OASIS) system. The fiscal year 2005 budget request also supports the development and procurement of the Remote Minehunting System (RMS) integrated into DDG–51 hulls 91–96, and the Long-term Mine Reconnaissance System (LMRS) integrated into SSN–688. The ALMDS, AQS–20A, and RMS will reach an initial operating capability in fiscal year 2005. The budget request supports the transition of assault breaching technologies into acquisition, which will provide a capability to detect, avoid, and defeat mines and obstacles in the surf and craft landing zones. In fiscal year 2005, we will continue with our Surface Mine Countermeasures (MCM) mid-life upgrade plan. We have initiated a product improvement program for the engines of the MCM–1 *Avenger* class mine countermeasure ships to enhance their reliability and availability. We are upgrading our minesweeping capability with new acoustic generators and magnetic sweep cables, and have programmed resources to replace our maintenance-intensive mine neutralization system (AN/SLQ–48) with an expendable mine neutralization system.

Munitions

The Standard Missile (SM) program replaces ineffective, obsolete inventories with the procurement of more capable SM–2 Block IIIB missiles. The Rolling Airframe Missile (RAM) program continues procurement of the improved guided missile launching system and the upgraded Block I missile, providing an enhanced guidance capability along with a helicopter, air and surface mode. In addition to SM and RAM, the fiscal year 2005 budget request provides funding to continue production of the Evolved Sea Sparrow Missile (ESSM) and will support the first Full Rate Production (FRP) contract award of 82 U.S. and 288 international missiles. We have committed to replenish our precision munitions inventories and to do so, we will utilize a 5-year MYP to maximize the quantity of Tomahawk missiles procured.

Marine Corps Expeditionary Capability

The Expeditionary Fighting Vehicle (EFV), formerly the Advanced Amphibious Assault Vehicle (AAAV), will provide surface assault elements the requisite operational and tactical mobility to exploit opportunities in support of joint operations. The EFV will be capable of carrying a reinforced Marine rifle squad at speeds in excess of 20 nautical miles per hour from over the horizon in sea state three. Once ashore, the EFV will provide Marine maneuver units with a world-class armored personnel carrier designed to meet the threats of the future. Production representa-

tive vehicle procurement occurred in fiscal year 2003 and will deliver in fiscal year 2005. IOC will be released in fiscal year 2008 and FOC in 2018.

Also critical to Marine Corps transformation efforts is the Joint Lightweight 155mm Howitzer (LW–155). This system will enter FRP in fiscal year 2005, and our budget includes a request for a Joint Marine Corps—Army MYP. Another transformational component of the fiscal year 2005 budget, the High Mobility Artillery Rocket System (HIMARS), will continue LRIP delivery.

Alignment

The DON is transforming to dramatically reduce operating and support costs. Changes will embrace efficiency and result in increased effectiveness and a higher readiness standard in concert with the overarching goals of the President's management agenda. We have made several fleet and shore organizational changes that have shown great potential in maximizing the way forces can be employed and supported.

Fleet Response Plan (FRP)

FRP provides a model for a new joint presence concept that will transform how the U.S. military is employed. It refines maintenance, training, and readiness processes in order to increase the number of combat ready ships and aircraft throughout the fleet. FRP ensures six employable Carrier Strike Groups (CSGs) always are ready to respond to a crisis, plus two additional CSGs capable of deploying to the fight within 90 days of notification ("6+2"). With the implementation of FRP, half of the fleet either could be deployed or postured to surge, able to arrive swiftly with the overpowering combat power needed either to deter or defeat the hostile intentions of an adversary, or to win decisively in combat against a significant enemy.

TacAir Integration

The Navy and Marine Corps team embarked on a Tactical Aircraft Integration plan that will enhance our core combat capabilities and provide a more potent, cohesive, and affordable fighting force. The culmination of a long-term effort to an increased level of readiness from the resources given to us, TacAir integration seeks to generate a greater combat capability from naval TacAir. Through TacAir integration, the Department will reduce the number of tactical aircraft (JSF and F/A–18) from 1,637 to 1,140 aircraft by 2021. This integration will provide increased combat capability forward and is in concert with enhanced sea basing concepts. A cornerstone of this plan is the global sourcing of the Department's TacAir assets and the funding and maintenance of legacy aircraft at the highest level of readiness until they are replaced by the JSF and the Super Hornet (F/A–18 E/F).

Training Resource Strategy (TRS)

TRS was developed to provide high quality training to our deploying combat forces. The training of our high technology force in modern warfare has shifted to a network of existing ranges and installations stateside. Fully implemented, TRS has resulted in more training options, reduced pre-deployment training transit time, and has increased productive training days. The U.S.S. *Enterprise* was the first CSG to deploy under the TRS, utilizing six training ranges, each unique to the successful completion of her qualification. TRS supports the FRP and will quickly respond to surge requirements by delivering and bringing to bear a capable fighting force.

Current and future readiness requirements underscore the continued need for realistic training and maximized use of training and testing ranges. While we continue to find ways to enhance readiness through increased use of information technology and simulation, live training on actual ranges and training areas remains critical during the essential phases of the training cycle. Maintaining training realism and access to these ranges has been of keen concern to our naval forces. We continue to balance the need to maintain a ready and capable force with the need to be sensitive to environmental and encroachment issues.

For the last 2 years, Congress has addressed critical Navy needs regarding encroachment. Readiness-specific changes to the Marine Mammal Protection Act (MMPA), Endangered Species Act, and Migratory Bird Treaty Act will help the Navy meet training and operational needs. The Navy and Marine Corps has and will continue to demonstrate leadership in both its military readiness role and as an environmental steward of the oceans we sail and the lands we train upon. We are pursuing opportunities for acquiring land buffers adjacent to our training lands. We are implementing the Integrated Natural Resources Management Plans prepared under the Sikes Act to address endangered species concerns in lieu of designating critical habitats. We will continue operational actions to minimize harm to marine mammals, as we continue investments in research into marine mammal biology and behaviors. The MMPA is due for reauthorization in this legislative cycle.

To maintain our military readiness, your support is necessary to retain the proper balance between environmental protection and military readiness during the reauthorization debate.

Carrier Strike Group (CSG)/Expeditionary Strike Group (ESG)

CSG alignment is complete and the first Pacific Fleet Expeditionary Strike Group (ESG–1), centered on the U.S.S. *Peleliu* Amphibious Ready Group and the embarked Marines of the 13th Marine Expeditionary Unit (Special Operations Capable), is completing an 8-month deployment. The Navy deployed an Atlantic Fleet ESG, the U.S.S. *Wasp* Amphibious Ready Group, last month.

The ESG adds to the ARG/MEU, a robust strike, anti-air, anti-surface, and anti-subsurface capability of a cruiser, destroyer, frigate and attack submarine and for the first time, the Advanced Swimmer Delivery System (ASDS). These combined capabilities give the Combatant Commander a wider variety of options and enables independent operations in more dynamic environments.

Vieques/NSRR closure

The former training ranges on Vieques have been closed and the property has been transferred to the Department of the Interior (DOI), Fish and Wildlife Service. We have active cleanup and range clearance programs underway at disposal sites on both east and west parcels. We are working with the appropriate agencies to negotiate a Federal Facilities Agreement governing cleanup activities. We are refining costs to complete cleanup estimates for range areas and resolve litigation issues filed by the residents of Vieques. We will close naval Station Roosevelt Roads by 31 March, as directed by the Fiscal Year 2004 Defense Appropriations Act. Naval Activity Puerto Rico will serve as the caretaker organization following operational closure. Puerto Rico has established a Local Redevelopment Authority, and we will proceed quickly to property disposal.

Commander Navy Installations Command (CNI)

We have aligned all Navy shore installations under a single command that will allow us to make better decisions about where to invest limited funds. By consolidating all base operations worldwide and implementing common support practices the Navy expects to save a substantial amount of money over the next 6 years.

Communications

FORCEnet will provide the overarching framework and standard communication mechanism for future combat systems. Navy Open Architecture, in conjunction with the FORCEnet standards, will provide a common open architecture for warfare systems aboard surface, subsurface and selected airborne platforms such as the E–2C Advanced Hawkeye. A critical subset application already being procured is the Cooperative Engagement Capability (CEC), which will be installed on 38 ships and 4 squadrons (16 aircraft) by fiscal year 2006. CEC includes robust data communication capability among cooperating units in support of sensor netting. In the future, CEC will also include a Joint Track Manager to create a single integrated air picture of sufficient quality to support fire control application for each combat control system.

Navy Marine Corps Internet (NMCI) is operational and providing commercial IT services for more than 300,000 DON employees and 2 combatant commanders. To date, we have ordered 330,000 of the expected 345,000 fiscal year 2004 seats. Implementing NMCI has enabled us to increase the security posture of our networks and has given unprecedented visibility into IT costs. As we roll out NMCI we are doing away with the over 1,000 separate networks that the Navy used to run. We have reduced the number of legacy applications in the Navy's inventory from 67,000 to about 31,000 and begun further efforts to reduce this number to around 7,000—an almost 90-percent reduction. As we proceed with NMCI, we anticipate other opportunities for progress in areas such as enterprise hosting, software release management, IT resource analysis and technology insertion.

We have designed the NMCI operational evaluation to provide critical information necessary to determine how well NMCI is supporting mission of the user and to judge how well service level agreement metrics measure the service. As part of the spiral development process, NMCI worked with the testing community to segment the testing effort into a local evaluation of network services and a higher-level assessment of other enterprise services. Testing was completed 15 December 2003; the final report is due in April.

V. Navy and Marine Corps in Transformation (Future Readiness)

The Chief of Naval Operations and Commandant of the Marine Corps consider the culture of transformation integral to the development of future combat capabilities.

Innovative capabilities will result in profound increases in military power, maintaining the Navy and Marine Corps team as the preeminent global naval power. We are now at the point of delivering on many of our transformational goals.

We have embraced a vision in how naval forces will contribute to joint warfighting in the future. This vision can only be implemented with the support of Congress. This section describes the principal components of Naval Vision 21.

Acquisition Programs

The fiscal year 2005 budget request supports continued funding for accelerated development of several critical technologies into the CVN 21 leadship. This transformational 21st century ship, the future centerpiece of the Navy Carrier Strike Group, will bring many significant changes to the fleet. These changes include a new electrical power generation and distribution system, the electromagnetic aircraft launching system, a new enlarged flight deck, weapons and material handling improvements, and a crew reduction of at least 800. Construction of the CVN 21 remains on track to start in fiscal year 2007.

Critical components of Sea Power 21 are the DD(X) and LCS. These ships, designed from the keel up to be part of a netted force, are the centerpieces of the 21st century surface combatant family of ships. DD(X) will be a multi-mission combatant tailored for land attack. LCS is envisioned to be a fast, agile, relatively small and affordable combatant capable of operating against anti-access, asymmetric threats in the littorals. The FYDP includes $2.76 billion to develop and procure modular mission packages to support three primary missions of mine countermeasures, anti-submarine warfare, and anti-terrorism and force protection. Detail design and construction of the first LCS is planned to begin in fiscal year 2005.

The V–22 Osprey, a joint acquisition program, remains a top aviation acquisition priority. The V–22's increased capabilities of range, speed, payload, and survivability will generate truly transformational tactical and operational opportunities. With the Osprey, naval forces operating from the sea base will be able to take the best of long-range maneuver and strategic agility, and join it with the best of the sustainable forcible-entry capability. LRIP will continue until the Milestone III decision is made late calendar year 2005. We expect to move from LRIP to FRP in calendar year 2006.

Another important joint program with the Air Force, the JSF has just completed the second year of a 10–11 year development program. The program is working to translate concept designs to produce three variants. This is a complex process requiring more initial development than we predicted. JSF development is experiencing typical challenges that affect System Development and Demonstration (SDD) program schedule and cost. LRIP was deferred and research and development increased to cover SDD challenges. The current issues are solvable within the normal process of design fluctuation, and have taken prudent steps necessary to meet these challenges.

The plan to re-capitalize the P–3 Maritime Patrol Aircraft with the MMA was further refined this past year in collaboration with the Broad Area Maritime Surveillance—Unmanned Aerial Vehicle or BAMS–UAV program. With a MMA IOC of fiscal year 2013, we also developed a robust sustainment plan for the current P–3 that includes special structural inspections and kits that extend the platform service life by a minimum of 5,000 hours. Additionally, the Department has decided to join the Army's Aerial Common Sensor (ACS) program as the replacement platform for the aging EP–3.

In order to maintain Electronic Warfare (EW) superiority, the Department is pursuing both upgrades in current Airborne Electronic Attack (AEA) capability as well as a follow-on AEA aircraft to replace the aging EA–6B. The Navy has selected the EA–18G as its follow-on AEA aircraft and will begin to replace Navy EA–6Bs in fiscal year 2009.

Continuing an emphasis on transformational systems, the Department has budgeted R&D funding through the FYDP for several aviation programs. The Advanced Hawkeye (previously known as E–2 Radar Modernization Program (RMP)) is funded through the FYDP with the first production aircraft in fiscal year 2009. A fully automated digital engine control and improved generators have been incorporated into the aircraft to improve performance and reliability. Additionally, the Department has included funding to support procurement of required capabilities in the fleet, such as Advanced Targeting Forward Looking Infrared and the Joint Helmet Mounted Cueing Systems.

The fiscal year 2005 budget continues to demonstrate the Department's commitment to developing, acquiring and fielding transformational UAV technologies for ISR and tactical missions. The budget includes funding for a second Joint Unmanned Combat Air System (J–UCAS) demonstrator and continues development of

the BAMS. The Navy's Unmanned Combat Air Vehicle (UCAV–N) is incorporated into J–UCAS under a DOD joint program office.

Helicopters

The fiscal year 2005 budget request includes an incremental approach to developing a replacement for the current aging Presidential helicopter. The Presidential Helicopter Replacement Aircraft (VXX) will enhance performance, survivability, communications, navigation, and executive accommodations inherent in the existing fleet of Presidential airlift helicopters.

Ballistic Missile Defense (BMD)

The fielding of a National Ballistic Missile Defense capability is critical to protecting the U.S. homeland against the evolving ballistic missile threat. As part of the President's directive to accelerate the fielding of a BMD Initial Defensive Operations capability by September 2004, the Navy will deploy, on a continuous basis, a DDG to serve as a Long-Range Surveillance and Tracking (LRS&T) platform. Additionally, Aegis Ballistic Missile Defense (ABMD) continues its development and testing of the SM–3 missile in order to support deployment of a sea-based mid-course engagement capability by December 2005. Since November 2002, ABMD had two of three successful intercepts with the SM–3 Block 0 missile. The Navy is also evaluating the benefits associated with developing a Sea-based Terminal Missile Defense capability. A viable regional and terminal sea based ballistic missile defense system is important to ensure the safety of U.S. forces and the flow of U.S. forces through foreign ports and air fields when required.

FORCEnet/Navy Open Architecture (OA)/Space/C^4I

FORCEnet is the operational construct and architectural framework for naval warfare in the Information Age which integrates warriors, sensors, networks, command and control, platforms and weapons into a networked, distributed combat force, scalable across the spectrum of conflict from seabed to space and sea to land. FORCEnet is the core of Sea Power 21 and Naval Transformation, and is the USN/USMC vehicle to make Network Centric Warfare an operational reality. It is being implemented in coordination with transformation initiatives in the Army, Air Force, and Coast Guard—enhancing efficiency, joint interoperability, and warfighting effectiveness. DD(X), LCS, CVN–21, SSGN, *Virginia* class SSNs, *San Antonio* class LPDs, and MMA are examples of platforms that are being designed from inception to perform in the netted environment of the future. Systems being procured and produced under the FORCEnet concept are CEC, Naval Fires Network (NFN), and Airborne/Maritime/Fixed (AMF) JTRS.

The Navy is engineering a single open architecture for all warfare systems called Navy Open Architecture. Future systems will be designed to this architecture while legacy systems will be migrated to that single architecture where it is operationally and fiscally feasible. This integrates the Command and Control and Combat systems information flow using open specifications and standards and open architecture constructs, to support FORCEnet and other global information networks. Further, this significantly reduces the development and maintenance costs of computer programs. The Navy and its Joint Service partners continue to jointly engineer the Joint Track Manager and plan to implement it into Navy Open Architecture as the Open Architecture Track Manager. This joint focused application will be populated in all naval warfare systems that conform to the single OA warfare system architecture.

The Navy and Marine Corps continues to pursue the maximum use of space to enhance our operational capabilities. We look to leverage existing systems and rapidly adapt emerging technology. For example, the Navy has long been the leader in ultrahigh frequency (UHF) satellite communications (SATCOM). The Navy is the executive agent for the next generation UHF SATCOM system. This program, the Mobile Users Objective System, will be the system used by all DOD components for their UHF communications needs.

Sea Basing and Strategic Sealift

Sea Basing is a transformational operating concept for projecting and sustaining naval power and a joint force, which assures joint access by leveraging the operational maneuver of sovereign, distributed, and networked forces operating globally from the sea.

The Sea Basing concept has been endorsed by the other military services and its importance was confirmed when DOD announced a Joint Sea Basing Requirements Office will soon be established. Central to the staying power of naval forces will be the Maritime Pre-positioned Force-Future MPF (F). The fiscal year 2005 budget accelerates the lead MPF (F) from fiscal year 2008 to fiscal year 2007 to reflect an emphasis on Sea Basing capabilities.

Infrastructure

Prior Rounds of Base Realignment and Closure (BRAC)

The Department of the Navy completed the closure and realignment of activities from the 1988, 1991, 1993, and 1995 rounds of BRAC. All that remains is to complete the environmental cleanup and property disposal on all or portions of 23 of the original 91 bases. We have had significant successes on both fronts. We are successfully using property sales as a means to expedite the disposal process as well as recover the value of the property for taxpayers. We sold 235 acres last year at the former Marine Corps Air Station, Tustin, California on the GSA Internet Web site for a net $204 million. We sold 22 acres at the former naval Air Facility Key West, Florida, in January 2004 for $15 million. The City of Long Beach, California, opted to pre-pay its remaining balance on a promissory note, and gave us $11 million to conclude its purchase of the former Naval Hospital Long Beach, California. We are applying all funds to accelerate cleanup at remaining prior BRAC locations. More property sales are planned that will be used to finance remaining prior BRAC cleanup actions. Of the original 161,000 acres planned for disposal from all four prior BRAC rounds, we expect to have less than 7 percent (or about 11,000 acres) still to dispose by the end of this fiscal year.

BRAC 2005

The Fiscal Year 2002 Defense Authorization Act authorized another round of BRAC in 2005. We will scrupulously follow the process laid out in the law. We will treat each base equally and fairly, whether considered for closure or realignment in the past or not. In no event will we make any recommendations concerning any closures or realignment of our bases until all the data has been collected, certified and carefully analyzed within the overall BRAC 2005 statutory framework.

BRAC 2005 gives us the opportunity to transform our infrastructure consistent with the significant changes that are, and will be, happening with the transformation of our force structure. The Secretary of Defense is leading a process to allow the military departments and defense components to closely examine joint use opportunities. Military operations in Afghanistan and Iraq demonstrated the force multiplier benefits of joint operations. We will apply those approaches to our shore infrastructure. We will look beyond the traditional stovepipes of Navy bases and Marine Corps bases in BRAC 2005 and take a joint approach matching military requirements against capacity and capabilities across the Department of Defense.

The added benefit is the opportunity to eliminate excess capacity and seek greater efficiencies in our shore infrastructure. Continuing to operate and maintain facilities we no longer need diverts precious resources from our primary mission. Resources freed up as a result of this process will be used to re-capitalize our ships, aircraft, equipment, and installations for the future.

Better Business Practices

The DON has implemented several continuous improvement initiatives consistent with the goals of the President's management agenda that enable realignment of resources in order to re-capitalize.

Specific initiatives include: converging our Enterprise Resource Planning (ERP) pilots into an end-to-end operating system; incorporating proven world class efficiency methodologies such as Six Sigma and Lean concepts into our day-to-day operations; and implementing additional Multi-Ship/Multi-Option (MSMO) repair contracts and Performance Based Logistics (PBL) agreements. Of note, Lean efficiency events that concentrate on increasing velocity and productivity in our Aviation Intermediate Maintenance Departments (AIMD) were initiated on U.S.S. *George Washington* (CVN 73) and U.S.S. *Harry Truman* (CVN 75). The outcome of these events will allow us to improve our afloat AIMD processes and influence our future manning requirements on CVN 21 Class carriers. These are the first Lean events conducted on Navy warships.

These continuous improvement initiatives enable us to increase our combat capabilities with the expectation that we become more efficient, agile, flexible, and reliable at a reduced cost of doing business.

VI. Our Total Force (Sailors, Marines, and Civilians)

Today more than other time in recent history our sailors and marines have a greater understanding and appreciation for service to country. In time of war they have shown the Nation the highest standards of military professionalism and competence. The heaviest burdens in our war on terror fall, as always, on the men and women of our Armed Forces. We are blessed as a Nation to have a 228-year legacy where magnificent men and women volunteer to protect and defend America. Sailors

and marines—along with our civilian workforce—remain the strong and steady foundation of our naval capabilities.

Active Duty

The Navy and Marine Corps again met enlisted recruiting and accession goals in 2003, and continue to attract America's finest young men and women to national service. The Navy achieved recruiting goals for a fifth consecutive year and in February completed the 31st consecutive month of attaining goals for accessions and new contracts. The Marine Corps met its 8th year of meeting monthly and annual enlisted recruiting goals and its 13th year of success in officer recruiting. Both Services are well positioned for success in meeting 2004 officer and enlisted accession requirements.

During 2003, the Navy implemented a policy requiring 94 percent of new recruits be high school diploma graduates (HSDG), and Navy recruiters succeeded by recruiting 94.3 percent HSDG. Navy Recruiting continued to seek the best and brightest young men and women by requiring that 62 percent of recruits score above 50 on the Armed Forces Qualification Test (AFQT); Navy recruiters excelled with a rate of 65.7 percent. Navy recruiting also sought to increase the number of recruits with college experience in fiscal year 2003, recruiting more than 3,200 applicants with at least 12 semester hours of college.

The Marine Corps accessed 97.1 percent high school diploma graduates in fiscal year 2003, exceeding their annual goal of 95 percent and ensured the Marine Corps recruited the highest quality young men and women with 70.3 percent of Marine Corps recruits scoring over 50 on the AFQT. This achievement exceeded their annual goal of 60 percent of accessions scoring above 50 on the AFQT. The Marine Corps began fiscal year 2004 with a 58.8 percent starting pool in the Delayed Entry Program and has continued to achieve its monthly recruiting goals during the second quarter of fiscal year 2004. The Marine Corps Reserve achieved fiscal year 2003 recruiting goals, assessing 6,174 non-prior service marines and 2,663 prior service marines. Navy Recruiting was also successful in Naval Reserve recruiting by exceeding the enlisted goal of 12,000 recruits for fiscal year 2003.

Retention

Retaining the best and brightest is as important as recruiting them. Military compensation that is competitive with the private sector provides the flexibility required to meet that challenge.

The Marine Corps has achieved first-term reenlistment goals over the past 9 years. They have already achieved 79.8 percent of their first-term retention goal and 59.8 percent of second tour and beyond goals. Officer retention is at a 19-year high.

Retention in the Navy has never been better. For the third straight year, we experienced the highest retention in history. Retention goals for all categories were exceeded. As a result, at-sea personnel readiness is exceptional and enlisted gaps at sea are at an all-time low.

Notwithstanding our current success in retention, we are constantly on alert for indicators; trends and developments that might affect our ability to attract and retain a capable, trained and talented workforce. We are aware that we need to compete for the best, and ensure continuing readiness, through a variety of means including effective compensation and bonus programs.

The Selective Reenlistment Bonus (SRB) remains the primary tool available to the Navy and Marine Corps for retaining our best and brightest enlisted personnel. SRB represents an investment in the future of our Navy and Marine Corps. The Department of the Navy has a proven track record in the judicious management of this program and other continuation pays used to keep the right force mix to meet the Nations requirements. Your continued support of the SRB program as a proven and highly effective tool is important and appreciated.

Attrition

Navy leaders reduced attrition 10 percent from a year ago and 33 percent from fiscal year 2000, while Marine Corps First-Term Post Boot Camp attrition continues the favorable downward trend begun in fiscal year 1999. For the Marine Corps, fiscal year 2003 attrition was at a historical low, down 1,773 from the previous year. This drop is due largely to a reduction in misconduct and incidents of desertion.

The Department's "Zero Tolerance" drug-use policy continues to be strictly enforced, widely disseminated, and supported throughout the leadership. Through a comprehensive random drug testing program, educational programs, and command support, the Navy and Marine Corps team achieved an 18-percent reduction in attrition even while testing rates increased.

Training

The Navy and Marine Corps have defined their respective strategies for advancing into the future as part of a joint force. The Services have developed strategies that clearly define how Navy and Marine forces of the 21st century will be equipped, trained, educated, organized and used in our continued efforts to control the seas, to project American military influence abroad, and to protect our borders.

Marine Corps' Strategy 21 defines as its vision and goal the development of enhanced strategic agility, operational reach, and tactical flexibility and enabled joint, allied, and coalition operations.

Navy's Sea Power 21 defines its commitment to the growth and development of its service members. Sea Warrior is the "people" part of Sea Power 21. Its focus is on growing individuals from the moment they walk into a recruiting office through their assignments as Master Chiefs or Flag Officers, using a career continuum of training and education that gives them the tools they need to operate in an increasingly demanding and dynamic environment. Transformation for the future, leveraging technology and tapping into the genius of our people to make them more efficient and effective—creating a single business process for the range of human resource management activities is exactly what Sea Warrior is all about. Our goal remains attracting, developing, and retaining the more highly skilled and educated workforce of warriors that will lead the 21st century Navy.

Reserves

Reserves remain an integral part of our Navy and Marine Corps team. The Department of Defense is undergoing a transformation to a more responsive, lethal and agile force based on capabilities analysis rather than threat analysis. Last July, Secretary Rumsfeld issued a memorandum, Rebalancing Forces, in which he directed the Services to promote judicious and prudent use of rebalancing to improve readiness of the force and to help ease stress on units and individuals. Three areas of focus of the Services are:

—Enhance early responsiveness.
—Resolve stressed career fields.
—Employ innovative management practices.

The Navy recently completed a study focused on redesigning the Naval Reserve so that it is better aligned with, and operationally relevant to, Active Forces. Working groups have been chartered to implement key points of the study. Implementation has commenced and will continue through this year and next. The three main areas of focus are Personnel Management, Readiness and Training, and Organizational Alignment. The Navy is transforming the Naval Reserve so that it is fully integrated with Active Forces. Reservists are shifting away from thinking of "Naval Reserve requirements" to "Navy requirements"—a shift that includes goals, capabilities, and equipment. The Navy mission is the Naval Reserve mission. One Navy, one team, is the message.

Naval and Marine Corps reservists are filling critical joint and internal billets along with their active counterparts. Naval and Marine Corps Reserve mobilization is a requirements-driven evolution and reservists, trained and ready, are making significant contributions. While the numbers of mobilized reservists can fluctuate as GWOT requirements dictate, our objective is to keep the number of mobilized personnel at a minimum.

Since September 11, 2001, the Navy has mobilized over 22,000 reservists with a peak of just over 12,000 during OIF. This is from a Selected Reserve population of just over 87,000. Mobilized commissioned naval units include Coastal Warfare, Construction Battalion, and Aviation communities, while individuals were mobilized primarily from Security Group, Naval Intelligence, Law Enforcement, and Physical Security augment units. We anticipate a steady state of approximately 2,500 mobilized naval reservists this year.

The Marine Corps has mobilized over 22,000 reservists from an authorized Selected Reserve end strength of 39,600 and just over 3,500 from the Individual Ready Reserve. Currently mobilized reservists number just under 6,500. With OIF II requirements, the number of mobilized Marine reservists is expected to increase by approximately 7,000. OIF II marines will deploy in two rotations of approximately 7 months each, augmenting Marine Corps capabilities in Infantry, Armor, Aviation, Command, Control, Computers and Intelligence, Military Police, and Civil Affairs.

Civilian Personnel

A large part of the credit for the Navy's outstanding performance goes to our civilian workforce. These experienced and dedicated craftspeople, researchers, supply and maintenance specialists, computer experts, service providers, and their managers are an essential part of our total naval force concept.

In the past, our ability to utilize these skilled human resources to accomplish the complex and fast-developing missions of the 21st century has been limited by the requirements of a 19th century personnel system. The Fiscal Year 2004 Defense Authorization Bill now allows DOD to significantly redesign a National Security Personnel System (NSPS) for the civilian workforce. This change represents the most significant improvement to civilian personnel management since the 1978 Civil Service Reform Act.

The DON has volunteered to be in the first wave of conversions to NSPS later this year. The Department expects to transition as many as 150,000 of our dedicated, hard-working civilians to the new system this year. We will work closely with DOD to ensure we meet this aggressive timeline. We are also working Defense Acquisition Workforce Improvement Act streamlining initiatives alongside NSPS to ensure we use these tools to produce a robust and capable workforce.

The reforms will provide supervisors and managers greater flexibility in managing our civil service employees, facilitate competition for high quality talent, offer compensation competitive with the private sector, and reward outstanding service. It will build greater pride in the civilian workforce and attract a new generation of civilians to public service. Properly executed, these changes also will assist us in better utilizing the Active-Duty Force by making it easier to employ civilians in jobs currently filled by uniformed military personnel.

NSPS legislation will have a transformational effect on organizational design across the Department. NSPS will improve alignment of the human resources system with mission objectives, increase agility to respond to new business and strategic needs, and reduce administrative burden. The NSPS Act authorizes a more flexible civilian personnel management system that allows us to be a more competitive and progressive employer at a time when our national security demands a highly responsive system of civilian personnel management. The legislation also ensures merit systems principles govern changes in personnel management, whistleblowers are protected, discrimination remains illegal, and veterans' preference is protected. The process for the design of NSPS is specified by statue and covers the following areas: job classification, pay banding, staffing flexibilities, and pay for performance.

The foundation for NSPS is a more rigorous tie between performance and monetary awards for employees and managers. Basic pay and performance incentives should be tied directly to the performance measurement process—supervisory personnel are also rewarded for successfully performing managerial duties. Implementation of this system will be a significant step forward by linking employees' performance to mission accomplishment and enabling better management of scarce resources throughout the DON.

We are faced with a monumental change in how we will do business and an even larger cultural change from one of entitlement to one that has a performance-based compensation. This will be a huge effort and we are determined to ensure successful implementation. We will continue to scrutinize our human resource business methods. As we implement the bold initiatives in NSPS, we will take a hard look at our administrative policies with a specific eye on those that are burdensome or add no value.

Quality of Service

We will continue to provide an environment where our sailors and marines, and their families have confidence in themselves, in each other, in their equipment and weapons, and in the institution they have chosen to serve. This year, with your help, we continued the significant advances in compensation, in building the structure to realize the promise of the revolution in training, in improving bachelor and family housing, and in strengthening our partnership with Navy and Marine Corp families.

The Department remains committed to improving living conditions for sailors and marines, and their families. Our policy is to rely first on the private sector to house military families. As a result, along with the initiative to increase Basic Allowance for Housing (BAH), the need and consequently the inventory for military family housing is going down. Additionally, we are partnering with the private sector in Public/Private Ventures (PPV) to eliminate inadequate housing.

At the top of nearly any list put together in our partnership is the promise of medical care for sailors, marines, and their families. Naval medicine is a force multiplier, ensuring our troops are physically and mentally ready to whatever challenges lie ahead. High quality care and health protection are a vital part of our ability to fight the global war on terrorism and execute other worldwide mission. Naval medicine today is focused on supporting the deployment readiness of the uniformed services and promoting, protecting and maintaining the health of all those entrusted to naval medicine care—anytime, anywhere.

Safety

The Navy and Marine Corps are working to meet the Secretary of Defense's goal of reducing mishaps by 50 percent from fiscal year 2002 to the end of fiscal year 2005. We have many initiatives in place and planned for the near future. We have seen real progress in reducing private motor vehicle fatalities, which are down 20 percent from the fiscal year 2002 baseline. We have begun applying technologies now used in commercial aviation to provide a visual and quantitative feedback loop to pilots and mechanics when either the pilot or aircraft has exceeded specific safety of flight parameters. We will continue to press forward with safety both to take care of people, our most precious asset, and to allow us to invest elsewhere.

Shaping the Force

The Navy is making an effort to reduce its active duty manpower as part of the DON transformation program. This is the first step and an integral part of our strategy to properly shape both the officer and enlisted force. Today, as the Navy moves to a more efficient and surge-ready force, maintaining the correct skill sets is more important than ever. We are convinced we can get the job done with fewer people; by eliminating excess manpower we can focus better on developing and rewarding our high-performing forces. Additionally, reducing manpower gradually today will ensure the Navy is properly manned when a new generation of optimally manned ships joins our force, with completely revised maintenance, training, and war-fighting requirements. We will ensure any manpower reductions will be preceded by reductions in functions.

VII. Summary

Naval forces remain a critical and unique element of our national security strategy. The Navy and Marine Corps team answers the President's call to duty by being the first on station—with staying power. Our forces exploit the open oceans and provide the combatant commander with persistent sovereign combat naval forces. This is the value that credible forward deployed naval forces provide our Nation.

The fiscal year 2005 budget unifies many of our innovative and transformational technologies with Naval Power 21. Sustaining investment in naval forces continues to protect and promote American interests by allowing the forward deployed Navy and Marine Corps team to shape the international security environment and to respond to the full spectrum of current and future crises.

With our fiscal year 2005 budget request we focus on people, combat capability, technology insertion, and improved business practices. Additionally, we continue to work with our joint service partners in organizing, equipping and training to fight jointly. With continued congressional support the Department of the Navy will position the Navy and Marine Corps team as part of the most formidable military force in the 21st century.

Senator INHOFE. Thank you, Secretary England.

Secretary Roche.

STATEMENT OF HON. JAMES G. ROCHE, SECRETARY OF THE AIR FORCE

Secretary ROCHE. Thank you, Mr. Chairman, Senator Levin, and members of the committee. It's my great pleasure to appear before this distinguished body to represent the 700,000 active, Guard, Reserve, and civilian airmen who are engaged in defending our Nation.

General John Jumper and I are certainly proud of their achievements and service this past year, from combat operations, to homeland defense, to their daily efforts that guarantee the health, security, and morale of our force. They've contributed significantly to our Nation's global fight against terrorism, to our military achievements in Iraq and Afghanistan. They are devoted American servants, and have my utmost respect and confidence. But I'd also like to say how honored I am to serve alongside General John Jumper. He is an outstanding leader, and, like my two colleagues, it's a delight to work with him.

Our highest priority continues to be a focus on warfighting and delivering the capability that enables us to remain decisive in combat. Combatant commanders rely on us to provide the full spectrum of air and space capabilities, all while protecting our homeland. Through the efforts of this committee, your colleagues in Congress, and dedicated professionals in the Department, we are proud to report that we are meeting these objectives.

As we highlight in our written testimony, we continue to adapt the Air Force to realize the President and Secretary Rumsfeld's vision of transformation. Our strategy is to exploit the sources of strength that give us the military advantages that we enjoy today. Our goal is to build a portfolio of advantages, one that uses operational concepts to guide investments, is relevant to the joint character of warfare, and is useful in the increasingly asymmetric conduct of warfare. To date, we've made great progress in applying this approach.

In terms of strategy, we refocused Air Force strategic thinking on core competencies, we refined our air expeditionary forces, and focused our training to support homeland defense, close-air support, and close partnering with land, maritime, and special operations forces. We are putting our space programs on track. We've increased the unity of effort among the Air Force, the National Reconnaissance Office, and intelligence community, and we have enhanced space support for the warfighter, bringing a joint perspective to our role as the Department of Defense's executive agent for space. We've made significant investments in our people over the past time.

With respect to capabilities, we've delivered a transformed Air Force to the battlefield—armed Predators, Global Hawks, bombers working closely with battlefield airmen on the ground, new tactics for time-sensitive targets, networked intelligence surveillance, reconnaissance, and the combined air operations center.

Where it makes sense, we've integrated active, Guard, and Reserve units as part of our future total force, and we continue to do so when it enhances our combat capability, increases our surge capacity, enables us to achieve efficiencies in how we organize, train, and equip our total force.

We have engaged with industry to stabilize production of critical Air Force capabilities—the F/A–22, C–17, Predators, Global Hawk, and other systems—thereby, increasing efficiencies in the supplier base.

We are transforming the F/A–22 by integrating new avionics and weapons that will make it the premier air-to-ground strike system in heavily defended areas, as well as highly effective against cruise missiles, in addition to its role in deterring any nation from challenging our ability to gain and maintain air dominance. Our F/A–22 budget request continues much needed program stability, and supports the transition from development to operational tests with initial operational capability (IOC) at the end of fiscal year 2005.

Our next step is to focus in four distinct mission areas, all with demonstrable capabilities to support land and surface forces. We are realistically modernizing our special operations aircraft, starting with needed recapitalization of our helicopter force, continuing with the tools essential to link air and ground capabilities.

We are increasing our attention to close air support from various altitudes. In this regard, we will seek to update an as-yet-to-be-determined number of A–10s, and we will acquire the short-takeoff vertical landing (STOVL) version of the Joint Strike Fighter (JSF) by further expanding our opportunities for integration with our Marine Corps brethren.

We are developing a long-range strike strategy that includes an investment plan to sustain our legacy force, and possibly a future stealthy regional bomber.

We are focusing on joint warfighting in space, working with other interested parties on rapid insertion of microsats, as well as potential methods of protecting our space assets.

Beyond establishing and maintaining air dominance, there are initiatives where we are pressing forward with families of UAVs or remotely-piloted aircraft, many of which will support land combat directly and in real time. We are building a portfolio of sensing capabilities, and we continue to develop ground-moving target-indicator capabilities, cruise missile defense technologies, as well as new integration of battlefield command and control (C2) capabilities, all focused on dramatic support of land forces.

In the interest of time, Mr. Chairman, I'll move past some of this.

One of the concerns in our budget that I would like to highlight is the growing pressure and increased cost in our military healthcare system. Improvements to Tricare benefit over the past several years, coupled with escalating premiums and co-pays in the civilian sector, are driving many retirees and family members to choose Tricare. Over the past 2 years, we have seen an 8 percent increase in the number of retirees using our system. From one point of view, this is a good story, validation that we are caring for our retired service members. It comes, however, with significant cost growth. This year, the Department reprogrammed over $600 million to pay for this growth, costs increasingly absorbed by the Services. Although you will mark the DOD health program as a separate authorization, I ask that you keep this increased usage and cost in mind as you consider any proposed expansion of benefits.

Finally, our budget request includes increases of both research, development, test, and evaluation (RDT&E) and procurement to support our emphasis on transformation and modernization consistent with the strategy we've discussed. Our proposed budget makes a significant investment in a number of critical joint programs: C–17s, C–130Js, Predators, Global Hawks, and joint space capabilities, including transformational communications, space-based radar, and military satellite communications. We are also investing in a wide range of joint weapons for close-air support and precision strike, including more than 23,000 Joint Direct Attack Munitions (JDAMs). In addition to our increased focus on air-to-ground concepts of operations (CONOPs), we are proud of our continued investment in these joint warfighting capabilities needed by our combatant commanders.

Finally, our tanker recapitalization initiative is on hold. The initiative is complicated enough, so I am in complete agreement with Secretary Rumsfeld's desire to ensure that it was not tainted by

any illegality. Meanwhile, as I told the committee 2 years ago, we are programming money, starting in fiscal year 2006, to conduct a KC–X tanker replacement program, which will be a normal new-aircraft procurement.

Let me close today on the subject of sexual assault. With the help of this committee, your counterparts in the House, the Fowler panel, and the reinvigorated Air Force Academy Board of Visitors, we have taken a wide range of actions at the Academy to protect our cadets and to implement a system of response, investigation, and victim care consistent with that in the operational Air Force. Since the implementation of the Agenda for Change, in March of last year, and the release of the Fowler Panel Report, I am pleased to report that there has been meaningful progress across multiple fronts. The Academy senior leadership is aggressively focused on the areas of basic cadet training, officer development, and cadet discipline systems. In the area of prevention, we have sought outside experts to review and assist in training faculty, staff, and leadership. We have incorporated almost all of the Fowler recommendations to enhance training, implemented a tough new alcohol policy, and, most important, we have created an integrated response team for victims of sexual assault.

But we continue to refine our approach. For instance, based on the Fowler Panel's recommendation of confidentiality we have attempted to strike a balance between the needs of the victim and the necessity of investigating felony allegations. While this is proving to be a difficult concept to implement, we sincerely believe it is in our best interest to remove barriers to victims coming forward so that we can prosecute criminal offenders.

Whether we look at the record numbers or increasing quality of female applicants to the Academy, our initial indications are very positive. As of today, the Academy admissions office has received over 3,000 applications from women, an increase of over 35 percent, and the largest number of female applicants in the history of the Academy. The increases in the average grade point averages across all four classes of cadets, both male and female, appear to show that we are continuing to instill an improved climate for learning, as well. These are initial good signs, but we are in a long-term agenda to change the culture, and we know there is much to do, so we will remain focused.

Finally, Mr. Chairman, I want to inform the committee of a recently commissioned assessment we've ordered of our sexual assault response system across the Air Force. General Jumper and I have tasked our major-command commanders to include education, training, and prevention, reporting procedures, response programs, and program oversight in these comprehensive reviews. We directed this assessment across our major commands prior to the recent articles about Sheppard Air Force Base. In fact, we did it very quietly in the fall of this year to do a review of our Pacific air forces in order to get a benchmark as to how our Active Force was doing relative to the things that we learned from the Air Force Academy's situation.

Mr. Chairman, members of the committee, I am proud to be a part of the finest air force in the world, and am honored to be part of the joint team that has done much to defend America and our

interests. With your continued support and the investment this budget makes in adapting our force for the demands of this new era, we will continue to deliver for our citizens.

I look forward to your questions. Thank you very much.

[The prepared statement of Secretary Roche follows:]

PREPARED STATEMENT BY HON. JAMES G. ROCHE

Mr. Chairman, Senator Levin, and distinguished members of the committee, the Air Force has an unlimited horizon for air and space capabilities. Our Service was borne of innovation, and we remain focused on identifying and developing the concepts of operations, advanced technologies, and integrated operations required to provide the joint force with unprecedented capabilities and to remain the world's dominant air and space force.

Throughout our distinguished history, America's Air Force has remained the world's premier air and space power because of our professional airmen, our investment in warfighting technology, and our ability to integrate our people and systems together to produce decisive effects. These Air Force competencies are the foundation that will ensure we are prepared for the unknown threats of an uncertain future. They will ensure that our combatant commanders have the tools they need to maintain a broad and sustained advantage over any emerging adversaries.

In this strategic environment of the 21st century, and along with our sister Services, our Air Force will continue to fulfill our obligation to protect America, deter aggression, assure our allies, and defeat our enemies. As we adapt the Air Force to the demands of this era, we remain committed to fulfilling our global commitments as part of the joint warfighting team. In partnership, and with the continuing assistance of Congress, we will shape the force to meet the needs of this century, fight the global war on terrorism, and defend our Nation.

The 2004 Posture Statement is our vision for the upcoming year and is the blueprint we will follow to sustain our air and space dominance in the future. We are America's Air Force—disciplined airmen, dominant in warfighting, decisive in conflict.

INTRODUCTION

In 2003, U.S. and coalition military operations produced unprecedented mission successes—across the spectrum of conflict and around the globe. The joint warfighting team demonstrated combat capability never previously witnessed in the history of conflict. Integrating capabilities from air, land, sea, and space, the U.S. and coalition allies achieved considerable progress in the ongoing global war on terrorism. In our most recent engagements, our Armed Forces fulfilled our immediate obligations to defend America, deter aggression, assure our allies, and defeat our enemies.

The foundation of these achievements can be found in the Department of Defense's (DOD) commitment to teamwork and excellence. Operation Iraqi Freedom (OIF) was a joint and coalition warfighting effort from planning to execution. Air, ground, maritime, and space forces worked together at the same time for the same objectives, not merely staying out of each other's way, but orchestrated to achieve wartime objectives. Our air and space forces achieved dominance throughout the entire theater, enabling maritime and ground forces to operate without fear of enemy air attack. Our airmen demonstrated the flexibility, speed, precision, and compelling effects of air and space power, successfully engaging the full range of enemy targets, from the regime's leadership to fielded forces. When our ground and maritime components engaged the enemy, they were confident our airmen would be there—either in advance of their attacks, or in support of their operations. America's Air Force was there, disciplined, dominant, and decisive.

These operational accomplishments illustrate the growing maturation of air and space power. Leveraging the expertise of our airmen, the technologies present in our 21st century force, and the strategies, concepts of operation, and organizations in use today, the U.S. Air Force continues to adapt to meet the demands of this new era, while pursuing the war on terrorism and defending the homeland.

On September 11, 2001, the dangers of the 21st century became apparent to the world. Today, the U.S. faces an array of asymmetric threats from terrorists and rogue states, including a threat that poses the gravest danger to our Nation, the growing nexus of radicalism and technology. As we continue our work in Afghanistan and Iraq, we stand ready to respond to flashpoints around the world, prepared to counter the proliferation of weapons of mass destruction to unfriendly states and non-state entities.

We are adapting to new and enduring challenges. As we do, we are exploiting the inherent sources of strength that give us the advantages we enjoy today. It is a strategy predicated on the idea that, if we accurately assess our own advantages and strengths, we can invest in them to yield high rates of military return. This approach helps us create a portfolio of advantages allowing us to produce and continue to exploit our capabilities. Our goal is to create a capability mix consistent with operational concepts and effects-driven methodology, relevant to the joint character and increasingly asymmetric conduct of warfare.

Since 1945, when General Henry "Hap" Arnold and Dr. Theodore von Karman published "Toward New Horizons," the Air Force has evolved to meet the changing needs of the Nation—with the sole objective of improving our ability to generate overwhelming and strategically compelling effects from air and now, space. It is our heritage to adapt and we will continue to do so. During this comparatively short history, we became the best air and space force in the world through our focus on the development of professional airmen, our investment in warfighting technology, and our ability to integrate people and systems to produce decisive joint warfighting effects.

The Air Force is making a conscious investment in education, training, and leader development to foster critical thinking, innovation, and encourage risk taking. We deliberately prepare our airmen—officer, enlisted, and civilian—with experience, assignments, and broadening that will allow them to succeed. When our airmen act in the combined or joint arena, whether as an Air Liaison Officer to a ground maneuver element, or as the space advisor to the Joint Force Commander (JFC), this focused professional development will guide their success.

We are also investing in technologies that will enable us to create a fully integrated force of intelligence capabilities, manned, unmanned and space assets that communicate at the machine-to-machine level, and real-time global command and control (C2) of joint, allied, and coalition forces. Collectively, these assets will enable compression of the targeting cycle and near-instantaneous global precision-strike.

As we cultivate new concepts of global engagement, we will move from analog to digital processes and adopt more agile, non-linear ways of integrating to achieve mission success. This change in thinking leads to capabilities including: networked communications; multi-mission platforms which fuse multi-spectral sensors; integrated global intelligence, surveillance, and reconnaissance (ISR); robust, all-weather weapons delivery with increased standoff; small smart weapons; remotely-piloted and unattended aircraft systems; advanced air operations centers; more secure position, navigation, and timing; and a new generation of satellites with more operationally responsive launch systems.

Investment in our core competencies is the foundation of our preparation for future threats. They ensure we have the tools we need to maintain strategic deterrence as well as a sustained advantage over our potential adversaries. Ultimately, they ensure we can deliver the dominant warfighting capability our Nation needs.

Potential adversaries, however, continue to pursue capabilities that threaten the dominance we enjoy today. Double-digit surface-to-air missile systems (SAMs) are proliferating. China has purchased significant numbers of these advanced SAMs, and there is a risk of wider future proliferation to potential threat nations. Fifth-generation advanced aircraft with capabilities superior to our present fleet of frontline fighter/attack aircraft are in production. China has also purchased, and is developing, advanced fighter aircraft that are broadly comparable to the best of our current frontline fighters. Advanced cruise missile technology is expanding, and information technology is spreading. Access to satellite communications, imagery, and use of the Global Positioning System (GPS) signal for navigation are now available for anyone willing to purchase the necessary equipment or services. With this relentless technological progress and the potential parity of foreign nations, as well as their potential application in future threats, the mere maintenance of our aging aircraft and space systems will not suffice. Simply stated, our current fleet of legacy systems cannot always ensure air and space dominance in future engagements.

To counter these trends, we are pursuing a range of strategies that will guide our modernization and recapitalization efforts. We are using a capabilities-based planning and budgeting process, an integrated and systematic risk assessment system, a commitment to shorter acquisition cycle times, and improved program oversight. Our goal is to integrate our combat, information warfare, and support systems to create a portfolio of air and space advantages for the joint warfighter and the Nation. Thus, we continue to advocate for program stability in our modernization and investment accounts.

The principal mechanisms that facilitate this process are our Air Force Concepts of Operation (CONOPs). Through the CONOPs, we analyze problems we'll be asked to solve for the JFCs, identify the capabilities our expeditionary forces need to ac-

complish their missions, and define the operational effects we expect to produce. Through this approach, we can make smarter decisions about future investment, articulate the link between systems and employment concepts, and identify our capability gaps and risks.

The priorities that emerge from the CONOPs will guide a reformed acquisition process that includes more active, continuous, and creative partnerships among the requirement, development, operational test, and industry communities who work side-by-side at the program level. In our science and technology planning, we are also working to demonstrate and integrate promising technologies quickly by providing an operational "pull" that conveys a clear vision of the capabilities we need for the future.

We are applying this approach to our space systems as well. As the DOD's Executive Agent for Space, we are producing innovative solutions for the most challenging national security problems. We have defined a series of priorities essential to delivering space-based capabilities to the joint warfighter and the Intelligence Community. Achieving mission success—in operations and acquisition—is our principal priority. This requires us to concentrate on designing and building quality into our systems. To achieve these exacting standards, we will concentrate on the technical aspects of our space programs early on—relying on strong systems engineering design, discipline, and robust test programs. We also have many areas that require a sustained investment. We need to replace aging satellites, improve outmoded ground control stations, achieve space control capabilities to ensure freedom of action, sustain operationally responsive assured access to space, address bandwidth limitations, and focus space science and technology investment programs. This effort will require reinvigorating the space industrial base and funding smaller technology incubators to generate creative "over the horizon" ideas.

As we address the problem of aging systems through renewed investment, we will continue to find innovative means to keep current systems operationally effective. In OIF, the spirit of innovation flourished. We achieved a number of air and space power firsts: employment of the B–1 bomber's synthetic aperture radar and ground moving target indicator for ISR; incorporation of the Litening II targeting pod on the F–15, F–16, A–10, and the B–52; and use of a Global Hawk for strike coordination and reconnaissance while flown as a remotely piloted aircraft. With these integrated air and space capabilities, we were able to precisely find, fix, track, target, and rapidly engage our adversaries. These examples illustrate how we are approaching adaptation in the U.S. Air Force.

Ultimately, the success of our Air Force in accomplishing our mission and adapting to the exigencies of combat stems from the more than 700,000 active, Guard, Reserve, and civilian professionals who proudly call themselves "airmen." In the past 5 years, they have displayed their competence and bravery in three major conflicts: the Balkans, Afghanistan, and Iraq. They are a formidable warfighting force, imbued with an expeditionary culture, and ready for the challenges of a dangerous world.

Poised to defend America's interests, we continue to satisfy an unprecedented demand for air and space warfighting capabilities—projecting American power globally while providing effective homeland defense. This is the U.S. Air Force in 2004—we foster ingenuity in the world's most professional airmen, thrive on transitioning new technologies into joint warfighting systems, and drive relentlessly toward integration to realize the potential of our air and space capabilities. We are America's airmen—confident in our capability to provide our Nation with dominance in air and space.

AIR AND SPACE DOMINANCE IN A NEW ENVIRONMENT

The U.S. Air Force ensures a flexible, responsive, and dominant force by providing a spectrum of operational capabilities that integrate with joint and Coalition Forces. To sustain and improve upon the dominance we enjoy today, the Air Force will remain engaged with the other services, our coalition partners, interagency teams, and the aerospace industry. As we do, we will incorporate the lessons learned from rigorous evaluation of past operations, detailed analyses of ongoing combat operations, and thoughtful prediction of the capabilities required of a future force.

The pace of operations over the past year enabled us to validate the function and structure of our Air and Space Expeditionary Forces (AEFs). Operations in 2003 demanded more capability from our AEFs than at any time since their inception in 1998. However, for the first time we relied exclusively on our AEFs to present the full range of our capabilities to the combatant commanders. Through our 10 AEFs, our AEF prime capabilities (space, national ISR, long range strike, nuclear, and other assets), and our AEF mobility assets, we demonstrated our ability to package

forces, selecting the most appropriate combat ready forces from our total force, built and presented expeditionary units, and flowed them to the theaters of operation in a timely and logical sequence. We rapidly delivered them to the warfighters, while preserving a highly capable residual force to satisfy our global commitments.

More than three-fourths of our 359,300 active duty airmen are eligible to deploy and are assigned to an AEF. Through much of the past year, Total Force capabilities from 8 of the 10 AEFs were engaged simultaneously in worldwide operations. The remaining elements were returning from operations, training, or preparing to relieve those currently engaged. By the end of 2003, more than 26,000 airmen were deployed, supporting operations around the world.

In 2004, we will continue to use the AEFs to meet our global requirements while concurrently reconstituting the force. Our number one reconstitution priority is returning our forces to a sustainable AEF battle rhythm while conducting combat operations. Attaining this goal is about revitalizing capabilities. For most airmen, that will include a renewed emphasis on joint composite force training and preparation for rotations in the AEF. Through the AEF, the Air Force presents right-sized, highly trained expeditionary units to JFCs for employment across the spectrum of conflict.

Global War on Terrorism

The year 2003 marked another historic milestone for the U.S. and the Air Force in the global war on terrorism. Since September 11, 2001, air and space power has proven indispensable to securing American skies, defeating the Taliban, denying sanctuary to al Qaeda and other terrorist organizations, and most recently, removing a brutal and oppressive dictator in Iraq. This global war on terrorism imposes on airmen a new steady state of accelerated operations and personnel tempo (PERSTEMPO), as well as a demand for unprecedented speed, agility, and innovation in defeating unconventional and unexpected threats, all while bringing stability and freedom to Afghanistan and Iraq. The Air Force and its airmen will meet these demands.

Operation Noble Eagle

High above our Nation, airmen protect our skies and cities through air defense operations known as Operation Noble Eagle (ONE). The Total Force team, comprised of active duty, Air National Guard, and Air Force Reserve airmen, conducts airborne early warning, air refueling, and combat air patrol operations in order to protect sensitive sites, metropolitan areas, and critical infrastructure.

This constant "top cover" demands significant Air Force assets, thus raising the baseline of requirements above the pre-September 11 tempo. Since 2001, this baseline has meant over 34,000 fighter, tanker, and airborne early warning sorties were added to Air Force requirements.

This year the Air Force scrambled nearly 1,000 aircraft, responding to 800 incidents. Eight active duty, 8 Air Force Reserve, and 18 Air National Guard units provided 1,300 tanker sorties offloading more than 32 million pounds of fuel for these missions. Last year, over 2,400 airmen stood vigilant at air defense sector operations centers and other radar sites. Additionally, in 2003, we continued to institutionalize changes to our homeland defense mission through joint, combined, and interagency training and planning. Participating in the initial validation exercise Determined Promise-03, the Air Force illustrated how its air defense, air mobility, and command and control capabilities work seamlessly with other agencies supporting NORTHCOM and Department of Homeland Security objectives. The integration and readiness that comes from careful planning and rigorous training will ensure the continued security of America's skies.

Operation Enduring Freedom—Afghanistan

Operation Enduring Freedom—Afghanistan (OEF) is ongoing. Remnants of Taliban forces continue to attack U.S., NATO, coalition troops, humanitarian aid workers, and others involved in the reconstruction of Afghanistan. To defeat this threat, aid coalition stability, and support operations, the Air Force has maintained a presence of nearly 24,000 airmen in and around the region. Having already flown more than 90,000 sorties (over 72 percent of all OEF missions flown), the Air Force team of active, Guard, and Reserve airmen continue to perform ISR, close air support (CAS), aerial refueling, and tactical and strategic airlift.

While fully engaged in ONE and OIF, the men and women of the Air Force provided full spectrum air and space support, orchestrating assets from every service and 10 different nations. Of these, Air Force strike aircraft flying from nine bases flew more than two-thirds of the combat missions, dropped more than 66,000 munitions (9,650 tons) and damaged or destroyed approximately three-quarters of

planned targets. In 2003 alone, Air Force assets provided more than 3,000 sorties of on-call CAS, responding to calls from joint and/or Coalition Forces on the ground.

Last year, the Air Force brought personnel and materiel into this distant, landlocked nation via 7,410 sorties. Over 4,100 passengers and 487 tons of cargo were moved by airmen operating at various Tanker Airlift Control Elements in and around Afghanistan. To support these airlift and combat sorties and the numerous air assets of the coalition with aerial refueling, the Air Force deployed over 50 tankers. In their primary role, these late 1950s-era and early 1960s-era KC–135 tankers flew more than 3,900 refueling missions. In their secondary airlift role, they delivered 3,620 passengers and 405 tons of cargo. Without versatile tankers, our Armed Forces would need greater access to foreign bases, more aircraft to accomplish the same mission, more airlift assets, and generate more sorties to maintain the required duration on-station.

Operations in Afghanistan also highlight U.S. and coalition reliance on U.S. space capabilities. This spanned accurate global weather, precise navigation, communications, as well as persistent worldwide missile warning and surveillance. For example, OEF relied on precision navigation provided by the Air Force's GPS constellation, over-the-horizon satellite communications (SATCOM), and timely observations of weather, geodesy, and enemy activity. To accomplish this, space professionals performed thousands of precise satellite contacts and hundreds of station keeping adjustments to provide transparent space capability to the warfighter. These vital space capabilities and joint enablers directly leveraged our ability to pursue U.S. objectives in OEF.

Operations Northern Watch and Southern Watch

During the past 12 years, the Air Force flew over 391,000 sorties enforcing the northern and southern no-fly zones over Iraq. With the preponderance of forces, the Air Force, along with the Navy and Marine Corps, worked alongside the Royal Air Force in Operations Northern Watch (ONW) and Southern Watch (OSW). Manning radar outposts and established C2 centers, conducting ISR along Iraq's borders, responding to almost daily acts of Iraqi aggression, and maintaining the required airlift and air refueling missions taxed Air Force assets since the end of Operation Desert Storm. Yet, these successful air operations had three main effects: they halted air attacks on the ethnic minority populations under the no-fly zones; they deterred a repeat of Iraqi aggression against its neighbors; and they leveraged enforcement of United Nations Security Council Resolutions. Throughout this period, our airmen honed their warfighting skills, gained familiarity with the region, and were able to establish favorable conditions for OIF. For more than a decade, American airmen rose to one of our Nation's most important challenges, containing Saddam Hussein.

Operation Iraqi Freedom

On 19 March 2003, our airmen, alongside fellow soldiers, sailors, marines, and coalition teammates, were called upon to remove the dangerous and oppressive Iraqi regime—this date marked the end of ONW/OSW and the beginning of OIF. OIF crystallized the meaning of jointness and the synergies of combined arms and persistent battlefield awareness.

In the first minutes of OIF, airmen of our Combat Air Forces (USAF, USN, USMC, and coalition) were flying over Baghdad. As major land forces crossed the line of departure, Air Force assets pounded Iraqi command and control facilities and key leadership targets, decapitating the decisionmakers from their fielded forces. Remaining Iraqi leaders operated with outdated information about ground forces that had already moved miles beyond their reach. As the land component raced toward Baghdad, coalition strike aircraft were simultaneously attacking Iraqi fielded forces, communications and command and control centers, surface-to-surface missile launch sites, and were supporting special operations forces, and ensuring complete air and space dominance in the skies over Iraq. Due to these actions and those during the previous 12 years, none of the 19 Iraqi missile launches were successful in disrupting coalition operations, and not a single Iraqi combat sortie flew during this conflict. Twenty-one days after major combat operations began, the first U.S. land forces reached Baghdad. Five days later, the last major city in Iraq capitulated.

The Air Force provided over 7,000 CAS sorties to aid land forces in the quickest ground force movement in history. Lieutenant General William S. Wallace, Commander of the U.S. Army V Corps said, "none of my commanders complained about the availability, responsiveness, or effectiveness of CAS—it was unprecedented!" As Iraqi forces attempted to stand against the integrated air and ground offensive, they found a joint and coalition team that was better equipped, better trained, and better led than ever brought to the field of battle.

Training, leadership, and innovation coupled with the Air Force's recent investment in air mobility allowed U.S. forces to open a second major front in the Iraqi campaign. Constrained from access by land, Air Force C–17s airdropped over 1,000 paratroopers from the 173rd Airborne Brigade into northern Iraq. This successful mission opened Bashur airfield and ensured U.S. forces could be resupplied.

Before 2003, the Air Force invested heavily in the lessons learned from OEF. Shortening the "kill chain," or the time it took to find, fix, track, target, engage, and assess was one of our top priorities. This investment was worthwhile, as 156 time-sensitive targets were engaged within minutes, most with precision weapons. The flexibility of centralized control and decentralized execution of air and space power enabled direct support to JFC objectives throughout Iraq. Coalition and joint airpower shaped the battlefield ahead of ground forces, provided intelligence and security to the flanks and rear of the rapidly advancing coalition, and served as a force multiplier for Special Operations Forces. This synergy between Special Operations and the Air Force allowed small specialized teams to have a major effect throughout the northern and western portions of Iraq by magnifying their inherent lethality, guaranteeing rapid tactical mobility, reducing their footprint through aerial resupply, and providing them the advantage of "knowing what was over the next hill" through air and space-borne ISR.

The Air Force's C^2ISR assets enabled the joint force in Afghanistan as well. This invaluable fleet includes the RC–135 Rivet Joint, E–8 Joint Surveillance and Target Attack Radar System (JSTARS), and the E–3 AWACS. This "Iron Triad" of intelligence sensors and C2 capabilities illustrates the Air Force vision of horizontal integration in terms of persistent battlefield awareness. Combined with the Global Hawk unmanned aerial vehicle and Predator remotely piloted aircraft, spaced-based systems, U–2, and Compass Call, these invaluable system provided all-weather, multi-source intelligence to commanders from all services throughout the area of responsibility.

OIF was the Predator's first "networked" operation. Four simultaneous Predator orbits were flown over Iraq and an additional orbit operated over Afghanistan, with three of those orbits controlled via remote operations in the U.S. This combined reachback enabled dynamic support to numerous OIF missions. Predator also contributed to our operational flexibility, accomplishing hunter-killer missions, tactical ballistic missile search, force protection, focused intelligence collection, air strike control, and special operations support. A Hellfire equipped Predator also conducted numerous precision strikes against Iraqi targets, and flew armed escort missions with U.S. Army helicopters.

Space power provided precise, all-weather navigation, global communications, missile warning, and surveillance. The ability to adapt to adverse weather conditions, including sandstorms, allowed air, land, and maritime forces to confound the Iraqi military and denied safe haven anywhere in their own country. As the Iraqis attempted to use ground-based GPS jammers, Air Force strike assets destroyed them, in some cases, using the very munitions the jammers attempted to defeat. As Defense Secretary Donald Rumsfeld noted, this new era was illustrated by the coalition's "unprecedented combination of power, precision, speed, and flexibility."

During the height of OIF, the Air Force deployed 54,955 airmen. Ambassador Paul Bremer, Chief of the Coalition Provisional Authority, pronounced, "In roughly 3 weeks [we] liberated a country larger than Germany and Italy combined, and [we] did so with forces smaller than the Army of the Potomac." Led by the finest officers and non-commissioned officers, our airmen flew more than 79,000 sorties since March of 2003. Ten thousand strike sorties dropped 37,065 munitions. The coalition flew over 55,000 airlift sorties moved 469,093 passengers and more than 165,060 tons of cargo. In addition, over 10,000 aerial refueling missions supported aircraft from all services, and 1,600 ISR missions provided battlespace awareness regardless of uniform, service, or coalition nationality. This was a blistering campaign that demanded a joint and combined effort to maximize effects in the battlespace.

Today, Air Force airmen continue to contribute to the joint and coalition team engaged in Iraq. At the end of the year, 6,723 airmen from the active duty, Reserve, and Air National Guard conducted a wide range of missions from locations overseas, flying approximately 150 sorties per day including CAS for ground forces tracking down regime loyalists, foreign fighters, and terrorists. On a daily basis, U–2 and RC–135 aircraft flew ISR sorties monitoring the porous borders of Iraq and providing situational awareness and route planning for Army patrols in stability and support operations. Providing everything from base security for 27 new bases opened by the coalition to the lifeline of supplies that air mobility and air refueling assets bring to all joint forces, Air Force airmen are committed to the successful accomplishment of the U.S. mission in Iraq.

Other Contingency Operations

In 2003, the Air Force remained engaged in America's war on drugs and provided support to NATO ground forces in the Balkans. Since December 1989, Air Force airmen have been an irreplaceable part of the interagency fight against illegal drug and narcotics trafficking. Deployed along the southern U.S., in the Caribbean, and Central and South America, airmen perform this round-the-clock mission, manning nine ground-based radar sites, operating ten aerostats, and flying counter drug surveillance missions. The Air Force detected, monitored, and provided intercepts on over 275 targets attempting to infiltrate our airspace without clearance. Along with our interagency partners, these operations resulted in 221 arrests and stopped hundreds of tons of contraband from being smuggled into our country.

In the Balkans, airmen are fully committed to completing the mission that they started in the 1990s. Today, Air Force airmen have flown over 26,000 sorties supporting Operations Joint Guardian and Joint Forge. These NATO-led operations combine joint and allied forces to implement the Dayton Peace Accords in Bosnia-Herzegovina and enforce the Military Technical Agreement in Kosovo. At the end of 2003, approximately 800 airmen were supporting NATO's goal of achieving a secure environment and promoting stability in the region.

Additionally, the Air Force engaged in deterrence and humanitarian relief in other regions. While the world's attention was focused on the Middle East in the spring of 2003, our Nation remained vigilant against potential adversaries in Asia. The Air Force deployed a bomber wing—24 B–52s and B–1s—to the American territory of Guam to deter North Korea. At the height of OIF, our Air Force demonstrated our country's resolve and ability to defend the Republic of Korea and Japan by surging bomber operations to over 100 sorties in less than 3 days. This deterrent operation complemented our permanent engagement in Northeast Asia. The 8,300 airmen who are stationed alongside the soldiers, sailors, Marines, and our Korean allies maintained the United Nations armistice, marking 50 years of peace on the peninsula.

Our strength in deterring aggression was matched by our strength in humanitarian action. In response to President Bush's directive to help stop the worsening crisis in Liberia, we deployed a non-combat medical and logistics force to create a lifeline to the American Embassy and provide hope to the Liberian people. An Expeditionary Group of airmen provided airlift support, aeromedical evacuation, force protection, and theater of communications support. Flying more than 200 sorties, we transported and evacuated civilians and members of the Joint Task Force (JTF) from bases in Sierra Leone and Senegal. The 300 airmen deployed in support of JTF-Liberia reopened the main airport in Monrovia, and ensured the security for U.S. military and civilian aircraft providing relief aid.

Strategic Deterrence

The ability of U.S. conventional forces to operate and project decisive force is built on the foundation of our strategic deterrent force; one that consists of our nuclear-capable aircraft and Intercontinental Ballistic Missile forces, working with the U.S. Navy's Fleet Ballistic Missile Submarines. In 2003, these forces as well as persistent overhead missile warning sensors and supporting ground-based radars provided uninterrupted global vigilance deterring a nuclear missile strike against the U.S. or our allies. The dedicated airmen who operate these systems provide the force capability that yields our deterrent umbrella. Should that deterrence fail, they stand ready to provide a prompt, scalable response.

Exercises

The Air Force's success can be attributed to the training, education, and equipment of our airmen. Future readiness of our operations, maintenance, mission support, and medical units will depend on rigorous and innovative joint and coalition training and exercising. This year we are planning 140 exercises with other services and agencies and we anticipate being involved with 103 allied nations. We will conduct these exercises in as many as 45 foreign countries. Participation ranges from the Joint/Combined command post exercise Ulchi Focus Lens with our South Korean partners to the tailored international participation in our FLAG exercises and Mission Employment Phases of USAF Weapons School. From joint search-and-rescue forces in Arctic Sarex to Partnership for Peace initiatives, our airmen must continue to take advantage of all opportunities that help us train the way we intend to fight.

In addition to previously designed exercises, recent operations highlighted the need for combat support training. During OEF and OIF, the Air Force opened or improved 38 bases used by joint or coalition forces during combat. Our Expeditionary Combat Support teams established secure, operable airfields in Kyrgyzstan, Uzbekistan, Pakistan, and in Iraq. They also built housing, established communica-

tions, and erected dining facilities that are still used by other services and follow-on forces today. To prepare our airmen for these missions, we have created Eagle Flag, an Expeditionary Combat Support Field Training Exercise. During this exercise, combat support personnel apply the integrated skills needed to organize and create an operating location ready to receive fully mission capable forces within 72 hours. From security forces and civil engineers to air traffic controllers and logisticians, each airman required to open a new base or improve an austere location will eventually participate in this valuable exercise.

Our ranges and air space are critical joint enablers and vital national assets that allow the Air Force to develop and test new weapons, train forces, and conduct joint exercises. The ability of the Air Force to effectively operate requires a finite set of natural and fabricated resources. Encroachment of surrounding communities onto Air Force resources results in our limited or denied access to, or use of, these resources. We have made it a priority to define and quantify the resources needed to support mission requirements, and to measure and communicate the effects of encroachment on our installations, radio frequency spectrum, ranges, and air space. We will continue to work with outside agencies and the public to address these issues. The Air Force strongly endorses the Readiness Range and Preservation Initiative. It would make focused legislative changes, protecting the Air Force's operational resources while continuing to preserve our Nation's environment.

Lessons for the Future

As we continue combat operations and prepare for an uncertain future, we are examining lessons from our recent experiences. Although we are currently engaged with each of the other services to refine the lessons from OIF, many of the priorities listed in the fiscal year 2005 Presidential budget submission reflect our preliminary conclusions. The Air Force has established a team committed to turning validated lessons into new equipment, new operating concepts, and possibly new organizational structures. Working closely with our joint and coalition partners, we intend to continue our momentum toward an even more effective fighting force.

One of the most important lessons we can draw was envisioned by the authors of the Goldwater-Nichols Act. ONE, OEF, and OIF all validated jointness as the only acceptable method of fighting and winning this nation's wars. In OIF, the mature relationship between the Combined Forces Land Component Commander (CFLCC) and the Combined Forces Air Component Commander (CFACC) led to unprecedented synergies. The CFACC capitalized on these opportunities by establishing coordination entities led by an Air Force general officer in the supported land component headquarters and by maintaining internal Army, Navy, Marine Corps, and coalition officers in his own headquarters. Both of these organizational innovations enabled commanders to maximize the advantages of mass, lethality, and flexibility of airpower in the area of responsibility.

Another lesson is the Air Force's dependence on the Total Force concept. As stated above, September 11 brought with it a new tempo of operations, one that required both the active duty and Air Reserve Component (ARC) to work in concert to achieve our national security objectives. The synergy of our fully integrated active duty, Air National Guard and Air Force Reserve team provides warfighters with capabilities that these components could not provide alone.

Our Reserve component accounts for over one-third of our strike fighters, more than 72 percent of our tactical airlift, 42 percent of our strategic airlift, and 52 percent of our air refueling capability. The ARC also makes significant contributions to our rescue and support missions, and has an increasing presence in space, intelligence, and information operations. In all, the ARC provides a ready force requiring minimum preparation for mobilization. Whether that mobilization is supporting flight or alert missions for ONE, commanding expeditionary wings in combat, or orchestrating the Air Force Special Operations roles in the western Iraqi desert, the ARC will remain critical to achieving the full potential of our air and space power.

A third lesson was validation of the need for air and space superiority. Through recent combat operations, the Air Force maintained its almost 50 year-old record of "no U.S. ground troops killed by enemy air attack." Without having to defend against Iraqi airpower, coalition commanders could focus their combat power more effectively. In addition, air and space superiority allowed airmen to dedicate more sorties in support of the ground scheme of maneuver, substantially reducing enemy capability in advance of the land component.

We also need to continue to advance integration and planning—integration of service capabilities to achieve JFC objectives, interagency integration to fight the war on terrorism, and information integration. Integration of manned, unmanned and space sensors, advanced command and control, and the ability to disseminate and act on this information in near-real time will drive our combat effectiveness in

the future. Shared through interoperable machine-to-machine interfaces, this data can paint a picture of the battlespace where the sum of the wisdom of all sensors will end up with a cursor over the target for the operator who can save the target, study the target, or destroy the target.

Finally, there are three general areas for improvement we consider imperative: battle damage assessment, fratricide prevention/combat identification, and equipping our battlefield airmen. First, battle damage assessment shapes the commander's ability for efficient employment of military power. Restriking targets that have already been destroyed, damaged, or made irrelevant by rapid ground force advances wastes sorties that could be devoted to other coalition and joint force objectives. Advances in delivery capabilities of our modern fighter/attack aircraft and bombers mean that ISR assets must assess more targets per strike than ever before. Precision engagement requires precision location, identification, and precision assessment. Although assets like the Global Hawk, Predator, U–2, Senior Scout, and Rivet Joint are equipped with the latest collection technology, the Air Force, joint team, and Intelligence Community must work to ensure that combat assessments produce timely, accurate, and relevant products for the warfighters.

We are also improving operational procedures and technology to minimize incidents of fratricide or "friendly fire." In OIF, major steps toward this goal resulted from technological solutions. Blue Force Tracker and other combat identification systems on many ground force vehicles allowed commanders situational awareness of their forces and enemy forces via a common operational picture. Still, not all joint or coalition forces are equipped with these technological advances. We are pursuing Fire Support Coordination Measures that capitalize on the speed and situational awareness digital communications offer rather than analog voice communications and grease pencils.

A third area we are actively improving is the effectiveness of the airmen who are embedded with conventional land or Special Forces. With assured access to Air Force datalinks and satellites, these "Battlefield Airmen" can put data directly into air-land-sea weapon systems and enable joint force command and control. We have made great progress in producing a Battlefield Air Operations Kit that is 70 percent lighter, with leading-edge power sources; one that will increase the combat capability of our controllers. This battle management system will reduce engagement times, increase lethality and accuracy, and reduce the risk of fratricide. This capability is based upon the good ideas of our airmen who have been in combat and understand how much a single individual on the battlefield can contribute with the right kit.

Summary

The airmen of America's Air Force have demonstrated their expertise and the value of their contributions to the joint and coalition fight. These combat operations are made possible by Air Force investments in realistic training and education, superior organization, advanced technology, and innovative tactics, techniques, and procedures. In the future, our professional airmen will continue to focus advances in these and other areas guided by the Air Force CONOPs. Their charter is to determine the appropriate capabilities required for joint warfighting and to provide maximum effects from, through, and in air and space. This structure and associated capabilities-based planning will help airmen on their transformational journey, ensuring continued operational successes such as those demonstrated in 2003.

ENSURING AMERICA'S FUTURE AIR AND SPACE DOMINANCE

Air Force lethality, mobility, speed, precision, and the ability to project U.S. military power around the globe provide combatant commanders the capabilities required to meet the Nation's military requirements and dominate our enemies. Consistent with the DOD's focus on Joint Operating Concepts, we will continue to transform our force—meeting the challenges of this era, adapting our forces and people to them, and operating our service efficiently. We will adopt service concepts and capabilities that support the joint construct and capitalize on our core competencies. To sustain our dominance, we develop professional airmen, invest in warfighting technology, and integrate our people and systems together to produce decisive joint warfighting capabilities.

DEVELOPING AIRMEN—RIGHT PEOPLE, RIGHT PLACE, RIGHT TIME

At the heart of our combat capability are the professional airmen who voluntarily serve the Air Force and our Nation. Our airmen turn ideas, tools, tactics, techniques, and procedures into global mobility, power projection, and battlespace ef-

fects. Our focus for the ongoing management and development of Air Force personnel will be to: define, renew, develop, and sustain the force.

Defining our Requirements

To meet current and future requirements, we need the right people in the right specialties. The post-September 11 environment has taxed our equipment and our people, particularly those associated with force protection, ISR, and the buildup and sustainment of expeditionary operations. Our analysis shows that we need to shift manpower to stressed career fields to meet the demands of this new steady state, and we are in the process of doing this. We have realigned personnel into our most stressed specialties and hired additional civilians and contractors to free military members to focus on military specific duties. We have also made multi-million dollar investments in technology to reduce certain manpower requirements. We have redirected our training and accession systems and have cross-trained personnel from specialties where we are over strength to alleviate stressed career fields, supporting the Secretary of Defense's vision of moving forces "from the bureaucracy to the battlefield."

Since 2001, we've exceeded our congressionally mandated end strength by more than 16,000 personnel. In light of the global war on terrorism and OIF, DOD allowed this overage, but now we need to get back to our mandated end strength. We are addressing this issue in two ways: first, by reducing personnel overages in most skills; and second, by shaping the remaining force to meet mission requirements. To reduce personnel, we will employ a number of voluntary tools to restructure manning levels in Air Force specialties, while adjusting our Active Force size to the end strength requirement. As we progress, we will evaluate the need to implement additional force shaping steps.

We are also reviewing our ARC manpower to minimize involuntary mobilization of ARC forces for day-to-day, steady state operations while ensuring they are prepared to respond in times of crisis. Since September 11, 2001, we've mobilized more than 62,000 people in over 100 units, and many more individual mobilization augmentees. Today, 20 percent of our AEF packages are comprised of citizen airmen, and members of the Guard or Reserve conduct 89 percent of ONE missions. We recognize this is a challenge and are taking steps to relieve the pressure on the Guard and Reserve.

In fiscal year 2005, we plan to redistribute forces in a number of mission areas among the Reserve and Active components to balance the burden on the Reserves. These missions include our Air and Space Operations Centers, remotely piloted aircraft systems, Combat Search and Rescue, Security Forces, and a number of high demand global mobility systems. We are working to increase ARC volunteerism by addressing equity of benefits and tour-length flexibility, while addressing civilian employer issues. We are also looking at creating more full-time positions to reduce our dependency on involuntary mobilization.

We are entering the second year of our agreement to employ Army National Guard soldiers for Force Protection at Air Force installations, temporarily mitigating our 8,000 personnel shortfall in Security Forces. As we do this, we are executing an aggressive plan to rapidly burn down the need for Army augmentation and working to redesign manpower requirements. Our reduction plan maximizes the use of Army volunteers in the second year, and allows for demobilization of about one third of the soldiers employed in the first year.

Future Total Force

Just as in combat overseas, we are continuing to pursue seamless ARC and active duty integration at home, leveraging the capabilities and characteristics of each component, while allowing each to retain their cultural identity. We continue to explore a variety of organizational initiatives to integrate our Active, Guard, and Reserve Forces. These efforts are intended to expand mission flexibility, create efficiencies in our total force, and prepare for the future. Today's future total force team includes a number of blended or associate units that are programmed or are in use. The creation of the "blended" unit, the 116th Air Control Wing at Robins Air Force Base, Georgia, elevated integration to the next level. With an initial deployment of over 730 personnel, and significant operational achievements in OIF, we are now examining opportunities to integrate active, Guard, and Reserve units elsewhere in order to produce even more measurable benefits, savings, and efficiencies.

The reasons for this type of integration are compelling. We can maximize our warfighting capabilities by integrating Active, Guard, and Reserve Forces to optimize the contributions of each component. reservists and guardsmen bring with them capabilities they have acquired in civilian jobs, leveraging the experience of ARC personnel. Integration relieves PERSTEMPO on the Active-Duty Force. Be-

cause ARC members do not move as often, they provide corporate knowledge, stability, and continuity. Finally, integration enhances the retention of airmen who decide to leave active service. Because the Guard and Reserve are involved in many Air Force missions, we recapture the investment we've made by retaining separating active duty members as members of the ARC.

Renewing the Force

To renew our force, we target our recruitment to ensure a diverse force with the talent and drive to be the best airmen in the world's greatest Air Force. We will recruit those with the skills most critical for our continued success. In fiscal year 2003, our goal was 5,226 officers and 37,000 enlisted; we exceeded our goal in both categories, accessing 5,419 officers and 37,144 enlisted. For fiscal year 2004, we plan to access 5,795 officers and 37,000 enlisted.

In the Air Force, the capabilities we derive from diversity are vital to mission excellence and at the core of our strategy to maximize our combat capabilities. In this new era, successful military operations demand much greater agility, adaptability, and versatility to achieve and sustain success. This requires a force comprised of the best our Nation has to offer, from every segment of society, trained and ready to go. Our focus is building a force that consists of men and women who possess keener international insight, foreign language proficiency, and wide-ranging cultural acumen. Diversity of life experiences, education, culture, and background are essential to help us achieve the asymmetric advantage we need to defend America's interests wherever threatened. Our strength comes from the collective application of our diverse talents, and is a critical component of the air and space dominance we enjoy today. We must enthusiastically reach out to all segments of society to ensure the Air Force offers a welcoming career to the best and brightest of American society, regardless of their background. By doing so, we attract people from all segments of society and tap into the limitless talents resident in our diverse population.

In addition to a diverse force, we also need the correct talent mix. We remain concerned about recruiting health care professionals and individuals with technical degrees. To meet our needs, we continue to focus our efforts to ensure we attract and retain the right people. We will also closely monitor ARC recruitment. Historically, the Air National Guard and Air Force Reserve Command access close to 25 percent of eligible, separating active duty Air Force members with no break in service between their active duty and ARC service.

Developing the Force

Over the past year, we implemented a new force development construct in order to get the right people in the right job at the right time with the right skills, knowledge, and experience. Force development combines focused assignments and education and training opportunities to prepare our people to meet the mission needs of our Air Force. Rather than allowing chance and happenstance to guide an airman's experience, we will take a deliberate approach to develop officers, enlisted, and civilians throughout our Total Force. Through targeted education, training, and mission-related experience, we will develop professional airmen into joint force warriors with the skills needed across the tactical, operational, and strategic levels of conflict. Their mission will be to accomplish the joint mission, motivate teams, mentor subordinates, and train their successors.

A segment of warriors requiring special attention is our cadre of space professionals, those that design, build, and operate our space systems. As military dependence on space grows, the Air Force continues to develop this cadre to meet our Nation's needs. Our Space Professional Strategy is the roadmap for developing that cadre. Air Force space professionals will develop more in-depth expertise in operational and technical space specialties through tailored assignments, education, and training. This roadmap will result in a team of scientists, engineers, program managers, and operators skilled and knowledgeable in developing, acquiring, applying, sustaining, and integrating space capabilities.

Sustaining the Force

The Air Force is a retention-based force. Because the skill sets of our airmen are not easily replaced, we expend considerable effort to retain our people, especially those in high-technology fields and those in whom we have invested significant education and training. In 2003, we reaped the benefits of an aggressive retention program, aided by a renewed focus and investment on education and individual development, enlistment and retention bonuses, targeted military pay raises, and quality of life improvements. Our fiscal year 2003 enlisted retention statistics tell the story. Retention for first term airmen stood at 61 percent, exceeding our goal by 6 percent. Retention for our second term and career airmen was also impressive, achieving 73 percent and 95 percent respectively. Continued investment in people rewards their

service, provides a suitable standard of living, and enables us to attract and retain the professionals we need.

One of the highlights of our quality of life focus is housing investment. Through military construction and housing privatization, we are providing quality homes faster than ever before. Over the next 3 years, the Air Force will renovate or replace more than 40,000 homes through privatization. At the same time, we will renovate or replace an additional 20,000 homes through military construction. With the elimination of out-of-pocket housing expenses, our Air Force members and their families now have three great options—local community housing, traditional military family housing, and privatized housing.

Focus On Fitness

We recognize that without motivated and combat-ready expeditionary airmen throughout our total force, our strategies, advanced technologies, and integrated capabilities would be much less effective. That is why we have renewed our focus on fitness and first-class fitness centers. We must be fit to fight. That demands that we reorient our culture to make physical and mental fitness part of our daily life as airmen. In January 2004, our new fitness program returned to the basics of running, sit-ups, and pushups. The program combines our fitness guidelines and weight/body fat standards into one program that encompasses the total health of an airman.

TECHNOLOGY-TO-WARFIGHTING

The Air Force has established a capabilities-based approach to war planning, allowing us to focus investments on those capabilities we need to support the joint warfighter. This type of planning focuses on capabilities required to accomplish a variety of missions and to achieve desired effects against any potential threats. Our capabilities-based approach requires us to think in new ways and consider combinations of systems that create distinctive capabilities.

Effects Focus: Capabilities-Based CONOPs

The Air Force has written six CONOPs that support capabilities-based planning and the joint vision of combat operations. The CONOPs help analyze the span of joint tasks we may be asked to perform and define the effects we can produce. Most important, they help us identify the capabilities an expeditionary force will need to accomplish its mission, creating a framework that enables us to shape our portfolio.

- Homeland Security CONOPs leverages Air Force capabilities with joint and interagency efforts to prevent, protect, and respond to threats against our homeland—within or beyond U.S. territories.
- Space and Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance CONOPs (Space and C^4ISR) harnesses the integration of manned, unmanned, and space systems to provide persistent situation awareness and executable decision-quality information to the JFC.
- Global Mobility CONOPs provides combatant commanders with the planning, command and control, and operations capabilities to enable timely and effective projection, employment, and sustainment of U.S. power in support of U.S. global interests—precision delivery for operational effect.
- Global Strike CONOPs employs joint power-projection capabilities to engage anti-access and high-value targets, gain access to denied battlespace, and maintain battlespace access for required joint/coalition follow-on operations.
- Global Persistent Attack CONOPs provides a spectrum of capabilities from major combat to peacekeeping and sustainment operations. Global Persistent Attack assumes that once access conditions are established (i.e. through Global Strike), there will be a need for persistent and sustained operations to maintain air, space, and information dominance.
- Nuclear Response CONOPs provides the deterrent "umbrella" under which conventional forces operate, and, if deterrence fails, avails a scalable response.

This CONOPs approach has resulted in numerous benefits, providing:

- Articulation of operational capabilities that will prevail in conflicts and avert technological surprises;
- An operational risk and capabilities-based programmatic decisionmaking focus;
- Budgeting guidance to the Air Force Major Commands for fulfilling capabilities-based solutions to satisfy warfighter requirements;

- Warfighter risk management insights for long-range planning.

Modernization and Recapitalization

Through capabilities-based planning, the Air Force will continue to invest in our core competency of bringing technology to the warfighter that will maintain our technical advantage and update our air and space capabilities. The Capabilities Review and Risk Assessment (CRRA) process guides these efforts. Replacing an outdated threat-based review process that focused on platforms versus current and future warfighting effects and capabilities, our extensive 2-year assessment identified and prioritized critical operational shortfalls we will use to guide our investment strategy. These priorities present the most significant and immediate Air Force-wide capability objectives.

We need to field capabilities that allow us to reduce the time required to find, fix, track, and target fleeting and mobile targets and other hostile forces. One system that addresses this operational shortfall is the F/A–22 Raptor. In addition to its contributions to obtaining and sustaining air dominance, the F/A–22 will allow all weather, stealthy, precision strike 24 hours a day, and will counter existing and emerging threats, such as advanced surface-to-air missiles, cruise missiles, and time sensitive and emerging targets, including mobile targets, that our legacy systems cannot. The F/A–22 is in low rate initial production and has begun Phase I of its operational testing. It is on track for initial operational capability in 2005. A complementary capability is provided by the F–35 Joint Strike Fighter, providing sustainable, focused CAS and interservice and coalition commonality.

We also recognize that operational shortfalls exist early in the kill chain and are applying technologies to fill those gaps. A robust command, control, and sensor portfolio combining both space and airborne systems, along with seamless real-time communications, will provide additional critical capabilities that address this shortfall while supporting the Joint Operational Concept of full spectrum dominance. Program definition and risk reduction efforts are moving us towards C^4ISR and battle management capabilities with shorter cycle times. The JFC will be able to respond to fleeting opportunities with near-real time information and will be able to bring to bear kill-chain assets against the enemy. Additionally, in this world of proliferating cruise missile technology, our work on improving our C^4ISR capabilities—including airborne Active Electronically Scanned Array or AESA radar technology—could pay large dividends, playing a significant role in America's defense against these and other threats. To create this robust command and control network, we will need a flexible and digital multi-service communications capability. We are well on our way in defining the architecture to make it a reality. The capabilities we are pursuing directly support the Department's transformational system of interoperable joint C^4ISR.

There is a need for a globally interconnected capability that collects, processes, stores, disseminates, and manages information on demand to warfighters, policy makers, and support people. The C2 Constellation, our capstone concept for achieving the integration of air and space operations, includes these concepts and the future capabilities of the Global Information Grid, Net Centric Enterprise Services, Transformational Communications, the Joint Tactical Radio System, and airborne Command, Control, and Communication assets, among others.

One of the elements of a sensible strategy to maintain U.S. power projection capabilities derives from a global aerial refueling fleet that serves Air Force, Navy, Marine Corps, and coalition aircraft. Our current fleet of aging tankers met the challenges of OEF and OIF but is increasingly expensive to maintain. The fleet averages more then 40 years of age, and the oldest model, the KC–135E, goes back to the Eisenhower administration. Recapitalization for this fleet of over 540 aerial refueling aircraft will clearly take decades to complete and is vital to the foundation and global reach of our Air Force, sister services, and coalition partners. The Air Force is committed to an acquisition approach for this program that will recapitalize the fleet in the most affordable manner possible.

Capabilities-driven modernization and recapitalization efforts are also taking place on our space systems, as we replace constellations of satellites and ground systems with next generation capabilities. The Evolved Expendable Launch Vehicle has completed six successful launches. Using two launch designs, we will continue to seek responsive, assured access to space for government systems. Space-Based Radar will provide a complementary capability to our portfolio of radar and remote sensing systems. We will employ internet protocol networks and high-bandwidth lasers in space to transform communications with the Transformational Satellite, dramatically increasing connectivity to the warfighter. Modernization of GPS and development of the next-generation GPS III will enhance navigation capability and increase our resistance to jamming. In partnership with NASA and the Department

of Commerce, we are developing the National Polar-orbiting Operational Environmental Satellite System, which offers next-generation meteorological capability. Each of these systems supports critical C^4ISR capabilities that give the JFC increased technological and asymmetric advantages.

Space control efforts, enabled by robust space situation awareness, will ensure unhampered access to space-based services. Enhanced space situation awareness assets will provide the information necessary to execute an effective space control strategy. However, we must be prepared to deprive an adversary of the benefits of space capabilities when American interests and lives are at stake.

Additional capability does not stem solely from new weapon system acquisitions. It results from innovative modernization of our existing systems. One example is incorporating a Smart Bomb Rack Assembly and the 500-lb. version of the Joint Direct Attack Munition into the weapons bay of the B–2. In September 2003, we demonstrated that the B–2 bomber is now able to release up to 80 separately targeted, GPS-guided weapons in a single mission. This kind of innovation reduces the number of platforms that must penetrate enemy airspace while holding numerous enemy targets at risk. The second order consequences run the gamut from maintenance to support aircraft.

We will also address the deficiencies in our infrastructure through modernization and recapitalization. Improvements to our air and space systems will be limited without improvements in our foundational support systems. Deteriorated airfields, hangars, waterlines, electrical networks, and air traffic control approach and landing systems are just some of the infrastructure elements needing immediate attention. Our investment strategy focuses on three simultaneous steps: disposing of excess facilities; sustaining our facilities and infrastructure; and establishing a sustainable investment program for future modernization of our facilities and infrastructure.

Finally, we need to continue to modernize and recapitalize our information technology infrastructure. To leverage our information superiority, the Air Force is pursuing a modernization strategy and information technology investments, which target a common network infrastructure and employ enterprise services and shared capabilities.

Science and Technology (S&T)

Our investment in science and technology has and continues to underpin our modernization and recapitalization program. Similar to our applied-technology acquisition efforts, the Air Force's capability-based focus produces an S&T vision that supports the warfighter.

The Air Force S&T program fosters development of joint warfighting capabilities and integrated technologies, consistent with DOD and national priorities. We will provide a long-term, stable investment in S&T in areas that will immediately benefit existing systems and in transformational technologies that will improve tomorrow's Air Force. Many Air Force S&T programs, such as directed energy, hypersonics, laser-based communications, and the emerging field of nanotechnology, show promise for joint warfighting capabilities. Other technology areas, such as miniaturization of space platforms and space proximity operations, also show promise in the future. Through developments like these, the Air Force S&T program will advance joint warfighting capabilities and the Air Force vision of an integrated air and space force capable of responsive and decisive global engagement.

Capabilities-Based Acquisition / Transforming Business Practices

To achieve our vision of a flexible, responsive, and capabilities-based expeditionary force, we are transforming how we conceive, plan, develop, acquire, and sustain weapons systems. Our Agile Acquisition initiative emphasizes speed and credibility; we must deliver what we promise—on time and on budget. Our goal is to deliver affordable, sustainable capabilities that meet joint warfighters' operational needs.

We continue to improve our acquisition system—breaking down organizational barriers, changing work culture through aggressive training, and reforming processes with policies that encourage innovation and collaboration. Already, we are:

- Realigning our Program Executive Officers (PEOs). By moving our PEOs out of Washington and making them commanders of our product centers, we have aligned both acquisition accountability and resources under our most experienced general officers and acquisition professionals.
- Creating a culture of innovation. Because people drive the success of our Agile Acquisition initiatives, we will focus on enhanced training. Laying the foundation for change, this past year 16,500 Air Force acquisition professionals, and hundreds of personnel from other disciplines, attended training

sessions underscoring the need for collaboration, innovation, reasonable risk management, and a sense of urgency in our approach.

• Reducing Total Ownership Costs. With strong support from the Secretary of Defense, we will expand the Reduction in Total Ownership Cost program with a standard model ensuring that we have accurate metrics.

• Moving technology from the lab to the warfighter quickly. Laboratories must focus on warfighter requirements and researchers need to ensure technologies are mature, producible, and supportable. Warfighters will work with scientists, acquisition experts, and major commands to identify gaps in capabilities. With help from Congress, we have matured our combat capability document process to fill those gaps. During OIF, we approved 37 requests for critically needed systems, usually in a matter of days.

• Tailoring acquisition methods for space systems. In October 2003, we issued a new acquisition policy for space systems that will improve acquisitions by tailoring acquisition procedures to the unique demands of space systems.

Transformation of our business processes is not limited to acquisition activities. Our Depot Maintenance Strategy and Master Plan calls for financial and infrastructure capitalization to ensure Air Force hardware is safe and ready to operate across the threat spectrum. Our increased funding for depot facilities and equipment modernization in fiscal years 2004–2009, along with public-private partnerships, will result in more responsive support to the JFC. We expect to maximize production and throughput of weapon systems and commodities that will improve mission capability.

Our logistics transformation initiative will revolutionize logistics processes to improve warfighter support and reduce costs. The goal of the Air Force's logistics transformation program, Expeditionary Logistics for the 21st Century, is to increase weapon system availability by 20 percent with zero cost growth. Our current initiatives—depot maintenance transformation, purchasing and supply chain management, regionalized intermediate repair, and improved logistics command and control—will transform the entire logistics enterprise.

Our depots have put some of these initiatives into place with exceptional results. In fiscal year 2003, our depot maintenance teams were more productive than planned, exceeding aircraft, engine, and commodity production goals and reducing flow days in nearly all areas. Implementation of "lean" production processes, optimized use of the existing workforce, and appropriate funding, all contributed to this good news story. In addition, our spares support to the warfighter is at record high numbers. In 2003, supply rates and cannibalization rates achieved their best performance since fiscal year 1994 and fiscal year 1995, respectively. Fourteen of 20 aircraft design systems improved their mission capable rates over the previous year, with Predator unmanned aerial vehicles improving by 11 percent, and B–1 bombers achieving the best mission capable and supply rates in its history. Thanks to proper funding, fleet consolidation, and transformation initiatives, spare parts shortages were reduced to the lowest levels recorded across the entire fleet.

Financing the Fight

An operating strategy is only as good as its financing strategy. Similar to acquisition, logistics, and other support processes, our finance capabilities are strong. We are taking deliberate and aggressive steps to upgrade our financial decision support capability and reduce the cost of delivering financial services. Our focus is on support to our airmen, strategic resourcing and cost management, and information reliability and integration. The initiatives that will get us there include self-service web-based pay and personnel customer service, seamless e-commerce for our vendor payment environment, budgets that link planning, programming, and execution to capabilities and performance, financial statements that produce clean audit opinions while providing reliable financial and management information, and innovative financing strategies.

INTEGRATING OPERATIONS

The Air Force excels at providing communications, intelligence, air mobility, precision strike, and space capabilities that enable joint operations. Our airmen integrate these and other capabilities into a cohesive system that creates war-winning effects. Integration takes place at three levels. At the joint strategic level, integration occurs between interagencies and the coalition. Integration also takes place within the Air Force at an organizational level. At its most basic level, integration takes place at the machine-to-machine level to achieve universal information sharing which facilitates true integration at every level.

Integrating Joint, Coalition, and Interagency Operations

The ever-changing dynamics of global events will drive the need to integrate DOD and interagency capabilities and, in most cases, those of our coalition partners. Joint solutions are required to produce warfighting effects with the speed that the global war on terrorism demands. Fully integrated operations employ only the right forces and capabilities necessary to achieve an objective in the most efficient manner. We must also integrate space capabilities for national intelligence and warfighting.

We are pursuing adaptations of our C2 organizations and capabilities to support this vision. While the Air Force's global C2 structure has remained relatively constant, throughout our 57-year history, the demands of a changing geopolitical environment have stressed current C2 elements beyond their design limits.

We have conducted an extensive review of our C2 structures to support the National Security Strategy objectives of assure, dissuade, deter, and defeat as well as the SECDEF's Unified Command Plan. We will enhance our support for the JFC and our expeditionary posture through a new Warfighting Headquarters Construct. This will enable the Numbered Air Forces to support unified combatant commanders in a habitual supported-supporting relationship. Working with their strategy and planning cells on a daily basis will ensure that Air Force capabilities are available to the JFC's warfighting staff. This new headquarters will provide the Combined Air Operations Center (CAOC) with sufficient staff to focus on planning and employment of air, space, and information operations throughout the theater.

We are also adapting the capabilities of our CAOCs. The CAOCs of each headquarters will be interconnected with the theater CAOCs, all operating 24 hours a day, 7 days a week. They will be operated as a weapons system, certified and standardized, and have cognizance of the entire air and space picture. This reorganization will increase our ability to support our combatant commanders, reduce redundancies, and deliver precise effects to the warfighters. As we near completion of the concept development, we will work with the Secretary of Defense and Congress to implement a more streamlined and responsive C2 component for the combatant commanders and national leadership.

Integrated operations also depend on integrated training. We continue to advance joint and combined interoperability training with our sister services and the nations with which we participate in global operations. The Joint National Training Capability (JNTC) will improve our opportunities for joint training. The aim of the JNTC is to improve each service's ability to work with other services at the tactical level and to improve joint planning and execution at the operational and strategic levels. The Air Force has integrated live, virtual, and constructive training environments into a single training realm using a distributed mission operations (DMO) capability. JNTC will use this DMO capability to tie live training events with virtual (man-in-the-loop) play and constructive simulations. Live training in 2004—on our ranges during four Service-conducted major training events—will benefit from improved instrumentation and links to other ranges as well as the ability to supplement live training with virtual or constructive options. These types of integrated training operations reduce overall costs to the services while providing us yet another avenue to train like we fight.

Integrating Within the Air Force

The Air Force is continuing to strengthen and refine our AEF. The AEF enables rapid build-up and redeployment of air and space power without a lapse in the Air Force's ability to support a combatant commander's operations. The Air Force provides forces to Combatant Commanders according the AEF Presence Policy (AEFPP), the Air Force portion of DOD's Joint Presence Policy. There are ten AEFs, and each AEF provides a portfolio of capabilities and force modules. At any given time, two AEFs are postured to immediately provide these capabilities. The other eight are in various stages of rest, training, spin-up, or standby. The AEF is how the Air Force organizes, trains, equips, and sustains responsive air and space forces to meet defense strategy requirements outlined in the Strategic Planning Guidance.

Within the AEF, Air Force forces are organized and presented to combatant commanders as Air and Space Expeditionary Task Forces (AETFs). They are sized to meet the combatant commander's requirements and may be provided in one of three forms: as an Air Expeditionary Wing (AEW), Group (AEG), and/or Squadron (AES). An AETF may consist of a single AEW or AEG, or may consist of multiple AEWs or AEGs and/or as a Numbered Expeditionary Air Force. AETFs provide the functional capabilities (weapon systems, expeditionary combat support and command and control) to achieve desired effects in an integrated joint operational environment.

One of our distinctive Air Force capabilities is Agile Combat Support (ACS.) To provide this capability, our expeditionary combat support forces—medics, logisti-

cians, engineers, communicators, Security Forces, Services, and Contracting, among several others—provide a base support system that is highly mobile, flexible, and fully integrated with air and space operations. ACS ensures responsive expeditionary support to joint operations is achievable within resource constraints—from creation of operating locations to provision of right-sized forces. An example of this capability is the 86th Contingency Response Group (CRG) at Ramstein Air Base, organized, trained, and equipped to provide an initial "Open the Base" force module to meet combatant commander requirements. The CRG provides a rapid response team to assess operating location suitability and defines combat support capabilities needed to establish air expeditionary force operating locations.

Another example of ACS capability is the light and lean Expeditionary Medical System (EMEDS) that provides the U.S. military's farthest forward care and surgical capability. Air Force medics jump into the fight alongside the very first combatants. Whether supporting the opening of an air base or performing life saving surgeries, these medics bring an extraordinary capability. They carry backpacks with reinforced medical equipment, permitting them to perform medical operations within minutes of their boots hitting the ground. Complementing this expeditionary medical capability is our air evacuation system that provides the lifeline for those injured personnel not able to return to duty. The other services and our allies benefited greatly from this capability in OEF and OIF. The Army and Navy are now developing a similar light and lean capability. The success of EMEDS is also apparent in the reduction of disease and non-battle injuries—the lowest ever in combat.

Horizontal Machine-to-Machine Integration

We also strive to increasingly integrate operations at the most basic level—electron to electron. Victory belongs to those who can collect intelligence, communicate information, and bring capabilities to bear first. Executing these complex tasks with accuracy, speed, and power requires assured access and the seamless, horizontal integration of systems, activities and expertise across all manned, unmanned, and space capabilities. Such integration will dramatically shorten the kill chain.

Machine-to-machine integration means giving the warfighter the right information at the right time. It facilitates the exchange of large amounts of information, providing every machine the information it needs about the battlespace and an ability to share that information. In the future, we will significantly reduce the persistent challenges of having different perspectives or pictures of the battlefield. Examples would be to ensure that the A–10 could see the same target as the Predator or to guarantee that the F–15 has the same intelligence about enemy radars as the Rivet Joint.

We want a system where information is made available and delivered without regard to the source of the information, who analyzed the information, or who disseminated the information. It is the end product that is important, not the fingers that touch it. The culmination of the effort is the cursor over the target. It is an effect we seek, and what we will provide.

The warfighters' future success will depend on Predictive Battlespace Awareness (PBA). PBA relies on in-depth study of an adversary before hostilities begin in order to anticipate his actions to the maximum extent possible. We can then analyze information to assess current conditions, exploit opportunities, anticipate future actions, and act with a degree of speed and certainty unmatched by our adversaries. PBA also relies on the ability of air and space systems to integrate information at the machine-to-machine level and produce high-fidelity intelligence that results in a cursor over the target. The result—integrated operations—is our unique ability to conduct PBA and impact the target at the time and place of our choosing. This machine-to-machine integration will include a constellation of sensors that create a network of information providing joint warfighters the information and continuity to see first, understand first, and act first.

The C2 Constellation is the Air Force capstone concept for achieving the integration of air and space operations. Our vision of the C2 Constellation is a robust, protected network infrastructure, a globally based command and control system to encompass all levels of the battle and allow machines to do the integration and fusion. It uses Battle Management Command and Control & Connectivity and consists of command centers, sensors, and systems like the U–2, Space Based Radar, the Distributed Common Ground System, and our CAOCs. Given the C2 Constellation's complexity, the Air Force recognizes the need for an architecture to address myriad integration issues—methodically—so all elements work in concert.

SECURING AMERICA'S NEXT HORIZON

Armed with the heritage of air and space power in combat, the lessons learned from our most recent conflicts, and the powerful advances in technology in the 21st

century, we stand ready to deliver decisive air and space power in support of our Nation. Whether called to execute a commanding show of force, to enable the joint fight, to deliver humanitarian assistance, or to protect our Nation from the scourge of terrorism, we will deliver the effects required. Our ability to consistently answer the call is our dividend to the Nation, a result of our sustained investment in people, technology, and integration.

Our portfolio of advantages provides dividends on the battlefield. We bring to bear a diversified collection of capabilities, which answer the needs of a spectrum of combat and humanitarian operations. As one would with any investment, we will monitor, maintain, and adjust our investments as needed to reflect the demands of a dynamic environment. Transformational initiatives in the way we organize, train, and equip reflect such adjustments, changes that will result in significant gains for our force, for the joint team, and for our Nation. Yet, we will not shift our focus from the core competencies that have provided the foundation for our success and continue to do so. The success of the Air Force resides in the airmen who employ the technology of warfighting through integrated operations with our joint and coalition partners. This is our heritage and our future. This is America's Air Force.

Senator MCCAIN [presiding]. Senator Levin.

Senator LEVIN. Thank you, Mr. Chairman.

Secretary England, relative to our deployments to Haiti, I understand now that the lead element of the stability force could grow up to 2,000 American troops and could stay up to 3 months. What is the mission? How many marines and other military personnel will we send? Do you expect marines to remain in Haiti after a U.N. peacekeeping force deploys?

Secretary ENGLAND. Senator, today we have 370 marines deployed, who are actually in Haiti this morning, the latest number. We still have marines going to Haiti. Understand initially we will have about 900 marines in Haiti. It could be more, but I think that all depends—my understanding on what our support is from other countries. Of course, we do have support from about five other countries, as of yesterday, that I was aware of: Canada, France, a couple of other countries here in the hemisphere. So I believe we need to see what happens here in the next days and weeks, but this should stabilize within the next 90 days, and our marines will be back in Camp Lejeune. But, obviously, it depends on how things work out and the kind of support we have from our friends and allies. But, it does seem to be coming together.

The last report I had, just looking at the news this morning, at least where our marines are deployed things seem to be quieter, so hopefully we'll have a stable situation. This is a peacekeeping force. I hope we'll have stable situation shortly.

Senator LEVIN. The hope is that they'll be back in 90 days?

Secretary ENGLAND. Yes, sir, that's our expectation.

Senator LEVIN. In my opening statement, I talked about the adequacy of our funding and apparently the lack of a decision of the administration not to request a 2005 supplemental during this calendar year. The problem is that the budget that's before us represents a peacetime budget, and it just doesn't pay for incremental costs of operations in Iraq and Afghanistan. When the Chiefs of Staff of the Army and Air Force, the Chief of Naval Operations, and the Commandant of the Marine Corps, were in front of us, they all testified to a cash-flow difficulty that they're going to face if the Defense Department does not submit a fiscal year 2005 supplemental funding request to Congress during this calendar year. I'm wondering whether or not you share those concerns that were expressed to us.

First, Secretary Brownlee, do you share those concerns that unless we have a supplemental for 2005 filed with us this year, that we're going to have some cash-flow problems?

Secretary BROWNLEE. Sir, we're certainly concerned, because, as you indicated earlier what our burn rate is, out of the $65.1 billion that Congress provided for supplemental appropriations for fiscal year 2004, the Army received roughly 40 of that. So by moving some funds within the Army, and relying on some assistance from OSD, we believe we can get to the end of fiscal year 2004. When the fiscal year 2005 budget is approved, we will have some limited ability to cash-flow out of that. Again, with assistance from the administration, we believe we could get to sometime early next spring before we would get into trouble.

Senator LEVIN. So you believe that without a supplemental for 2005 adopted this calendar year, that you're going to be okay through the spring of 2005?

Secretary BROWNLEE. In conferring with OSD and looking within the Army at what we have, and our current level of spending, we believe we can get there, sir.

Senator LEVIN. Secretary England.

Secretary ENGLAND. Well, Senator, the Department of the Navy—our deployments are in our base budget. If you'll notice, for example, the war supplemental, I mean, we draw down relatively small funds from the war supplemental because we fund our ongoing operation as part of our base budget. So all the deployment of our ships, our sailors and marines, we were forward-deployed every day, 24/7. That's accounted for in our base budget.

Senator LEVIN. Is the rotation of the marines accounted for?

Secretary ENGLAND. It is—the marines that are going overseas now are not accounted for, so we do have a marginal cost there. That marginal cost, we are working with OSD, we do expect to be funded. That's out of the fiscal year 2004 supplemental; that's out of the Operation Iraqi Freedom fund. So we do not see a problem with that deployment. Now, if we have deployments next year, that's another issue.

But, nonetheless, for the Department of Navy, it's a relatively small amount of money. Of course, the CNO already testified it was not an issue with him.

I, frankly, believe that the Marine Corps costs, we can accommodate out of our total budget. A lot of the Marine Corps funding, of course, comes out of the Navy side of the budget, not the Marine Corps side of the budget.

Senator LEVIN. I'm wondering, going back to you, Secretary Brownlee, whether or not you are familiar with General Schoomaker's testimony——

Secretary BROWNLEE. Yes, sir, I am.

Senator LEVIN.—because he said that the fact that the Army operation in Iraq was only funded until the end of September created a real concern as to how to bridge from the end of this fiscal year until the time when supplemental funding is available. He said he just didn't have any answer——

Secretary BROWNLEE. Yes, sir.

Senator LEVIN.—where he's going to get the funding. You apparently do have an answer to that.

Secretary BROWNLEE. Sir, if you look just at the funds that have been provided to the Army today, he's certainly right. What I said was that, assuming that we will get additional assistance from the administration, from OSD, they have——

Senator LEVIN. Additional to what?

Secretary BROWNLEE. Sir, OSD can move monies and provide additional assistance to us also from other services. They have transfer accounts. They have other monies there.

Senator LEVIN. Are you talking about——

Secretary BROWNLEE. I am assured by them that, with their assistance, we can make it, in accordance with the way I laid it out. Now, what General Schoomaker was looking at was strictly those funds that have been provided today in the fiscal year 2004 budget for the Army, plus the supplemental funds that we have received to date. He's right about that. We would probably run out in 2004. We would probably need some assistance, quite frankly, from OSD to get to 2004 with some of the other things that we're planning to do.

Senator LEVIN. Well, he was talking about the bridge between the end of this fiscal year to the time when the 2005 supplemental is adopted——

Secretary BROWNLEE. Well——

Senator LEVIN.—because there's no provision in the 2005 budget for these incremental costs. So the question is——

Secretary BROWNLEE. Yes, sir. What I indicated was that, presuming the fiscal year 2005 budget was passed, and we got our share of that, we would have some limited capability to cash-flow funds out of third- and fourth-quarter funds early; and with some additional assistance from the administration, we could probably make it through this—I don't know—somewhere around this time next year, maybe the end of March—how much assistance we would get, but I've——

Senator LEVIN. You have——

Secretary BROWNLEE.—in conferring with OSD, that's what they've told us—that they have—can release additional funds to us.

Senator LEVIN. You've gotten that assurance from OSD?

Secretary BROWNLEE. I have conferred with them, and that's what they've told me, sir, that they would——

Senator LEVIN. Thank you.

My time is up. Thank you, Mr. Chairman.

Senator MCCAIN. Thank you, Senator Levin.

Secretary Roche, when does the Air Force anticipate making a decision concerning the lease/purchase of the tankers?

Secretary ROCHE. Senator, we would expect that the inquiries that the Secretary of Defense has asked to be put in place, which include, clearly, the Inspector General's review of any illegalities, which also include a Defense Science Board review, from scratch, of the tanker recapitalization to be done, plus one or two other things, that when those are finished, then we'll make that decision. I don't know an exact date. It's months from now.

Senator MCCAIN. The defense authorization bill required the conduct of an analysis of alternatives. Are you aware of that?

Secretary ROCHE. Yes, sir.

Senator MCCAIN. Would you anticipate making that decision before the analysis of alternatives is completed?

Secretary ROCHE. The way the analysis of alternatives is structured, Senator, is that it assumes that there was the NDAA-approved lease. An 80 purchase out of a 100, and then the analysis of alternatives picks up from that point forward. If, on the other hand——

Senator MCCAIN. Right, you assume that.

Secretary ROCHE. Yes, sir——

Senator MCCAIN. Why would——

Secretary ROCHE.—the people——

Senator MCCAIN.—why would you assume that——

Secretary ROCHE. Because——

Senator MCCAIN.—Mr. Secretary, when the language of the legislation says—just calls for an analysis of alternatives?

Secretary ROCHE. Senator, as I understand, and I've talked to Mike Wynne and others about this, it picks up that period. However, if there is continued delay, the work that would be done in that analysis of alternatives would always—would also inform the basic initial purchase, as well if we stayed to the KC–X program, if we don't lease. You'll recall, sir, the lease was a way to accelerate procurement, that all along we have been planning monies in the regular program, for a KC–X program. If any one of the committees objected, we would stick with that plan. This NDAA directed analysis of alternatives would also substitute for the analysis of alternatives that would be done as part of the KC–X program.

Senator MCCAIN. Well, of course, e-mails that we receive from Boeing clearly indicated that you intended to lease as many as 300 tanker aircraft——

Secretary ROCHE. No, sir. With all due respect, sir, I never, ever used a number greater than 100, because only the number 100 was used in the fiscal year 2002 appropriations act. Others used other numbers; I cut Boeing off in any conversations of anything above 100.

Senator MCCAIN. That's not what the e-mails indicate, but we'll—hopefully we'll get to the bottom of that sooner or later.

Now, who's going to conduct the analysis of alternatives?

Secretary ROCHE. It hasn't been determined yet, sir. It'll be one of the Federally-Funded Research and Development Centers (FFRDCs), or it will be determined by the OSD as to who conducts it. I'm not sure who they will choose.

Senator MCCAIN. So they haven't even begun the analysis of alternatives.

Secretary ROCHE. They haven't begun the analysis of alternatives. Quite separately, we have had the Rand Corporation doing work, which is precursor to analysis of alternatives, but it's not clear that OSD will choose Rand to be the——

Senator MCCAIN. But you've had the Rand Corporation do the precursor, the same——

Secretary ROCHE. That was for our own information.

Senator MCCAIN.—the same corporation that got $30 million for Project Air Force last year, and will get $25 million again this year.

Secretary ROCHE. But that's precursor for the Air Force, Senator. The OSD will choose which organization will do the analysis of alternatives, as required by the NDAA.

Senator MCCAIN. Well, in a Boeing briefing to the Board of Directors, on—June 2002, "Element operational requirement document (ORD) objective: Establish clearly defined requirements in ORD for the USAF tanker configuration that results in an affordable solution that meets the USAF mission needs and will prevent an AOA from being conducted." You never heard any information that the Boeing Corporation wanted to prevent an analysis of alternatives.

Secretary ROCHE. No, sir. I never discussed that with them. As I've told you once before, I did have a discussion with the Deputy Secretary of Defense in the presence of the other service secretaries, service chiefs, people from OSD, as to whether or not an analysis of alternatives was required for the tanker lease. I argued at that time that given the subject matter, that one was not; and it was agreed to at that time. I testified to that effect to you, I believe, last year, sir.

Senator MCCAIN. You, of course, don't recall you telling the Boeing lobbyists to—a meeting with the Boeing lobbyists where you told them to put pressure on Mr. Wynne on the tanker——

Secretary ROCHE. Senator, thank you——

Senator MCCAIN.—deal——

Secretary ROCHE.—for the question, Senator.

Senator MCCAIN. Let me finish my question.

Secretary ROCHE. If I may answer——

Senator MCCAIN. Can I finish the question?

Secretary ROCHE.—the question—may I answer the question?

Senator MCCAIN. Can I finish the question——

Secretary ROCHE. Oh, I'm sorry.

Senator MCCAIN.—Mr. Secretary?

Secretary ROCHE. I'm sorry.

Senator MCCAIN. Thank you. In that and other e-mails that we got from Boeing, you met with the lobbyists from Boeing and said, "You have to put pressure on Mr. Wynne in order to get this deal expedited." That clearly does not indicate that you had some support for analysis of alternatives. But last time you testified—and let me finish my question—you didn't recall that meeting with the Boeing lobbyists.

Secretary ROCHE. Yes, sir. The reason was, you gave a name of a person, and it happened to be the same name of the program manager of our F/A–22 program, so it was very confusing. I then, at the time, asked you if you would read some of the introductory paragraphs so I could fix the letter in my mind, and, in fact, we may have a difference in what we were looking at. This is an issue that occurs after OSD-Program Analysis and Evaluation (PA&E) sends a letter on a Friday night to me objecting to the language in a report—in a report—that I would be doing for Congress. This was done a month after the lease has been approved, and a month after the lease has been announced. At that time, the person—who has never met me before—uses the word "pressure," but it doesn't make sense, because the lease has already been approved—the lease has already been publicly announced. The concern, and my

upset, was the fact that it appeared there was a rear-guard action going on against my cover letter bringing the matter to the point of Congress. I've told you there was no pressure; Mr. Wynne has told you there was no pressure, and, Senator, I believe if you'll read a few lines down that same e-mail, the individual reports that there would be a meeting that afternoon—this is a Monday—that afternoon.

Further, if I may answer, sir, this was not a lobbyist, nor did I call him in. This meeting had been scheduled weeks in advance, and the individual was the head of all of the military programs in the Boeing company, and we discussed other programs, as well. By the way, the matter of concern was resolved by 4 o'clock that afternoon.

Senator MCCAIN. Well, I have never heard of a Secretary of the Air Force calling in a lobbyist to tell him to "put pressure on"——

Secretary ROCHE. Senator, I did not call——

Senator MCCAIN. That's an e-mail——

Secretary ROCHE.—I did not call in a lobbyist, Senator.

Senator MCCAIN. That's an e-mail.

Secretary ROCHE. Please—please, I'm trying to answer that. I did not call in any lobbyists. The meeting you're referring to is a meeting with a line executive. He was not called in. The meeting had been scheduled well in advance. I did not ask him to put on pressure. Senator, the subject matter was my report that I would sign or not sign, not the lease itself. It——

Senator MCCAIN. Obviously——

Secretary ROCHE.—all occurred months earlier.

Senator MCCAIN. Obviously, your testimony is in direct contradiction to the e-mails that we received. If you would be forthcoming with the e-mails that you used, and other members of the Air Force, during the conduct of this investigation—and your steadfast refusal to do so indicates that everything is not going to be cleared up until such time as we find out all information. There is more than—and I think the Defense Inspector General's report will have some very interesting things involved in it.

The ORD—is my time up? My time has expired, Mr. Secretary, but I want to repeat again, I've never seen, in 22 years in the United States Navy and now 22 years in Congress, anything like the deal that you tried to pull off. We will continue to try to save the taxpayers $5 billion or $6 billion, which would have happened if we hadn't had the right kind of intervention and the right kind of information, because you were greasing the skids with the Boeing Aircraft Corporation, and Boeing has taken appropriate action by relieving their chief executive officer and CFO of their responsibilities. Unfortunately, we haven't seen a single thing done by the United States Air Force to correct this kind of situation, which evolved in a most scandalous fashion.

Secretary ROCHE. Senator, you know that I respectfully disagree with your characterization of that, that I was trying to get a more rapid acquisition of tankers, that I believe everything was done in accordance with the fiscal year 2002 Appropriations Act, that everything was done by the book, as best as I could tell. I did not call in lobbyists. I never have for the companies. I certainly did not tell them to pressure anybody. The pressure—under the cir-

cumstances, the date of—if you look at the date of the e-mail, Senator, it makes no sense having to do with the lease. The issue had to do with a letter, a critique of my draft report to Congress.

Senator MCCAIN. Well, obviously, we will let others judge the facts.

Secretary ROCHE. Yes, sir.

Senator MCCAIN. Again, it's very unfortunate, particularly in light of all the investigations that are going on, that you and the Secretary of Defense will not allow the Senate Armed Services Committee to exercise its oversight duties by having access to all communications, which, by the way, I'm sure are a standard form that you signed when you—when your nomination was submitted to this committee for your confirmation as Secretary of the Air Force, which says, as we showed Mr. Wynne, that you will make available to the committee all communications, as requested.

But, as I think you may know, Mr. Secretary, we won't quit, and there's lots more to come.

Thank you, Mr. Chairman.

Chairman WARNER [presiding]. I've been working with Senator McCain on this issue, with the Secretary of Defense, and I'm hopeful that we can reconcile this issue, because right now exercising the rights under—that this Senator has in the Senate, all civilian nominees for the Department of Defense are in abeyance by floor action. That's your right, and that sends a very strong signal as to the support Senator McCain has to establish the rights of co-equal branches of the government to perform their respective work. So it may well be above your pay grade, Mr. Secretary, but we simply have to resolve this issue.

Senator Akaka.

Senator AKAKA. Thank you very much, Mr. Chairman.

It's good to have you here this morning. I wanted you to know that I am, and we are, proud of our soldiers, our sailors, our marines, and our airmen for what they're doing for our country. Personally, I would like to do all I can to support our troops.

This is a question for all of you. I want to follow up on discussions you were having earlier with Senator Levin. You were talking about funding shortfalls for the remainder of fiscal year 2004. Secretary Brownlee, Army officials have cited unfunded requirements of up to $10 billion for this year, which you suggested OSD might be able to help you with, perhaps by moving funds from other services. However, press reports note that the Departments of the Navy and Air Force may have shortfalls of $1.6 billion and $375 million, respectfully. I have two questions here. Would each of you please tell me how much your Department expects to seek, during the upcoming mid-year review; and if you do not receive these funds, the second part is, what actions will you take to continue conducting operations for the rest of the fiscal year?

Secretary Brownlee, I want you to know we had a good Army Caucus meeting this morning, and it was filled with standing-room only, and we heard from the Chief. We had a good exchange, and look forward to more of that in the future. Will you start, Secretary Brownlee?

Secretary BROWNLEE. Yes, sir. Sir, we are still putting together what we're going to ask for in the mid-year review, and I'd be

happy to provide that for the record, but we are just not complete in putting that together.

I can tell you that I've consulted OSD, requesting assistance with some of the actions we've taken to accelerate the production of up-armored HMMWVs and body armor. We still do have some capability within the Army to reprogram funds and move those around, and we will intend to do that where we can. But I have conferred with people in the OSD comptroller's shop, and they assure me that they will help us; and to what extent, I can't tell you right now. But I have gone to them with this situation, and they have assured me that they are capable of providing assistance. Some of it, I'm sure we're going to have to find ways to do ourselves, and we will. Whether or not there will be a significant shortfall from that, I think we'll know better after the mid-year review.

Senator AKAKA. Secretary Brownlee, I and some of my colleagues visited some of the troops who were wounded and injured, and I tell you that we're so happy to know that the body armor that they now have has saved many of their lives.

Secretary BROWNLEE. Yes, sir.

Senator AKAKA. Are there any other improvements to the body armor that are being planned? I say that because many of them had limb problems and leg problems.

Secretary BROWNLEE. Sir, could we talk about that in a different session?

Senator AKAKA. Surely.

Secretary BROWNLEE. I do not want to talk about the capabilities of our body armor and what it might or might not be able to do.

Senator AKAKA. All right, thank you.

Secretary England.

Secretary ENGLAND. Senator, the $1.6 billion you referred to in the press, that was reported—quoted a letter from the Navy comptroller to the DOD comptroller, Mr. Zakheim—a request in that general amount of $1.6 billion. That $1.6 billion is to cover the incremental cost, fiscal year 2004, sending our marines to Iraq, so it's the cost of being there, plus special equipment, armoring for their vehicles, special equipment. We have, frankly, told the Marine Corps, anything they need we will fund and provide to them, and so we are evaluating a lot of new capability.

I thank the Army, because a lot of the lessons learned in working with them—our marines have physically been with the Army many, many months—lessons learned to apply when our marines deploy. Those funds, we are working with OSD, we have received some of that money from OSD. Some things we wanted to do right away, so we did our own reprogramming to provide some money right away, because we did not want any time lags, because the marines are going quickly.

So we do not have an issue here. I mean, it's a relatively modest amount of money within our total budget. We are getting help from OSD, and we do have some flexibilities within the budget. So those bills are being paid. That is our fiscal year 2004. There is the Iraqi Freedom fund, which was the fiscal year 2004 supplemental, that is available, because we are substituting—as you'll recall, Army was originally going to be going, and we are substituting for some of the Army personnel, right? Marines are taking Army personnel,

in terms of 82nd Airborne. So some of that funding that was going for that total effort with the Army will now come to the United States Marine Corps. So this is not an issue for us, sir.

Secretary ROCHE. Senator, in fiscal year 2004, the Air Force should be able to make it without a problem, assuming there are no new contingencies and assuming the source of money that OSD supposedly has for the Army does not come from the Air Force. It could be a matter of robbing Peter to pay Paul. But assuming none of that, we should be able to make 2004 fine.

Senator AKAKA. Mr. Chairman, my time has expired.

Thank you, Mr. Chairman.

Chairman WARNER. Senator Inhofe.

Senator INHOFE. Yes. I wonder, Secretary——

Chairman WARNER. I would ask forbearance if the ranking member wants——

Senator LEVIN. If you would forebear.

Senator INHOFE. Certainly.

Senator LEVIN. I do appreciate that. I just want to get back in this question of documents on the Boeing lease just for 1 minute.

Transcending the issues involved in the Boeing lease is the question of whether or not Congress has a right to documents. This is a very fundamental issue. Frankly, the Defense Department has been kicking this can down the road and raising the argument that somehow or other we may not be entitled to so-called pre-decisional documents.

There's no basis in law for the Department of Defense denying Congress predecisional documents. The only legal basis for denying us documents is executive privilege, which obviously is not involved here and not being asserted here.

Now, we had Mr. Wynne in front of us. He said that was above his pay grade. Then we had the Secretary of Defense in front of us, and he said something like, "It's still being considered." I just talked to the chairman and Senator McCain, and I think we have a responsibility, frankly, representing the Senate here, as just a committee of the Senate, in insisting on these documents, and, if necessary, getting the Secretary of Defense or the General Counsel of the Defense Department here in front of us to answer this, because there is no way that a self-respecting Congress cannot insist upon these documents, unless there's an executive privilege issue. It's got nothing to do with the issues involved in the Boeing case. It's separate and apart from those issues.

So, Mr. Chairman, you have plenty on your plate, I know. But, nonetheless, this request of Senator McCain is really a request that relates to the powers of this body to oversee the operations of the Department of Defense. If this were a Freedom of Information Act (FOIA) request, then the predecisional issue is relevant. This isn't a FOIA issue; this is an oversight issue on the part of Congress.

So, Mr. Chairman, I would support Senator McCain in really insisting that we get the documents, but get an answer, so that if the answer is going to continue to be no, that then I think this becomes a leadership issue of the whole Senate. The Senate will decide whether we can accept a stonewalling on this kind of a request from an executive branch. I don't care if the executive branch is Democratic or Republican. This goes beyond any political issue. It's

got nothing to do with the merits of this issue. It has to do with the institutional question of obtaining documents, which are not subject to executive privilege.

Chairman WARNER. That's clear, very much, Senator. I've been trying to work with Senator McCain on this. So I think you see a unified front. Gentlemen, this is, of course, at the Secretary's level, but I think it's helpful to communicate, in this type of forum, the sincerity and the commitment of this committee, because we are a coequal branch of government, and we have our functions to perform, and it's essential that we have the appropriate documents to do our oversight.

So we'll proceed now. Thank you for your indulgence, Senator Inhofe.

Senator INHOFE. Yes.

Senator LEVIN. Thank you, Senator.

Senator INHOFE. Thank you, Mr. Chairman and Senator Levin. I know, Secretary Brownlee, you're unable to respond fully to Senator Akaka's question, but I would like to have you repeat something that General Schoomaker said this morning at the Army Caucus, and that I believe you said, but I want to re-emphasize that——

Secretary BROWNLEE. Yes, sir.

Senator INHOFE.—because there is media here, and I want everyone to hear it. That is that every troop in Iraq and Afghanistan, in terms of body armor, how are they equipped?

Secretary BROWNLEE. Has body armor. Sir, as of yesterday afternoon, there were some additional combat service support troops in Afghanistan, to the tune of about 2,700, that I understand did not have interceptor body armor. Now, that doesn't mean there's not enough in Central Command to outfit everybody. There is. But they have to get it to these people, and——

Senator INHOFE. But the point the General is making, if we hadn't taken action, it would take some 20 years, at the rate that we were going, to get adequate body armor to these troops——

Secretary BROWNLEE. That's true.

Senator INHOFE.—which are now going to take——

Secretary BROWNLEE. Yes, sir. We now have more than enough in theater to equip every soldier. It's a matter of distribution within the theater, sir.

Senator INHOFE. Okay. As all of you know, we've talked about the President's budget, and there is, right now, some talk about another $9 billion cut—up to, I think, to be fair with them. If this were to take place, it would be up to around $3 billion for each branch that you represent here today—can you tell us where that would come from?

Secretary BROWNLEE. No, sir. It would be very difficult for us to absorb any cut right now. As I indicated earlier, I think we'll require assistance from OSD, at our current burn rate, to get to fiscal year 2004; and in fiscal year 2005, we will probably be cash-flowing out of the third and fourth quarters in the early months of fiscal year 2005.

Senator INHOFE. Any comments, Secretary England——

Secretary ENGLAND. Well, Senator——

Senator INHOFE.—either or you?

Secretary ENGLAND. Yes, I do want to make a comment here, because, Senator, my comment earlier about efficiency and effectiveness, we have been reducing the costs of our naval forces. We're actually reducing the number of people in the Department of the Navy, so we have become very, very efficient, and, I believe, much more effective. Now, when you become more efficient, then it is much harder to absorb reductions, in terms of funding, because you don't have any margin left.

So we have not looked at this. Obviously, we have to do some analysis, but certainly it would be difficult to absorb. If we have to do it, certainly we would do it, but it's very hard, based on what I believe has been very effective work on our part in being a much more efficient organization.

Senator INHOFE. Secretary Roche.

Secretary ROCHE. I would not know where to get that money from at this point, sir.

Senator INHOFE. Yes, well, I wanted to get you guys on the record, because this is going to be a discussion on the floor. I agree with you, I don't know where it would come from. I look at something, Secretary Brownlee, that sets, as the law, that says you have to field a non-line of sight (NLOS) cannon——

Secretary BROWNLEE. Yes, sir.

Senator INHOFE.—by 2008. A definition of "fielding" is that a prototype, or what it is. Nonetheless, we know that we need that for our kids, for our——

Secretary BROWNLEE. Sure.

Senator INHOFE.—troops over there, that capability.

Let me make one comment, I'm sorry that Senator McCain left, I just wanted to mention something about the discussion with General Jumper before this committee as to Tinker Air Force Base and some of the things that were stated about doctoring up charts and so forth. I did some checking myself to find that when they talked about the degree of corrosion that had taken place, they broke it down in different areas—fuselage, bulkhead fitting, wings, and such as that.

The fifth point was left off, which they should not have done, I agree with Senator McCain in that respect and that is the chart using bulkhead fittings and the fact that there are four occurrences out of 82 aircraft, or a 5-percent occurrence factor. Now, I think that was kind of implied, and I would have felt the same way if I had looked at this in isolation, that we're presenting a problem that's greater than it is. However, when you stop and realize that only a third of that which is done is done at Tinker, it could very well be that the others, in order to get up to the service life of all vehicles, is 11.5 percent. That would mean perhaps in some other areas it's 20 percent.

Second, if you look at some of the other parts of the charts, such as the chart that would be corrosion and service life report on the fuselage skin body, that report, which was the fifth point that was left off, said the history of 82 aircraft and 18 occurrences, 22 percent occurrence factor, which is greater than the 18.5 percent. If the intent were to try to make it look as if the problem is not as great as it is, I don't think that that would have been left off. It's just my comment. I'm not requiring any response, just that I did

take the time to go down and look and see what that situation was, and I believe that to be true.

End strength, Secretary Brownlee, we've talked about all the things that you guys are doing over there. We've talked about OPTEMPO over and over and over again before this committee and all levels of the United States Army, and I would say the same thing with perhaps the Marine Corps, too. The temporary increases up to 30,000 soldiers, I would just like to just ask you to answer the question, where are we in end strength? What would you share with us this morning?

Secretary BROWNLEE. Well, sir, what we have proposed is to grow the Army by 30,000 over the next several years to create at least 10 additional combat brigades, and to use the authority in title 10 that allows the President to waive the requirements of end strength to allow us to do that. You will recall, when we were—the Chief of Staff and I were here last November, we advised the committee then that we were already 20,000 over our authorized end strength, and that we had done that in accordance with that authority in title 10, and we were paying for those additional 20,000 out of supplemental appropriations. So it seemed reasonable to presume that if we took those 20,000 and about another 10,000 and used that to stand up 10 new combat brigades that could then be of very much use in the fight we're in now, that that would be appropriate to do, both in terms of the authority and in terms of the intent of the funding, and that that would allow the Army, then, the kind of headspace and flexibility we could also use to go in and, over the next several years, find, within our current authorized end strength, an additional 30,000 spaces of efficiencies, so that hopefully at the end of a 3-year or 4-year period, we would be able to keep those 10 combat brigades, but, at the current end strength——

Senator INHOFE. Yes, thank you very much Secretary Brownlee.

Mr. Chairman, I'm hoping we'll have a second round. I had some—I've been spending quite a bit of time in California.

Chairman WARNER. Well, let's see what we can do. The votes will start at—I think it is 11:35, giving the first ones 15 minutes to vote. We'll try and do that, because I, myself, have not taken time on questions yet.

Senator Ben Nelson.

Senator BEN NELSON. Thank you Mr. Chairman.

Chairman WARNER. But we'll try that, Senator.

Senator BEN NELSON. Thank you, Mr. Chairman.

Gentlemen, I would say that trying to find $1.6 billion, and moving it around, may be, as Secretary Roche said, something like robbing Peter to pay Paul, but it may be robbing Peter to pay Peter. I think that's the concern that I would have. The budgeting process back here is the equivalent of making a pie a piece at a time. I know the accountants try to account, but I would hope that we don't end up obscuring, in the process of creating money and obligations. So I'm very cautious. I want to suggest caution, because pushing off obligations into the future isn't the most accountable way of handling these ongoing obligations or contingent obligations.

Secretary Roche, I'd like to go back to a little less controversial subject, ongoing sexual assault cases in the military. Last week,

the Personnel Subcommittee of this committee had a service-wide hearing on the subject, and I know that when—since the new Air Force Academy leaders took over, there have been a continuing number of reports, 21 reports, of sexual misconduct. Secretary Rumsfeld has ordered a review of the Department policy on sexual assault and the treatment of victims. Last week, we heard about that.

Do you foresee any further delay in the completion of the Department's investigation of the Air Force Academy and sexual assault cases? We have issues with soldiers, airmen, and cadets, as you understand, and perhaps you can give us your thoughts and projections about that.

Secretary ROCHE. Yes, Senator. To begin with, the numbers are used to pick up many different things. Sometimes the numbers that you hear are old cases that are only now being reported. If you look at incidents that have occurred since——

Senator BEN NELSON. Subsequent to——

Secretary ROCHE.—subsequent to the Agenda for Change, we've actually had only 10 cases, involving cadets. There have been others on the base itself, and down at the prep school we've had two incidents.

The Inspector General's report, there's two parts to that. The Air Force Inspector General, I had asked—it was folded into the larger picture—to look at every single case that had been adjudicated or not adjudicated where a victim, or alleged victim, had problems either with the way it was handled or the way they were dealt with. I would expect that the Air Force part of that to be done in this month; and most of the cases, in fact, have been submitted for extra review down to OSD.

With regard to the Inspector General, the Department's overall review, you would have to ask him. I know that, as cases came up, it took more time, as there were more leaders from the past that had to be interviewed. That took more time. I can't tell you where they are on that.

Senator BEN NELSON. Okay. Well, last week I suggested that I thought the military was taking a serious approach to this, but I was a little concerned about the lack of outrage. I must say, Secretary Roche, what you said today was as close to outrage as I've heard. It seems like perhaps we are getting to the point where it's not simply a matter of taking this seriously, but being outraged by the fact that it has occurred in the past, and other outrage will emerge if it continues into the future, I can assure everyone——

Secretary ROCHE. Senator, you recall that I gave a speech at the Air Force Academy, a year ago right about now, which was all outrage.

Senator BEN NELSON. All right. I just want to make sure we're outraged by these incidents. More importantly, we're serious about dealing with them.

Senator BEN NELSON. I think there is a sincere effort. I do think that we need to continue to pursue it aggressively with modifications to current systems, as we discussed last week.

Secretary Brownlee, with respect to the Patriot advanced capability, I'm a strong advocate of the missile defense system, and I've supported the Patriot advanced capability, PAC–3. But, after the

recent reports from weapons experts saying that the problems with the Patriot missile system weren't fixed before the weapon was deployed in Iraq, I must admit I'm greatly concerned. You may—and I'm sure that if you haven't, you will—see the 60 Minutes segment concerning the flaws. My understanding is that the Patriot had 12 engagements in the Iraqi war, of which one quarter of these engagements were with our own planes, not something that we had planned on, nor something that we can accept as being normal.

In fact, during March of last year, a U.S. Air Force pilot flying an F–16 fighter jet received a signal he was being targeted by radar. He believed it was coming from an enemy missile. He fired one of his own missiles, obviously in self defense, and hit one of our own Patriot batteries, which was tracking his aircraft as an enemy target.

I guess the question I have is, what evidence can the Army provide us to ensure that in the future, for our aircraft and service men and women, that they will not be targets of our own defense system? What steps are being taken? Clearly, this is a serious concern. It's one I've had about deployment before all the research and development has been concluded. Racing to judgement, racing to deploy has its adverse consequences. It appears that that's what occurred here. No one expects perfection, but it looks to me like the malfunction is related to the lack of total research and development before deployment.

Secretary BROWNLEE. Sir, I don't think we know the answer to that yet. I'm sure, the Central Command investigation is not complete. We're still waiting for the result of that. But we've looked very specifically at the system. These things occur as a result of not just problems with the technology—and this may be the case——

Senator BEN NELSON. Well, it could be training, as well.

Secretary BROWNLEE. It could be training. It could be other situations on the battlefield. This was a very highly electronic battlefield, as you well know. These systems and the way they are employed have a lot to do with this. In this particular case—and, again, we don't have the conclusions of the study, but we know that we had moved our systems forward, more so than we had done in previous wars, and we did this for obvious reasons. As the troops near Baghdad—neared Baghdad, everyone was concerned that they might come under a chemical attack of some kind, and so we had moved these systems forward. We're looking very closely at what impact that might have had, both on the awareness of the pilots, as well as the systems and how the systems operated.

So, quite frankly, sir, we're still awaiting the outcome of the Central Command investigation to see what that says.

Senator BEN NELSON. Well, two thoughts. One is, were our military men and women safer as a result of the battlefield testing of this program, or would they have been safer without it? Did it make our men and women safer, and our military capacity stronger?

Secretary BROWNLEE. Sir, given a threat that had emerged as we had expected it to emerge, I certainly would say they are safer. Even given what they did come up against, I would say they are safer.

Senator BEN NELSON. But, is battlefield testing, while it's important to do so, risky with high-tech equipment until we know what the incident of intervention with other technologies and other sensitive equipment might bring?

Secretary BROWNLEE. Yes, sir. If you're focusing on the PAC–3 interceptor—and, again, we don't know yet—but I would be surprised if that turned out to be what was at fault here. There may be problems within the Patriot system, but I'm—I would be rather surprised if it were in the PAC–3 interceptor.

Senator BEN NELSON. Well, we would hope to get a better success ratio than we had, would you agree with that?

Secretary BROWNLEE. I certainly don't believe we can have the incidence of fratricide. None of those are acceptable——

Senator BEN NELSON. Right.

Secretary BROWNLEE.—in any way. Whatever we have to do to fix that, we have to fix it.

Senator BEN NELSON. Thank you.

My time is expired, Mr. Chairman. Thank you.

Chairman WARNER. Thank you, Senator, for raising the important subject of this sexual abuse. The full force and effect of this committee is behind you in making, hopefully, a zero-tolerance correction of that problem.

Senator Collins, that's a problem in which you've been involved. You're next recognized.

Senator COLLINS. Thank you, Mr. Chairman.

Secretary Brownlee, like many of my colleagues, I have heard repeated concerns expressed by the families of our guard members and reservists who are serving in Iraq about the shortages of body armor and fortified HMMWVs. In fact, one soldier was home on leave, in December, and called me personally to talk about this and the consequences that he feared for the members of his unit.

I'm very pleased, therefore, to hear from you this morning of the progress that has been made. But when I look at your chart in your testimony, it indicates that a year ago only 12 percent of the soldiers in Iraq were equipped with body armor, and only 500 HMMWVs were fortified. Why were we so ill-prepared? Why didn't we have more body armor and more fortified HMMWVs available to protect our troops? There seems to be such a discrepancy. I'm pleased with the progress, but I'm wondering why it was so misjudged.

Secretary BROWNLEE. Yes, ma'am. Quite honestly, we were not producing this body armor at a rate that would allow us to equip all the soldiers with body armor before we went in. What we did was use what we had and equip those soldiers that were infantry and front-line soldiers that would be most likely to come under attack.

The requirement for up-armored HMMWVs, proportionally, had never been that great because most of these kinds of HMMWVs were not viewed as favorably for tactical situations because their performance is somewhat degraded by the heavy weight of the armor. So there wasn't a feeling that all HMMWVs should be up-armored. It was when we got into the operational environment in which we found ourselves, that began in June and July last summer, that we realized that all soldiers were being exposed to these

kinds of attacks, and that convoys, in particular, were exposed to these kinds of improvised explosive devices (IED) attacks. That's when we began to ramp up to provide those as soon as we could, and we've redistributed, from all over the world, the up-armored HMMWVs that we've had in other places. We've moved—I think the last ones are just moving in there now, should all be in there in April. We began a crash program on the body armor. We're now producing at rates up to 25,000 per month.

I also regret that we were not more farsighted here. We simply were not prepared for that kind of a counterinsurgency that attacked our convoys and our soldiers in the rear, as it has proven to be.

Senator COLLINS. Secretary England, I know that you're expecting, of course, a shipbuilding question from me, and I'm not going to disappoint you in that regard. I very much appreciate the commitment that you've shown in your budget to fully fund the construction of three guided missile destroyers (DDGs) this year, and we've certainly made a lot of progress. When I look back at 2000, the year 2000, I think we were spending only $4.8 billion for shipbuilding and conversion budget; it's now more than twice as much, at $11.1 billion. That's a significant and much-needed improvement.

I remain, however, very concerned about the Department's future shipbuilding plan, particularly as it affects the transition from the DDG to the experimental destroyer (DD(X)). The Navy appears to be slipping the construction of a second DD(X) destroyer by 1 year, from fiscal year 2006 to 2007. If this occurs, it would be the first year in more than 20 years that our Navy will not be procuring a major surface combatant. My concern is twofold. One is that it will exacerbate the already significant problem with regard to the size of our fleet, and we have the CNO's recent testimony on the ideal size of the fleet of being around 375 vessels. But, it also has a significant impact on our industrial base, our ability to keep the skilled workers that we need, and to keep some competition in the shipbuilding industrial base.

So I would ask that you comment on what are the Navy's plans to ensure that we keep moving toward increasing the size of our fleet, something study after study has demonstrated we need, and also the impact on the stability of our industrial base.

Secretary ENGLAND. Thanks, Senator. Two comments here. First of all, for the DDX—DDG to DDX conversion, you're right, we do have a void in 1 year. My hope and expectation is we can fix that as we go along, because that is an out year. That's a plan; it's not an actual at this point. Our issue, of course, is affordability. We are required to fully fund a ship at the very beginning. Of course, that's very difficult for us to do. I mean, it would be better if we could partially fund, but we have to fully fund. So, in this case, we literally had to move the total amount of about $2 billion to the right, rather than to the left. Now, hopefully, we can fix that as we go along.

On the other hand, I will tell you, the industrial base is always of a concern. We do not want voids in the industrial base. That's not good for our industry; it's also not good for us, because it's costly and disruptive. We do have a study underway. Assistant Sec-

retary John Young has been conducting this study on the industrial base. That is finished, I believe, now, and will be briefed to you very shortly. It could be today, tomorrow—but, I mean, this week, I believe, we will be briefing you. As part of that, we have worked with the leadership of all the major shipyards to make sure we do understand their issues and problems, because it's in our interest not to have those problems in our shipyard. So we are paying attention to it. We do not want breaks in our production line. We will continue to address that so that's not an issue for the industry. We don't want that to be an issue in the industry.

Senator COLLINS. Thank you, Mr. Secretary. Thank you, Secretary Brownlee.

Secretary BROWNLEE. Mr. Chairman.

Chairman WARNER. Senator Chambliss, I wonder if you'd indulge the Chair. I haven't asked any questions. I want to ask one question while our distinguished colleague from Maine is here, because she has been an absolute leader on this issue, and that is, Secretary England, that it's been reported that the Navy will be the first service to implement the new flexible hiring authorities contained in the National Security Personnel System (NSPS), which Congress adopted last year, and, additionally, that you will take on a special role for the entire Department, it's my understanding, to assist in the implementation of the new civilian personnel bylaw and regulation. I commend you for stepping up and accepting that challenge.

So give us a little overview of how the Department has handled the initial steps toward the implementation of the NSPS, and how you see your role in the coming year.

Secretary ENGLAND. Mr. Chairman, thank you. Deputy Secretary Wolfowitz has asked if I would assist in the implementation, just because of my experience and background with large organizations, and particularly with the union groups and representative employees. So about 2 weeks ago, I did start to engage in this process. I have had the first review with the Department of Defense personnel. I have another one scheduled for this Thursday. So I'm still, myself, trying to understand the total implementation process. I do know it has moved along rather quickly. The question really is one of consultation in the process that we're using. So this is really a question of process.

The Department of Navy did volunteer to be the department—the lead department in implementing NSPS, which is perhaps how I got asked to assist in this matter. So I'm really not in a position to give you definitive input at this time. But in approximately 2 weeks, I would be pleased to come back and meet with you and other members of the committee.

Chairman WARNER. We'll accept that. Because there's been some concern, my understanding—the Senator might wish to elaborate—about the Office of Personnel Management (OPM), a separate entity within our Federal system, and their coordination, collaboration, whatever you want, partnership, I would hope, in this implementation. Am I correct in that, Senator?

Senator COLLINS. You are correct. The OPM, under law, is supposed to be involved in the development of the new system. That's very important, because OPM has unique expertise in the Federal

Government that I think can be very helpful to the Department. I think it's very important that even at these very initial stages, that not only the Department go forward, but that it engage in a collaboration with OPM and with the Federal employee unions.

Chairman WARNER. Well, I thank you, Senator.

Secretary ENGLAND. I'm sorry. Senator, I will be meeting with the director, Kay Cole James, at a breakfast meeting this Friday, so it would have been sooner, frankly, except my own schedule out of town, et cetera. So we will be meeting, having those discussions this week.

Chairman WARNER. Good. Well, that's reassuring. Because this committee took a very strong leadership role on this issue, which was quite controversial, and I think we moved very strongly in the direction in which the President and the Secretary of Defense so desired because of the uniqueness of this particular Department. But we're also running comparisons as to how this is operating in your former Department, Homeland Security. So we're going to be a constant oversight on this as you move ahead on it.

Secretary ENGLAND. I appreciate it, sir. This is a very important piece of legislation. I thank you for passing it last year. It is incumbent on us now to do it appropriately and correctly, and we are working to do that, sir. I will be pleased to work with you and other members of the committee.

Chairman WARNER. Thank you.

Senator Chambliss, thank you very much.

Secretary BROWNLEE. Mr. Chairman, I wasn't sure if Senator Collins might have to leave, and I'd just like to correct the record——

Chairman WARNER. Yes.

Secretary BROWNLEE.—on one thing that I said. I indicated there were 2,700 soldiers in Afghanistan who did not today have body armor. That's 700, not 2,700. I'm advised they'll have them by Friday.

Senator COLLINS. Thank you very much. That's good news.

Secretary BROWNLEE. One other issue. With respect to priorities to Reserve components versus actives, just so you'll know, we have mobilized and will deploy three separate brigades from the National Guard, enhanced brigades the 30th, out of North Carolina; the 39th, out of Arkansas; and the 81st, out of Washington State. The Chief of Staff of the Army and I made a decision that they would have first priority over the active components in equipping them with the rapid fielding initiative equipment, which also includes the body armor. So they will get all the array of soldier items that—it's about $3,000 per soldier, and includes sunglasses and knee pads, and all these things—and they have a higher priority on that for this deployment than any of the actives.

Senator COLLINS. Thank you.

Chairman WARNER. Senator.

Senator CHAMBLISS. Thank you, Mr. Chairman.

Before I ask a question or two, I just want to make a comment, first of all to associate myself with the comments of Senator McCain and Senator Levin on this critical issue of document production. This is a fundamental issue that we have to resolve, and I know under your leadership, Mr. Chairman, we will.

Second, with respect to the implementation of these new civilian rules, as the chairman and Senator Collins know, I had some real misgivings about moving as quickly as the Department of Defense wanted to move last year during the authorization process. Thanks to Senator Collins' particularly strong leadership on another committee, we did work through that and we have something that I think will work. Secretary England, you know what great respect I have for your abilities, and I'm very pleased to hear you say that we're moving on this and we're going to do it in the right way, because it's very sensitive with our civilian force. The morale is pretty high, and we don't need to do anything right now to jeopardize that. So I'm very pleased to hear you're doing this.

Secretary ENGLAND. Right, sir. Thank you.

Senator CHAMBLISS. Secretary Roche, I want to visit with you for a minute about the F/A–22. Last week I had a visit with the Air Force, as well as visited the plant in Marietta, a production facility, to discuss the status of the program, and I came away with great confidence that while there are still some minor glitches—and I say minor; any glitch in a weapon system is a glitch, but when you look at the complexity of this weapon system and the problems that we've had with it, as we have with every major weapon system through the course of research, development, and now in production—the glitches we have now are truly minor glitches, but we're working through those, and that everything is headed in the right direction. We may be a little bit behind on the testing schedule, but it's anticipated, by both the Air Force and Lockheed, that we're going to catch up on that testing within the short term, not the long term.

There's an article in the paper today by the Bloomberg News that has a less positive assessment, and I wanted to get your comments on that article.

[The information referred to follows:]

Bloomberg.com
March 1, 2004

Lockheed's F/A-22 Jet Is Lagging Flight-Test Goals

By Tony Capaccio

Lockheed Martin Corp.'s F/A-22 fighter jet is lagging the flight-test goals necessary to proceed into combat testing because of software malfunctions and reliability problems, a U.S. Air Force official said.

The aircraft, in its preliminary test phase, hasn't generated enough flights to train the number of pilots needed for the more rigorous phase scheduled to begin in April, Air Force Maj. Gen. Mark Welsh said in an interview in his Arlington, Virginia, office. Lockheed Martin said it's making improvements.

Pentagon officials will decide March 22 whether the $71 billion program can enter the next testing -- a crucial phase that's already been delayed three times since 2001. Passage would allow the Pentagon this year to approve full-rate production. It's a decision worth as much as $21 billion for Bethesda, Maryland-based Lockheed, the largest U.S. defense contractor.

``Last year, Congress clearly expressed its dissatisfaction with the state of the F/A-22's avionics software," said Christopher Bolkcom, a military analyst for the nonpartisan Congressional Research Service. ``I know that both supporters and opponents of the program are monitoring the progress or lack of progress closely."

Acceptance and initial-flight tests show ``some parts are failing that we didn't expect," said Welsh, who is director of fighter and bomber programs. The aircraft can't proceed into the next phase unless improvements are demonstrated, he said.

Fixing the Problems

Lockheed said it's working with the Air Force to increase the number of test flights and improve the airplane' avionics.

``The F/A-22 is a brand new and still maturing weapon system that is just now being used in demanding roles analogous to its anticipated future combat use," Lockheed said in a statement. ``As a result, some aircraft components are not demonstrating an appropriate level of reliability. Those systems are being examined and addressed by Lockheed Martin and our suppliers."

Lockheed and the Air Force completed a study in December that determined 68 parts needed to be redesigned, Welsh said.

Shares of Lockheed fell 5 cents to $46.23 as of 4:16 p.m. in New York Stock Exchange composite trading.

Full Production

A full-rate production decision would allow the Air Force to increase purchases from 22 aircraft this year to as many as 32 a year starting in 2007. It also allows the Air Force to propose a five-year umbrella contract covering production in 2007-2011 that ensures funding for Lockheed and

subcontractors.

Aeronautics programs such as the F/A-22 and the Joint Strike Fighter program contributed $10.2 billion of Lockheed's $31.8 billion in revenue last year. Fourth-quarter sales at Lockheed's aeronautics business, which makes the F-16 fighter jet, rose 58 percent to $3 billion. Profit rose to $200 million from $139 million in the year-ago quarter.

The F/A-22 is being designed to replace the F-15C as the top U.S. air-to-air fighter. The program was conceived during the Cold War to counter Soviet MiG jets. The $257 million F/A-22 aircraft -- an inflation-adjusted figure that includes everything from initial research to long-range operations and support -- is the most expensive ever.

The Pentagon through Sept. 30 had spent $36 billion on the program.

Better Performance Needed

``Sortie generation has got to continue to improve," Welsh said. ``We've got to continue to work on how quickly we identify maintenance problems and the corrections to them."

The aircraft is also two hours short of demonstrating it can fly a mean time of five hours without experiencing software malfunctions that impede accomplishing the mission, Welsh said.

The software malfunctions involve ``something that's going to effect the pilot completing the mission -- whether it's testing the airplane or killing another aircraft," Welsh said.

Lockheed said it's ``focused on resolving remaining avionics performance anomalies" that have kept the aircraft from meeting the five-hour goal.

``We have made significance progress during the past few months and we will continue to upgrade our software to improve the avionics performance," it said.

Some of the software failures have prevented cockpit systems from properly identifying other aircraft or the radar from spotting targets, Welsh said.

``There's been improvement, it's not like they are standing still, but we have to get to five hours," Welsh said. ``There have been a number of common problem reports where fixes have already been identified."

Political Context

The F/A-22 test glitches come as the Pentagon starts a major review of the program in the fiscal 2006 budget at the request of the White House Office of Management and Budget.

Ken Krieg, the Pentagon's director of independent program analysis, told a conference Friday the jet would undergo a rigorous comparison against weapons in the Navy, Marines, Army and Air Force arsenals that perform some of the same missions.

``If one looks at air superiority or deep-strike or any of the other kind of missions you want to put the F/A-22 in, it's highly a joint environment with lots of joint capabilities and options," Krieg said.

Congress will be skeptical of the program's progress if the combat testing is delayed again, Bolkcom said. Both sides realize the Army canceled the $39 billion Comanche helicopter program in order to focus on improving its existing fleet, Bolkcom said.

``F/A-22 supporters may find themselves having to justify why the F/A-22 is more important than buying tankers, bombers, or upgrading a significant portion of its aircraft inventory," he said.

Representative Curt Weldon, a Pennsylvania Republican who's chairman of a House Armed Services tactical aircraft subcommittee, told Congressional Quarterly's CQ Today publication that the F/A-22 ``would have to go" if defense spending is trimmed for deficit reasons.

There's one statement in there that I'm particularly concerned with. We have an independent assessment being done by the Pentagon. The director of the Independent Program Analysis that's doing that study makes a statement that indicates to me that he doesn't understand the capability of this weapon system and the real ability of this weapon system to ensure that we're able to maintain air superiority.

We've been able to maintain air superiority over the last several conflicts we've been involved in. It's been the reason that we have suffered the least amount of casualties in any major conflicts that we've been engaged in in the last 30 years. The F–15C has been a great weapon system. It's done its job well. But it's my understanding that there is in production right now, by the Russians, a weapon system that is comparable to the F–15C, and that if we're going to rely on the F–15C with upgrades or modifications in the future, that we are not going to be able to maintain air superiority.

The F/A–22 has the ability to penetrate enemy lines, fire one, two, three shots, in some instances, before it's even detected. I want to make sure that you have an opportunity to address this issue relative to air superiority and the real need of the F/A–22. I understand it's your number-one program, and I appreciate that fact. But, if we're going to continue to have these darts thrown at a weapon system that's going to allow us to maintain air superiority, and to ensure that we're going to be able to engage in conflicts with the least loss of life possible, I think it's critically important that we get that message out to the American people, as well as to Members of the House and Senate.

So I'm throwing that out to you for your comments on what I know is a very important issue to the United States Air Force.

Secretary ROCHE. Without filibustering the issue, sir, let me make the following points with regard to the status of the program now. We know of no major obstacles. But as you go through tests and evaluations, things come up. It has in every other program; and it will in this one, as well. But with the major problems that came up, I think we have two track records to be proud of. One, each issue that people were so concerned about in the past, we've fixed. Two, the stability of funding has caused stability in the production line, which is making the production of the aircraft more efficient over time. It is a very complex system.

The entry into initial tests—operational tests was based on events, not dates. The limiting problem we have now is having the sortie generation rate, which has to do with the failure of small parts on the plane such that you don't get enough sorties per day. We are working that. Part of the problem is the diminished material sources, very few subcontractors, and parts that were presumed to never fail are failing. That will apply to any plane that we build in the United States. Joint Strike Fighter will face the same problem. It's good to know it now so that we hopefully can prepare a bit for that. But we are working each of those down, and we will enter into the test program when we have the sortie generation in place.

The pilots who have flown the plane just are awestruck at it. I've had a chance to be with them at Edwards, at Nellis, Tyndall. At Tyndall, meet with all the maintainers, and then the planes took

off, flew, came back; no discrepancies whatsoever on the aircraft. Its capabilities of stealth, super-cruise, advanced avionics are all playing out as we expected them to play.

We also have modified the aircraft so that it's more of an air-to-ground airplane than it was the past, to specifically support land forces. So one of the reasons that the Army could give up on a deep-strike system is that that's a responsibility that we will take, and that the F/A–22 would be our premier system, to go deep to focus on moving targets, which are very hard to bomb, typically, and we're doing that. It's also the only aircraft that really gives you a good chance against cruise missiles, mainly because of super-cruise. You could put the same electronics on something like an F–15, but you can't super-cruise.

The F–15s will never be stealthy. They are large in radar cross-section. We will maintain some as a bridge, as we transition to the F/A–22. But the F/A–22, among other things, deters anybody from building a system and thinking they could achieve air dominance, because they can't. The planes that the former Soviet Union is now constructing are very good. In fact, if we put our pilots in those new planes, against our pilots in our planes, our F–15s, our pilots in their planes will win because it's advanced technology. But you bring the F/A–22 into the picture, and that changes dramatically.

So I believe it is a system that is more and more oriented toward ground support, in terms of deep interdiction, moving targets, working with special operating forces that are distributed. It is specifically being oriented to targets that are moving. Increasingly, enemies of ours know that if you stand still, you're easily bombed, but if you move, you can, in fact, avoid us. It is the only aircraft that we have that gives us a reasonable chance to take more than one shot against a cruise missile.

So I believe it'll stand the test of people looking at it. If someone wants to do yet another study of it, I believe that's not unreasonable. This is not a cold war system today, just as the B–1 is no longer a cold war system. We've made enough transitions in the B–1 to make it very appropriate for this era, and we believe we've done the same thing to the F/A–22.

Senator CHAMBLISS. Thank you, Mr. Secretary.

My time has expired, Mr. Chairman, but I have a written question that I'm going to submit.

Chairman WARNER. Why don't you go ahead, you can take another question.

Senator CHAMBLISS. Okay.

Secretary Roche, I noticed, in your written statement, you make reference to the 116th Control Wing at Robbins AFB, which flies the Joint Surveillance Target Attack Radar System (JSTARS) and 116th to the 1st blended active Reserve wing in the Air Force, in the entire military. I'm proud of the work the 116th has done. We worked through some difficult issues there. Boy, I'll tell you, the morale of the Guard and the Active Force is unsurpassed within those folks, and, Les, you know what a great job JSTARS does for your folks, and it's such a great weapon system, and this is a great integration of the active and Reserve component.

This model truly does move us to the total-force concept that the Secretary is talking about with respect to every branch of the Serv-

ice. I want to just ask each of you if you have looked at the blend between the Guard and the Active Force that we've accomplished with the Air Force, and, Secretary Roche, how you intend to expand on this as we move forward. This issue of force structure continues to be an active and vital issue. Secretary Brownlee, you have addressed it in a certain way within the Army. But I think this blended-force concept is the wave of the future, with the way Secretary Rumsfeld is talking. So I'd ask each one of you, will you just comment on what you see here, how you think your respective branch is going to deal with this, are you going to move in that direction?

Secretary Roche, why don't we start with you, because you're the one with the experience on it.

Secretary ROCHE. Well, and you, as well, since you helped me. We did have to get through some difficult times. It has proven itself in combat, which, as Admiral Burke once told me, is the only real test of a weapon system, is how it performs in combat. JSTARS, as a blended wing, has performed magnificently.

We should also make sure everyone realizes that there are Army officers onboard the JSTARS at all times, so it's not just Air Force officers.

It has worked very, very well. We have taken that concept and expanded it, especially in the area of unmanned vehicles and remotely piloted aircraft. We've done another unprecedented move, with the help of some wonderful guardsmen in California and Nevada. We actually have California guardsmen and Nevada guardsmen in with Reserves and Active Force, right from the beginning on our Predator developments and our Predator control, so that it'll be done at the same time.

We are looking at other areas. We have some in space, some for helping our Strategic Forces Command. We're looking wherever it may make sense to do it, because it brings the Guard into our most modern systems. Because the newer systems are so much more usable, we can have multiple crews for the same aircraft. So we expect to do this with the F/A–22, as well. It appears to be something that, where it makes sense to do, it really, really pays off, and there are other constitutional issues you helped us with.

So I commend it. It doesn't work in every case, but we're finding more and more places where it is in the interest of both the Guard and the Active Force to bring the experienced folks from the Guard together with the full-time people on active duty, and you get a much higher crew ratio. If you have to go to war, the active people take it, but then, coming behind them, are the Guard folks who supplement the original active group.

JSTARS works just beautifully, and I'll be flying with them in the area here shortly.

Secretary ENGLAND. Senator, of course, two services; first, though, I'll comment about the United States Marine Corps. Our Reserves are ready to go at literally 7-day notice—whatever their transportation time, they're ready to go into combat, so they actually work with our Active Force, indistinguishable, ready to go on a moment's notice, literally, and that's working well, has worked for the United States Marine Corps.

The Department of the Navy, we are combining our assets between active and Reserve. We are actually reducing our assets as a result, because we do want a total force, in terms of integrated Reserve and Active Force. In fact, we are reducing the size of our force, largely brought about with our integration between our active and our Reserve components.

So we do this across the board. Our ships, our airplanes, everything we do, this is a very active integration. I think you will see, over time, that we will likely continue to shrink both our assets and our force somewhat as we continue this integration.

So we're committed to it. At any given time, about 25 percent of our reservists are actually doing active duty. The pilots that fly commercial airlines—when they're not flying commercial airlines, they're flying for the United States Navy, a lot of them, those that are in our Reserve organization. So you will see more and more integration of our Reserves and our Active Force. Again, our Marine Corps is already highly integrated at the moment.

Secretary BROWNLEE. Sir, we have some multi-composition units at echelons above division that are primarily headquarters units. As we stand up these new brigades in the active component, we will stand up new brigades in the Reserve component. They will all be standardized and modularized.

There is not an intent right now to blend them, I don't think, in the sense you are talking because, although we do have active component soldiers integrated in with our Guard and Reserve units—anyway, we have some 5,000 that are out there; senior officers and non-commissioned officers (NCOs) integrated in these units—they're not blended in the way that you might have described. We'll have to take a look at that to see how it would work with these kinds of units. I'm just not sure how it would, but we'll certainly take a look at it.

Senator CHAMBLISS. Thank you, Mr. Chairman.

Chairman WARNER. Thank you. It's a very important question, Senator Chambliss.

Just a follow-on with the Secretary of the Army, we see that the force structure in Iraq now will be comprised of 40 percent National Guard.

Secretary BROWNLEE. Yes, sir.

Chairman WARNER. When will that figure be reached, that 40 percent level?

Secretary BROWNLEE. Sir, right now, in the rotation that we're doing, of moving forces over and bringing them back, we are about 30 percent complete with shipping forces over, and about the same amount coming back.

Chairman WARNER. Yes.

Secretary BROWNLEE. We will not complete these rotations until sometime in April/May, so I would say it would be—in that time frame, is when it would be complete.

Chairman WARNER. As those units depart, to what extent can yourself and the Secretary of Defense assure the individual guardsmen that, subject to some changes, which are not foreseeable, their commitments will be for what period of time?

Secretary BROWNLEE. Sir, their commitments are for 1 year boots-on-the-ground in——

Chairman WARNER. In Iraq——

Secretary BROWNLEE.—theater. Yes, sir. In Iraq.

Chairman WARNER. So maximum is——

Secretary BROWNLEE. Yes, sir.

Chairman WARNER.—365 days, the boots depart.

Secretary BROWNLEE. Yes, sir. But their mobilization periods of time, of course, are longer because they have to be trained up——

Chairman WARNER. Correct.

Secretary BROWNLEE.—mobilized, trained up, and then brought back and demobilized. So it can be up to another 6 months, depending on how long they're training; in some cases, longer than that, depending on their training.

Chairman WARNER. What's the composition, in Afghanistan, of Guard and Reserve?

Secretary BROWNLEE. I'd have to look at the proportions. I know we have a unit from the 45th Oklahoma National Guard, that unit is in Operation Pegasus, which is training the Afghan army. I'd have to look at the proportion. I know there are about 11,000 troops there; about 10,000 of those are Army. I would suggest probably about 20 percent of that may be Guard. I'll have to get that number for you.

Chairman WARNER. My understanding is perhaps there's a unit from Alaska. Would you check on that and provide a response?

Secretary BROWNLEE. I will. Yes, sir.

[The information referred to follows:]

As of March 1, 2004, there were no Alaska National Guard members—Army or Air—assigned to operations in Afghanistan. Units and individual augmentees had previously and subsequently have been assigned to that area of operations.

Chairman WARNER. I thank you very much.

Now that my colleague, the ranking member, has returned—I was absent on the floor during the course of your opening comments with regard to the budget, but I would like to make these observations. That is that, in a report released last November, the Congressional Research Service (CRS) examined 46 cases since fiscal year 1990 in which funds were appropriated for military operations. CRS concluded, and I quote, "Since 1990, Congress generally has funded combat operations with supplemental appropriations," Some have suggested Congress begin budgeting for operations in Iraq through the regular appropriations process.

So I'd call on you, Secretary Brownlee—you've had, obviously, the longest experience in this area, both with this committee and other periods of your distinguished career—can you, in your judgement as the acting secretary, reliably estimate the cost for your respective service of military operations in Iraq and Afghanistan for fiscal year 2005 today?

Secretary BROWNLEE. No, sir. I certainly couldn't have done it at the time we put the budget together. That's why I think that the Congress has routinely funded military operations like this out of supplementals. If I'm correct, I think we did the operations in the Balkans for at least 3 years, or more, funded them through supplemental appropriations, and I would suggest that those operations were far more certain and stable than the situation we find ourselves in in either Afghanistan or Iraq.

Chairman WARNER. Before I leave you, I'm just going to ask, for the record, you were questioned by members of the committee with regard to the body armor.

Secretary BROWNLEE. Yes, sir.

Chairman WARNER. You, very frankly, said, "We just failed to estimate the needs." But my recollection is that the orders for this originated in the previous administration and——

Secretary BROWNLEE. Yes, sir.

Chairman WARNER.—this buildup. So I think it would be important for the record—I'm not trying to be political —but this is a sequential operation, and having been in your job some many years ago, what occurs in the previous administration is carried over, and it takes time to ramp up and get second sources to meet contingencies.

Secretary BROWNLEE. Yes, sir. It does, sir. While we had already looked and started to increase the numbers of these, we just weren't there yet, in terms of volume.

Chairman WARNER. Well, I think it would be helpful if you would——

Secretary BROWNLEE. I will do that.

Chairman WARNER.—talk about the origin of the program——

Secretary BROWNLEE. Yes, sir.

Chairman WARNER.—and how it transitioned from the previous administration to the Bush administration, and the steps taken by the Bush administration, most recently mentioned today, to try and bring up an adequate supply.

Secretary BROWNLEE. Yes, sir.

[The information referred to follows:]

The fielding of Interceptor Body Armor (IBA) to the Army started in early 2000. IBA is the successor to the Personnel Armor System for Ground Troops (PASGT) vest and the Interim Small Arms Protective Over (ISAPO) vest. As you may know, IBA consists of an Outer Tactical Vest (OTV) and a set of two Small Arms Protective Inserts (SAPI). The OTV replaces the PASGT vest and SAPI replaces the ISAPO. IBA was originally intended for dismounted infantry, military police, Special Forces, and the National Guard's enhanced separate brigades; units that faced the highest probability of direct contact with enemy forces. At the time, the Army assumed some risk in not planning to equip support troops and other soldiers towards the rear of the battlefield. We did not believe these troops faced the same threat, as did our dismounted combat forces.

The Army originally programmed about $46.8 million to procure 36,000 sets of IBA to be issued to the priority units mentioned above. Our original rate of production was 1,000 OTVs and 375 sets of SAPI per month. Additional IBA were to be produced following the first 36,000 sets, and unit commanders would be able to locally purchase on their own if they determined they had a need for IBA. The first 5,000 sets of IBA the Army produced were fielded to soldiers in Kosovo between March 2000 and July 2001. The next set of 5,000 produced was placed in a war reserve contingency stock.

Immediately after September 11, 2001, SAPI production was increased to 1,600 sets per month, and shortly thereafter, we released IBA sets from our contingency stocks to the 10th Infantry Division and 101st Airborne Division in preparation for what became Operation Enduring Freedom (OEF). In June 2002, the Army directed IBA to be issued to all soldiers in support of OEF and production was further increased to 3,300 sets per month.

In late 2002, in anticipation of possible military operations in Iraq, the Army again committed resources to further increase IBA production. By the time the Army commenced combat operations into Iraq, more than 83,000 OTVs and 50,000 sets of SAPI had been issued. Because of this effort, the Army conducted the first phase, major combat operations, of Operation Iraqi Freedom (OIF) with sufficient quantities of IBA. Many of the brave soldiers assigned to the 3rd Infantry Division did not require IBA because they conducted their superb attack from the protection

of their tanks and armored fighting vehicles. At this point in time, the Army thought it had enough IBA on-hand and reduced production quantities.

It was not until we moved into the next phase of OIF, when the threat changed, and we were determining exactly how many soldiers would be necessary in Iraq, did we find ourselves falling short of having enough IBA on-hand. The tank crews and armored vehicle crews that fought and won the first part of the war were now being required to dismount their vehicles and conduct patrols and missions on foot, significantly increasing our IBA requirement overnight.

With the help of Congress and resources from the Iraqi Freedom Fund, the Department again surged the industrial base's production of IBA, this time to our present rate of 25,000 sets of IBA per month.

Today, the Army is committed to procuring a total of 840,000 sets of IBA. We expect to accomplish this objective during fiscal year 2006. This will ensure that every single soldier in the operational Army, whether active or Reserve component, has their own set of IBA.

Chairman WARNER. Thank you very much.

Now, back to the question of the budgeting, Mr. Secretary. Can you estimate the cost of your military operations, Navy and Marine Corps, for 2005?

Secretary ENGLAND. No, sir. We don't know what our requirements will be for 2005. I mean, we are now operating off of fiscal year 2004 funding; and, of course, that all changed late last year, when the Marines were requested to go to Iraq. So even that was very late for Department of the Navy. So I don't know what the situation will be next year, what we will be requested to do next year. I mean, our budget——

Chairman WARNER. For the balance of this year. I mean, you have the Haiti operation. That's a costly one.

Secretary ENGLAND. Yes, but I——

Chairman WARNER. It's an example of how you couldn't anticipate——

Secretary ENGLAND. Yes, it is—right, sir, it is a situation that you cannot anticipate in advance, absolutely.

Chairman WARNER. Mr. Secretary, do you concur with your colleague?

Secretary ROCHE. Absolutely, sir.

Chairman WARNER. On the Comanche, Secretary Brownlee, frankly, I support the decision of the Secretary of Defense and yourself on that. Please provide, in today's record, if you feel there are any facts that were not stated by the administration at the time this important contract was terminated. Do you have any new information regarding that termination that you can share with us this morning? I presume it's going on in an orderly way.

Secretary BROWNLEE. It is, sir. On the 26th, we met with members of industry who were involved in the program, and Mr. Bolton met with them, I spoke with them, and we certainly told them that exactly what the decision was and how it originated and why we made it. There is, of course, as a result of this, with the program of revitalizing Army aviation—this will, in fact, require the procurement of an additional 800 new helicopters, plus the refurbishment of about 1,500 others.

Chairman WARNER. I want to commend the manner in which you, personally, and others, handled this very difficult decision. Cancellations are not easy. But, I'm the focal point of all types of communications and criticisms from 360 degrees, and it's been a fairly low level on this one, and obviously there's a good deal of disappointment in various geographic sectors of our Nation and with

certain producers and manufacturers. But I think, thus far, it's the right decision, and it's going to stay in place.

Secretary BROWNLEE. Thank you, sir. I hope that the amended budget arrives over here this week. It left the Army last week, to OSD, and I understand it's already at OMB, so Congress will receive it, hopefully, this week.

Chairman WARNER. Congress, understandably, in the 25 years that I've been here with my good friend, Senator Levin, we've seen many, many efforts to work on behalf of Guard and Reserve. This year, we anticipate the committee will receive a request from members. So let's just talk a little bit about it.

A steady stream of legislative proposals have been brought forward in Congress that would greatly enhance the benefits provided guardsmen and reservists, and I think they're well deserved. I don't criticize them at all. Lowering the age at which retired reservists may start collecting retired pay has been proposed. Extending Tricare benefits to all reservists has been proposed. There are various other proposals, all very expensive.

Now, what impact would, let's say, that entire program have, if we were to enact it, on the regular forces? I come back, drawing on modest experience of my own as a member of the Reserve, and integrated during the Korean conflict into active units, there's a certain stature that the active person has, and his family—he or she, as the case may be—and the commitments that they make. But if we bring them up to where they're all absolutely equated in benefits, how does that work?

Secretary BROWNLEE. Let me just suggest two things, Senator. First of all, you and I both know how valuable the Reserve components are, both Guard and Reserve, and——

Chairman WARNER. Let's say essential.

Secretary BROWNLEE. Yes, sir, absolutely.

Chairman WARNER. Absolutely essential.

Secretary BROWNLEE. They're just absolutely critical to our operations now. I refer to them as the "second-greatest generation," and I believe that. But I do have some concerns. If all the benefits are the same, for both active and Reserve, then people who are in the active might question why they shouldn't just have a second job and be in the Reserves. The other thing is that when the costs of the Reserve components begin to equate to the cost of the active components, then, within the Department of Defense, decisions will have to be made as where the money should be invested, and should we invest as many of our dollars in a Reserve component, as opposed to an active component, which does still have some restrictions on the use, as opposed to the active. So I just think we have to move very carefully in that area—

Chairman WARNER. Time is so short, and we're going to have this vote here in a moment. I think you've answered it very carefully. As much as we all desire to give the Guard and Reserve everything to which they are entitled, the Army would have to decide, well, if their costs are parallel, then probably we're better off having an active person, vice a Guard or Reserve, because that individual has continuity and stays in, and they're subject now, as we well know, to recycling back over to these forward posts——

Secretary BROWNLEE. Yes, sir.

Chairman WARNER.—with a greater frequency.

Secretary BROWNLEE. Yes, sir.

Chairman WARNER. Secretary England.

Secretary ENGLAND. You expressed it very well, Mr. Chairman. The Department of the Navy——

Chairman WARNER. I expect no less, from a former Secretary, for an old-timer, but I——

Secretary ENGLAND. No, you've expressed it very well, and I would say that you've captured exactly the feeling of the Department of the Navy, sir.

Chairman WARNER. Well, I would hope. Secretary Roche——

Secretary ROCHE. I concur.

Chairman WARNER. You concur. I hope that, in your capacities, you'll counsel with the head of the Guard and Reserve units and meet with the very important retired organizations, who take an active role in this. Because we're getting pretty close to that parallel situation.

I think we'd better touch a little bit, Secretary England, on the Osprey. We did the V–22, and those programs are always under close scrutiny here. This year, we limited production of the V–22s to a minimum sustaining rate, identified as 11 aircraft until certain testing was successfully accomplished. The fiscal year 2005 budget for eight V–22s for the Marine Corps, and three for the special ops, represents the fourth in a row at the minimum sustaining rate.

I visited down with the special operations command in the recess period, and they're very heavily relying on a prompt delivery of this system. So give us a little update on the V–22, how it's progressing, and when you would anticipate these tests would be completed.

Secretary ENGLAND. Mr. Chairman, I'm pleased to tell you the testing is going well. We do have what I guess you'd call a few hiccups, but the testing is going very, very well. We're very, very pleased with the progress. I continue to believe that the V–22 is one of the most transformational programs we have. It will change the character of our Marine Corps, in terms of the ability to do deep-type operations. We would have liked to have had them for the operation we had in Iraq, frankly, because we were so far inland, it would have been a magnificent airplane to have.

So it is very, very important. We are designing literally our future, in terms of some of our ships and our Marine Corps, as we go forward, and our Navy, to accommodate the V–22. So the testing is going well. We support it very, very strongly.

This is the final test, in terms of major items, although I believe, frankly, the major items are behind us. So we should be increasing our rate. We plan to do this about 50 percent a year now, starting next year, because we don't want the rate to go up too fast and cause problems. But you will see this rate to continue to increase now as we finish up the test program. We then want to get this to the maximum rate as soon as possible.

Chairman WARNER. Yes, Secretary Roche?

Secretary ROCHE. Mr. Chairman, it's an interesting program. It's run by the Navy for the Marine Corps, and there's an Air Force colonel who is the program director. The reason is that our Air Force Special Operations Command has a great interest in this

program. So I'd like to second all the comments made by my colleague, Gordon England. We follow this very closely. In fact, the reason that we have the organization we do now is that 2½ years ago, I went to Gordon and said, "Wouldn't it be better if we were part of your program now, rather than waiting 2½ years and telling you what we thought you should have done better?" He absolutely agreed, opened it up to the Air Force, and we have been key to it ever since. Our special operators are looking forward to this aircraft. I think you know that the one that we will buy will have various and sundry additional equipment on it, which will give the Marine Corps a chance to see some of that tested, as well.

We see this as being very important for our infiltration and exfiltration in special operations, potentially for long-range combat search and rescue. So we are gearing our Special Operations Command on the assumption that this aircraft will be part and parcel of our Air Force.

Chairman WARNER. As you proceed on this—I got into considerable detail, and I was given an exceedingly good briefing by knowledgeable people in the special operations, but they explained to me just, sort of, some basic concerns that they're having, which I think are readily understandable by all, and that is on your descent, in the vertical descent, oftentimes you have to kick out that rope or other sustaining devices for those very brave individuals to exit that aircraft and hit that ground. The amount of the thrust down is complicating that. Has that been brought to your attention?

Secretary ROCHE. Yes, sir. In particular——

Chairman WARNER. The safety of those individuals.

Secretary ROCHE.—in particular, for search and rescue, having the hoist all the way aft was not a good design. But the program has looked at a center box, which would be just inboard from where the normal door on the port side would be for a rescue helicopter. That box works out, and you fly in in such a way, you actually put a null, an air null, beneath that one area. We believe that that will allow us to do combat search and rescue (CSAR). If you can do CSAR, you can certainly send people down the ropes. But they have had a problem——

Chairman WARNER. Now, time won't permit more detail. I just wanted to alert you to a concern.

My colleague, Senator Levin.

Senator LEVIN. Mr. Chairman, thank you. Just on the budget issue, the Army chief of staff testified, when he was here, that the Army is currently spending $3.7 billion a month in Iraq, and $900 million a month in Afghanistan, in incremental costs for those operations. Is it not foreseeable that those incremental costs are going to continue in the next year, since we know it's 110,000 troops rotating in?

Secretary BROWNLEE. Sir, that's the current burn rate. I anticipate that it might continue somewhat at that level, but I don't know. I mean, we could reach a situation where we had to send more forces, or we could reach a situation where we might draw down.

Senator LEVIN. Isn't it reasonably foreseeable that it's going to be at least 110,000, since that's your plan?

Secretary BROWNLEE. Sir——

Senator LEVIN. That is your plan.

Secretary BROWNLEE. That's our plan.

Senator LEVIN. Well, then why don't we budget for it? This isn't in the middle of combat. You have a plan, 110,000 folks.

Secretary BROWNLEE. Well, sir, at the time that we submitted our fiscal year 2004——

Senator LEVIN. No. No, no, now. The question is not whether there's a supplemental. That's a given, that there's going to be a supplemental. The question is whether we have a supplemental in a timely way so that we can avoid some gap in there. That's the issue. There's going to be a supplemental for 2005.

Secretary BROWNLEE. Sir, I——

Senator LEVIN. The question is, since you're planning there's going to be at least 110,000 soldiers in there, why not fund for what you're planning? Why not budget for what we're planning——

Secretary BROWNLEE. Senator——

Senator LEVIN.—with a supplemental?

Secretary BROWNLEE. If you're talking about the timing of a supplemental——

Senator LEVIN. Yes.

Secretary BROWNLEE.—is that what you're talking about? Sir, that's above my level, but I——

Senator LEVIN. But have you talked to the Secretary about the need for that?

Secretary BROWNLEE. It's been discussed in meetings, sir. But I'm not sure where he is on that.

Senator LEVIN. But have you urged——

Secretary BROWNLEE. Whether it's his——

Senator LEVIN.—that the supplemental be filed before the end of the year so we know that we can properly, without gaps in funding, sustain that level of forces in Iraq and Afghanistan?

Secretary BROWNLEE. Sir, I make my needs known to the OSD Comptroller and to the Secretary of Defense. If they believe they have sufficient funds to do that, then they tell me that. I really don't—I'm not part of their decisionmaking process on when supplementals get drawn up or requested.

Senator LEVIN. Well, it's really an unsettling answer from you, I have to tell you, because we know we're planning on 110,000 being rotated in, and so that's our plan. Yet we're not funding for that plan. So this is a reasonably foreseeable expense, because it's based on a plan that we've filed, and so I'll express myself on that.

I guess I'll ask the question again. You've indicated that you believe we will need a supplemental at some point.

Secretary BROWNLEE. Yes, sir.

Senator LEVIN. Are we better off with that supplemental before those incremental costs have to be spent? Are we not better off having a supplemental for 2005, since we know there's incremental costs that are going to be there, in a way in which we have the funds to pay those incremental costs as they're incurred? Isn't that better budgeting?

Secretary BROWNLEE. We would be better off having those funds before we had to cash-flow out of other accounts to the extent that we did harm to those accounts.

Senator LEVIN. All right.

Secretary BROWNLEE. But, Senator, because you've been here a lot longer than I was around here, that routinely these supplementals have been requested and approved by Congress. Sometimes when they came too late, yes, it was detrimental. If they were timely, the Services were able to adjust and get by.

Senator LEVIN. Again, there's no argument over whether there's going to be a supplemental, so when you say "routinely there are supplementals," that's a given.

Secretary BROWNLEE. Yes, sir.

Senator LEVIN. The issue is when will this supplemental be presented to us.

Just a couple of other questions. Secretary Brownlee, there's a program in Korea, I understand, called the Korean Augmentation to the U.S. Army.

Secretary BROWNLEE. Yes, sir.

Senator LEVIN. Are you familiar with that program?

Secretary BROWNLEE. Yes, sir.

Senator LEVIN. I think it's called KATUSA?

Secretary BROWNLEE. KATUSA program, yes, sir.

Senator LEVIN. Where individual Republic of Korean soldiers are integrated into our units——

Secretary BROWNLEE. Right.

Senator LEVIN.—in a number of positions that would normally be filled by U.S. soldiers?

Secretary BROWNLEE. Yes.

Senator LEVIN. This program was begun during the Korean War, and apparently has continued with some success. Would that program have merit in Iraq?

Secretary BROWNLEE. I've asked the same thing, sir. I really have. It may have. We're kind of embarked in a little bit different direction here than we were in Korea, in that right now we are standing up an Iraqi government, or in the process of doing that, and I think we want to build some institutions there, rather than taking them into ours. But it's interesting, I've asked the same question, whether or not that might have merit.

Senator LEVIN. Would you let the committee know, then, about what your thinking is on that——

Secretary BROWNLEE. Yes, sir——

Senator LEVIN.—as it evolves?

Secretary BROWNLEE.—I will. Be happy to.

[The information referred to follows:]

The Korean Augmentation to the United States Army (KATUSA) program began in July 1950 as a way to supplement under strength U.S. units following the outbreak of war in June 1950. The situation in Iraq is significantly different than the early months of the Korean War. U.S. units deploying to Iraq are at full strength and do not need augmentation in order to be combat effective. Additionally, the KATUSA program allowed U.S. forces to draw upon trained soldiers in the already established Republic of Korea Army. While there may be some benefit to integrating a small number of Iraqis into U.S. units to provide host-nation language, cultural, and regional expertise, in exchange to Iraqi exposure to U.S. leadership, tactics, techniques, and procedures, the decision to do so should only be made by the Combatant Commander, General Abizaid, and the commander in Iraq, Lieutenant General Sanchez.

Senator LEVIN. Two quick ones, because we're, I see, in the second half of our vote already. This has to do with a comment which

was made to me by a family support group president for a deployed National Guard unit——

Secretary BROWNLEE. Yes, sir.

Senator LEVIN.—last weekend, telling me that soldiers have to wait in line for hours to use the phone in Iraq. When they get their calls through, they're charged a connectivity fee that could be as high as $9, and then a per-minute fee up to $6, again depending on the calling card. Last year, we authorized service members who were in Operations Enduring Freedom and Iraqi Freedom to be provided, without cost, prepaid phone cards for what we thought was an adequate amount——

Secretary BROWNLEE. Yes.

Senator LEVIN.—120 calling minutes. But apparently that provision of the act has not yet been implemented, and I don't know why. If it's true, would you find out if, in fact——

Secretary BROWNLEE. I will, sir. If you could——

Senator LEVIN. Would you also just take a look at this problem? Because this——

Secretary BROWNLEE. Yes, sir.

Senator LEVIN.—is a very striking problem, when we have people out there who are being charged apparently that much to make phone calls home, when they're not supposed to be charged anything to make phone calls home.

[The information referred to follows:]

The Armed Services Exchanges provide the unofficial telecommunications system using the AT&T network. These services are not always readily available due to limited communications infrastructure and mission restrictions. However, as of April 2004, the Army and Air Force Exchange Service provided over 50 calling centers with over 1,600 phones and 640 satellite phones. Calls made from the exchange call centers using the AT&T telephone calling cards, commercial credit cards, and AT&T prepaid phone cards are not charged a connection fee. If a member places a collect call, there is a connection fee of $.89 to $6.50. If a member uses the Exchange Global AT&T 550 unit prepaid phone card, the calling rates are: $0.19 per minute from Kuwait call centers, $0.32 per minute from Afghanistan and Iraq call centers, and $0.76 per minute for satellite phones.

The Defense Department's Defense Switched Network (DSN), an official telephone system, is available in some portions of the theater of operation. Soldiers in the Iraqi theater of operations, regardless of their component, can call at no cost during non-duty hours on the DSN system. The DSN connects the caller to a switch operator at the installation closest to the destination telephone number. If long distance service is required beyond the selected installation, the call is connected to a commercial network, from which the soldier may elect to use any prepaid card, calling card, and commercial credit card or collect service of their choice. On average, more than 50,000 telephone calls are made each day using the DSN system.

Secretary BROWNLEE. Yes, sir. After the hearing, if I could get the information for where that is, there are still some isolated spots that continue to get reported where we don't have adequate phone service, so I'd like to know where that is.

Senator LEVIN. All right. Well, I can't tell you where in Iraq it is——

Secretary BROWNLEE. Okay.

Senator LEVIN.—offhand, but we will give you the name of the lady——

Secretary BROWNLEE. Okay.

Senator LEVIN.—who is in charge.

There was some discussion about the sexual assaults problem that we obviously have here, which seems to be endemic and deep-

er than anybody could have hoped. Does the Army have systems in place, and programs in place, in deployed locations to offer victims of sexual assaults there the medical and psychological and legal help that they need in deployed situations?

Because we're running out of time, let me just——

Secretary BROWNLEE. Yes, sir.

Senator LEVIN.—raise that, bring it to your attention.

Secretary BROWNLEE. I will.

Senator LEVIN. If you could give us an answer, for the record, to that one.

Secretary BROWNLEE. I will.

[The information referred to follows:]

The Army remains committed to taking care of every soldier, to include dealing expeditiously with any soldier complaint or allegation of misconduct and to ensuring that whether in garrison or deployed, the support services provided are the same. When a soldier reports a possible criminal act, including a sexual assault, the Army is resolved to investigate the allegations thoroughly and promptly and to provide immediate care and support to the victim. The Army has law enforcement and legal personnel who are deployed to the battlefield to assure timely investigative support and assistance to commanders and victims. We also provide medical care and mental health care expertise to our soldiers through our appropriately staffed Combat Support Hospitals in Iraq and Afghanistan.

The Army is dedicated to ensuring that the victims of sexual assault receive proper care and treatment and that their medical and psychological needs are properly met. To ensure that our current policies and programs are effective, the Acting Secretary of our Army has directed the establishment of a Task Force to conduct a detailed review of the effectiveness of our Army's policies on reporting and properly addressing allegations of sexual assault. This review will examine our policies, programs, procedures, and training with regard to the prevention of sexual assault. The task force will further review the processes in place to ensure a climate exists where victims feel free to report allegations and leaders at every level understand their responsibilities to support those victims. This task force will render its report by the end of May 2004.

Senator LEVIN. Secretary England, you and I have talked about the civilian personnel issue, and I know that's been raised again here today by a number of my colleagues. I'm glad it has, I'm glad you're in charge now. I hope you'll, frankly, start from ground zero on this one. It got off on the wrong foot. There was a lot of effort made by our chairman, by Senator Collins, and others here to work out something which would preserve collective bargaining rights, which would also involve the unions collaboratively in working out the processes. I'm glad you're willing to take a fresh look at that. That's your assurance to me, personally, and I gather your assurance here this morning, and we look forward to that.

Secretary ENGLAND. Yes, Senator.

Senator LEVIN. Thank you very much.

Thank you, Mr. Chairman. Thanks to all of our witnesses.

Chairman WARNER. Thank you, Senator Levin, for your very strong, constructive participation on this committee.

I, likewise, have a number of questions, gentlemen—Joint Strike Fighter, Joint Unmanned Combat Aerial System, and obviously I was going to end up on shipbuilding—but that's not possible. We've done our very best under the time constraints given this committee today, and I think your responses and participation have been very, very constructive and helpful to the committee in the continued responsibility we have in oversight.

I said, when we started, I commend each of you for the work that you're doing. I continue to finish this hearing with that commendation. Well done.

I also think your chiefs did a very good job the other day, Senator Levin——

Senator LEVIN. They did, indeed.

Chairman WARNER.—when they appeared before the committee. So that civilian uniform team is working for the best interests not only for the men and women—for the Armed Forces, but the whole Nation. I commend you.

Thank you very much.

[Questions for the record with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR BILL NELSON

SEXUAL ASSAULT AT THE AIR FORCE ACADEMY

1. Senator BILL NELSON. Secretary Roche, General Michael Moseley recently testified before the Personnel Subcommittee of the Senate Armed Services Committee. I would like some clarification of certain points he made in the testimony he submitted for the record: First, with regards to the sexual assault allegations at the Air Force Academy, General Moseley stated that confidentiality for victims has proved to be "difficult to implement" and that the Air Force "believe[s] it is in America's best interest" to "eliminate any chance for offenders to commit future crimes." Does this statement mean that the Air Force has completely abandoned the idea of affording confidentiality to victims of sexual assault? If so, I would like a more detailed rationale for why the Academy will not offer confidentiality to victims.

Secretary ROCHE. The Air Force has not abandoned the idea of affording confidentiality to victims of sexual assault. As in the past, victims always have the option of confidentially reporting an assault to a chaplain; Further, in an effort to comply with recommendations of the Fowler Commission, the Air Force has drafted a confidentiality policy for the Academy with the intention of applying it at the Academy Reservation to all military and civilian personnel, and then reviewing this policy after appropriate implementation for possible extension to the active duty Air Force. However, implementation of this draft policy has been delayed as the Department of Defense (DOD) considers the legitimate competing interests pertaining to victim needs, command responsibilities, and law enforcement obligations. These are matters with significant cross-service implications, and we are working with DOD towards the resolution of these issues.

2. Senator BILL NELSON. Secretary Roche, I would like a detailed plan as to how the Air Force is going to publicize this denial of confidentiality so that women cadets and potential cadets are fully informed.

Secretary ROCHE. The existing policies and procedures, including availability of chaplain confidentiality and off-base referral services, have been widely disseminated among academy personnel and are a focal point of training for incoming cadets. To the extent we, in coordination with the Department of Defense, extend confidentiality to other entities, that too will become an integral part of cadet education and a matter of public record. Please see the answer to Question Number 1.

3. Senator BILL NELSON. Secretary Roche, General Michael Moseley recently testified before the Personnel Subcommittee of the Senate Armed Services Committee. I would like some clarification of certain points he made in his testimony. General Moseley commented that only a "few" cases of assault have occurred in the Air Force and that no reports of assaults have occurred in Iraq or Afghanistan. He went on to state that the Air Force has "this matter fully in hand" According to DOD's numbers, the Air Force has had at least seven reported cases of assault in Operation Iraqi Freedom and Operation Enduring Freedom. Additionally, the Air Force is now investigating 20–25 allegations at Sheppard Air Force base alone. Is the DOD wrong here and does the Air Force really mean to say it has resolved the problem of sexual assault? If not, what did General Moseley mean by saying the matter was, "fully in hand?"

Secretary ROCHE. The Air Force did report opening investigations within the deployed environment in southwest Asia. However, the locations involved are Qatar, Kuwait, Oman, Kyrgyzstan, Saudi Arabia, United Arab Emirates, and Bahrain.

There were no cases in Iraq or Afghanistan. The Air Force has been working on our sexual assault deterrence and response capabilities since completion of the Working Group Report on the Air Force Academy (AFA). As a result of the implementation of the Agenda for Change at the AFA, discussions at Corona Fall, and the Pacific Air Forces study, General Moseley formed a Headquarters Sexual Assault Integrated Planning Team and directed all major command commanders to assess their sexual assault deterrence and response programs using a specified template. As we have seen at Sheppard Air Force Base, these reviews sometimes raise issues and allegations covering a considerable span of time that require careful examination before any valid conclusions can be drawn. Results and recommendations from that effort will be presented at the May Corona conference.

4. Senator BILL NELSON. Secretary Roche, General Michael Moseley recently testified before the Personnel Subcommittee of the Senate Armed Services Committee. I would like some clarification of certain points he made in his testimony: General Moseley quoted a cadet commending the Academy on the "countless number of briefings on sexual harassment" that she received. While I am pleased to know there are several briefings on sexual harassment, sexual harassment is not the same as sexual assault. Is the Academy also holding numerous briefings on sexual assault prevention and education, particularly on what a cadet should do if assaulted and what their rights are?

Secretary ROCHE. Sexual assault is clearly not the same thing as sexual harassment. The Academy has an extensive program of training addressing sexual assault, to include what a cadet should do if assaulted and what the rights of the victim are. The Academy Response Team (ART) takes an active role in education of both cadets and faculty/staff in the areas of sexual assault and sexual harassment. Several examples;

- The ART proactively briefed each cadet squadron on the new sexual assault reporting process (37 1-hour discussion sessions.)
- Each cadet receives a wallet/purse card that outlines sexual assault reporting and response.
- Nationally recognized civilian experts train both Academy leadership and cadets on the realities of non-stranger sexual assault and victim/perpetrator psychology.
- Commander's Guidance 05–8, 27 May 03, Sexual Assault Reporting Process, explains the role of the ART and how all United States Air Force Academy personnel are to report allegations of sexual assault.
- The Academy Counseling Center has a 4-year developmental training plan covering sexual assault and harassment, Military Equal Opportunity, human relations, and substance abuse for each of the classes.

5. Senator BILL NELSON. Secretary Roche, if these sexual assault briefings are held separately from the sexual harassment briefings, is it in order to underscore the difference in severity and any differences in the procedures following an assault as opposed to an incident of harassment?

Secretary ROCHE. Preventive education and training at United States Air Force Academy (USAFA) discusses both the similarities and differences between sexual harassment and sexual assault. Some of the sexual assault/harassment training is separate and distinct, but some of the training is combined because a benefit can be gained by viewing this negative behavior along a continuum. At one end there's the lesser forms of sexual harassment (inappropriate jokes, glances, pornographic material inappropriately displayed, etc.) On the other end is sexual assault (physical assault). In between the two ends, there are various levels of inappropriate behavior. We educate the cadets that if you do not confront sexual harassment, it creates an environment where sexual assaults may be more likely to occur. In addition, USAFA provides assertiveness training to all incoming fourth-class cadets, both male and female. This covers what is, and what is not, a legal order and what their rights are in a training environment. They are taught that if something doesn't seem right, then speak up and tell someone about it. All cadets are educated that sexual assault is a crime, as are many forms of sexual harassment, and neither will be tolerated. Our intent is to educate and encourage cadets to confront negative behaviors as soon as possible. Behaviors associated with sexual harassment can be forwarded for investigation through official Military Equal Opportunity channels. Alleged sexual assaults are reported to the Academy Response Team, which initiates victim support from helping agencies and starts the official investigation through the Air Force Office of Special Investigations.

CARRIER BASING IN THE ATLANTIC

6. Senator BILL NELSON. Secretary England, Congress has been interested since at least the early 1980s about ensuring that the Navy has considered the implications of relying on only one base of operations on the Atlantic Coast for nuclear-powered aircraft carriers. The Navy has consistently resisted engaging meaningfully on analysis, risk assessment, or commitment to establishing a second such base. Since arriving in the United States Senate just over 3 years ago, I have consistently argued that the Nation needed to reduce its strategic risk in the stationing of aircraft carriers on the Atlantic Coast by committing to no fewer than two bases capable of home porting nuclear aircraft carriers. Since the terrorist attacks of September 11, 2001, I believe that the strategic risk associated with having all our Atlantic nuclear carriers in one port is even more acute. During the time that Congress has been encouraging the Navy to address this issue, the Navy established a second Pacific coast nuclear carrier base in San Diego, California, even before the base at Alameda was considered for closure under the Base Realignment and Closure (BRAC) process. Why has the Navy taken such a different approach in dealing with the strategic basing posture on the two coasts? Specifically, why has the Navy concluded that we needed two nuclear carrier bases on the Pacific coast and has failed thus far to establish one on the Atlantic?

Secretary ENGLAND. From a fleet-wide perspective, the Navy has dispersed its carrier assets to multiple locations. The Navy has its aircraft carriers (CV and CVN) at six different homeport locations (Norfolk, Virginia; Mayport, Florida; Everett, Washington; Bremerton, Washington; San Diego, California; and Yokosuka, Japan). Additionally, many of our ports are nuclear-carrier port capable (such as Mayport) and could berth a nuclear carrier for an interim period if a particular threat necessitated the need for further dispersal of our carrier assets. The cost to establish an additional nuclear carrier homeport at this time would take away from higher priority fleet requirements.

7. Senator BILL NELSON. Secretary England, did the Navy conduct any analysis that led to the decision to establish a second nuclear carrier port on the Pacific coast? If it did, please provide a copy of this analysis.

Secretary ENGLAND. Yes. To support the homeporting decision of three *Nimitz*-class aircraft carriers on the Pacific Coast, the Navy completed an Environmental Impact Statement that weighed the advantages and disadvantages of the various candidate bases. A copy of the Record of Decision, which followed the completion of the Environmental Impact Statement, is attached.

DEPARTMENT OF DEFENSE

Department of the Navy

Record of Decision for Developing Home Port Facilities for Three NIMITZ-Class Aircraft Carriers in Support of the U.S. Pacific Fleet

AGENCY: Department of the Navy, DOD.

ACTION: Notice of record of decision.

SUMMARY: The Department of the Navy, after carefully weighing the operational, environmental, and cost implications of home port facilities for NIMITZ-class nuclear-powered aircraft carriers ("CVNs") in the Pacific Fleet, announces its decision to: (1) construct facilities and infrastructure required to home port two additional CVNs at Naval Air Station North Island (NASNI), Coronado, CA; (2) upgrade existing CVN support facilities at Puget Sound Naval Shipyard (PSNS), Bremerton, WA; and (3) retain Naval Station (NAVSTA) Everett, WA, as a CVN home port.

SUPPLEMENTARY INFORMATION: The text of the entire Record of Decision (ROD) is provided as follows:

Background

Pursuant to Section 102(2)(c) of the National Environmental Policy Act (NEPA) of 1969, 42 U.S.C. Section 4332(2)(c), the regulations of the Council on Environmental Quality that implement NEPA procedures, 40 CFR Parts 1500–1508, and 40 CFR 93, the General Conformity Rule of the Clean Air Act, the Department of the Navy (DON) announces its decision regarding home port facilities and infrastructure for CVNs in support of the U.S. Pacific Fleet.

First, as conventionally-powered aircraft carriers (CVs) reach the end of their service life and are replaced by nuclear-powered carriers (CVNs), the Navy has a need to create the capacity to home port these new CVN assets. Compared to the CV, the CVN is a newer class of aircraft carrier that has a wider beam, a deeper draft, and different shore maintenance and support requirements. Consequently, a CVN home port requires different shore infrastructure than that provided for a CV. The U.S. Pacific Fleet is preparing for the replacement of two CVs assigned within the U.S. Pacific Fleet area of responsibility (AOR) with two CVNs. Therefore, there is a need to select locations within the Pacific Fleet AOR for the construction of facilities and infrastructure necessary to create the capacity to home port these CVNs.

Second, changes in CVN home port pier, logistics support area, and utility infrastructure standards for CVN home ports created the need to decide whether to upgrade the existing CVN home port facilities at PSNS to meet those standards or maintain the existing facilities even though they did not meet current standards.

Third, development of Planned Incremental Availability (PIA) maintenance for CVNs created the need to re-evaluate the viability of retaining NAVSTA Everette as a CVN home port to determine if the facilities and infrastructure could efficiently support a CVN while undergoing a PIA maintenance program without adversely affecting crew quality of life.

The DON undertook the planning effort for these decisions on December 3, 1996, when it published a Notice of Intent (NOI) to prepare an Environmental Impact Statement in the **Federal Register**. A public scoping meeting was held in each of the following locations: Bremerton, Washington; Everett, Washington; Pearl City, Hawaii; and Coronado, California. A Notice of Availability (NOA) for the Draft EIS (DEIS) was published in the **Federal Register** on August 28, 1998. Public hearings were held on the DEIS in the same four locations as the scoping meetings and in San Diego, CA. Approximately 317 individuals, agencies, and organizations submitted comments on the DEIS during the 75 day public comment period. All oral and written comments were considered in the preparation of the Final EIS (FEIS). The NOA for the FEIS was published in the **Federal Register** on July 9, 1999. In addition, public notices and news releases noting the availability of the FEIS and draft Final Clean Air Act (CAA) Conformity Determination were published in local and regional newspapers beginning on July 10, 1999. The DON received approximately 60 public comment letters on the FEIS during a 60-day public review period.

Alternatives

Four areas within the Pacific Fleet AOR were considered as feasible locations for the development of CVN home port capacity. The four areas considered were: Naval Air Station North Island (NASNI) Coronado, CA; Puget Sound Naval Shipyard (PSNS) Bremerton, WA; Naval Station (NAVSTA) Everett, WA; and Pearl Harbor Naval Shipyard (PHNSY) Pearl Harbor, HI. Using these four locations, six alternative configurations for creating the necessary CVN home port capacity, including a no construction alternative, were developed and analyzed. Each alternative was evaluated and compared against the

others in terms of: operational, logistical, and personnel requirements; environmental impacts; and facility and infrastructure life cycle costs.

The EIS contained a commitment on the part of the DON to carefully review information collected on crew quality of life (QOL) and maintenance during USS ABRAHAM LINCOLN's first PIA at PSNS. USS ABRAHAM LINCOLN's PIA was completed in October 1999. Information collected concerning QOL demonstrated that commuting from home port at NAVSTA Everett to PSNS did not significantly impact the crew of USS ABRAHAM LINCOLN. The results of this PIA revealed the quality of maintenance met expectations, the maintenance schedule was achieved, the increase in overall cost to perform the maintenance away from home port was acceptable, and the PERSTEMPO/OPTEMPO implications of maintaining NAVSTA Everett as a home port were acceptable.

This additional information was not available at the time the FEIS was published, but was included in DON's evaluation of whether to keep existing home port facilities at NAVSTA Everett or develop home port facilities at PSNS. The availability of this new information does not generate a need for additional environmental analysis. The analysis of the six alternatives considered in the EIS process thoroughly addressed the environmental impacts associated with a CVN remaining at NAVSTA Everett and those associated with creating additional home port capacity at PSNS.

Based upon my review of the comparative analysis of alternatives and public comments received during the NEPA process, I have selected Alternative Two, which was identified as the preferred Alternative in the DEIS and FEIS, as the DON action for developing CVN home port capacity. Alternative Two will create home port capacity for two additional CVNs at NASNI, bringing the total CVN home port capacity at NASNI to three. Under Alternative Two the CVN home port facilities at PSNS will be upgraded to meet current standards and NAVSTA Everett will remain a CVN home port.

Implementation of Alternative Two at NASNI requires that existing Pier J/K be demolished and replaced by a wharf meeting the berthing requirements of a CVN. Approximately 562,000 cubic yards (cy) of sediment will be dredged to meet depth requirements. Most of the material will be deposited at an in-bay location south of the Naval Amphibious Base (NAB) to create an NAB Habitat Enhancement Area, and some of the material will be used as fill for the wharf. A 1.5 to 2.5 acre intertidal habitat will be created from an upland site to compensate for intertidal/subtidal habitat filled as part of the wharf construction. Berthing for a second additional CVN will be along the section of the existing quay wall that currently serves as the transient berth for CVNs not homeported at NASNI. No dredging is required to convert the transient berth to a permanent berth for the second additional CVN. Utility upgrades are required, as is additional fencing.

Implementation of Alternative Two at PSNS requires that Pier D be removed and replaced by a new pier that meets current berthing criteria for a CVN home port. Dredging of approximately 425,000 cy will be accomplished at Pier D and its turning basin and also at two other CVN maintenance berths and their associated turning basins. The dredged material determined to be suitable for unconfined aquatic disposal will be deposited at a site in Elliot Bay designated under the Puget Sound Dredge Disposal Analysis Program. Material unsuitable for unconfined aquatic disposal will be deposited at an appropriately permitted upland landfill or in one of three Confined Disposal Facilities/Confined Aquatic Disposal sites shown in the FEIS.

Implementation of Alternative Two at NAVSTA Everett requires no action.

Alternative Six (the no construction alternative) is the environmentally preferred alternative because it involves the least disturbance of the natural environment. While environmentally preferable, this alternative would overtax utility, logistical, and personnel support infrastructures at NASNI and PSNS. Consequently, Alternative Six places an unacceptable constraint on the mission capability of the U.S. Pacific Fleet from an operational, training, and personnel perspective.

Environmental Impacts and Mitigation

The DON analyzed the potential impacts of the selected action in fifteen environmental resource areas: geology; topography and soils; terrestrial hydrology and water quality; marine water quality; sediment quality; marine biology; transportation; air quality; noise; aesthetics; cultural resources; general services/access; health and safety; utilities; and environmental justice. This ROD summarizes the potentially significant, but mitigable, impacts associated with Alternative Two, the DON's selected alternative.

Dredging and pier replacement at NASNI will cause the loss of 1.5 acres of intertidal and subtidal habitat. Impacts to habitat will be mitigated by the construction of 1.5 to 2.5 acres of intertidal habitat at a nearby upland site, and creation of additional snowy plover nesting habitat. The potential loss of eelgrass will be monitored through surveys before and after construction. If the post-construction surveys determine that a loss of eelgrass has occurred, the Navy will provide mitigation for that loss. The amount of eel grass lost will be applied against the Navy's north-central eelgrass mitigation bank according to the 1992 Southern California Eelgrass Mitigation Policy Guidelines, as amended.

Consultation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service led to the conclusion that dredging and pier construction at PSNS could impact threatened and endangered species of salmon during their out-migration season. In order to mitigate impacts on salmon migration, the Navy will avoid dredging and marine construction during established salmon migration windows. Impacts from construction of a confined disposal facility (CDF), if such a facility is required by the terms of the CWA Section 404 permit obtained for dredging and marine construction activities, will be offset by making the area occupied by the CDF a shallow water habitat area.

Overall impacts on the coastal resources in California were addressed in the coastal consistency determination (CCD) submitted to the California Coastal Commission (CCC) by DON. On December 8, 1999, the California Coastal Commission unanimously concurred that the proposed development of home port capacity at NASNI was consistent to the maximum extent practicable with the California Coastal Management Program. In public hearings on the DON consistency determination held on the same day, DON agreed to continue discussions with the CCC staff about emergency planning issues, thermal discharges from CVNs, and Best Management Practices (BMPs) for stormwater runoff control. DON agreed to discuss these three issues further with the CCC staff, and to present the results to the Commission at another public hearing on or before April 2000. DON also agreed that, if the DON Record of Decision for the development of CVN home port facilities required pier construction at NASNI, no construction work would begin at NASNI before presentation of these results to the Commission on or before April 2000. All construction activities and the operation of facilities necessary to implement Alternative Two will be undertaken in a manner consistent with the terms and conditions of required permits.

Responses to Comments on the FEIS

The DON received comments on the FEIS from elected officials, federal, state, and local government agencies, citizen's groups, and individuals. Most of the issues raised in the comments had already been addressed in the FEIS in response to comments received on the DEIS. New issnes raised in comments received on the FEIS concerning those aspects of the proposed action at NASNI are addressed below. No new issues were raised in comments received concerning those aspects of the proposed action at PSNS, NAVSTA Everett or NAVSTA Pearl Harbor.

Commentors noted that the FEIS did not discuss the potential for the proposed project to exacerbate water quality problems in San Diego Bay associated with areas identified under CWA, Section 303(d). Section 303(d) requires states to list those areas for which water quality standards cannot be implemented. As none of the sites in San Diego Bay listed under Section 303(d) are near enough to the proposed pier and mitigation sites to be affected by short term construction and dredging activities, these activities will not further hinder the implementation of water quality standards at any of the sites listed under the CWA.

Commentors noted that the cumulative impact section did not address traffic increases in the City of Coronado they anticipated would accompany the upgraded commissary and exchange facilities proposed for NASNI. The Navy does not anticipate that upgrading commissary and exchange facilities at NASNI will cause any appreciable increase in traffic. Commissary and exchange facilities are already present at NASNI. Changes to those facilities are not expected to attract new users. The pool of eligible patrons in the San Diego area is relatively stable. Patrons are expected to continue to shop at the larger, more conveniently located facilities at Naval Station San Diego, Marine Corps Air Station Miramar, and Camp Pendleton.

Commentors stated that the FEIS failed to analyze the increased probability that invasive species would be introduced into San Diego Bay through ballast water discharges from CVNSs homeported at NASNI. Trim and list on CVNs are maintained through a closed system of freshwater tanks. Unlike conventionally-powered ships, no ballast water is taken from or discharged to surrounding waters. Therefore there is no avenue by which invasive species can be introduced into San Diego Bay from CVN ballast water.

It was clear from some comments received on the FEIS that concern still exists about the Navy's adherence to the NEPA process, the marine environment in San Diego Bay, traffic within the City of Coronado, and nuclear propulsion aspects of the addition of more home port capacity for CVNs in the San Diego area. Even though these issues were specifically addressed in the FEIS and there is no requirement that the DON address them further in the ROD, a brief discussion is included here to demonstrate that these concerns have been carefully considered.

Some commentors suggested that regulations implementing NEPA required Navy to reissue the DEIS due to changes included in the FEIS. The DON carefully reviewed the differences between the DEIS and FEIS and concluded that reissuing the DEIS was not required. The NEPA process is an iterative one, designed to produce an FEIS that reflects change, clarification, and refinement of the DEIS based upon comments received from the public. No changes included in the FEIS were so substantial as to require republication of the DEIS.

Some commentors sought more information on the potential loss of eelgrass and soil contamination levels at the upland mitigation site on North Island. In the DEIS, the best available information was used to predict impacts to eelgrass and pollutant levels at the mitigation site. This information was subsequently validated by additional data collected and analyzed in conjunction with the DON's pending application for a CWA Section 404 permit.

Some commentors sought a new discussion about copper leaching into San Diego Bay from anti-fouling paint on ship hulls. The Navy calculated the amount of copper expected to leach from anti-fouling paint on ship hulls and concluded in the FEIS that the net difference from replacement of CVs by CVNs will not be significant. Also, the number of Navy ships berthed in San Diego has decreased. Therefore, there would be no cumulative increase in the amount of copper leaching into the bay.

The City of Coronado and a number of its citizens expressed concern that creating the home port capacity for three CVNs at NASNI will result in major increases in commuter traffic along Coronado streets. The DON took a hard look at the traffic impact associated with creating home port capacity for two additional CVNs. The best available historical data on the days spent in port by CVs homeported at NASNI was analyzed and future days in port by CVNs were projected based upon anticipated training and deployment requirements. These historical data and projections suggest that the decision to create home port capacity for two additional CVNs at NASNI will not cause significant traffic impacts.

Historically, even when three aircraft carriers were assigned NASNI as a home port, all three of those aircraft carriers were present in port at the same time only an average of thirteen days per year. Based upon training requirements, maintenance schedules, and projected operational tempo, the implementation of Alternative Two is not expected to increase the average number of days a year three CVNs will be present at their NASNI home port. While traffic levels will increase for those brief periods when three CVNs assigned to NASNI are present, overall traffic impacts will be less than significant. Nevertheless, the DON will use mitigation measures to reduce the level of traffic during those infrequent periods when three CVNs assigned to NASNI are simultaneously in port. Mitigation may include measures such as staggering work hours, encouraging carpools and vanpools, and subsidizing the use of public transportation by military personnel and civilian employees. The DON will monitor the effectiveness of these traffic mitigation measures. If the mitigation measures are not successful and traffic associated with the presence of a third homeported CVN creates a significant adverse effect on traffic conditions in Coronado, DON will develop additional mitigation measures.

Several commentors from the San Diego area expressed concern that nuclear propulsion issues such as reactor accident analysis, emergency planning, perimeter monitoring, distribution of potassium iodide, and notification of releases were not thoroughly considered in the FEIS process. The FEIS discusses, among other points, how NIMITZ Class reactor designs have received independent review by the Nuclear Regulatory Commission and the Advisory Committee on Reactor Safeguards, and that the Navy has plans and procedures in place for all types of emergencies that could be associated with Naval Nuclear Propulsion Program (NNPP) operations. These plans and procedures contain classified and sensitive military information that cannot be released to the public. In recent meetings among DON, State, County, and local emergency response officials, the consensus was reached that existing DON, State, County, and local emergency plans are adequate in the highly unlikely event of a radiological emergency.

I thoroughly reviewed the entire discussion of nuclear propulsion radiologcal issues in the EIS, including classified information not releasable to the public. I am convinced that there are no significant radiological impacts associated with creating and utilizing home port capacity at any of the three locations affected by this decision. As there are no significant radiological impacts, mitigation measures such as installation of a perimeter monitoring system or disputing of potassium iodide are not warranted.

Conclusion

On behalf of the Department of Navy, I have decided to implement Alternative Two, as set out in the FEIS, for development of home port capacity for CVNs within the U.S. Pacific Fleet AOR.

In selecting where to create home port capacity for the two CVNs programmed to replace existing CV assets within the U.S. Pacific Fleet, I considered how the development of home port capacity as set out in each alternative analyzed in the EIS would affect: (1) Operations and training, crew quality of life, and the CVN maintenance program; (2) the environment; and (3) facility and infrastructure life cycle costs. I took a hard look at the environmental impacts analyzed in the EIS and gave careful consideration to the comments received on the DEIS and FEIS.

After weighing all of these factors, I have determined that Alternative Two, the preferred alternative in the FEIS, best serves the interests of the DON while keeping environmental impacts at a less than significant level. Alternative Two satisfies the operational, training, and maintenance requirements of the Pacific Fleet, provides acceptable quality of life for Navy sailors and their families, causes no significant environmental impacts, and entails manageable facility and infrastructure costs.

Dated: January 28, 2000.

Duncan Holaday,

Deputy Assistant Secretary of the Navy (Installations and Facilities).

[FR Doc. 00–2831 Filed 2–7–00; 8:45 am]

BILLING CODE 3810–FF–M

8. Senator BILL NELSON. Secretary England, has the Navy performed any analysis of the current strategic conditions, force protection, and risk relative to the establishment of a second base on the Atlantic coast for nuclear-powered aircraft carriers? If not, why not?

Secretary ENGLAND. The Navy carefully reviews threats to all of our bases, not just those with aircraft carriers. These factors are a major part of our analysis in support of the 2005 Base Realignment and Closure (BRAC) process and were included in the recent 20-year force structure review. In addition, the BRAC analysis will also take into consideration the dramatic change in the international security environment and its relationship to our strategic posture, particularly with respect to our carriers. On November 25, 2003, the President announced that the U.S. was planning to modernize its global defense posture. His announcement initiated a consultative process, with friends, allies, and partners that will precede any decisions on posture changes. Directly related is the Integrated Global Presence and Basing

Strategy (IGPBS), initiated in March 2003 to explore changes to the pre-September 11 U.S. military posture. This effort is still ongoing.

The Navy continuously evaluates strategic conditions and force protection requirements. This process allows the Navy to respond to current world conditions and adapts our future force structure to respond to emerging threats.

9. Senator BILL NELSON. Secretary England, how do the increased strategic threat and requirements for force protection affect the risk assessment relative to an analysis of an Atlantic coast nuclear carrier base?

Secretary ENGLAND. The Navy continues to review the risk assessment of our current force structure to ensure the safety and security of our sailors and naval assets. In cases of heightened risk, the fleet generally departs that risk area to minimize the overall concern. For example, in the advent of a hurricane on the Atlantic Ocean that is forecasted to threaten our naval bases on the east coast, the fleet typically sorties available assets to weather the storm at sea and invariably serves to better protect the fleet. If the Navy determines that the strategic threat and existing force protection concerns exceed the ability of our available infrastructure to adequately protect our sailors and naval assets, additional measures including the strategic homeporting of the carrier assets to decentralize the fleet will be considered.

10. Senator BILL NELSON. Secretary England, what were the costs (in then year and current dollars) that the Navy incurred in establishing a second nuclear carrier base on the Pacific coast?

Secretary ENGLAND. The cost for Nuclear Powered Aircraft Carrier (CVN) homeporting and maintenance facilities at Naval Air Station North Island, California, was $220 million (then-year dollars). These facilities included a new wharf, dredging, and three depot-level maintenance facilities. In current-year dollars, the cost for these facilities would be $260 million.

11. Senator BILL NELSON. Secretary England, how much would it cost to establish a second base on the Atlantic coast?

Secretary ENGLAND. The Navy prepared a Programmatic Environmental Impact Statement to evaluate the facilities necessary to support the replacement of a conventional aircraft carrier (CV) with a *Nimitz*-class aircraft carrier (CVN) at Naval Station Mayport, Florida. The Record of Decision, issued in August 1997, indicated that Mayport is a feasible homeport site should the Navy define such a need in the future providing that the identified construction, renovations, and dredging could be accomplished. Approximately $157 million for facilities (including wharf improvements, dredging, and maintenance facilities) and $34 million for industrial maintenance equipment would be required to establish a CVN-capable homeport at Mayport. The required military construction to support a CVN homeport at Naval Station Mayport was not included in the fiscal year 2005 FYDP.

12. Senator BILL NELSON. Secretary England, if the Chief of Naval Operations were to recommend that the Navy establish a second Atlantic coast nuclear carrier base, would you support him and find the funds necessary in the Navy budget to implement that recommendation?

Secretary ENGLAND. I highly value the CNO's opinions and give all of his recommendations utmost consideration. However, I consider it my responsibility to scrutinize significant capital investments that would be required to support a second nuclear carrier base on the east coast. That said, I consider it unlikely that he would make a recommendation to establish a new nuclear carrier base while the BRAC process is in progress.

BASE REALIGNMENT AND CLOSURE

13. Senator BILL NELSON. Secretary England, a concern that I have regarding the upcoming BRAC process is that DOD and Service civilian leaders may be predisposed to discount or ignore the views of the Services' uniformed professional leadership. How will you weigh the advice of the Chief of Naval Operations and the Navy staff? If the uniformed leadership of the Navy recommends that the Service retain an installation, facility, activity, or capability, such as the Navy's three naval aviation depots, will you support them throughout the BRAC process?

Secretary ENGLAND. I value highly the advice of the Chief of Naval Operations and the Navy staff. The BRAC 2005 process identified by the Secretary of Defense memo of November 15, 2002, clearly states the involvement of both the senior uniformed and civilian professional leadership of all of the military departments.

The Defense Base Closure and Realignment Act of 1990, as amended by National Defense Authorization Act for Fiscal Year 2002 (the act) sets out a very fair process with very specific timelines and milestones to which the Department of Defense must adhere in developing its recommendations for closure and realignment. The recommendations are based on the act and the published Selection Criteria. I am confident that the uniformed and civilian leadership of the Department of the Navy and the Department of Defense will develop recommendations fairly and consistent with the selection criteria.

14. Senator BILL NELSON. Secretary Roche, a concern that I have regarding the upcoming BRAC process is that DOD and Service civilian leaders may be predisposed to discount or ignore the views of the Services' uniformed professional leadership. How will you weigh the advice of the Air Force Chief of Staff and the Air Force staff? If the uniformed leadership of the Air Force recommends that the Service retain an installation, facility, activity, or capability, such as the Air Force's test and evaluation centers, will you support them throughout the BRAC process?

Secretary ROCHE. The Air Force BRAC 2005 process fully incorporates both uniformed and civilian leadership viewpoints.

Both the Chief of Staff and I sit on the Secretary of Defense's BRAC 2005 Infrastructure Executive Committee chaired by the Deputy Secretary of Defense. Our viewpoints are, and will continue to be raised as we prepare the Department's base realignment and closure recommendations. Likewise, the Vice Chief of Staff and the Assistant Secretary of the Air Force (Installations, Environment and Logistics) sit on the Department's joint Infrastructure Steering Group (ISG). The ISG meets at least every 3 weeks as it directs the BRAC 2005 process.

As prescribed by the BRAC statute, the Air Force BRAC 2005 process is grounded on an evaluation of Military Value focused on our goals of optimizing operational capability inherent in our U.S. installations, including our logistics, research, development, acquisition, and test and evaluation centers. Military value is central in shaping our recommendations.

QUESTIONS SUBMITTED BY SENATOR HILLARY RODHAM CLINTON

MILITARY OUTSOURCING

15. Senator CLINTON. Secretary Brownlee, the Army plans to begin the process of converting some military positions to civilian in order to improve manpower efficiency and better support worldwide commitments. What are the long-term costs of this transition and where are they reflected in budget estimates?

Secretary BROWNLEE. The Army plans to begin converting 9,000 military positions to civilians in fiscal year 2005 and an additional in 6,000 by in fiscal year 2006. Army commands are currently developing detailed transition plans. The cost to initiate these conversions in fiscal year 2005 is $190 million and is reflected in various accounts within the Operation and Maintenance, Army budget request. The Army will program for the costs beyond fiscal year 2005 as part of the program and budget process this summer. An additional $4.5 billion in budget authority will be sufficient to cover these conversions when combined with other cost saving measures.

ARMY CORPS OF ENGINEERS

16. Senator CLINTON. Secretary Brownlee, the President's budget calls for a cut of 13.1 percent in the Army Corps of Engineers budget. What impact will this have on current Corps of Engineers projects, clean-up efforts, civil works, and military construction initiatives?

Secretary BROWNLEE. The Corps of Engineers is part of the Army, and as such I provide oversight and direction to its activities. I delegate the details of oversight of the Civil Works program to the Assistant Secretary of the Army for Civil Works, John P. Woodley, Jr., who oversees the policy and direction of the Civil Works program of the Corps of Engineers, including the budget for fiscal year 2005. Assistant Secretary Woodley keeps me apprised of significant occurrences affecting the program. As the acting Assistant Secretary for Civil Works, I had overseen the formulation of the fiscal year 2003–2004 budgets and, prior to Mr. Woodley's appointment, the initial phases of formulation of the fiscal year 2005 budget.

The proposed fiscal year 2005 Civil Works budget is frugal, representing the tough choices that must be made during a time when the Nation is at war. It embodies both prudent management and the targeting of funding to priority work. It accelerates high priority work, dam safety projects, fiscal year 2005 completions,

and includes some new starts. But, given the war and the President's overall priorities, the amount of funding available for the Civil Works program was limited. With the available funding, the Corps of Engineers is making significant progress on all budgeted projects. There are many competing needs throughout the country but I assure you that the Corps of Engineers will make the best use of the Civil Works funds provided.

The Corps of Engineers activities related to clean up of current and former military sites and to military construction are funded through appropriations to the Department of Defense for these and other military purposes. Consequently, changes from year to year in the Civil Works budget would have no impact on these activities.

17. Senator CLINTON. Secretary Brownlee, how will the Corps of Engineers be cut or reduced to meet this budget decrease?

Secretary BROWNLEE. Since the Corps staff is primarily project funded, it must carefully consider the impact of its annual appropriations, the trend, and future prognosis, in order to manage its workforce. Although there may be some individual management actions necessary to accommodate the budget, it is not anticipated that there will be any widespread or general reductions in the workforce.

JOINTNESS

18. Senator CLINTON. Secretary Roche and Secretary England, the Air Force and Navy have expressed how jointness is an integral part of how they operated in Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF). What efforts are being taken to integrate joint education into Service schools now instead of having the first opportunity for an Non-Commissioned Officer (NCO) or officer to experience jointness late in their career?

Secretary ROCHE. The Chairman of the Joint Chiefs of Staff, as defined by law, is responsible for formulating policies for coordinating the military education and training for members of the armed forces and provides oversight through certification and accreditation processes. The Professional Military Educational (PME) Framework identifies areas of emphasis at each educational level and provides joint curriculum guidance for PME institutions. The framework structures the development of sister service and joint officers by organizing the officer PME system into five military educational levels, precommissioning, primary, intermediate, senior, and general officer/flag officer. Similar levels of PME exist for the enlisted force (airman, noncommissioned officer, senior noncommissioned officer). Each level builds upon the knowledge and values gained at previous levels.

The Officer Professional Military Education Policy (OPMEP) document (CJCSI 1800.01A) addresses the Goldwater-Nichols Act mandates for officer joint education. The Air Force implements the OPMEP throughout the officer continuum of education, from precommissioning to senior service school level by addressing the specific learning areas and objectives prescribed in the OPMEP. At the precommissioning level, cadets learn the basic United States defense structure, roles and missions of other military services, the combatant command structure, and the nature of American military power and joint warfare. At the primary level (Air and Space Basic Course and Squadron Officer School), instruction addresses the fundamentals of joint warfare, joint task force organization, the characteristics of a joint campaign, how national and joint systems support tactical-level operations, and the capabilities of the relevant systems of other services. Wargames demonstrate the teamwork required to successfully plan a joint air and space campaign. At the intermediate level (Air Command and Staff College), PME instruction addresses joint operations from the standpoint of the Air Force forces in a joint force supported by Service component commands. Students study warfighting, military doctrine, and the application of unified, joint, and combined forces, with particular emphasis on air and space power employment in theater-level operations. A comprehensive wargame enables students to apply their knowledge and skill to build a theater-wide plan for joint air operations. At the senior PME level (Air War College), instruction addresses theater and national level strategies and processes. Curriculum focuses on how the unified commanders, Joint Staff, and Department of Defense (DOD) use the instruments of national power to develop and carry out national military strategy. Students examine how the joint operational planning and execution system is integrated in theater and operational information operations (IO) campaign planning and execution to support theater and national strategic sustainment and warfighting efforts. During wargames, students apply knowledge gained during the academic year in a complex global scenario. Students are con-

fronted with international and homeland security challenges which must be dealt with through diplomatic information, economic, and military responses. This reinforces the importance of thinking with joint, interagency, and coalition perspectives.

Beyond the senior service school level, the Air Force provides joint education for its general officers via the Joint Flag Officer Warfighting Course (JFOWC) and the Joint Forces Air Component Commander Course (JFACO). JFOWC provides future theater combatant commanders, service component and joint task force (JTF) commanders with a broad perspective of the strategic and operational levels of war. Instruction addresses issues such as the role of joint doctrine with respect to unified command as it applies to operations planning, mobilization, deployment, employment and sustainment, and redeployment; the combatant commander's perspective and the role of subordinate commanders in developing, deploying, employing and sustaining military forces; the role of the unified commander in developing theater plans, policies and strategy; how the joint operational planning and execution system is integrated in theater and operational IO campaign planning and execution; and the complexities associated with leadership in a coalition environment at the task force, component and combatant commander levels. The JFACC course is designed to prepare potential JFACCs for theater-level combat leadership responsibilities. The attendees study warfighting, military doctrine, and the application of unified, joint, and combined combat forces with particular emphasis on air and space power employment in theater-level operations.

Joint Education is also integrated within Air Force Enlisted PME Programs. The Airman Leadership School, a basic course to prepare airmen (E–4) for their role as NCOs and leaders, presents primary instruction on roles and missions of the military services, joint operations, and homeland defense. The Noncommissioned Officer Academy, an intermediate course furthering the professional development of technical sergeants (E–6), provides intermediate instruction on the same topics, and adds joint force components, military planning, and transformation. The United States Air Force Senior Noncommissioned Officer Academy (SNCOA), the (U) senior course broadening the military education of senior noncommissioned officers (E–7/E–8), addresses various joint topics, including: Joint Force Command, operational concepts, joint perspectives, and joint doctrine. At present, the SNCOA is the only Air Force enlisted PME school integrated with senior enlisted members from other DOD and international services.

In addition to formal in-residence PME schools, the Air Force provides other media addressing joint topics. Promotion-eligible enlisted (E–4 through E–9) prepare for examination through year-long study of military subject matter within AFP 36–2241 Volumes 1 and 2, 1 July 2003. Joint topics included in these study guides are: DOD command authority, roles and missions of the military services, military justice, and Air Force role in the joint force. Also, AFMAN 10–100, Airman's Manual, 1 August 1999, identifies the skills and knowledge needed to "go anywhere, anytime" to support the Aerospace Expeditionary Force mission. It addresses subjects such as Chairman, Joint Chiefs of Staff rules of engagement, Law of Armed Conflict, and skills needed for deployment.

Secretary ENGLAND. The Navy follows the Joint Professional Military Education (JPME) Program developed by the Chairman of the Joint Chiefs of Staff to progressively develop the knowledge, analytical skills, perspectives, and values essential for U.S. officers to function effectively in joint, multinational and interagency operations. Joint education commences at the Naval Academy, Naval Reserve Officers Training Corps Units, Officer Candidate School and other service accession schools with an introduction to jointness focused on national military capabilities and organization, and the fundamentals of joint warfare. Joint education continues at warfare and specialty training schools where joint awareness is developed through an emphasis on joint warfare fundamentals and joint campaigning. Mid-career naval officers receive joint education focused on joint force employment and warfighting from the Naval War College through resident or distance learning options.

JPME for the enlisted force is under development. Navy is actively involved with the other services and the Joint Staff in policy and program development.

BASE REALIGNMENT AND CLOSURE

19. Senator CLINTON. Secretary Roche, most of the focus for the Global Defense Posture Review, in conjunction with Base Realignment and Closure (BRAC) 2005, has been devoted to how many Army divisions or brigades may be redeployed to the United States. What possible Air Force organizational changes are foreseen in Europe during the review?

Secretary ROCHE. [Deleted.]

20. Senator CLINTON. Secretary Roche, if there is a plan to re-station airmen to the continental United States, will they be based at current Air Force bases or is it possible they may be shifted to the Air Force Reserve/Air National Guard?

Secretary ROCHE. The United States Air Force has no approved plans that would re-station airmen to the continental United States (CONUS). Should aircraft and airmen return to the CONUS, an early consideration is to balance the supportability of existing fleets.

QUESTIONS SUBMITTED BY SENATOR MARK PRYOR

INTERCEPTOR BODY ARMOR

21. Senator PRYOR. Secretary Brownlee, the 39th Reserve Brigade from Arkansas is about to depart for Iraq, where it will be part of the 1st Cavalry Division. I visited the 39th at Fort Hood last month and Fort Polk a couple of weeks ago to observe some of their training. I repeatedly hear from family members of the soldiers from the 39th who want to know when their loved ones will receive their personal body armor. On November 19, 2004, you testified before this committee stating that our troops in Iraq would have interceptor body armor by December 31, 2003. In fact, you stated, at currently planned rates of production, we will have all our troops in Iraq fitted with interceptor body armor by the end of December. Why didn't the armor arrive as promised?

Secretary BROWNLEE. While the Army met the requirement that I briefed during my November 19, 2003, appearance before the committee, the Combined Joint Task Force-7 requirements for small arms protective inserts (SAPI) in Iraq increased on November 22, 2003, by over 10,000 sets. The Army completed the delivery of the additional 10,000 sets in January 2004. The increase was the result of an in-theater recount and revised guidance from U.S. Central Command (CENTCOM) directing all Service members and Department of Defense civilians in the CENTCOM area of responsibility receive Interceptor body armor.

22. Senator PRYOR. Secretary Brownlee, in December 2003, I made an inquiry to the Army on when the 39th would receive their interceptor body armor. I was originally told that the 39th would receive their body armor at Fort Hood. That didn't happen. Now, I'm told that the body armor will be provided in Kuwait. Why hasn't this armor arrived as promised?

Secretary BROWNLEE. The 39th Reserve Brigade was fielded their outer tactical vests prior to deployment from Fort Hood, Texas. At the time of deployment, all Small Arms Protective Insert (SAPI) production was being shipped directly into theater to Camp Victory, Kuwait. All Operation Iraqi Freedom 2 units were issued SAPI in-theater while executing their reception, staging, onward-movement, and integration phase of operations prior to crossing into Iraq.

23. Senator PRYOR. Secretary Brownlee, what assurances can you give me that the members of the 39th will receive interceptor body armor in Kuwait?

Secretary BROWNLEE. The 39th is scheduled to receive their SAPI at Camp Victory, Kuwait on or about March 15, 2004.

[Whereupon, at 11:49 a.m., the committee adjourned.]

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2005

THURSDAY, MARCH 4, 2004

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

UNIFIED AND COMBATANT COMMANDERS ON THEIR MILITARY STRATEGY AND OPERATIONAL REQUIREMENTS

The committee met, pursuant to notice, at 9:40 a.m. in room SH–216, Hart Senate Office Building, Senator John Warner (chairman) presiding.

Committee members present: Senators Warner, McCain, Inhofe, Roberts, Allard, Sessions, Collins, Ensign, Talent, Chambliss, Graham, Dole, Cornyn, Levin, Kennedy, Byrd, Lieberman, Reed, Akaka, Bill Nelson, E. Benjamin Nelson, Dayton, Bayh, Clinton, and Pryor.

Committee staff members present: Judith A. Ansley, staff director; and Leah C. Brewer, nominations and hearings clerk;

Majority staff members present: Charles W. Alsup, professional staff member; Regina A. Dubey, research assistant; William C. Greenwalt, professional staff member; Ambrose R. Hock, professional staff member; Gregory T. Kiley, professional staff member; Thomas L. MacKenzie, professional staff member; Lucian L. Niemeyer, professional staff member; and Lynn F. Rusten, professional staff member.

Minority staff members present: Richard D. DeBobes, Democratic staff director; Daniel J. Cox, Jr., professional staff member; Evelyn N. Farkas, professional staff member; Richard W. Fieldhouse, professional staff member; Michael J. McCord, professional staff member; and William G.P. Monahan, minority counsel.

Staff assistants present: Michael N. Berger, Andrew W. Florell, and Nicholas W. West.

Committee members' assistants present: Christopher J. Paul, assistant to Senator McCain; John A. Bonsell, assistant to Senator Inhofe; Darren Dick, assistant to Senator Roberts; James P. Dohoney, Jr. and Derek J. Maurer, assistants to Senator Collins; Aleix Jarvis, assistant to Senator Graham; Christine O. Hill, assistant to Senator Dole; Mieke Y. Eoyang and Jarret A. Wright, assistants to Senator Kennedy; Frederick M. Downey, assistant to Senator Lieberman; Elizabeth King, assistant to Senator Reed;

Davelyn Noelani Kalipi, assistant to Senator Akaka; William K. Sutey, assistant to Senator Bill Nelson; Eric Pierce, assistant to Senator Ben Nelson; Andrew Shapiro, assistant to Senator Clinton; and Terri Glaze, assistant to Senator Pryor.

OPENING STATEMENT OF SENATOR JOHN WARNER, CHAIRMAN

Chairman WARNER. The committee will get under way. We welcome our two distinguished guests, General Abizaid and General Jones. General Jones, we have an unusual guest here this morning. Would you take a moment to introduce him before I begin my remarks?

General JONES. Mr. Chairman, I will be happy to. It is a great honor to introduce to the committee Admiral Rainer Feist of the German Navy, who currently serves as the Deputy Supreme Allied Commander for Europe. Admiral Feist and I work together on a daily basis on North Atlantic Treaty Organization (NATO) affairs at Supreme Headquarters Allied Powers Europe (SHAPE) in Mons, Belgium.

I am particularly honored to be able to present him to the committee. He is a distinguished sailor. He is an expert in all things NATO and he has made my life professionally and personally very enjoyable in my first year in office. I am very proud to call him my friend and very proud to rely on him for the generation of NATO's forces. In every operation that we are engaged on—and there are more and more of those in NATO—Admiral Feist has the responsibility of generating the force from nations.

Second, it might interest the committee to know that he is also the senior officer assigned to SHAPE with European Union (EU) connections. His strategic leadership of Operation Concordia in the Former Yugoslavian Republic of Macedonia was the departure of the military to military relationship between NATO and the EU. So he is singularly qualified to brief the EU and the committees of jurisdiction that have interests in European security defense initiatives, and he will be extremely important this year in whatever happens in Bosnia with regard to the policing mission that the EU will hopefully take over, as well as the gradual winding down of the traditional NATO military mission.

So I am very proud to introduce Admiral Feist to you, Mr. Chairman, and to the committee. He is a great sailor, he is a great friend, a great ally, and I depend on him every single day.

Thank you, sir.

Chairman WARNER. We thank you, General, for taking this initiative.

The committee meets today to receive the testimony from Commanders, U.S. Central Command (CENTCOM) and U.S. European Command (EUCOM), on the posture of the Armed Forces in their areas of responsibility (AOR), their overall military strategy, and their operational requirements, in review of President Bush's defense budget request for fiscal year 2005 and the Future Years Defense Program (FYDP).

Our witnesses today command forces that stretch across the Atlantic, across Europe, through Africa, the Middle East, and into Central and Southwest Asia. General Jones and General Abizaid,

we welcome you back before the committee and commend you for the outstanding leadership that you have given, are giving, and I am confident will continue to give in the months and years to come.

You serve in an era of unprecedented challenges and demands on the Armed Forces of our Nation and the coalition nations which each of you share responsibility for.

I start today by recognizing the men and women of our Armed Forces, as this committee always does each time we have a hearing, who, together with the coalition of nations, liberated Iraq, a country larger than Germany and Italy combined, in roughly 3 weeks time. This remarkable military accomplishment is proof of the professionalism and dedication of our military forces. Iraq, a nation that for decades had known only tyranny and oppression, is now moving forward to a future of democracy, freedom, and opportunity for all of its people.

The world is a safer place and Iraq, Afghanistan, and the Balkans are better places because, along with many nations, the U.S. confronted brutal regimes which had repressed their people, murdered indiscriminately, fomented terrorism, and defied the will of the international community for years. Disagreements may continue about the process and the timing by which the decision to use force was made, but on one thing there is no disagreement: The professionalism, the performance, and the sacrifice of our troops and their families was, is, and always will be inspiring. For that we are very grateful.

Every American is justifiably proud of the U.S. Armed Forces. The security of America is in good hands.

As we meet this morning, hundreds of thousands of our servicemembers are engaged in operations throughout your AORs, defending our Nation in Operation Enduring Freedom (OEF), in Operation Iraqi Freedom (OIF), in the Balkans, and in other military operations in the ongoing global war on terrorism.

These brave men and women and their families deserve our continued support, and they will get it: the equipment, the resources, the support they need to perform their missions. Our forward-deployed forces are and will remain our first line of defense. This committee's responsibility will continue to be to ensure that these troops remain the best equipped, best trained, and most capable forces in the world.

In doing so, we must understand the challenges they face today and those they will face tomorrow. The insights of our witnesses today are an indispensable part of that process of understanding and oversight by this committee.

We have a number of important issues to discuss. General Abizaid, continuing military operations in Iraq, the overall security situation there, and the transition to sovereignty and democracy are clearly of great interest to this committee. As we speak, one of the largest troop rotations since World War II is under way in your AOR. The challenges you face in accomplishing this movement of forces are daunting. The environment in which our troops will operate after the transfer of sovereignty and your relationship with the new Iraqi government are subjects on which we seek your views.

While much attention is focused on Iraq, we must not lose sight of the other challenges in your AOR. The security situation in Afghanistan remains unsettled. Reconstruction is ongoing but uneven. Drug cultivation is up and the hunt for Osama bin Laden and his associates continues. The committee looks forward to your assessment of the current situation in Afghanistan as well as your views on NATO's contribution to stabilization operations in that region. I very much enjoyed your personal report last night that Senator Stevens and I received during the course of our visit.

The continuing cooperation of Pakistan is essential for success in this endeavor. The committee is interested in your thoughts on the current situation in Pakistan and the commitment of the Pakistani Government to be ongoing global partners in that area.

The global war on terrorism continues in other areas, such as the Horn of Africa. Your assessment of overall progress to date in your region, as well as your thoughts on what remains to be done, will be helpful. I ask that you include comments on Iran's role in harboring elements of al Qaeda and what progress has been made in gaining better cooperation, if that is achievable at all, with Iran in the war on terrorism.

Unfortunately, progress toward finding peace in Israel and the Palestinian conflict appears to be at somewhat of a standstill. I ask both of our witnesses for their views on that conflict. That is a matter that you and I discussed at some length, General Jones, yesterday.

General Jones, the committee looks forward to your insights on the developments in the EUCOM AOR, as well as your views on the 2005 defense budget request meeting your operational needs. NATO will soon grow to 26 members when the 7 newest members formally join the alliance early this spring. That will be a momentous occasion. I am quite interested in your views on their timing to begin to posture themselves financially, to take on their share of responsibility for equipment and manpower.

So I look forward, as does the committee, to your views on many issues, as well as the progress current NATO members are making with respect to the commitment they made in the 2002 Prague Summit to improve their military capabilities and to establish a quick reaction NATO response force.

For the first time in history, NATO has assumed a critical out-of-area mission. In August 2003, NATO assumed the leadership of the International Security and Assistance Force (ISAF) in Afghanistan. The committee is particularly interested in NATO's plan to expand ISAF beyond the Kabul area by deploying additional Provincial Reconstruction Teams into the countryside.

Eighteen of 26 member nations and aspirant nations have troops deployed in Iraq as part of the OIF. NATO as an alliance is currently providing assistance to a number of these NATO member countries, including Poland, Spain, and Hungary, to help them with their deployments in Iraq. So you have a very significant presence there. This represents a commitment to OIF by both NATO member nations and NATO as an alliance. The committee is very interested to hear of any planning or discussions ongoing in NATO regarding an even larger role for NATO in Iraq in the coming

months, hopefully, and then particularly after sovereignty is transferred on June 30.

Africa is also a very important region in your AOR. I visited Liberia last year at your invitation, General Jones, as we had a significant number of U.S. forces deployed at the direction of the President. I think it was a proper step for the President and this country to have taken. We continue to monitor that process. I met with the head of government in Liberia here a short time ago.

Another region of great interest to this committee is the Balkans. We look forward to your assessment of the political-military situation there and the plans of NATO forces in Bosnia and Kosovo in the future.

Finally, the committee remains keenly interested in the Department of Defense's (DOD) global force posture review. We are eager to hear what each of you are able to share regarding the disposition of current and future bases and forward operating locations in your respective AORs. As you are aware, changes in our global force posture could have dramatic implications for future U.S. military readiness and operations, for relations with our friends and allies around the globe, and for the quality of life of U.S. servicemembers and their families.

I welcome you again, gentlemen.

Senator Levin.

STATEMENT OF SENATOR CARL LEVIN

Senator LEVIN. Thank you, Mr. Chairman. Let me join you in extending a warm welcome to our witnesses this morning. Both General Abizaid and General Jones exercise command over forces, both U.S. and allied, that are participating in stability and combat operations in areas that provide really daunting challenges to us.

I want to also join the chairman and every member of this committee in expressing through you our deep gratitude to all the men and women under your command for their bravery, their dedication, and their sacrifice, and also to their families who share in that sacrifice.

Mr. Chairman, it is fitting that General Abizaid and General Jones are appearing together before this committee. Their AORs adjoin each other. They are linked to each other. NATO has a substantial presence in a growing involvement in Afghanistan pursuant to a United Nations (U.N.) Security Council mandate. The forces of a number of NATO member nations are employed in Iraq and there are suggestions that NATO take a formal role in Iraq in the future.

Afghanistan presents a mixed picture. The Afghan people have approved a new constitution. A representative interim government is up and running, and presidential and parliamentary elections are scheduled to be held in June of this year. Meanwhile, however, there are doubts that the security situation will allow elections to be held throughout the country, at least in that time period. Although NATO has decided to become more deeply involved in Afghanistan and a new NATO Secretary General has said that Afghanistan is NATO's top priority, it is not clear that NATO member nations will provide the manpower and equipment that will be needed to fulfil the alliance's political commitment.

There are legitimate questions as to whether the U.S. coalition and the Afghan army have sufficient numbers to permit the central government to extend its authority throughout the country and to deal with an increasing opium poppy production problem.

The Iraqi Governing Council (IGC) has adopted a constitutional document, albeit a transitional one, and Iraq is scheduled to regain its sovereignty on July 1 and, with U.N. help, will hopefully be holding national elections by the end of this year. The problems in Iraq are numerous. Security, as Tuesday's obscene bombings demonstrated, is a major problem, as former regime loyalists and jihadists are seeking to bring about civil war. The makeup of a transitional government remains to be decided and the status of coalition forces after July 1 is still up in the air.

The issue of whom sovereignty is to be transferred to is not just a thorny intellectual issue. If the people of Iraq do not support their sovereign government, even greater chaos could result, up to and including civil war.

Perhaps the only certainty and constancy in both of these countries is the bravery, dedication, and selflessness of the American troops, both active and Reserve. Another certainty is the resolve of this committee and our colleagues in Congress to ensure that our service men and women have the equipment, training, and support that they deserve. They already have superb leadership, as is so ably represented by General Abizaid and General Jones, and I look forward to the testimony of these two wonderful men.

Chairman WARNER. Thank you very much, Senator Levin.

We will now proceed to receive the testimony from our witnesses, and we will lead off with General Abizaid.

STATEMENT OF GEN JOHN P. ABIZAID, USA, COMMANDER, UNITED STATES CENTRAL COMMAND

General ABIZAID. Mr. Chairman, Senator Levin, members of the committee: Thank you very much. As always, it is an honor to appear before the committee.

I would like to start out first of all by thanking the committee for its tremendous support of our troops in the field. The single most important thing to our fighting men and women is knowing that they have the support of people back home, and that starts right here in the Congress of the United States, and we thank you for that.

Chairman WARNER. We will admit to the record your entire statement, as well as that of General Jones, so you can proceed to deliver those portions that you feel are relevant to the opening comments.

General ABIZAID. Thank you, Mr. Chairman.

On the land, sea, and air today over the CENTCOM AOR are over 240,000 American servicemembers, and they are doing tremendous work out there. They have three primary missions: fighting the broader global war on terror throughout the area of operations; achieving stability in Afghanistan; and achieving stability in Iraq.

In order to do this, we deploy three key headquarters, as the committee is well aware, the largest of which is Combined Joint Task Force 7 (CJTF–7), which operates out of Baghdad in Iraq. In

Afghanistan, Combined Forces Command (CFC–A) is in Kabul under General Barno; and the smaller but very important headquarters in the Horn of Africa (CJTF–HOA) with about 1,100 troops, does a good job in helping regional nations help themselves.

All of us know that 2004 will be a key year for stability operations in Iraq and Afghanistan, and I am optimistic that we can move ahead in a way that will achieve greater stability and assure the prospect of representational government forming in both countries.

Elections in Afghanistan and the transition of the sovereign authority in Iraq, with elections to come either this year or in the early part of next year, give us an opportunity to move ahead in very important ways in both locations.

Key military tasks that we are completing in both locations include counterinsurgency operations, counterterrorist operations, stability operations, and certainly civil affairs operations, where we help in the local reconstruction of the infrastructure in both countries. Perhaps the most important activity that we will be involved with in both countries has to do with building Iraqi and Afghan security capacity. We have gone from zero members of Iraqi security forces back in May to around 200,000 today. In Afghanistan we have likewise built national security forces in an important way that will help the government eventually spread its control throughout the entire country.

It is important to note, however, that it is not merely numbers that are important in building the security capacities of these Armed Forces, police forces, border forces, and other security institutions; it is also quality. Quality takes time to build. We will work very hard and diligently to increase their capacity over time.

We extend our condolences to the more than 180 Iraqis that were killed and 500 that were wounded in yesterday's terrible attacks in Karbala and Baghdad. These attacks certainly represent the worst of the terrorist threat that exists in the CENTCOM AOR. There is no doubt that Zarqawi and his network, in conjunction with former regime elements, perpetrated these attacks. We know that there were at least six suicide bombers that were involved and we know that the number of killed and injured include innocent men, women, and children that were trying to celebrate the Ashura holiday.

We know that duty in Iraq and Afghanistan is dangerous and will remain so. We know that there are more sacrifices ahead for our troops, but we also know that, in conjunction with Afghanis and with Iraqis and with the strong will and determination of our own forces, we will prevail there, and prevailing there means the establishment of moderate governments in both Iraq and Afghanistan firmly in control of their own people.

Throughout the area of operations, it is indeed a battle of extremism versus moderation. It is a tough battle, but one that can be won in conjunction with the people of the region who, like the United States of America, value the opportunity for moderation to emerge. In every one of CENTCOM's 25 countries, there are more people against the extremists than are with them.

In closing, Mr. Chairman, I would like to once again say that the most important people in CENTCOM's area of operations are our

young men and women on patrol in the middle of the night in very dangerous circumstances. We appreciate your support. We appreciate the fact that the American people are supporting these young men and women as they do the important work ahead.

Thank you, sir.

[The prepared statement of General Abizaid follows:]

PREPARED STATEMENT BY GEN JOHN P. ABIZAID, USA

Mr. Chairman, members of the committee: I am honored to appear before you today and report on the state of the United States Central Command (CENTCOM), the situation and our actions in our area of responsibility (AOR), and discuss ways we can continue to increase our effectiveness. The command remains engaged on three principal fronts: the disruption of transnational terrorist networks working within and from our AOR, and countering insurgencies in both Iraq and Afghanistan. These activities are interconnected. CENTCOM operates within the geographical and ideological heart of the global war on terror. Success in Afghanistan and Iraq will result in stable states that do not harbor terrorists and provide a visible alternative to the terrorists' vision of chaos and conflict.

Over 200,000 soldiers, sailors, airmen, marines, coast guardsmen and Department of Defense (DOD) civilians, alongside over 30,000 of our coalition partners, are serving today in CENTCOM. The total force is represented by over 47,000 Guard and Reserve troops that are completely integrated into the effort. The coalition is engaged in a wide range of activities that contribute to the stability of the region and the security of our Nation. These include counterinsurgency, counterterrorist, stability, civil affairs, reconstruction, and theater security cooperation activities. Over 870 aircraft and 30 ships are sustaining and supporting our land forces, simultaneously deterring our adversaries and gathering vital intelligence, while Marine forces embarked in Expeditionary Strike Groups serve as the region's strategic reserve. Every day our service men and women are operating alongside our coalition partners with courage, dedication, and professionalism.

Our operating environment is always dangerous, and we both appreciate and honor the sacrifices made by our soldiers, sailors, airmen, marines, and their families over the past 28 months. We have had many successes, but there is much yet to be done. Our enemies continue to seek to inflict casualties upon those who oppose them in an attempt to hinder our progress and break our will. Our commanders in the field recognize these risks, adapt to their tactics, techniques, and procedures and aggressively take the fight to the enemy. I thank you all on their behalf for the tremendous support we have received from Congress. We must stay the course, which will require continued sacrifice both at home and abroad.

The demands associated with our combat missions have resulted in a force that possesses unprecedented operational and tactical savvy. Our leaders have developed an extremely high degree of professionalism in the conduct of one of the toughest missions any military faces. We are waging a counterinsurgency against an enemy hiding within the population and operating without rules. Our troops are proving every day that they are adaptive, imaginative, professional, competent, and most of all courageous. I visit our troops and commanders frequently and they are confident we are winning the war on terror, winning the peace in Afghanistan and Iraq, and contributing to stability in volatile regions such as the Horn of Africa. They are also realistic, however, and understand that success will not come overnight or without further sacrifice. The young troops are setting a modern standard for the "Greatest Generation."

MISSION

CENTCOM conducts joint and combined operations in the AOR to defeat our adversaries, promote regional stability, support our allies and friends, and protect our interests.

VISION

As a Unified Command, CENTCOM may operate as a Combined Command, synchronizing joint and combined forces to decisively defeat enemies within the assigned AOR. CENTCOM promotes regional stability through a robust program of military cooperation, exercises, and frequent contact. We support our allies' and friends' efforts to build and sustain the individual and collective defense capabilities required to allow them to prosper free from terrorism, war, or oppression. American

and coalition presence will deter adversaries through demonstrated resolve to protect our national interest.

NATURE OF THE AOR

The CENTCOM AOR spans 6.4 million square miles including Egypt, the Horn of Africa, the Arabian Peninsula, Pakistan in South Asia, and the Central Asian states as far north as Kazakhstan. It is intersected by critical transportation and trade routes and includes the waters of the Red Sea, the Northern Indian Ocean, the Arabian Gulf, and the key maritime choke points of the Suez Canal, the Bab el Mandeb, and the Strait of Hormuz. The Arabian Gulf region alone accounts for two-thirds of the world's crude oil reserves, 25 percent of the world's oil production, and 36 percent of the world's natural gas reserves. The region is home to more than 500 million people including at least 18 major ethnic groups and adherents of all the world's major religions.

Economic, social, and political conditions vary greatly from one nation to another. However, despite the riches of its natural resources and human potential the region faces significant security challenges ranging from international terrorism to state-to-state conflict. Some regional governments are hard pressed to satisfy growing populations' demands for a better quality of life. A tide of social and economic discontent makes many populations vulnerable to extremist ideology and anti-American sentiment.

Extremist organizations prey on disenfranchised youth and those without hope. They attempt to indoctrinate the youth to violent Jihad as the principal means of advancing their cause. States in our AOR most vulnerable to extremism include Iraq, Afghanistan, Pakistan, Saudi Arabia, and Yemen although no nation in our region is free from this risk. In addition, we keep a keen eye on flashpoints between Pakistan and India, Eritrea and Ethiopia, and civil war in Sudan.

We operate in a region that has a low tolerance for a major foreign military presence—no matter how well-intentioned. Our longer term presence in the region must therefore be tailored to be effective but not overbearing. Our vision in this region must be to help nations help themselves. As Iraq and Afghanistan move towards stability, we must integrate them into our long term strategy for peace and look for ways to include them in the group of nations fighting terrorism and extremism locally, regionally, and globally. Ultimately, our partnerships throughout the region aim to foster strong and stable states fully capable of helping themselves and regional communities of nations willing and able to help each other.

GLOBAL WAR ON TERROR

The CENTCOM region lies at the geographic and ideological heart of the global war on terror. Partnered as we are with many Islamic nations, we recognize that the war on terror is not a war against Islam. We are cognizant of an ongoing struggle within our region between extremism and moderation. Al Qaeda is attempting to exploit and amplify regional tensions to the point they can cause global effects. Their strategy is to create footholds of sympathy and support within populations from which to attack supporters of moderation and tolerance. They seek to drive the U.S. from the region and then champion an insurrection against moderation. Their strategic timeline is measured in decades and generations.

Pursuit of this enemy is our highest priority and we know that while the military can and will continue to disrupt and defeat al Qaeda on the battlefield, the root causes of terrorism have inherently non-military solutions. It is important to isolate the al Qaeda network and other transnational terrorist organizations from their sources of ideological, financial, and material strength. We have put significant pressure on the al Qaeda terrorist network throughout the region. Together with our coalition, interagency, and host nation partners, we have killed and captured terrorists, attacked their infrastructure, restricted their movement, disrupted their financial support, and depleted their leadership. We have gained experience and perspective on the nature of the threat and their tactics. We are using that experience to become even more effective, especially in the area of intelligence and counter-insurgency.

Close cooperation with our interagency and international partners is an important element of success. Only by fully synchronizing our military efforts with those focused on diplomacy, intelligence collection and analysis, economic development, law enforcement, and strategic communications will we put pressure on the threat while at the same time win the confidence of the moderates. We continue to develop interagency ties at all levels of command to facilitate cross agency information and activity. Our Joint Interagency Coordination Group (JIACG) within the headquarters is an example of this new wave of integration. So too are we synchronizing coalition

activity for the global war on terror. Sixty-five countries have military representatives at the CENTCOM headquarters in Tampa sharing information and integrating plans. Because the enemy is borderless and his strategy is broad, we cannot afford to permit gaps in our effort that terrorists can exploit. The solidarity and collective will of the coalition is our strength against an enemy that preys on weakness.

Regardless, the terrorist enemy is agile, patient, and deadly. They have adapted their methods to counter our successes. In recent months, the suicide bombings that killed or wounded thousands of innocent Muslims in Turkey, Saudi Arabia, Iraq, and Afghanistan demonstrate that terrorists' claims that they are solely at war with America are false. Al Qaeda organizers, operatives, and other cadres have dispersed, establishing clandestine bases of operation in inaccessible to the United States and its allies or ungoverned spaces. The enemy's ideological base, financial networks and information networks remain partially intact and functional. The demographic and economic conditions that breed terrorists continue to concern us.

We remain concerned that modern technology could give terrorists access to destructive power, which, in the past, has been limited to nation states. Indeed, we know that terrorist organizations have been pursuing weapons of mass destruction (WMD). Effective offensive operations against al Qaeda and its associated organizations prevent these terrorists from establishing deliberate programs to make these destructive weapons. Measures to effectively control borders and detect proliferation of WMD-related materials and technology need to be strengthened within regional nation states.

Success in this war depends greatly upon collective action and international cooperation. While U.S. and coalition forces will remain on the offensive, indigenous forces are best suited to develop human intelligence and act on that intelligence to defeat the enemy. Our headquarters, Combined Forces Command Afghanistan (CFC–A), Combined Joint Task Force-7 (CJTF–7) in Iraq, and CJTF Horn of Africa (CJTF–HOA) headquartered in Djibouti, along with our component commands, conduct theater security cooperation with other nations to help build indigenous counterterrorism capabilities. U.S. Naval Forces CENTCOM (NAVCENT) directs seventeen countries in a sustained effort to curtail trafficking of terrorists, as well as narcotics and other prohibited items. Carrier battle groups and strike groups are apportioned to support CENTCOM operations using the Global Naval Force Presence Policy (GNFPP).

While we must remain alert to the danger that transnational terrorism poses, we must also recognize the terrorists' vulnerabilities and the opportunities they present. The war against terrorism is a war largely of intelligence and perceptions. While we are constantly improving our intelligence picture of the enemy, we must also become more adept at public diplomacy and strategic communications. The terrorist vision is not inherently appealing given its foundation of intolerance, restricted freedoms and forced compliance. Moderates will only move in the extremist direction if they see it as the only way to achieve sustenance, personal security and a sense of community. It is important to make every effort to help the host nations improve essential services, enhance security and provide venues for political participation. It is also important to tailor and temper our combat activities to cultural sensitivities and personal security concerns of the moderates as we pursue the terrorists.

IRAQ

There are currently over 184,000 coalition personnel supporting Operation Iraqi Freedom (OIF) in Iraq and Kuwait. Over 114,000 U.S. personnel and over 23,000 coalition personnel from 35 nations are currently fighting to achieve security and stability in Iraq. The force is commanded and controlled by CJTF–7, centrally located in Baghdad, and is composed of five divisions; three U.S. Army divisions, two multinational divisions, and one multinational brigade. Special Operations Forces (SOF) under Special Operations Command CENTCOM (SOCCENT) leadership work in close collaboration with CJTF–7 and coalition partners throughout Iraq to enhance information sharing and planning efforts.

Multinational forces are currently responsible for northern and southern portions of Iraq while U.S. Army units are deployed in Baghdad, central, northern, and western Iraq. Over 26,000 U.S. and coalition personnel are deployed in Kuwait, providing logistical support to OIF. Today, we are engaged in a major force rotation that will be complete by early May. While force numbers will remain relatively stable, incoming forces will be task organized with more infantry and greater mobility to fight the counterinsurgency. We have reduced our numbers in those sectors where the security environment permits, and increased our presence in others. For example, in the north where enemy activity has been low, an Army Stryker Brigade has

replaced elements of the larger 101st Air Assault Division. In the west where enemy activity is high, the Marines will bring in a larger Marine Expeditionary Force (MEF) to replace the 82nd Airborne Division. In all cases, the replacement forces are tailored for the mission, trained in the tactics, techniques and procedures developed by the departing unit, and spend time in their sector with the outgoing unit before its departure.

The three major elements fighting coalition forces in Iraq are Former Regime Elements (FREs), transnational terrorists, and religious extremists or jihadists. The FREs seek to expel the coalition and return themselves to power. They are waging a tactical campaign against coalition forces and attempting to intimidate the Iraqi police and Iraqi Civil Defense Corps (ICDC) security forces while terrorizing both Iraqi citizens and anyone cooperating with coalition forces. These FREs operate primarily in north-central and western Iraq, the traditional strongholds of the Baathist regime. FREs predominately use standoff weapons such as rockets, mortars and small surface-to-air missiles to engage coalition forces. Since last summer they have become extremely adept and adaptive with improvised explosive devices (IEDs) to the point that the majority of American casualties are now caused by IEDs.

CENTCOM is working with the Services and numerous DOD agencies, civilian research laboratories, and private businesses to develop and deploy technologies to defeat and mitigate the effects of the IEDs. We are focused on those technologies that can deny bombmakers access to materials to make IEDs, provide persistent surveillance to our likely routes of travel, allow us to detect the presence of IEDs well outside the IED blast zone, neutralize or defeat those IEDs that remain hidden from us, and as a last resort, protect our troops from the effects of an IED blast.

Transnational terrorists such as the Zarqawi network, Ansar al Islam, and al Qaeda are attempting to destabilize Iraq by increasing both ethnic and sectarian strife with the intention of inciting chaos and a civil war. Their intent is to drive international institutions such as the United Nations (U.N.) and Red Cross from Iraq. Ultimately they desire to create a new extremist base of operations following their losses in Afghanistan. These terrorists are operating in the same areas as the FREs, which are largely former Baathist strongholds. They also have a presence in northern Iraq and are launching attacks into southern Iraq targeting the Shi'a population, the international community, and security forces. While many of their tactics are similar to those employed by the FREs, they are more likely to employ suicide attacks, including car bombs.

The third group is religious extremists or jihadists. This group is widely diverse and made up of foreign fighters, adventurists who have responded to the extremists' false call for Jihad, and dissatisfied Iraqi Sunni Arabs. They are committed to driving westerners from the Middle East, deposing the current regional regimes and establishing an Islamic state or greater Caliphate. Some foreign fighters come to Iraq completely untrained with little money and no contacts, while others are veterans of previous jihad campaigns having spent years operating within Mujihadin networks.

Our response to the enemy in Iraq is framed in terms of counterinsurgency principles. We are developing a clear picture of the enemy through the combined efforts of our conventional forces, SOF, and the Intelligence Community. The cornerstone of our counterinsurgency operations is human intelligence (HUMINT) collected through a multitude of initiatives. Our conventional units cultivate personal relationships with civic leaders and the local populace on patrol and during humanitarian assistance, medical, dental, veterinarian, and reconstruction initiatives that provide important opportunities for gaining insight about local conditions.

SOF and other government agencies are developing intelligence through a growing number of sources supportive of a new Iraq. Analysis at every echelon of command is fused together to create an understanding of the terrorist networks in Iraq. These efforts have resulted in more than 140 raids a week. Simultaneously, we are working to isolate the enemy from their sources of strength and leadership within the country. By doing so, we intend to separate them from their popular support base and deny them funding, arms, and freedom of movement. Improved security, in conjunction with an improving economic and political environment will dry up their recruiting base.

The Iraqi Survey Group (ISG) has been a contributor to our counterinsurgency efforts. Although their primary mission has been to unravel the former Iraqi regime's involvement and production of WMD, the nationwide network of case officers and sources have developed timely reporting of threats against coalition forces. As their investigators, analysts, and interpreters sifted through hundreds of thousands of documents, and made relevant documents to CENTCOM analysts to build databases of former Iraqi military organizations and intelligence services. Thousands of names, addresses, and pictures now populate these databases, enabling coalition

forces to understand, target, and raid cells of the Special Republican Guards and the Iraqi Intelligence Service.

We continue to focus our efforts in specific areas: improving intelligence fusion and analysis; developing Iraqi security forces; internationalizing our security effort; protecting the infrastructure and aiding reconstruction; and helping to communicate our intentions, plans, and successes to the Iraqi people.

Improvements in our intelligence system are paying off and we continue to enhance our ability to collect, analyze, and disseminate intelligence in a timely manner. Upgrades in automation networks, data basing capabilities, and bandwidth have given coalition forces the ability to strike quickly against enemy forces. Our intelligence picture will improve further as nascent Iraqi security and intelligence capabilities mature. We are also establishing mechanisms to ensure that Iraqi forces have adequate intelligence capabilities as they assume more responsibility.

One of the fundamental elements of successful counterinsurgency operations is building an effective indigenous security force. Coalition forces are supporting the development of Iraqi police, border police, ICDC, and Iraqi Armed Forces. In May 2003 there were no Iraqi security forces; there are now over 200,000. Our forces are recruiting, training, and conducting joint operations with the ICDC. We are imbedding our SOF inside the ICDC battalion to train and mentor these units as they gain both proficiency and confidence.

The Coalition Military Advisory Training Team (CMATT) is recruiting, equipping, and training the Iraqi Armed Forces. We have fielded three battalions of the Iraqi Armed Forces and one more is in training, and within a year there will be three divisions of the National Iraqi Army (NIA). We are also expanding Iraqi maritime capabilities, assisting the maritime components of the NIA, the Iraqi Coastal Defense Force, and the Iraqi Riverine Patrol service to ensure they possess the capability to control Iraq's territorial and internal waters. We must ensure these forces are well led, well trained, well equipped, and are subordinated to legitimate civil authority.

We are coordinating with the Coalition Provisional Authority (CPA) to accelerate the formation of the Iraqi Police Services, the Department of Border Enforcement, and the Facilities Protection Services. These forces are essential in establishing Iraqi rule of law prior to transitioning to a sovereign Iraqi government. The arrival of civilian police advisors will greatly improve our efforts to increase the number and effectiveness of security force personnel.

As Iraqi forces become capable of autonomous operations, we will continue to reduce coalition military presence in dense urban areas and position forces in order to provide quick reaction and facilitate effective joint patrol operations with Iraqi security forces. In many parts of northern and southern Iraq, Iraqi security forces have already taken responsibility for day-to-day security operations, asserting control over their own neighborhoods.

We are dedicated to a true partnership with the Iraqi security forces during this critical period in the battle. Knowing that Iraqi forces and leaders will take time to mature and they will be likely targets for the enemy, we are integrating training and liaison teams into their formations. The ICDC in particular is becoming more confident as our joint patrols and raids demonstrate the effectiveness of new equipment and tactics. ICDC units are taking the lead during more operations and gaining respect from the Iraqi people and enemy. We are also developing Joint Coordination Centers (JCCs) to better coordinate the efforts of the local police, the ICDC and the coalition. Over time, we will support the development of the Iraqi Defense and Interior Ministries and their staffs while building a Joint Force Headquarters. Iraqi officers will be integrated into the command structure of the multi-national force that will provide stability following the transition to Iraqi sovereignty. It is important to remember that this strategy will not only depend on our actions, but on enemy reactions and initiatives that are often difficult to predict with any degree of certainty.

This is also an international effort; over 23,000 coalition troops from 35 nations have joined our forces in Iraq. These forces control two large sectors in southern Iraq. Poland leads a 24 nation effort in Multi-National Division Center-South, and the United Kingdom leads an 11 nation effort in the south east. These nations have been subject to attack and we are truly grateful for their continued contribution and sacrifice. Financial support for many of these nations has been critical to their participation.

Additionally, we also have international support for developing Iraqi security forces. We are grateful for the assistance of those nations training Iraqi police, including Jordan, the United Arab Emirates (UAE), and the Federal Republic of Germany. We are committed to broadening the international effort and welcome the assistance of other nations and international organizations.

Security and reconstruction are interdependent. Unemployment and the lack of basic services is causing disaffection among the population which helps to provide fertile ground and an available recruiting pool for those who seek to incite attacks against other Iraqis, the infrastructure and coalition forces.

Our coalition troops have contributed to reconstruction and building a foundation for Iraqi prosperity. The Commander's Emergency Response Program (CERP) continues to be very effective in facilitating the reconstruction effort and also provides commanders with an effective means to fight the insurgency. Coalition forces have completed over 13,000 construction projects including schools, hospitals, businesses, transportation networks, wells, water treatment plants, and irrigation systems. The U.S. Army Corps of Engineers recently established a Gulf Region Division in Baghdad to further accelerate our progress in restoring Iraqi infrastructure and the important oil and electricity sectors.

U.S. and coalition military commanders are working with local townspeople to prioritize small reconstruction projects, thousands of which are already completed and benefiting the local populace. Coalition and Iraqi forces will continue to secure the infrastructure and expedite reconstruction. Opening the major airports in Iraq to commercial aviation will be an important step in returning to normalcy and bolstering economic activity.

As we transfer responsibilities to the Iraqis, it is important to continue to assist the CPA's efforts to communicate effectively with the Iraqi people and others in the region to clarify our intentions, expose the brutality and hypocrisy of the enemy, publicize Iraq's successes, and generate hope. The establishment of media platforms, such as the Iraqi Media Network in Iraq and Al Hurra in the region are particularly promising because they provide alternatives to the often hostile regional media. We will continue to tell the story of our successes as well as report our setbacks.

We will continue to work closely with the U.S. diplomatic presence as we approach the transfer of authority (TOA) in Iraq. A new military headquarters in Iraq will focus on coordinating the counterinsurgency campaign, effecting close civil-military coordination, building Iraqi security capability, assisting with reconstruction efforts, and mentoring the nascent Iraqi joint force headquarters and Armed Forces.

CENTCOM expects that violence will increase as Iraq moves to sovereignty. Mus'ab al-Zarqawi explains in his letter to Osama bin Laden that he thinks "zero hour must be at least 4 months before the new government gets into place. We are racing time." It is clear Zarqawi and others see this milestone as a major danger and intend to surge against it. The enemy fears a network of credible security forces deployed against them and has stepped up their targeting of police stations, recruiting centers, and key security leaders. The enemy will certainly target critical infrastructure in its bid to undermine Iraqi legitimacy. Some of our adversaries will attempt to exacerbate ethnic tensions with the intent of sparking civil war by attacking important ethnic and religious leaders with a goal of causing mass casualties and media events to highlight their carnage.

The political process is moving with increased participation by Iraqis and the international community. The security forces continue to build at a brisk pace with no drop off in recruiting following recent terrorist attacks. Essential services are improving and in most cases exceed pre-war levels. Ethnic violence has been limited with major groups participating in the political process. While there is a possibility that civil war could break out, we currently believe the probability of such a conflict is low. We believe there are many more people working to keep Iraq together than to break it apart.

As those of you who have visited Iraq know, the performance of our coalition service men and women is outstanding. They are accomplishing complex tasks under difficult and dangerous conditions. We now face a transitional period in Iraq as we prepare to transfer sovereignty to the Iraqi people. Key actions include defeating the insurgency, restructuring command and control to facilitate reconstruction and stabilization; building Iraqi security institutions; and completing one of the largest rotation of forces in recent times. While we remain optimistic about the road ahead, we cannot predict future force sizing and composition until the political situation concerning Iraqi sovereignty clarifies itself.

AFGHANISTAN

We currently have close to 13,800 coalition personnel deployed in Afghanistan as part of Operation Enduring Freedom (OEF). These forces, that include nearly 12,000 U.S. personnel and 1,800 coalition personnel from 18 nations, are commanded and controlled by the CFC–A. Every branch of the U.S. armed services is represented in this command. National Guard and Reserve components make up approximately 26 percent of our forces deployed there. Part of the CFC–A mission is to assure

unity of effort with the U.S. Ambassador and country team in Kabul and manage the military-to-military relationship with the Governments of Afghanistan, Pakistan, and the International Security Assistance Force (ISAF).

CJTF–180 is a division level organization that exercises command over 11 separate task forces; including 2 coalition battalions and other support, medical, engineering, and training units. It also has special operations capabilities assigned from U.S. and coalition nations.

The threat situation in Afghanistan remains relatively stable, although al Qaeda and Taliban elements continue to target President Karzai's government, Afghan Militia Forces (AMF), coalition forces, ISAF, and international organizations. This threat is composed of three groups. In the northeast and the Kabul regions, al Qaeda affiliated groups such as Hizb i Islami Gulbuddin (HIG) led by Gulbuddin Hekmatyar pose a continued threat. In the southeast, tribal elements and al Qaeda continue their resistance to Afghan and coalition forces. In the south, remnants of the Taliban and al Qaeda continue to operate out of the old Taliban strongholds in the Qandahar area. These groups make effective use of propaganda, maintaining just enough support to continue operating in Afghanistan. The enemy uses hit and run tactics, inflicting casualties with small arms, grenades, IEDs, rockets, and suicide attacks.

We continue to share lessons learned between operations in Afghanistan and Iraq and apply counterinsurgency principles found effective in Iraq against al Qaeda and Taliban in Afghanistan. Once again we find the key to counterterrorism operations is the development of actionable intelligence and tying it to a flexible lethal response. In Afghanistan we are in the process of building similar HUMINT networks and communications architectures that have proved effective in Iraq. The construction of a Joint World Wide Intelligence Communications System (JWICS) network and a voice over internet protocol (VOIP) phone system will improve targeting capabilities. In many cases, intelligence is enabled by successful civilian and military operations that convince the local populations that the Karzai government and the coalition provide the best opportunity for a prosperous future. The key is visible reconstruction progress which gives people a hope for a better future. These critical shaping operations set the conditions to isolate our enemies from their base of support.

While our military operations over the past year have inflicted losses on al Qaeda and anti-coalition opposition forces, attacks such as the recent suicide bombings in Kabul remind us that our enemy is resilient and determined to disrupt upcoming elections as well as reconstruction efforts. Coalition and Afghan forces will continue to target and attack remaining pockets of al Qaeda and Afghan opposition fighters to remove them as a threat and promote stability throughout the country. Pakistan's cooperation has contributed to our success in this regard and our continued support to them will further improve their ability to disrupt the enemy's efforts to reorganize and conduct operations.

CFC–A continues to integrate U.S. and coalition conventional, SOF, Air Forces, Afghan National Army (ANA), and AMF into effective operations throughout the country. This year, the North Atlantic Treaty Organization (NATO) took an important role in Afghanistan by providing command and control for ISAF. The 6,300 troops of the NATO-led ISAF are vital to establishing security in Kabul. NATO has recently taken charge of the Konduz Provincial Reconstruction Team (PRT) and four adjacent provinces in the northeast. NATO is also preparing to further expand its reach across the north.

Coalition forces continue working closely with our Afghan allies and ISAF to maintain stability and strengthen the writ of the Kabul Government. The ANA, whose units continue to develop professionalism and gain operational experience, will support these efforts. Where deployed, the ANA has earned the trust and confidence of Afghan citizens. The growth of the ANA, along with the disarmament, demobilization, and reintegration (DDR) of Afghan militias and the establishment of police forces, will ensure viable security sector reform.

There are approximately 8,900 ANA soldiers currently enlisted. The last battalion of the Central Corps is in training now and should complete training in mid-March, establishing three five-battalion brigades within the Central Corps. While fielded forces are the mainstay of any defense establishment, the headquarters and support organizations to organize, train, equip, and employ those forces must also be established.

A key to long-term Afghan security self-sufficiency is to reform the Ministry of Defense and the Afghan General Staff from a Soviet-style bureaucracy to a modern professional armed force. By linking the Ministry of Defense and General Staff structure to that of the regional commands, we will have the framework required to expand the reach of the central government throughout the country. This is an

important element of our strategy to bring political reform to the regions outside Kabul that remain dominated by warlords.

Reconstruction remains vital to isolating our enemies and depriving them of their support base. Both NATO nations and nations in the OEF coalition are sponsoring PRTs. The purpose of the PRTs is to create enclaves where representatives from the Afghan Government, the international community, and aid organizations can bring capability to the outlying regions. An extremely successful program, the number of PRTs recently jumped from 8 to 12 with 4 more planned by summer. Additionally, 29 nations are providing reconstruction support through financial and humanitarian assistance efforts. CENTCOM welcomes and will facilitate NATO's offer to expand its role in security and reconstruction. While NATO's focus is on manning PRTs and stabilizing large portions of the country, the U.S.-led OEF coalition conducts operations to assist the Afghan authorities in building a safe and secure environment to support reconstruction while continuing, as necessary, combat operations to defeat al Qaeda, the Taliban, and other anti-coalition forces in Afghanistan.

With the recent success of the Constitutional Loya Jirga, the Bonn process continues towards elections later this summer. We are preparing however, for a likely increase in violence during the final phase of this process as al Qaeda and Taliban work to prevent further gains by the legitimate government. There is evidence that the threat will step up attacks on key leadership, the Afghan Security Sector and interagency civilians supporting the mission. We are currently focusing our intelligence on these threats and are fully prepared to preempt, prevent or respond to these events as we can. We expect force levels to remain relatively stable in the months ahead.

Horn of Africa

CENTCOM has steadily increased operational focus in the Horn of Africa and the surrounding maritime environment to identify the methods and means employed by international terrorist organizations and networks. There are currently over 1,200 coalition personnel deployed in the Horn of Africa. Our operations there are commanded and controlled by CJTF–HOA, which is located in Djibouti and supported at sea by Commander Task Force 150 (CTF–150), a Royal Navy Flag officer with 7 ships from 6 countries. The current emphasis of forces in this area is intelligence collection, developing interagency and international structures, conducting civil-military operations, and helping nations in the region build collective security structures. SOCCENT assets also provide important help in increasing regional counterterrorist capabilities.

The Horn of Africa sits astride the southern portion of one of the major sea-lines of communication that CENTCOM must use to operate in the Arabian Gulf region. Threats to the stability of the region include: internal conflicts, border disputes, extreme poverty, and transnational terrorists. The consequences of war are easily magnified in this region because well over 17 million people are at risk of starvation. People are being forced to leave their homes due to violence, the search for food, medical care, and safety. Many sub-Saharan African states have limited or unreliable internal security capabilities and this weakness makes them attractive venues for terrorist cells and criminal organizations. Terrorist organizations seek to exploit the Horn's ungoverned areas to train recruits as well as plan and conduct operations against U.S. interests and those of our allies.

Nonetheless, we have partners in the region who are willing to fully cooperate in pursuit of a common goal. Djibouti has given extraordinary support for U.S. military basing, training, and counterterrorism operations, including combined maritime interdiction of several terrorist associated dhows. Kenya, a leader in East African regional affairs, has also been a key ally in the war on terror and has been instrumental in promoting and facilitating peace in Sudan and access to Somalia. Ethiopia, despite its very limited resources, is undertaking an ambitious program of security sector reform and is also committed to combating terrorism and countering extremism within its borders.

As a result of many of the challenging conditions prevailing in the Horn of Africa, our Theater Security Cooperation programs emphasize humanitarian assistance and civil-military operations. Additionally, there is an overarching emphasis on the development of regional security structures. CJTF–HOA's regional security arrangements and preventive humanitarian operations greatly enhance the ability of regional nations to improve their security posture.

Instability in the Horn is a long-term problem. Somalia is a failed state that transnational terrorists use as a transit point and safe haven. Sudan has suffered from continuous civil war for decades and remains a training and staging location for transnational terrorist organizations. Border tensions between Ethiopia and Eritrea remain high with renewed conflict a possibility. Increased funding to reinforce

security sector reform and counterterrorism activities in Yemen, Djibouti, Ethiopia, Kenya, and cautious engagements with Eritrea and Sudan will help us build on progress we have made in the past year.

In the Horn of Africa, our strategy aims to increase pressure on the terrorist networks established there, while at the same time, deterring migration of high-level al Qaeda who may seek sanctuary there. Central to this objective are coalition efforts to enhance the Nations' capability to detect and combat the terrorist threat. Bilateral agreements for intelligence exchanges and in-country intelligence officer training courses are valuable to both our African partners and us.

CJTF–HOA serves as a tangible sign of U.S. commitment to governments in the Horn of Africa. They are developing cooperative security arrangements and mitigating the cross-border seams exploited by terrorists. CJTF–HOA also provides an organizational model for the way ahead in the global war on terror where our long-term objective is to help nations help themselves.

THEATER SECURITY COOPERATION AND OTHER REGIONAL CONCERNS

CENTCOM's security cooperation program paved the way for the essential basing, staging, and overflight rights supporting OEF and OIF that augmented access to Diego Garcia granted by our staunchest ally, the United Kingdom. The command continues to work and train with other nations as a normal course of our operations. In planning cooperative activities, we do so with the view that we must build relationships that promote U.S. interests, build allied and friendly nations' military capabilities, and provide U.S. forces with access and enroute infrastructure.

These ventures require expanded fiscal and political investment to keep them viable. The anticipated Fiscal Year 2004 Foreign Military Financing allocation of $2.15 billion will strengthen our relationships with Egypt, Jordan, and Pakistan, strengthen the ANA, and improve our cooperation with other nations in the central region. Continued investment in security assistance improves the capabilities of friendly nations, enables them to provide for their own security and allows them to provide meaningful contributions to coalition activities such as counterterrorism.

International Military Education and Training (IMET) is a cost-effective investment that positively shapes the future security environment by exposing foreign military officers and officials to U.S. practices and operations. This program provides foreign military members the opportunity to attend courses at U.S. military institutions such as Command and Staff Colleges and Senior Service Schools. These students become familiar with congressionally mandated subjects such as U.S. concepts of military professionalism, respect for human rights, subordination to civilian authority, and U.S. democratic institutions and culture. A new DOD appropriation, the Counterterrorism Fellowship, allows us to offer relevant courses to officers from key partners in the global war on terror. The return on investment is large: international military officers who understand U.S. military values and institutions. The relationships built during fellowships advance international cooperation. Foreign Military Financing and IMET benefit the recipient as well as the United States. CENTCOM recommends continued funding for these effective programs. We should not underestimate the worth of our commitment to these programs; the command will continue them as a matter of highest priority.

While our two most pressing priorities in the AOR are the efforts to bring stability to Iraq and Afghanistan, the greatest danger may be growing extremist influence in nations such as Pakistan and Saudi Arabia. Our Theater Security Cooperation program aims to support these nations' efforts to reinforce moderation and implement reforms designed to achieve long-term stability.

Pakistan

President Musharraf and Prime Minister Jamali are leading their country to resist extremism and we fully support their efforts to promote regional stability. Pakistan has played a key and essential role in both the global war on terror and OEF. Recent diplomatic initiatives between Pakistan and India concerning control of the Kashmir area are encouraging. The presence of the terrorist threat, regional instability and nuclear weapons makes Pakistan a country with which we need to remain heavily engaged.

President Musharraf has made great strides in curtailing the influence of terrorists within his nation and the Pakistani Army has become more effective along the Afghan border. Pakistan faces unique challenges in the Federally Administered Tribal Areas (FATA) where many al Qaeda and Taliban leaders and forces settled following major combat operations in Afghanistan. President Musharraf has begun a long-term strategy to engage the tribal leaders in these areas. He is offering them access to government resources if they purge the terrorists from their area of control, but at the same time, he is prepared to take military action against those found

non-compliant. We are supporting these efforts through increased intelligence sharing and security assistance while improving operational coordination between CFC–A and the Pakistani military. We also conduct regular meetings between Afghan, Pakistani, and U.S. military leaders to promote transparency and cooperation between governments along the border.

Pakistan has been a steadfast partner of the U.S. since the start of OEF, providing a wide range of access, basing, and overflight support for operations in Afghanistan. In addition, Pakistan played an important and active role in the capture of al Qaeda leader Khalid Sheikh Mohammad. In return, we are conducting a full range of engagement activities with them to include military to military contacts, bilateral exercises, and training programs. Pakistani officers attend the command and staff and war colleges of all four armed services and in turn, a select number of our officers attend their institutions.

The U.S. strategic relationship with Pakistan has been difficult over time, but a stable and moderate Pakistan capable and willing to fight terrorism is in the U.S.'s best interest. Ensuring a positive outcome in Pakistan requires us to stay engaged.

Kingdom of Saudi Arabia

Recent attacks in the Kingdom of Saudi Arabia have convinced Saudi leaders of the direct nature of the threats to the Royal Family and the government. Saudi Arabia is a major battleground in the global war on terror because of the presence of al Qaeda, their sympathizers and significant resources. Saudi Arabian security forces have vigorously pursued terrorists inside the kingdom, killing or capturing hundreds of al Qaeda. The Saudis have also made inroads against terrorist finances and infrastructure, but there is more to be done.

Our engagement activities in Saudi Arabia are long-standing. The U.S. Military Training Mission has worked bilateral training and support issues for years. We intend to build upon our long relationship of good will and mutual support with the Saudi Arabian military and do all we can to reinforce Saudi efforts to defeat terrorist organizations and promote stability.

Other Arabian Gulf States and Yemen

The Arabian Gulf states are valued partners in the global war on terror. Our operations in the region would not be possible without support from states such as Kuwait, Bahrain, Qatar, UAE, and Oman. The support provided includes overflight rights, base and port access, and staging rights. Kuwait has been host to the Combined Forces Land Component Command Forward Headquarters and our forces operating in the region. Bahrain is the home of the NAVCENT and Fifth Fleet. Qatar hosts CENTCOM Forward Headquarters and the United States Central Command Air Force (CENTAF)/9th Air Force Combined Air Operations Center. All members of the Gulf Cooperation Council (GCC) support important humanitarian and reconstruction efforts. All are donors to Afghan and Iraqi reconstruction efforts.

In return, we continue to work closely with our Gulf partners in a variety of forums. We work with them in everything from bilateral and multilateral exercises to regional conferences and academic seminars. Officers from these countries are familiar sights at our military colleges and training centers. Our recent efforts with the UAE provide a concrete example of the benefits of cooperation. The UAE has developed the Gulf Air Warfare Center in Abu Dhabi, a state of the art facility modeled after the U.S. Air Force's Air Warfare Center. This facility will promote regional cooperation and combat effectiveness by hosting academic and flying courses attended by all of the GCC, as well as European allies.

Theater security cooperation with the Gulf States remains important because we will continue to require access to the region and because the threat to these states from terrorism remains extremely high. Yemen's porous land and sea borders and loosely-controlled tribal areas provide opportunities for terrorists to transit, support, and supply their networks. CENTCOM engagement with Yemen is focused on improving their counterterrorism capabilities. SOF training of their counterterrorism force has measurably improved their capabilities and confidence, resulting in direct action operations that have disrupted foreign fighters and facilitators that previously viewed Yemen as a safe haven. Their recent cooperation with Saudi Arabia to gain control over cross-border smuggling of arms, explosives, and personnel has great potential. Although Oman remains concerned about illegal sea-borne immigration from South Asia and the possibility that terrorists may enter their country with economic refugees, it lacks the fiscal resources to adequately upgrade its military forces. Continued U.S. support to Oman will make the region less hospitable to terrorists.

Egypt

The Arab Republic of Egypt continues to be a strong partner, member, and ally in the global war on terrorism. Egypt's increase of overflight rights and Suez Canal transits were vital to our coalition victories in OEF and OIF. Egypt has donated over 60 tons of humanitarian aid to Afghan reconstruction and arms and ammunition to the new ANA. They deployed a field hospital to Afghanistan where it has treated over 13,000 patients and contributed demonstrably in achieving the goal of restoring Afghanistan's medical infrastructure to operational levels.

The U.S. has maintained close military relations with Egypt since the signing of the Camp David Accords in 1979. Although Bright Star 2003 was cancelled due to operational constraints, we remain engaged with the Egyptians on major regional events and future Bright Star exercises. Egypt's leadership role in the Arab world is important to reinforcing moderation and enhancing stability in the region.

Our Security Assistance mission to Egypt is one of our largest and its objective is to assist Egypt to modernize all branches of their Armed Forces. Annually, we provide $1.3 billion for the procurement of U.S. manufactured weapons systems and support. These include the Patriot PAC 3, Avenger, Stinger Block 1, extended range multiple launch rocket systems (MLRS), etc. over the next 5 years. To date, 755 M1A1 tanks have been manufactured at the Egyptian Tank plant. In addition, the U.S. provides $1.2 million annually for the IMET. Graduates of the IMET program are now rising to senior positions in the chain of command. Finally, in an effort to increase their regional coalition capabilities, Egypt's Ministry of Defense is building a 600-bed International Medical Center with national funds, while our Foreign Military Financing funding is providing medical equipment, furnishings, and training to train over 138 doctors and seventy nurses, at a cost of $132 million. Egypt continues to prove itself a key ally, supporting both OEF and OIF operations.

Jordan

Jordan is a stable country within a very dynamic region. The Israeli/Palestinian situation, the Iraq conflict, and the war on terror all impact Jordan's geopolitical climate. King Abdullah II supports a very strong military relationship with the United States. His active support for the coalition's efforts during OEF and OIF is essential to our success. Jordan deployed a key demining capability to Afghanistan that allowed the coalition to quickly set up air operations at Bagram airfield. They deployed and still maintain a field hospital in Mazar e Sharif that has provided medical care to over 234,000 Afghans since the end of hostilities. Their current effort of training Iraqi police is a major component of the coalition plan to improve security in Iraq.

Our economic and military aid programs are appreciated by the Government of Jordan and are key elements of their defense plans. We have no better regional partner on counterterrorism and will continue to work closely with this important ally through combined training exercises, military exchanges, coalition deployments and a robust military assistance program.

Central Asian States

Our continuing engagement with these states addresses significant sources of instability in the region. Our partnership with these nations focuses on developing counterterrorism and counternarcotics capabilities, improving border security, and enhancing the professionalization of their military forces. Kyrgyzstan, Kazakhstan, Tajikistan, and Uzbekistan, for example, have undertaken programs of military reform designed to increase the professionalism of their Armed Forces. We will continue to foster security sector reform, encourage regional cooperation, and seek their constructive involvement in our effort to stabilize Afghanistan.

It is clear that our relationship is mutually beneficial. Uzbekistan, Tajikistan, Kyrgyzstan, Kazakhstan, and Turkmenistan provide key access and overflight rights necessary to support operations in Afghanistan. The Government of Uzbekistan has provided access to Karshi-Khanabad Airfield at no cost to U.S. forces. Kyrgyzstan also provides U.S. basing at Manas. Tajikistan formally offered a battalion of troops and other elements to participate in peacekeeping efforts in Afghanistan in January of this year. Kazakhstan has provided engineering troops for OIF.

Our engagement in this region supports the efforts of these nations as they move forward from their Soviet pasts. Military-to-military contacts and educational opportunities provided under IMET can enhance the reform programs that are in place. Through bilateral and multilateral exercises, we will develop greater interoperability and provide a positive example of a professional force subordinated to legitimate civilian authority.

The Central Asian states continue to struggle with reform and enterprise, while their people clearly desire to participate in the growing prosperity enjoyed by other former Soviet countries. The risks associated with failure of these states include regional instability, drug trafficking, smuggling and safe haven for terrorists. Our security cooperation efforts aim to improve border control and enhance counterterrorism capabilities. al Qaeda, the Islamic Movement of Uzbekistan, and other extremist groups are active in Central Asia. Continued regional cooperation is essential to confront extremist groups in the area.

Iran

Our recent action to provide disaster relief to the victims of the earthquake in Bam, Iran provided the Iranian people a more accurate picture of the American character and demonstrates our commitment to reducing human suffering. The political situation in Iran remains complex. Tension is deepening between moderates who desire a greater voice in politics and the hard-line religious Mullahs who control the security forces and the mechanisms of political power.

Iran has multiple centers of power and its closed society makes assessing their national intentions difficult. We will watch Iran carefully to try to prevent any destabilizing activities that could complicate our efforts and contribute to internal Iraqi frictions. We will continue to deter Iranian support of terrorism. Iran is also central to our counterproliferation planning and nonproliferation efforts. The International Atomic Energy Agency (IAEA) has confirmed Iran's clandestine nuclear activities and continues its oversight to demand compliance with their nuclear nonproliferation obligations.

While generally thought to be built for defense, Iran continues to build a credible military capable of power projection within the region. It has the largest military capability in the region and has a record of aggressive military action in and around the Arabian Gulf.

Iran's military force is the primary threat to the free flow of oil from the Gulf region. Their forces include a Navy of small attack boats carrying torpedoes and missiles that are well suited for the restricted confines of the Strait of Hormuz. A new generation of indigenously produced anti-ship cruise missiles and tactical ballistic missiles threaten both oil infrastructure and shipping. It is important for us to maintain reconnaissance capabilities to monitor these forces. To counter this threat our Global Naval Force Presence Policy ensures a robust carrier strike group and expeditionary strike group presence that demonstrates our commitment to unrestricted international access to the Gulf's resources.

Iran's Revolutionary Guard Force and Intelligence Service (MOIS) are very active throughout the Arabian Gulf and the broader Middle East. While Iranian interests have not favored active sponsorship of anti-U.S. activity in Afghanistan and Iraq, it is clear that Iranian sponsored groups, backed by their intelligence services could create difficulties in both countries.

Joint Warfighting

During OIF our forces advanced the art of joint warfighting and built upon the experience we gained in OEF approximately 1 year earlier. Coalition forces struck the enemy at multiple points simultaneously while the main attack covered over 300 miles in 22 days. The result was the removal of Saddam Hussein's regime and the defeat of an opposing force of 28 divisions. Coalition land- and carrier-based air forces achieved total air superiority from the outset, disrupting Iraqi command and control networks, shattering air defenses, and preventing the assembly of large ground formations. Coalition army and naval forces opened waterways into Iraq, allowing for the delivery of humanitarian goods while major combat operations were ongoing. Additionally, SOF operated throughout Iraq and seized control of western Iraq almost in its entirety.

Air, conventional ground forces, and SOF continue to demonstrate an unprecedented degree of agility, fight aggressively under uncertain counterinsurgency conditions, and retain the initiative in all areas of the battlespace. Recent technological advances do not remove the fog, friction, or uncertainty of war. Combined and joint teams operating at low levels dominate the enemy in every engagement and with proper intelligence, unravel terrorist cell structures. Operations in the movement phase of OIF represented a shift from joint "deconfliction" to near full combined and joint integration. That integration continues in Iraq under the current conditions of combat. During Operation Sweeney in October 2003 through January 2004, for example, a British division commanded a large anti-smuggling effort that brought together British air and ground forces, U.S. naval forces, and a Marine Expeditionary unit (MEU). Significant operational coordination achieved by special operations, air and conventional ground forces in finding, fixing, and finishing insurgent cells and

key leaders has resulted in considerable success. This joint integration at low intensity conflict operations is unprecedented.

PROPOSED BASING STRATEGIC

CENTCOM's strategic basing plan is being developed in conjunction with other combatant commands, the Office of the Secretary of Defense (OSD), and the Joint Staff to ensure that it complements the basing strategies of adjoining combatant commands and supports the overall Global Basing Strategy. CENTCOM's basing strategy will complement the overall Global Basing Strategy by positioning key capabilities throughout the CENTCOM AOR to enable a rapid and flexible response for the execution of major combat operations in support of the global war on terror.

Host nation support is key to CENTCOM's basing strategy. As such, site selection is made considering the improvement of host nation capabilities while avoiding the incitement of anti-American sentiment

CENTCOM's strategic plan for basing calls for Forward Operating Sites (FOS), Cooperative Security Locations (CSLs) and the contingency use of ports and airfields throughout the AOR. These infrastructure sites have been identified to assure U.S. access to enable the projection and sustainment of forces within the AOR.

THEATER MANNING

While our strategy in Iraq and Afghanistan involves turning security responsibilities over to indigenous forces, this strategy takes time to implement and our forces will have to remain engaged in both countries for a considerable amount of time. Trained forces in depth will prove critical to sustaining those efforts, conducting operations in support of the global war on terror, continuing theater security cooperation activities, and maintaining sufficient reserves to deter other potential adversaries. Because our efforts in Afghanistan and Iraq involve counterinsurgency operations in complex urban terrain as well as the need to employ dispersed forces across wide areas, there are great needs for infantry, reconnaissance troops, military police, rotary wing aviation, HUMINT, translators, interrogators, and civil affairs teams.

Counterinsurgency operations and high value target (HVT) hunting creates a near insatiable demand for HUMINT resources. We need to expand our HUMINT forces (case officers, linguists, analysts, and interrogators), provide them with proper training, and build rewarding professional career paths to foster retention. Interrogators have proven to be a critical path for operations in both Afghanistan and Iraq and throughout the CENTCOM AOR. These skills are required from the tactical level to the strategic level. As our work to secure national stability in Afghanistan and Iraq matures, counterintelligence skills are another high demand low density asset to train for the future.

We must invest in greater culturally literate HUMINT capabilities across the Services and build networks that not only provide discrete target information, but also help us anticipate enemy actions. We need more linguists who are fluent in Arabic, Farsi, Pahstu, Dahri, Urdu, Somali, and Swahili. Civil affairs personnel, interagency planning experts, and psychological operations specialists are also in short supply. We must continue to invest in the recruitment and training of such skilled people.

Operations in Afghanistan and Iraq have generated high demand for other specialties. These include law enforcement specialists knowledgeable in international law and able to teach professional, high level policing skills such as criminal investigation techniques. Hundreds of thousands of tons of unexploded ordnance left over from decades of strife have spiked our demand for explosive ordnance disposal specialists who are also trained in techniques to counter IEDs. Because we are planning multiple complex operations simultaneously, we need more strategic field grade plans officers capable of conceptualizing theater strategy and are conversant in coalition and interagency operations. Information technology managers and systems programmers, and web system and database designers are needed to manage the large database and command and control structures we are employing to prosecute the global war on terror and conduct counterinsurgency operations in Afghanistan and Iraq.

In addition to our conventional force requirements, we see a continued high demand for SOF throughout the CENTCOM AOR. SOF reconnaissance, deep insertion and surveillance assets, and aviation crews remain in great demand. SOF's capability to train, mentor, and operate with host nation forces is especially important in Afghanistan, Iraq, and throughout the AOR.

We are grateful for the initiatives to fund incentives and quality of life programs to compensate and provide respite for those deployed for extended periods. The high-

ly successful Rest and Recuperation Leave and Fighter Management Pass programs are boosting morale and increasing effectiveness. The expansion of Tactical Field Exchanges in Iraq and Afghanistan are important tools to sustain morale. Exchanges provide necessary and important comfort items and are the sole source of phone services for our troops. Other programs that are important to sustain the high morale of our forces under demanding conditions include Armed Forces Entertainment, compensation and entitlement initiatives, and the Child Care and Family Child Care Subsidy Programs. We applaud the DOD expansion of the Military One Source initiative and feel it is an effective complement to existing Service Family Support Center programs. The service men and women serving in the CENTCOM AOR appreciate the continued congressional concern for supporting programs that encourage reenlistment and officer retention. As always, our people remain the principal source of our strength.

CRITICAL MISSION ENABLERS

The missions in Afghanistan and Iraq have identified three key enablers that we rely upon; strategic lift, intelligence, and force protection. Our lack of in-theater infrastructure and assigned forces makes us dependent on strategic lift. Ongoing operations are creating unprecedented demands for fused intelligence across the entire force and we are improving every day. The insurgency tactics we are encountering put a heavy emphasis on organic force protection.

Strategic air and sealift continues to enable our success. Once stability operations in Afghanistan and Iraq are completed, CENTCOM will be an active theater with a relatively small expeditionary footprint in the region. This means that CENTCOM will remain heavily dependent on pre-positioned equipment and agile forces to respond to contingencies. Adequate sealift and sea-basing capabilities in conjunction with our strategic air assets are absolutely vital to military success in our area of operations.

Much has been done to develop common databases and an overarching intelligence architecture that permits common access and dissemination to all echelons. These efforts ensure effective collaboration across the intelligence community. However, just as important to this effort is a continuous, unimpeded flow of intelligence. Unmanned aerial vehicles (UAVs) have proven their value, and we must continue to expand their capabilities and integrate them into our intelligence networks. The requirement for more full motion video (FMV) and infrared (IR) video is an enabler at all levels of command. Once exposed to the revolutionary capabilities they provide, no commander wants to fight without them. The ability to see the enemy day or night and respond to his defenses and activities before making contact is changing tactical doctrine, especially in urban scenarios.

CENTCOM has built a redundant intelligence, surveillance, and reconnaissance (ISR) network integrating strategic, theater, and tactical systems, but persistent surveillance is essential to maintaining situational awareness during Joint operations. Increasing the number of UAV systems, signals intelligence systems, and expediting the airborne common sensor program will improve our persistent surveillance capability. This capability can be further enhanced by expanding our capacity to fly more Predator UAVs simultaneously in our theater and by adding qualified linguists aboard signals intelligence aircraft. Improved sensors both on the ground and airborne will help distinguish between enemy and indigenous populations.

We should recognize from our experiences in OEF and OIF, however, that we will not be able to achieve anything close to near-certainty in high intensity combat or counterinsurgency operations because enemy countermeasures and knowledge of enemy intentions lie beyond the reach of even the most sophisticated technologies.

The requirement for Up-Armored High Mobility Multi-Purpose Wheeled Vehicles (HMMWVs) and Interceptor Body Armor (IBA) to protect our troops in Iraq and Afghanistan remains high. Due mainly to the development of the IED as the enemy's weapon of choice, our requirement for armored HMMWVs has steadily increased from 235 in May 2003 to 4,388 in February 2004. We currently have 2,178 in theater, or 50 percent of the current requirement. The Joint Staff, Services, and other combatant commanders are currently redistributing worldwide stocks of Up-Armored HMMWVs. Funds that you provided in the Emergency Supplemental increased production from 78 per month in October 2003 to 148 per month in February 2004 and will further increase to 220 per month by May 2004. Accelerated production and redistribution should allow current requirements to be met by December 2004.

OIF forces initially deployed with a combination of old Flak vests and the new IBA. The Defense Logistics Agency and Army managed production and distribution of the new IBA, which is composed of the Outer Tactical Vest (OTV) and Small

Arms Protection Inserts (SAPI). One hundred percent of U.S. forces in Iraq now have the full IBA. One hundred percent of U.S. forces in Afghanistan have the new OTV and 86 percent have SAPI plates. The remainder of the soldiers in Afghanistan will be issued SAPI plates by the middle of March.

Military Construction (MILCON)

CENTCOM's basing strategy supports the command's vision and mission by establishing bases and facilities that support operational and strategic needs throughout the region. Ongoing operations in support of the global war on terror and OIF and OEF have increased our basing footprint for the near term; primarily operating bases in Iraq and Afghanistan. To meet these requirements, components have already submitted contingency construction requirements totaling some $531 million through CENTCOM and their component channels, for Joint Staff, OSD, and congressional consideration.

Your continued funding support for MILCON provides needed infrastructure and facilities required to prosecute OEF, OIF, and the global war on terror. Between the fiscal year 2004 appropriation and the fiscal year 2004 supplemental, Congress authorized a total of $340.5 million in MILCON for projects in the CENTCOM AOR. However, additional contingency requirements continually emerge. CENTCOM has prioritized another 44 projects at an estimated cost of $531 million in urgent, unfunded contingency construction requirements. We submitted these requests to the Joint Staff in January 2004. We expect that other requirements will emerge due to changes in the situation, new missions, and the evolution of our basing strategy. Your support for these requests is important to our ability to sustain operations in the theater.

Funding Priorities

In research and development (R&D) funding—over $335 million was appropriated to address key force protection shortfalls and over $70 million will fund R&D efforts to address some of the asymmetric problems our soldiers are facing, such as IEDs. DOD has established a counter-IED task force that will review, test, and field promising counter-IED technology to our forces. This effort is already bearing fruit.

Our ability to fight and win throughout our theater of operations relies heavily on a robust, reliable command, control, communications, and computer (C^4) network. Great progress is being made in enhancing our theater-wide C^4 infrastructure, due in large measure to supplemental funds approved for commercialization of our tactical communications resources. The nature of the global war on terror, particularly counterinsurgency operations in our theater, however, places significant demands for collection and dissemination of intelligence products and information throughout all components, Joint Task Forces (JTFs), tactical units, and coalition partners. While we continue to pursue the resources necessary to meet these requirements, the ability to distribute intelligence to all the places remains our single biggest C^4 challenge. Continued support of communications initiatives will ensure necessary capability to meet today and future requirements.

CENTCOM's logistical difficulties stem mainly from limited infrastructure. We place high demand on strategic airlift and sealift; we lack the ability to provide intransit visibility (ITV) on supplies; we need improvements in the tactical distribution of petroleum products and other goods via military trucks or pipeline. MILCON investments throughout our theater will improve through-put and force projection capabilities.

Legislative Authority Changes

Congress has been generous in providing CENTCOM with greater fiscal flexibility to support nations that provide us with access or assist our efforts. One such example is the CERP with Appropriated Funds (CERP–APF). This program is seen by the commanders in the field as an essential enabler. CERP–APF allows the commanders to seek and satisfy the immediate needs of the local population and demonstrate to the public our commitment to helping them. We seek you continued support for this authority.

Concerns

CENTCOM has been constrained in its support to nations that provide us with access or assist our efforts. Specific concerns include:

Inability to use funds to:

- Upgrade permanent facilities.
- Pay for intra- and inter-theater airlift transportation for coalition personnel and material, including medical evacuation.

• Support and sustain the Afghan security forces and the Provincial Reconstruction Teams.
• Pay travel expenses of foreign military officer involved in coalition planning or operations while temporarily assigned to CENTCOM.

Difficulty in facilitating coalition contributions to the global war on terror, combatant, combined forces, or JTF Commanders because of the inability to effect bailment or custodial transfer of United States military equipment to coalition forces for cooperative operations.

CONCLUSION

CENTCOM is fully committed to the defeat of transnational terrorism and the creation of secure and stable environments in Iraq and Afghanistan. We will continually reassess the situation and improve our effectiveness against the enemy. Our command and control restructuring, including the establishment of CFC–Iraq and CFC–A, will improve the integration of our operations with interagency efforts and those of our coalition partners while permitting the CENTCOM headquarters to maintain a holistic view of the theater and direct the full range of our activities. Our staff will remain forward in Qatar extensively, especially during this period of multiple transitions in Afghanistan and Iraq. Eventually, the CENTCOM Forward Headquarters will move to Al Udeid Airfield from Camp As Sayliyah in Qatar. That move will increase our efficiency and allow us to reconstitute our mobile headquarters capability for other contingencies.

The most important person in our theater of operations is the soldier, sailor, marine, or airmen on patrol in the middle of the night. We are committed to providing our troops and our coalition partners the resources they need to accomplish the mission. I would like to acknowledge the courage and dedication of our coalition troops and especially those Afghans and Iraqis who have joined us to win a peaceful and prosperous future for their children. We are committed to doing all we can to support them. We and our coalition partners will prevail in Afghanistan and Iraq and in the global war on terror because of the efforts of our service men and women and because we offer a positive vision and hope for the future.

I want to thank this committee for your support to our command and our service men and women and also for your oversight of the vital operations we are undertaking.

Chairman WARNER. Thank you very much, General.

General Jones.

STATEMENT OF GEN. JAMES L. JONES, USMC, COMMANDER, UNITED STATES EUROPEAN COMMAND, AND SUPREME ALLIED COMMANDER, EUROPE

General JONES. Mr. Chairman, I would like to echo the thoughts of General Abizaid in thanking the committee and the people of the United States for their support of our men and women in all uniforms involved in dangerous missions around the globe, not just in our respective AORs, but doing such wonderful things to provide the most visible example of democracy in action, a free people. Through their actions and through their presence they give hope to millions of people who hope to have a similar opportunity in life to live in peace and raise their families with prospects for better tomorrows.

It is also a great pleasure to be at the witness table today with General John Abizaid. I know the committee is aware of this, because some members visited us in 1991 in northern Iraq when Lieutenant Colonel Abizaid was commanding officer of the airborne combat team from Vincenza, Italy, and I was the commanding officer of the 24th Marine Expeditionary Unit (MEU). I would like to remind the committee that Lieutenant Colonel Abizaid worked for me in those days, and I am extremely happy to be supporting him in his efforts today in the important billet that he holds.

So it is a great honor, over a decade later, still to be in uniform and to be sitting along side this great soldier that is doing such a great job.

Mr. Chairman, in my statement I deliberately included a lot about NATO this year because I think the committee has always had a deep and abiding interest in NATO. I had sought to, in my prepared remarks, show the linkage between EUCOM and NATO as NATO is transforming and changing. In 2003 NATO has sent a very strong signal that it is anxious and willing to engage in many areas of the world simultaneously, which is a signal departure from the NATO that we knew in the 20th century.

This year NATO will go from 19 to 26 nations. It will welcome seven new member states. It will continue to administer ongoing and simultaneous operations in the Mediterranean, in the Balkans, and in Afghanistan. It will continue to develop the NATO Response Force in keeping with the guidance provided by the Prague capabilities commitment. That NATO Response Force went from a concept early in 2003 to a reality in the fall of 2003. It now is a 9,000-man force in its second rotation. It has been demonstrated to be operationally effective, and will continue to grow in capability, reaching perhaps a mature size of between 15 and 20,000 soldiers, sailors, airmen, marines, and Special Operations Forces (SOF) per rotation.

We also saw in 2003 the establishment of the Allied Command for Transformation, which is a major departure. It meant the consolidation of all operations under the billet of the Supreme Allied Commander in Europe for the Allied Command for Operations, which is the one I am privileged to be assigned to.

We also have regenerated or are attempting to regenerate the Partnership for Peace (PFP) Program, which will lose seven members as they become full members of the alliance. We are embarked on a project to revitalize the Mediterranean Dialogue in that very important part of the world, both on the northern rim of the Mediterranean and on the southern rim. We are busily at work trying to bring to fruition the guidance of the Prague capabilities commitment and the Prague Summit.

As if that was not enough, NATO has also taken on the task of transforming itself, and that transformation is ongoing. It is essentially the problem that we wrestled with domestically over the last decade, to take the 20th century warfighting concepts and bring them into the 21st century, with the economies of scale in our armies, navies, and air forces, marines, and SOF, to cut down the number of unnecessary headquarters, which NATO has done this year, and to make the forces more operationally usable and deployable and expeditionary.

The reforms that are required span the entire skill set of the military culture, to include logistics, intelligence, transportation, and obviously the warfighting capability if necessary.

So 2003 was an exciting year. 2004 advertises itself to be equally exciting, as NATO has signaled a strong desire to do more in Afghanistan. Recently we have proposed military advice on how NATO might expand to include five new Provincial Reconstruction Teams (PRTs) to the north and to the west. Admiral Feist is busily at work generating the force to support that reality, which I think

will happen, and nations are deciding where they might wish to make individual contributions as we speak.

I would like to underscore the relationship between CENTCOM and SHAPE on this matter, because coordination at the military level is extremely important. May I simply say that it has been ideal in all respects—on the ground, at the tactical level, at the operational level, and at the strategic level—and we are very grateful for the coordination and assistance that General Abizaid and his command have lent to the NATO operation.

In EUCOM, the command that is responsible today for 93 nations, we are also busily at work. We are paying attention to the greater Middle East because I believe this is where the focus of main effort will be for a considerable period of time yet, irrespective of what happens to Iraq in the short term.

We are paying greater attention to Africa, both northern African and sub-Saharan Africa. As General Abizaid and his forces are successful in Afghanistan and in the Middle East, the purveyors and merchants of destruction, terrorism, WMD, and those who seek to create instabilities in the democracies of the world are looking for other places to hide. Africa is a huge continent and we are seeing indications of a willingness to move to Africa to start to develop their footholds and to export their particular brand of terrorism and instability.

In operations, EUCOM is proud to have been the supporting command to CENTCOM in the prosecution of OEF and OIF. A significant percentage of cargo and personnel transited through our bases that we are privileged to occupy in Europe with the forbearance of our allies. With the exception of a single vote taken in the Turkish parliament, no U.S. force was denied air, land, or sea transportation modes anywhere through the alliance in Europe.

I would particularly like to emphasize that Germany played an important role in facilitating the transfer of our forces and our cargo and continues to play an important role. As a matter of fact, in order to reduce the demand on our manpower, Germany contributed thousands and thousands of German soldiers to provide security for our bases and continues to aid significantly in that respect, and we are profoundly grateful to Germany for its assistance.

EUCOM is also involved in transformation, as you alluded to, Mr. Chairman. Last year we finished a recommended footprint for the U.S. forces in Europe for the 21st century. That footprint proposal is being discussed and will be announced in due time. Suffice it to say that the study we completed is not a study that is bent on troop reduction for the sake of reducing forces. It is a study that is based on achieving greater strategic effect with transformational capabilities applied to forces based on forward presence and the reinforcement with rotational forces from our Army, our Navy, our Air Force, and our Marines.

If adopted, it will allow us to be strategically more agile, more flexible, and present in most of the areas that we wish to be and need to be present in in order to make sure that we reduce the level of threats and combat and add to the global war on terrorism.

I am satisfied that the budget request for 2005 meets the needs of the theater. If I may just highlight one aspect of the budget request having to do with military construction (MILCON). It has not

been publicly released as to what bases will be maintained and what bases will be modified, and so the details of the plan are not public, but we did complete last year a study which included those installations that are of such enduring interest and importance to our capabilities that they would, regardless of the plan, they would probably remain.

So we focus our request on making sure that those bases that we know are going to be useful and strategically important in the future will receive the MILCON funding that is required to keep the quality of life and the operational competence and the quality of work up to speed.

So with that caveat, I would simply say that the budget request meets the needs of our forces in theater. With that, Mr. Chairman, I am happy to respond to any questions you might have.

[The prepared statement of General Jones follows:]

PREPARED STATEMENT BY GEN. JAMES L. JONES, USMC

I. INTRODUCTION

The United States European Command (EUCOM) remains fully engaged in protecting and promoting the national security interests of the United States in 93 countries covering nearly 46 million square miles (Chart 1). Our area of responsibility (AOR) is astonishingly diverse and encompasses a full range of human and social conditions. EUCOM actively supports the prosecution of the global war on terrorism, while simultaneously preparing to implement a strategic transformation that will take advantage of both the opportunities and evolutions in the 21st century international security environment.

The global war on terrorism, unlike any war in the past, demands greater emphasis on closer relationships with friends and allies. EUCOM must remain engaged regionally in order to build upon international relationships and the many institutions which can help manage crises when they occur or, ideally, before they occur. As such, the value of forward basing, forward presence, and focused commitment remains an essential cornerstone of our strategy for the future.

During the Cold War era, U.S. and North Atlantic Treaty Organization (NATO) force structures were primarily focused toward the eastern borders in order to ensure the territorial integrity of Western Europe against the Soviet Union's conventional and nuclear forces. Fortunately, the Soviet Union and the Warsaw Pact collapsed, as did many of the threats they posed. But the peace expected to emerge with the demise of the Soviet Union and the dawn of a new century has, thus far, failed to materialize. New threats have emerged that are qualitatively and quantitatively different from the conventional and traditional challenges of the past century. The rise of radical fundamentalism in many regions of the world provides the breeding ground for the actions of transnational groups who are unhesitant in their willingness to employ tactics of terror in order to coerce, blackmail, intimidate, and threaten populations and their sovereign governments. Narcoterrorists use these same tactics to secure their own financial gain and contribute to undermining the social fabric of free societies. Other criminal groups exploit the despair existing in nations beset with the demographic challenges of rising populations, declining resources, limited opportunity, and unstable governments. Transnational groups recognize no traditional political borders, making it extremely difficult for individual nations to effectively defend against the threat on a unilateral basis. Such groups have shown no moral hesitation in imposing their terror tactics against civilian populations or civil structures. Clearly, they represent an unconventional and asymmetric threat to our interests, and to those of our friends and allies. It is to this end that EUCOM is dedicated to a fundamental transformation on a scale not seen since its creation at the end of World War II.

EUCOM's 21st century center of gravity reflects the continuing importance of the "Greater Middle East," to include nations in the so called "arc of instability;" the Caucasus states, the Levant, and the "ungoverned" regions of North and West Africa. As a result of U.S. military successes in Afghanistan and Iraq, transnational groups are increasingly denied safe havens in traditional sanctuaries. They are moving into regions where nations already struggle with explosive population growth, resource scarcity, weak national institutions, and ineffective militaries.

EUCOM's greatest contribution to security and stability lies as much in preventing conflict as it does in prevailing on the battlefield. This is accomplished through influence and engaged leadership, and is sustained only through our enduring and visible presence and commitment. The operational environment within EUCOM's AOR continues to evolve in ways that were largely unforeseen and difficult to predict just a few short years ago. Expanding Theater Security Cooperation requirements, an expanding NATO, instability in Africa and Eastern Europe, and the global war on terrorism largely define ongoing changes and require a comprehensive review of EUCOM's theater strategy. Today's security environment has been fundamentally changed by enemies without territory, without borders, and without fixed bases. These realities require us to be able to "see" everywhere and to be able to project power anywhere—quickly. From its geographic vantage point, EUCOM is ideally positioned to engage, disrupt, dismantle, and prevent terrorists from using their lines of communication and methods of resourcing which are critical to their ability to both operate and sustain themselves.

EUCOM's ability to pursue, engage, and win decisively on a fluid and nonlinear modern battlefield will require a very agile and highly responsive force which is properly equipped, well-trained, and maintained at a high state of readiness. It should be agile, deployable, and sustainable. EUCOM's Strategic Theater Transformation (STT) plan, which is a component of the Department of Defense's (DOD) Integrated Global Presence and Basing Strategy, when approved, will permit EUCOM to transform itself in such a way as to be better able to meet the diverse challenges of this new century. The fundamental objective of our plan is to increase EUCOM's strategic effect through a fundamental realignment of basing concepts, access, and force capabilities. In no way should this signal a reduced commitment or interest in our region, but rather a shift in conventional thinking and desire to adopt new methods to better protect our interests in today's international security environment.

NATO, which has been since its inception the fulcrum of transatlantic and inter-European security, remains the preeminent security alliance in the world; but it too is in the midst of dramatic change. The alliance's renewed commitment and revitalization are already evident by this year's pending expansion from 19 to 26 members, dramatic changes in its command structure, renewed focus on improving capabilities, and participation in global missions. They represent the beginning of NATO's most comprehensive and far-reaching changes in the history of the alliance. A transformed NATO, with greater agility, capability, and a new vision for engagement outside its traditional area, will be an essential and more capable partner for the United States. We should welcome and fully support this historic change in the alliance.

The ongoing transformations in EUCOM and NATO are inextricably linked to the challenges inherent in today's international security environment. These simultaneous transformations are mutually supporting and complementary, the synthesis of which produces an effect greater than the sum of its parts. By its leadership and example, EUCOM supports both the alliance in its transformation as well as NATO member nations undergoing their own internal transformation.

EUCOM's proposed plan is based on the assumptions that the United States:

- Desires to maintain its current position as a nation of global influence through leadership and the efficient and effective application of informational, military, economic, and diplomatic power.
- Remains committed to its friends and allies through commitments to global and bilateral organizations and institutions, and supports treaties and international agreements to which it is a signatory.
- Remains committed to a global strategy, which is forward based and composed of forward deployed forces in key areas, which contribute to the first line of defense of peace, stability and order.
- Supports in-depth transformation of its Armed Forces and basing structure, which is required in order to respond to 21st century threats and challenges.
- Will continue to seek ways to mitigate or offset obstacles posed by 21st century global sovereignty realities through a reorientation of its land, sea, air, and space presence.
- Recognizes that the current concept and disposition of U.S. basing within EUCOM may not adequately support either the strategic changes attendant to an expanding NATO Alliance, or the rapidly changing national requirements of this AOR.
- Will seek to preserve those assets which are of enduring value to its mission, goals and national interests so long as their location measurably con-

tributes to our global strategy, the NATO Alliance, and our bilateral engagements within the theater.

The goal of EUCOM's transformation is to produce a strategic capability that is better able to support the National Security Strategy.

II. UNITED STATES EUROPEAN COMMAND AND NATO OPERATIONS

EUCOM and NATO are currently engaged in numerous operations both inside and outside their traditional areas. The global war on terrorism has challenged peace loving nations to join together to defeat an enemy that has no honor, no state and no traditional military forces. The enemy of the 21st century is the terrorist who, for either ideological or monetary gain, will attack militaries and civilians indiscriminately. EUCOM and NATO's high level of involvement illustrates the important role these organizations play in directly confronting emerging threats.

U.S. European Command Operations

EUCOM is comprised of five components which conduct operations both in-theater and out of theater: U.S. Army, Europe (USAREUR) (62,000 uniformed personnel); U.S. Air Forces in Europe (USAFE) (30,000 uniformed personnel); U.S. Naval Forces, Europe (USNAVEUR) (12,500 shore based uniformed personnel; 12,000 additional under the operational control of the Sixth Fleet); U.S. Marine Corps Forces, Europe (MARFOREUR) (150 uniformed personnel); and Special Operations Command Europe (SOCEUR) (2,000 uniformed personnel).

EUCOM's missions are as wide as they are vast. We extend our operations throughout Greenland, Iceland, Europe, Africa, the Levant, Eurasia, and the Middle East, to include Iraq. At the height of EUCOM's participation in Operation Iraqi Freedom (OIF), more than 54,000 soldiers, sailors, marines, and airmen from EUCOM's components were deployed for combat, or were in direct support of combat operations. In addition to conducting or supporting many bilateral and multinational operations, EUCOM forces also serve in the Balkans supporting NATO's military missions, and actively prosecute the global war on terrorism throughout our theater.

In-Theater Operations

Maritime Intercept Operations (MIO)

EUCOM established the Joint Forces Maritime Component Commander (JFMCC), consisting of NAVEUR SIXTHFLEET Naval assets, in December 2001 for the purpose of conducting maritime interdiction operations in the Mediterranean Sea. In combination with Operation Active Endeavour, JFMCC and NATO forces have hailed 39,500 ships (both U.S. and NATO) in order to ascertain specific information regarding the carrier, its cargo and destination. In addition, they monitored more than 30,000 ships and conducted 45 compliant boardings (by a combination of U.S. and NATO forces). Nations of the western Mediterranean report as much as a 50-percent reduction in illegal immigration over the past year—a reduction directly attributable to this operation.

Liberia

In June 2003, EUCOM deployed SOCEUR to Liberia as a Joint Special Operations Task Force with 300 Special Operations personnel to coordinate and assist with the evacuation of 133 American citizens and 32 third country nationals. EUCOM responded to the worsening humanitarian crisis by deploying Joint Task Force (JTF) Liberia, a sea based JTF of over 3,800 service men and women commanded by EUCOM's Southern European Task Force Headquarters. The American presence both offshore and on the ground was a source of confidence and stability that allowed the introduction of a U.S. supported peacekeeping force from the Economic Community of West African States (ECOWAS). The efforts of JTF Liberia went a long way toward mitigating a humanitarian crisis in Liberia and preventing it from becoming a source of regional instability by helping international organizations respond effectively.

Georgia Train and Equip Program (GTEP)

Since May 2002, GTEP has provided the Georgian government and its military with a very successful military training program that continues to enhance the Georgians' ability to protect their sovereignty and stabilize the region. By the time its mission is completed in May 2004, GTEP will have trained approximately 2,600 Georgian soldiers. The successful December 2002 transition of this program's lead agency, from Special Operations Forces (SOF) to MARFOREUR, highlights the fact that conventional forces can be used for train and equip missions, freeing SOF for other missions. EUCOM, in coordination with the DOD and the Department of

State, plans to continue its military transformation support to this fragile democracy. This effort and other similar security cooperation activities are examples of programs that require small investments but yield enormous dividends in our effort to promote peace, stability and democracy.

Pan Sahel Initiative

This initiative is a new effort to assist Mali, Niger, Chad, and Mauritania in detecting and responding to the migration of asymmetric threats across and within their poorly controlled borders. SOCEUR leads this program in training and equipping company sized, rapid reaction units, providing them the mobility, communication, navigation, and individual soldier skills essential for border security, internal defense, and counterterrorism efforts. Like GTEP, EUCOM plans to transition the lead for this program from SOCEUR to MARFOREUR in the near future. EUCOM also encourages the Maghreb countries (Algeria, Morocco, and Tunisia) to work more closely on common issues related to fighting terrorism.

Out of Theater Operations

Operation Enduring Freedom/Operation Iraqi Freedom

In addition to our in-theater missions, EUCOM continues to provide essential support to U.S. Central Command (CENTCOM) and the global war on terrorism as a supporting command for Operation Enduring Freedom (OEF). This includes the provision of a U.S. Army medical evacuation helicopter unit in support of NATO's International Security Assistance Force (ISAF) in Kabul. Furthermore, intelligence capabilities and analysis from both EUCOM and CENTCOM are integrated to address key problem areas along mutual boundaries, to include Iran, Turkey, Syria, and East Africa. But perhaps the most important mission with which EUCOM has been involved has been its participation as a supporting command in OIF.

U.S. Army, Europe

USAREUR deployed over 26,000 soldiers to OIF, including the headquarters and major elements of V Corps, the 1st Armored Division based in Germany, and the 173d Airborne Brigade based in Italy. V Corps led a major element of the ground attack on Baghdad and continues today as the ground force controlling headquarters in Iraq. The night combat jump into northern Iraq by soldiers of the 173d Airborne Brigade was one of the largest infantry combat jumps since the Korean War. Currently, USAREUR is redeploying the nine separate brigades of V Corps, the 1st Armored Division, and the 173d Airborne Brigade to garrison, while deploying the 1st Infantry Division and elements of the 21st Theater Support and 5th Signal Command to Iraq.

U.S. Air Forces, Europe

USAFE deployed 24 fighter aircraft and support personnel to the Iraqi theater and flew countless air refueling, surveillance and reconnaissance, and long-range strike missions from permanent and expeditionary air bases within EUCOM in support of OIF. C–130 aircraft from U.S. Air Forces in Europe continue to transport vital supplies and equipment bound for Iraq through Europe. Additionally, USAFE provides advanced basing support to both CENTCOM and U.S. Transportation Command at several air bases within the region.

U.S. Naval Forces, Europe

USNAVEUR exercised operational control of the U.S.S. *Harry S. Truman* and U.S.S. *Theodore Roosevelt* Carrier Strike Groups, with 22 ships and 157 carrier-based aircraft. Strike Group aircraft flew over 3,000 combat sorties from the eastern Mediterranean Sea and delivered precision-guided ordnance with coalition forces in northern Iraq. Naval cruisers and destroyers launched 36 Tomahawk Land Attack Cruise missile strikes into Iraq from the Mediterranean, while additional Navy units launched missiles from the Red Sea.

U.S. Marine Corps Forces, Europe

MARFOREUR, led by the 26th Marine Expeditionary Unit (MEU), demonstrated its operational agility by conducting an insertion of combat forces into northern Iraq while deployed in the Mediterranean Sea. Upon receipt of a mission tasking from the CENTCOM Commander, the MEU was inserted from Souda Bay, Greece, into northern Iraq during a critical stage of OIF where it provided a significant contribution to the combat power ashore and aided significantly in conducting conventional combat operations.

Special Operations Command, Europe

SOCEUR was directly engaged in both combat and civil military operations in northern Iraq as part of CENTCOM's Joint Special Operations Task Force-North.

Theater Support

EUCOM's success in supporting OIF is directly attributable to the theater support inherent in this geographical location, the men and women who serve in the command, and the infrastructure available. EUCOM's experience in OIF demonstrates the value of the European in-theater and "en route" transportation systems that provide critical power projection capabilities and facilities. There exists no better combination of rail, road, inland river, and air infrastructure systems from which to deploy our combat forces. This superb and mature network feeds some of the largest seaports in the world. Our theater transportation systems proved instrumental in the successful deployment of 54,000 soldiers and 29,000 short tons of supplies and equipment by air, and more than 290,000 short tons of supplies and equipment by ship, rail or barge through the EUCOM theater to Kuwait, Turkey, Israel, Hungary, Romania, and many other countries. Seventy percent of all Iraqi theater communications bandwidth and architecture continues to be routed through EUCOM controlled links. Additionally, the German Government continues to provide thousands of soldiers, police, and border guard forces to help secure EUCOM's installations, housing areas and communities.

EUCOM's medical facilities continue to provide specialized recuperative and rehabilitative care to wounded and injured U.S. and allied soldiers from the Iraqi and Afghan theater of operations. To date, more than 9,280 patients have received treatment at Landstuhl Regional Medical Center, Germany and 1,380 received care at the Expeditionary Medical Facility/Fleet Hospital in Rota, Spain, prior to its redeployment in June 2003.

Given the multiplicity of deployment infrastructure and nodes, our European operating bases provide for enhanced deployment infrastructure which complements our National structures. They also have the advantage of being an "ocean closer" to the regions where our strategic interests will be focused: the greater Middle East, Russia, Ukraine, and Africa.

Reserve Component

EUCOM is reliant upon the contributions of the Reserve component. Presently, there are over 4,800 Reserve and National Guard personnel deployed in-theater conducting a wide range of critical missions. The Reserve component is currently executing the entire Bosnia mission and almost two-thirds of our forces in Kosovo are reservists. Additionally, a large percentage of our intelligence personnel in EUCOM are activated reservists. Our reliance on the Reserve component is most acute in the intelligence, counterterrorism and logistics fields.

Since the beginning of our operations in the Balkans, approximately 30,000 Reserve component personnel have deployed to the region and have performed admirably. With the approaching successful completion of the military tasks mandated by the Dayton Peace Accords, we will continue to reduce our forces in the Stabilization Force (SFOR) in Bosnia and Herzegovina. This will also reduce the overall requirements for the Reserve component in our theater.

North Atlantic Treaty Organization Operations

History will show 2003 to have been a watershed year for the NATO Alliance. Contrary to some who claim that the best years are behind it, NATO demonstrated this past year its new vision for confronting security threats in a global context. Following the guidance of the 2002 Prague Summit, NATO began a fundamental transformation program at a pace that has surprised even the most cynical observers. During 2003 alone, the alliance conducted no less than five major and highly successful operations, most of them simultaneously.

Stabilization Force

In Bosnia Herzegovina, SFOR made significant progress toward completing its military tasks under the Dayton Peace Accords. With the Bosnians making important progress in reforming their military and disarming, the alliance has continued its drawdown of forces. As of April 1, the U.S. troop contribution will be 1,050 of the nearly 10,000 troops currently in SFOR. Discussions are currently underway with the European Union (EU) to transition to a policing mission by year's end.

As the SFOR mission draws to a conclusion, U.S. numbers are projected to decrease to a smaller number of personnel to support a stay-behind NATO headquarters element, to maintain a "warm base" (TF Eagle), and to continue our successful Persons Indicted For War Crimes (PIFWC) efforts. Recently, our international operations to apprehend PIFWCs were fundamentally restructured. PIFWC

detention operations continue to be one of the great under recognized success stories of our mission in the Balkans. Of the more than 120 people indicted by the International Criminal Tribunal for Yugoslavia, 93 have appeared before the Tribunal, 21 remain at large today, and the remainder have died from a variety of causes.

Kosovo Force (KFOR)

NATO's KFOR continues in its mission to provide security in the region, as well as in assisting the United Nations (U.N.) Interim Administration in Kosovo. NATO's troop strength was reduced to 17,730 in 2003 with U.S. forces contributing nearly 12 percent (2,010) of the personnel. NATO will conduct Periodic Mission Reviews to assess future force requirements in Kosovo. It may be possible to transition to a Deterrence Presence profile in KFOR during 2004, which may allow the U.S. to reduce troop strength to around 800, but this is a decision for the North Atlantic Council (NAC).

Operation Concordia

This operation in the Former Yugoslav Republic of Macedonia, which was the EU's and NATO's first collaborative effort, came to a successful conclusion in 2003. The success of this mission demonstrated that NATO–EU military collaboration in an embedded EU planning cell at Supreme Headquarters Allied Powers Europe is a good thing.

International Security and Assistance Force

NATO began its most ambitious operation, ISAF in Afghanistan, in response to a U.N. Security Council Resolution in August 2003. The deployment of nearly 6,000 NATO and non-NATO troops to Afghanistan represents the first combined force global deployment for the Alliance. On 30 December 2003, ISAF expanded its mission and assumed command of the German-led Provincial Reconstruction Team (PRT) in Konduz, a province in northern Afghanistan. The North Atlantic Council has subsequently approved a Concept of Operations (CONOPs) for the gradual expansion of the ISAF mission to include a greater number of PRTs. A full Operations Plan, based on this approved CONOPs, was submitted to the International Military Staff at NATO Headquarters in late February 2004. NATO's assumptions of this mission, the deployment of these forces to Afghanistan, and ISAF mission expansion in the near future are all physical manifestations of the Alliance's recognition of its responsibility to engage in security challenges outside its traditional area.

Operation Active Endeavour

This is NATO's maritime interdiction operation in the Mediterranean Sea and is contributing significantly to the global war on terrorism. Beginning in 2001 as part of NATO's Article V response to the 11 September 2001 attacks, Operation Active Endeavor has produced the most comprehensive maritime surveillance picture in the Mediterranean in years and has proven to be extremely successful in interdicting criminal and terrorist activities that use the Mediterranean as a sea line of communication. It is conceivable that Operation Active Endeavor's maritime interdiction operation could be extended into the Black Sea.

Operation Display Deterrence

In February 2003, NATO conducted Operation Display Deterrence, an Article IV mission, in response to Turkey's request for NATO's assistance to deter an attack from Iraq.[1]

Operation Iraqi Freedom

In addition to NATO missions, the Alliance provided assistance to the member countries that deployed forces to Iraq in support of OIF. NATO provided assistance to the lead nation, Poland, as well as to Spain, Hungary, other NATO nations, and several non-NATO members that deployed forces for this important mission.

Air Policing

Finally, NATO is planning for a modernized and expanded air policing and air defense mission, the goal of which is to extend the alliance's air defense coverage to member and soon-to-be member nations who currently do not have the capability to provide it for themselves. Regardless of the eventual course of action, NATO should adopt a comprehensive solution that covers all 26 member nations in the defense of their airspace and fulfills the alliance's Article V responsibilities.

[1] Article IV states that "The Parties will consult together whenever, in the opinion of any of them, the territorial integrity, political independence or security of any of the Parties is threatened."

Operationally, NATO is the busiest it has been in its 50-plus year history. The alliance has deployed more than 22,000 personnel to the Balkans, over 2,600 to Operation Active Endeavour, and nearly 6,000 to Afghanistan under the NATO flag. While not a NATO mission, NATO member nations have also deployed more than 17,000 personnel in Iraq in support of OIF. Training, interoperability and past operations and past operations through the alliance enhanced the coalition's mission.

III. UNITED STATES EUROPEAN COMMAND AND NATO TRANSFORMATION

In light of the ever-evolving international security environment and newly emerging threats, both EUCOM and the NATO Alliance have embarked upon a process of comprehensive transformation to better prepare both organizations to face today's transnational threats. The current strategic environment demands we find ways to maximize our effect, working both unilaterally and with our allies. We are participating in a deliberate process requiring study, in-depth consultation and focused prioritization. As we transform we will continually review our progress and the metrics by which our requirements are determined. Our transformations must be tailored to meet not only the threats of today and tomorrow, but those we will confront in the years ahead. EUCOM and NATO transformation efforts are inextricably linked and will have complementary and reinforcing effects.

U.S. European Command Transformation

Three Areas of Focus

EUCOM was extremely active in 2003 as it contributed to the global war on terrorism, to include providing support for the war in Iraq, and engaging with our allies to improve security cooperation efforts, and working a number of bold new initiatives to transform our presence in the theater. Over the past year, EUCOM has emphasized three areas important to transformation. First we continued the reduction and realignment of "legacy" infrastructure, which was better suited to support Cold War requirements. Second, we reassessed the manner in which our forces are deployed and assigned to this theater from the United States. This included the reorientation of our forces toward the southeast and south to more suitably reflect EUCOM's expanding strategic responsibilities. In addition to being joint, agile, sustainable, and highly mobile, future forces operating in our region will be a combination of both permanently based and rotational units. Finally, EUCOM has adopted operational concepts which capitalize on innovation, experimentation, and technology in order to develop a force that can achieve a greater strategic effect. Simply put, the traditional military principle of "mass" no longer equates to commitment or capability. We will continue to re-tailor our forces based on an expeditionary model much better suited to meet the demands of the 21st century.

Basing Concepts

Essential to achieving this strategic effect are the development of basing and force manning models that develop the principles of an expeditionary philosophy. To achieve the first, we envision a series of smaller forward operating bases (FOBs) and forward operating locations (FOLs) strategically located throughout the AOR. Such bases will be anchored to several existing Joint Main Operating Bases (JMOBs), which are of enduring strategic value and remain essential to theater force projection, throughput, and sustainment. Pre-positioned war reserve material at Joint Prepositioned Sites (JPS) will augment this basing plan by allowing units to "fall in" on essential equipment that will capitalize on the strategic advantage of being an "ocean closer" to engagement, influence, and conflict. JPS also present the added benefits of significantly reducing the requirements placed upon an already overburdened strategic transportation system. They allow for the extension of the range and effect achievable by FOBs and FOLs through augmentation with the logistical support of selected prepositioned sites. This new basing plan, together with the strategic positioning of JPS, will help effectively posture our forces, in order to counter current and future threats.

Operational Concepts

EUCOM is working with the Office of the Secretary of Defense (OSD), the Joint Staff, the Service secretariats, the military departments, and EUCOM's Service components in developing a viable plan to meet the security challenges of the 21st century. Changes proposed in our transformation plan represent a dramatic shift in EUCOM's operational concepts in support of an overarching global strategic realignment of U.S. forces. The United States' level of interest, commitment, and military capability resident in this theater should no longer be measured exclusively by the number of troops permanently based in Europe. The new measure will be based on

strategic effect by the effective application of the combination of both forward basing and rotational presence.

Efforts to realign our basing concepts and our force capabilities will revolve around implementing a strategy more reflective of the new security environment and our national interests. Power projection platforms and operating bases will be located in such a manner as to compensate for finite limitations of strategic air- and sea-lift assets, and they will capitalize on the utility of existing bases, and our ability to pre-position needed military equipment and stocks. The analysis and planning leading to the transformation of EUCOM's strategic footprint will yield important results in future years as we continuously refine and implement the STT plan.

As EUCOM shapes the theater with FOBs and FOLs to facilitate the projection of U.S. military power within and beyond the AOR, we will maintain leadership within NATO and across the AOR that is credible and capable. This is a function of both force positioning and the provision of transformed, expeditionary, joint capable, and ready forces. These forces will be characterized by increased deployability and tremendous agility, responsive across the full spectrum of joint and combined operations. The presence of a genuinely transformational force stationed in Europe will measurably enhance EUCOM's capacity to energize NATO's transformation and to garner support among NATO allies for an expanded role in the global war on terrorism. It will demonstrate our commitment to them through usable, transformed, and versatile military forces.

Efficient Basing Granfenwoehr

A pillar of our transformation is our world class Joint Expeditionary Training Center at Grafenwoehr and Hohenfels in Germany. Situated in the heartland of Europe, this "center of excellence" places the United States on the "high ground" to lead a transformed NATO in the global war on terrorism. It is in close proximity to our NATO partners, NATO aspirants, and Partnership for Peace (PFP) nations and consists of the finest set of firing ranges and maneuver training areas available to U.S. and NATO forces today.

In particular, the Center's six sophisticated, urban training sites are embedded within a sizeable maneuver area with realistic non-English speaking civilians representing diverse ethnic groups which more aptly simulates the environs in which our soldiers will operate. Training in the tactics, techniques, and procedures for in urban warfare, stability operations, and other global war on terrorism-related operational requirements greatly enhances our interoperability with our NATO partners. The Grafenwoehr expeditionary training site has been instrumental in training our forces for a variety of combat and peacekeeping tasks essential to our success in the Balkans, Liberia, and the global war on terrorism, most notably in Iraq. Further, as a JMOB, the training center provides a world class power projection platform, capitalizing on the advanced European transportation infrastructure and existing status of forces agreements to deliver forces to contingency areas through EUCOM and into the CENTCOM AOR.

As we engage in our transformation efforts, we must be mindful of the impact these actions will have on our most important asset—our people. EUCOM is accountable to servicemembers and their families, from whom much has been asked, and who have sacrificed greatly as the theater posture is adjusted. Regardless of the course of action that is ultimately selected, we will implement reforms in a manner that takes into account the quality of life of our families, both military and civilian alike.

NORTH ATLANTIC TREATY ORGANIZATION TRANSFORMATION

NATO Command Structure

The alliance, while extensively engaged in international security matters, is also simultaneously undertaking the most significant transformation in its history. At the Prague Summit in November 2002, NATO members agreed to undertake many significant changes. The first of these was the streamlining of the NATO command structure. During this past year, the alliance deactivated Allied Command, Atlantic; activated the Allied Command, Transformation (ACT); and renamed Allied Command Europe as Allied Command, Operations (ACO). Additionally, NATO identified 12 subordinate regional headquarters for eventual deactivation, a process that will occur over the next several years, but one that is already underway. The last significant change to the NATO command structure will be the activation of the alliance's third joint headquarters, Joint Headquarters West (JHQ(W)) in Lisbon in March 2004, which will serve as the headquarters for a sea-based combined joint task force. This headquarters, along with JHQ North in Brunssum, The Netherlands, and JHQ South, Naples, Italy, will exercise command and control over the NATO Response Force on a rotational basis.

NATO Response Force

Perhaps the most important initiative emerging from the Prague Summit was the decision to create the NATO Response Force, a truly transformational capability that will give the alliance significant new military capabilities. For the first time in its history, NATO will have a trained and certified, standing, integrated force of sea, land, air, and special operations components under a single commander. The Very High Readiness element of the NATO Response Force will have the capability to begin deployment within 5 days and will be able to sustain itself for up to 30 days.

NATO inaugurated the "proof of concept" initial capability of the NATO Response Force on October 15, 2003, and held its first live field training exercise, Allied Response 2003, in November. The exercise involved over 1,000 personnel, 21 aircraft, and 3 ships from 12 nations, demonstrating the interoperability and expeditionary capabilities that exist today.

The first two NATO Response Force rotations are purposefully designed to be smaller and more limited in scope in order to facilitate the development of necessary doctrines, training and certification standards, operational concepts, and readiness reporting criteria and systems.

The NATO Response Force will achieve Full Operational Capability no later than October 2006 and will provide NATO with a capability of responding with a military force during the "Deterrence Phase" of a developing crisis. This force will have a range of operational capabilities that can be used across the spectrum of conflict—rapidly and sequentially. While the NATO Response Force will have the capability for high intensity operations if required, it will also be available to conduct humanitarian operations, peacekeeping/peace enforcement, and forcible entry operations. It will also be capable of conducting simultaneous operations.

The creation of the NATO Response Force is significant beyond the fielding of an important new military capability. It represents a manifestation of the alliance's commitment to change in order to better confront the emerging threats of this new century. In creating this force, the alliance advanced the NATO Response Force from concept to physical reality in less than a year. Such rapid and comprehensive change is virtually unprecedented in the alliance, and provides a basis for increased optimism for the future.

While challenges in the area of Combined Joint Statement of Requirement (CJSOR) shortfalls and defining the best command and control structure currently exist, it is clear that the NATO Response Force is the centerpiece for alliance military transformation and operational capability in the new security environment. The NATO Response Force is truly the transformational vehicle for NATO's military capability in the 21st century, and is worthy of our most focused support.

Statement of Requirements

Another key initiative that will likely pay an important dividend is the full definition of NATO's military requirements for the 21st century. This will allow member nations to base the construction of their own force structure on what is needed to support the alliance. This statement of requirements will go a long way toward ensuring the alliance's transformation in the future.

Noncommissioned Officer (NCO) Development Program

The final major initiative emerging within the alliance during 2003 was the creation of an NCO Development Program and the establishment and installation of the first senior noncommissioned officer for ACO. This position was created in order to provide NATO members, invitees, and partner nations with a resource to transform and rebuild their own noncommissioned officer corps and enlisted force, should they choose to do so. The many and diverse changes in NATO signal a tectonic shift that has already contributed significantly to our mutual security interests.

Partnership for Peace

NATO is also reexamining a number of programs related to its numerous bilateral relationships. It is only appropriate that I mention that this year marks the 10th anniversary of the NATO-led PFP Program. This highly successful program has produced seven new NATO members who will accede into the alliance this year. An example of how the relationships formed in PFP have paid great dividends for both the alliance and the U.S. is the ongoing use of important facilities in several PFP countries in the global war on terrorism. Now is the time to seek a revitalization of PFP. At the core of current NATO thinking on PFP adaptation is an interest in refocusing it both geographically and functionally, shifting geographical emphasis to Central Asia, the Caucasus, and the Mediterranean Dialogue nations and shifting functional emphasis to institution building, reform, and interoperability.

PFP's transformation cannot be achieved in isolation from alliance transformation objectives and processes, U.S. national security priorities, ACO's objectives, and the national and regional security priorities confronting nations today. Refocusing PFP on the new missions, new tasks, and new capabilities of the alliance in response to new threats challenging the international community is critical to its successful evolution. Any PFP adaptation should reduce the capability and interoperability gap between the allies, increase the availability of "useable forces" and strengthen potential coalition military capabilities. NATO's core objective is to establish in PFP the appropriate focus, priorities, exercises, and supporting activities to ensure that it produces operationally effective partners for NATO-led Crisis Response Operations and NATO Response Force actions.

NATO-Russia Interoperability Program

This program, initiated in May 2003, has changed the character of the overall traditional NATO-Russia military-to-military program. Focused on the objective of establishing permanent interoperability, NATO and Russia have implemented 21 activities in 2003 and 35 more are scheduled for 2004. Logistics, strategic lift, and theater missile defense activities will also be included in the focus of work with Russia this year. Russia has returned to PFP and NATO welcomes a renewed relationship under development with the Russian General Staff and its Main Operations Directorate.

NATO-Ukraine

Another important bilateral affiliation is the NATO-Ukraine relationship. Ukraine's progress in the implementation of its Membership Action Plan was noted by the Foreign and Defence Ministerials in Brussels in December 2003. The strategic relationship with Ukraine is a central focus of the ACO. Ukraine's role in the PFP Program, troop contributions to KFOR, and its troop commitments to OIF are significant and are to be commended.

NATO's leadership has laid the groundwork for its successful transformation. The clear military guidance given at the 2002 Prague Summit has set the path. Some of these initiatives are as "simple" as opening dialogues and establishing agreements. Other initiatives come with a price tag. It is incumbent upon the alliance to ensure the necessary resources are applied to make concepts realities.

IV. REQUIREMENTS FOR STRATEGIC IMPLEMENTATION

The quality of EUCOM's infrastructure has a profound impact on all operations, training and security cooperation activities, as well as the quality of life of servicemembers. Given this fact, and the current state of our facilities, infrastructure investment and maintenance is the most critical funding requirement. Key theater investment requirements must be met for infrastructure investment, family housing, "en route" infrastructure, anti-terrorism force protection, theater command, control, communications, and computers (C^4) modernization, and intelligence, surveillance, and reconnaissance (ISR) requirements, as well as quality of life programs.

Theater Infrastructure

Our most important program in USAREUR is Efficient Basing Grafenwoehr, which focuses on structuring forces and basing facilities to be best postured for training and responding to current and emerging threats in the greater Middle East and Africa.

Efficient Basing Granfenwoehr is an initiative to enhance readiness, gain efficiencies, and improve the well being of 3,500 soldiers and 5,000 family members by restationing a brigade combat team from 13 installations in central Germany to a single location at Grafenwoehr, Germany. This initiative began in earnest with the approval and appropriation of $25 million for planning and design in fiscal 2001; construction began in fiscal 2003 with appropriation of $69.9 million and was followed by $88.1 million in fiscal 2004. An additional $77.2 million is budgeted for this program in fiscal 2005. It is our intent to complete the program in fiscal 2006 at a total cost of $629.2 million. This major program supports the future strategic footprint in the theater and will maintain the Grafenwoehr, Hohenfels, and Vilseck areas as key installations as part of a future JMOB. This "world class" and unique training facility located in southern Germany offers realistic field training opportunities that have given United States forces an incomparable advantage in combat operations over the last two decades.

In fiscal 2003, EUCOM identified 13 installations in the Giessen and Freiberg area for closure. As this process concludes in 2005 and these 13 bases are returned to the host, it is imperative to keep the Efficient Basing Grafenwoehr program in-

tact and on track. Given its enduring nature as a JMOB, the planned improvements and enhancements to facilities and infrastructure at Grafenwoehr will be central to all potential manifestations of EUCOM future basing strategies.

The return of Rhein Main Air Base to German authorities, scheduled for completion in 2005, gives further impetus to the continuing need for a military construction (MILCON) program designed to upgrade the operational capability at both Ramstein and Spangdahlem Air Bases. These upgrades to vital theater transportation nodes are essential for EUCOM to be able to sustain the level of strategic throughput required to support OIF and other global contingencies and operations.

USAFE is also continuing its efforts to consolidate its geographically separated units throughout the theater at its enduring, major operating bases. Similarly, NAVEUR is proceeding with its recapitalization plan for Naples, Sigonella and Rota. In coordination with SOCEUR is exploring potential joint basing options for the SOF stationed in-theater. This will provide EUCOM greater crisis response capabilities, enhance joint training opportunities, and more effectively position assets for use in likely areas of employment. Joint basing will become a way of life throughout the European theater. This concept will continue to be developed as our transformation plan moves forward.

EUCOM appreciates the efforts of Congress to provide for the sustainment, restoration, and maintenance of existing facilities, as well as for new military construction. The very successful use of the "build-to-lease program" to recapitalize family housing throughout the theater has substantially decreased our military construction requirements, but the need for the renovation of existing housing still accounts for almost 30 percent of EUCOM's request for such funding. We will not invest resources in housing we anticipate closing in the near future except for ensuring maintenance and quality-of-life standards.

"En route" infrastructure for mobility forces passing through this theater remains important for U.S. global operations. EUCOM continues to manage this requirement closely in partnership with CENTCOM and the U.S. Transportation Command through the European En Route Infrastructure Steering Committee. The Committee is seeking innovative solutions to identify and rectify potential shortfalls in order to provide the flexibility and capacity required to support any mission to any location within or through this theater. EUCOM's goal is to co-locate NATO infrastructure capability at bases where there is already a U.S. presence when it makes good sense to do so. By ensuring that U.S. and NATO infrastructure programs are coordinated and complementary, an overall reduction in construction costs to both the U.S. and the alliance can be achieved, while efficiency and effectiveness of operations are simultaneously increased.

Family Housing

EUCOM has begun to make the significant investments needed over the next decade to enhance our support infrastructure and to take care of our people. Service members and their families see the positive trends in infrastructure and are grateful to Congress for providing the funding needed to make this possible. However, a great deal of the theater's infrastructure remains inadequate and too many servicemembers continue to live and work in dilapidated facilities spread over inefficient, geographically separated installations.

The well-being of our military families is linked to readiness, retention, reinforcement of core values, and mission accomplishment. The quality of work and the on time completion of the single and family housing renovations are impressive. The DOD-wide goal is to eliminate substandard housing by 2007. While the NAVEUR will meet this goal, the USAFE and USAREUR are projected to complete the goal by 2009. Funding to accomplish this for servicemembers and their families continues to be a critical element in attracting and retaining the high caliber personnel who make the U.S. military the best in the world.

Force Protection

EUCOM continues to enhance its force protection posture through physical site improvements at its installations and improved intelligence operations with coalition partners and law enforcement agencies. Our emphasis on public awareness, training, physical security upgrades and formal agreements with U.S. State Department clearly delineates force protection responsibilities for DOD personnel throughout the theater.

During the past year, EUCOM's service components have made considerable improvements to their overall force protection posture. NAVEUR was able to employ waterside barrier systems at their primary ports. The Department of the Army funded seven Large Vehicle Cargo Inspections Systems for USAREUR. USAFE successfully obligated $14.2 million in Defense Emergency Relief Funding for force pro-

tection projects. In addition, EUCOM received $3.1 million from the fiscal 2003 Combating Terrorism Readiness Initiatives Fund (from the Chairman of the Joint Chiefs of Staff) to meet emergent antiterrorism needs at several installations. It is imperative we continue to adequately resource these critical force protection manpower and security requirements to enable EUCOM to meet the many challenges of the future and to effectively protect our personnel and facilities.

Theater Command, Control, Communications, and Computers Modernization

Network-Centric Warfare and Information Superiority operations in EUCOM's Network Battlespace require continued progress in C^4 modernization. We will embrace those advances in C^4 capabilities derived from DOD-sponsored joint programs such as Teleport, Global Information Grid Enterprise System and the Mobile User Objective System. With Congress' help, focused attention on single integrated strategic and tactical architectures, DOD programs, and our own strategic transformation initiatives, EUCOM can provide the requisite networks needed to improve interoperability.

Intelligence, Surveillance, and Reconnaissance

EUCOM continues its work to establish an integrated ISR capability to increase the likelihood of detecting, tracking, and interdicting asymmetrical threats. EUCOM needs an increase in ISR assets—from indications and warning to battle damage assessment—coupled with more robust analytical resources, to prosecute the global war on terrorism and to provide "forward homeland security." Improved collection capabilities for JTF commanders and multinational forces should include broad area search and surveillance platforms with extended loiter capability that are both survivable and stealthy. This "persistent ISR" must have the ability to continuously gather intelligence from the modernized signals used in global networks, as well as a capability to collect electro-optical, infrared, and radar imagery.

Interoperability is crucial to leverage the information collection of NATO and non-NATO partners and to augment theater human intelligence (HUMINT) capabilities with those from the DOD and the Central Intelligence Agency (CIA). Sufficient capabilities in this regard are a major focus of the EUCOM Integrated Priorities List and the Joint Quarterly Readiness Review reports.

As EUCOM continues its transformation, there will be an increased requirement for theater intelligence assets and national technical means to acquire information across all intelligence disciplines. EUCOM is appreciative of Congress' continued support of its intelligence requirements. We will invest funding in defense intelligence transformation efforts and programmatic shortfalls in intelligence core mission capabilities. Our highest intelligence priority remains having sufficient numbers of well trained personnel with human intelligence and language expertise, in order to support our counterterrorism analytical efforts.

Quality-of-Life Programs

Our most precious resources, servicemembers and their families are our number one combat multiplier. The excellence of our force is the direct result of our concentrated and sustained commitment to their quality of life. Our military communities must be resourced to provide a strong and predictable capability to support the necessary infrastructure, housing, schools, health care, child care, family support, and community services needs of servicemembers and their families.

We urge Congress to favorably consider three quality-of-life projects that support Efficient Basing Grafenwoehr; construction of the elementary school ($36.2 million), Vilseck High School renovation ($9 million), and the Dispensary Dental Clinic ($13 million).

In our quality-of-life strategy, we stress that our forward deployed forces, their spouses and children deserve a fair compensation system, good places to live, quality educational opportunities, meaningful work, challenging off-duty opportunities, and access to quality health care. We are aggressively pursuing a series of initiatives designed to help improve the employment and career educational posture for our families. Chief among them is the continued improvement of educational opportunities for our family members and efforts to enhance spouse career development opportunities.

The quality of DOD's dependent education programs ranks very high in determining the quality of life of our servicemembers and our civilian personnel. We are very proud that this system is recognized as a benchmark for other public school systems. EUCOM is grateful that Congress provides the support to enrich our children with such great opportunities. These schools, with nearly 48,000 students, need your continued support and funding to ensure high educational standards are maintained.

V. UNITED STATES EUROPEAN COMMAND STRATEGIC RESOURCES

Theater Security Cooperation (TSC)

Within EUCOM, we have a variety of resources, programs, and policies available to aid us in developing and implementing our TSC strategy. The value of these strategic resources cannot be overstated. Our TSC implementation plan is derived from the Secretary's Security Cooperation Guidance and is specifically designed for our theater. Security cooperation builds and nurtures relationships that protect U.S. strategic interests, enhance allied and "friendly" capabilities for self-defense and coalition operations, and provide for peacetime and contingency access and "en route" infrastructure.

Since September 11, 2001, the vast majority of the 93 nations in the EUCOM AOR have offered or provided intelligence, basing access, over-flight rights, forces, and equipment, as well as other forms of support, to our efforts in the global war on terrorism. The degree of support EUCOM received from our allies is directly related to the effort and attention given to the security cooperation program.

EUCOM's strategic vision is best achieved in concert with allies, partners, and friends. Security cooperation efforts in-theater include working with many nations throughout the AOR in a variety of programs. We are increasingly working in Africa to improve intelligence, peacekeeping capabilities, and overall regional stability. We are increasing military cooperation with Russia, and developing new relationships with countries of the Caucasus and Caspian regions. These efforts have protected and strengthened important U.S. economic and security interests, while assuring our European allies that the U.S. remains committed to European security and to the alliance.

Within our TSC strategy are several security assistance programs that are vital to implementing foreign policy guidance and attaining national security objectives. They promote interoperability with U.S. forces and help build professional, capable militaries in friendly and allied nations. EUCOM supports military security cooperation in partnership with 43 Offices of Defense Cooperation and 72 Defense Attaché Offices. EUCOM's chief programs include:

- Foreign Military Financing (FMF) provides critical resources to assist nations without the financial means to acquire U.S. military goods, services, and training and access to U.S. expertise in defense restructuring and management. It is an essential instrument of U.S. influence.
- International Military Education and Training (IMET) and Expanded IMET (E–IMET) provide educational opportunities emphasizing and reinforcing civilian control of the military and promote domestic stability in a region where armies are often the principal organizing institution in society. These are some of the most prominent and effective tools the U.S. possesses to advance the principles of responsible governance, to provide stability to newly-formed democracies, and to imbue militaries with the importance of the civil-military relationship. IMET also enables military-to-military cooperation and interoperability, which enhances our ability to assemble and operate as part of a coalition.
- Foreign Military Sales (FMS) demonstrate the continued primacy of trans-Atlantic defense relationships to U.S. security interests. FMS encourage interoperability between forces within EUCOM's AOR, help modernize the militaries of new friends and partners, and assure a strong U.S. presence in the development and implementation of the Prague Capabilities Commitment.
- Joint Combined Exchange Training (JCET) exercises are small, low cost, and low visibility exercises that are essential to keeping regionally aligned SOF trained in mission essential tasks, and are an indispensable tool that enhances EUCOM's TSC strategy. JCETs are uniquely tailored with personnel (ranging from 12–250) who possess certain skill sets, along with special equipment that is focused on a particular region to accomplish a prescribed mission or task. SOCEUR coordinates the JCET program for EUCOM. We have conducted as many as 50 JCET exercises in a single year. This year we plan to conduct 30. JCET events focus on the global war on terrorism and enable the U.S. to build the intelligence required to find and fix terrorist targets. Other important aspects of our TSC strategy are the training and educational programs that are available through the George C. Marshall European Center for Security Studies; the Africa Center for Strategic Studies; the Near East-South Asia Center for Strategic Studies; the NATO School; the African Contingency Operations and Assistance (ACOTA) program.

• The George C. Marshall Center continues to be one of EUCOM's most important security cooperation assets for achieving U.S. goals and objectives with other nations. The Marshall Center mission is to create a more stable security environment by advancing democratic defense institutions and relationships, promoting active, peaceful, security cooperation, and enhancing enduring partnerships among the nations of America, Europe, and Eurasia. The Center is crucial to building trust and confidence with the civilian and military leaders of more than 50 nations within our AOR. To date, over 3,000 graduates and 10,553 non-resident participants have been influenced by the center, allowing the United States to build successful coalitions in the global war on terrorism. More than 169 graduates of the Marshall Center hold key positions as ministers of defense, service chiefs, cabinet officials, ambassadors, flag officers, and parliamentarians. This growing network is an investment that is reaping valuable dividends in stability, security, and cooperation.

• The Africa Center for Strategic Studies continues to provide a series of seminars, symposia, conferences, and outreach programs designed to promote stable governance and democratic values in the African defense and security sectors.

• The Near East-South Asia Center for Strategic Studies conducts executive and senior executive seminars to foster professional defense planning and the function of a military establishment in a pluralistic society. Israeli, Tunisian, Algerian, Moroccan, and Mauritanian military personnel participate.

• The NATO School is a EUCOM-supported activity in Oberammergau, Germany, under the operational control of the Allied Command, Transformation. Its primary mission is to conduct courses, training, and seminars in support of NATO strategy and policy, including cooperation and dialogue with military and civilian personnel from non-NATO countries.

• ACOTA, formerly known as the African Crisis Response Initiative (ACRI), is a Department of State program supported by EUCOM. The program develops indigenous military trainers and equips African national militaries to conduct peace support and humanitarian relief operations. The program's goal is to increase the capabilities of these militaries in areas such as human rights, their interaction with civil society, international law, military staff skills, and small unit operations. Elements of a Ghanian Brigade, which completed staff training last year, is currently deployed to the Congo where it is currently participating in a peacekeeping operation. As additional countries in Africa receive training under the ACOTA program, regional member nations will acquire new capabilities to enhance regional stability. This year Senegal, Botswana, Zambia, Mali, Malawi, Benin, and Mozambique are scheduled to participate in the ACOTA training program.

State Partnership Program

This program assists partner nations in making the transition from authoritarian to democratic governments. This program, administered by the National Guard, matches emerging democracies in the EUCOM theater with partner states in the U.S. There are currently 23 U.S. states partnered with 21 foreign nations. The State Partnership Program has been so successful that DOD has approved establishing new partnerships and is funding an expansion of the program to Africa, beginning with South Africa and Morocco. Although the challenges faced by African nations differ considerably from those of Eastern Europe, many are ready for the opportunity that this program provides. For a modest investment, candidate nations receive access to the expertise of an entire American State government infrastructure, from public health to wildlife management. The impact is inspiring.

Interagency Coordination

Today's asymmetrical threats demand a new emphasis on interagency coordination. Coordination among U.S. Government agencies, especially those with skills in law enforcement and financial asset investigation, along with allied forces, nongovernmental and private voluntary organizations, and regional and international organizations is vital to our strategic efforts in our theater. As the security challenges facing our Nation grow in complexity and diversity, there is an increasing requirement to bring together different skill sets to better inform leaders and establish new perspectives so that our capabilities can be maximized to their greatest potential.

Joint Interagency Coordination Group for Counterterrorism (JIACG–CT)

In keeping with the Secretary of Defense's guidance, EUCOM has established a JIACG–CT in order to synchronize and coordinate EUCOM and interagency activity in the global war on terror and in our strategic plan for the region. Our JIACG–CT facilitates communications among the various agencies, contributing immeasurably to our understanding of and our efforts to contain proliferation, illegal immigration, and narcoterrorism. The JIACG, as the staff coordination entity for interagency representatives, allows EUCOM to rapidly access non-DOD agency information and operations in the integrated execution of national policy. The JIACG also maintains contact with embassy legal attaches while counterintelligence, analytical, operational, and policy staffs collaborate with their DOD and non-DOD counterparts in our missions. Additionally, the EUCOM intelligence staff, in coordination with the DOD Counterintelligence Field Activity (CIFA), co-sponsors liaison officers at INTERPOL Headquarters in Lyon, France, and in the U.S. national office.

Joint Analysis Center (JAC)

The JAC at Royal Air Force Base Molesworth in the United Kingdom is an irreplaceable asset as the theater intelligence analysis center. The JAC operates 24-hours a day, 7 days a week fusing critical elements of intelligence for the command. The breadth of this AOR requires a robust, all source intelligence capability that only a fully resourced JAC can provide. The JAC fully utilizes its reach back capability to national intelligence agencies and has well developed relationships with NATO members, allies, and coalition partners that allows for a more integrated intelligence sharing process. In addition to active operations in the Balkans, Africa, and the Caucuses, the JAC supported CENTCOM before and during OIF and continues to do so today.

The JAC also benefits from interagency cooperation. In our AOR, many successful counterterrorist operations are the result of close cooperation and information sharing with our allies. EUCOM's integration of U.S. and multi-national law enforcement and intelligence reporting has given us insight into terrorist support infrastructure, recruitment, and training. EUCOM is working closely with interagency representatives, coalition partners, and U.S. embassy teams to further develop interagency plans.

During the past year, EUCOM hosted ambassadors and defense attachés at several conferences in an effort to unify the interagency cooperation in-theater, confer on matters relating to the global war on terrorism, and discuss "ways ahead" that take full advantage of all the instruments of power necessary to achieve the United States' objectives. Such conferences underscore our commitment to develop broader approaches to interoperability within resources available and to better coordinate interagency assets.

VI. CONCLUSION

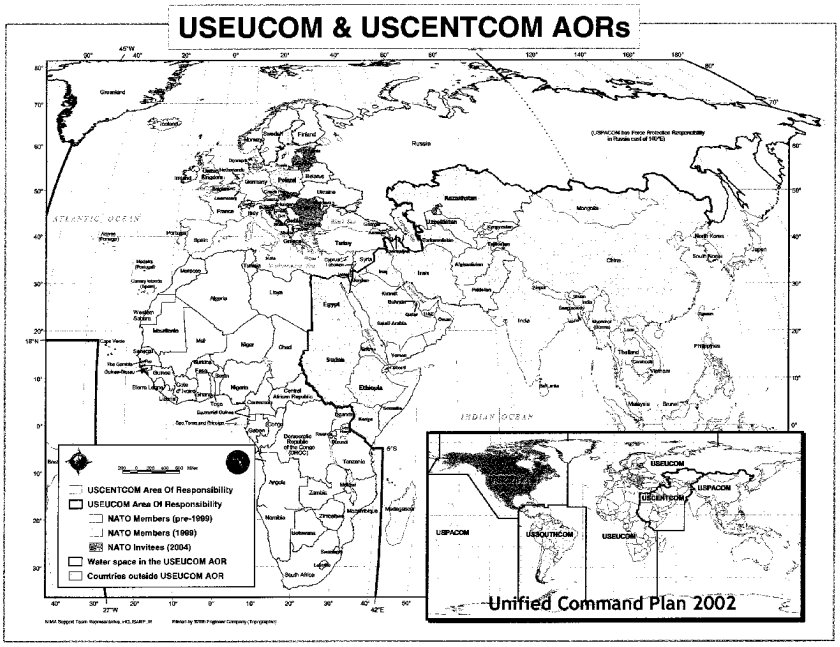
EUCOM is fully and actively engaged in a diverse and expansive AOR, while simultaneously supporting an adjacent theater. The challenges of an expanding NATO, human trafficking and drug trafficking, sanctuaries and transiting of terrorists, instability and ethnic diversity in Africa and Eurasia, and theater security cooperation initiatives—define the environment and demand a paradigm shift in EUCOM's theater strategy. Today's multifaceted world requires operational capabilities that are more agile, mobile, responsive, and expeditionary. To achieve the United States' national security objectives, EUCOM is restructuring its theater posture and adapting its force structure and basing plan.

As EUCOM seeks new and innovative alternatives to improve its operational capabilities, we celebrate the value of traditional relationships that have withstood the test of time. The true importance of the alliance and the presence of EUCOM should not be measured in wars and conflicts fought, but rather in ones that have been averted.

As one looks to the future of the NATO Alliance, there is much cause for optimism. A great alliance should be able to do great things, and NATO's leadership and member nations are making the necessary decisions today to allow the alliance to do great things in the future. The NATO transformation process is making remarkable progress. While the NATO Response Force will continue to drive NATO transformation, NATO command structure realignment, as well as NATO deployments to out of area operations, underscores the alliance's willingness to embrace change in order to remain a relevant and viable security partner.

As we undertake the necessary steps to transform the theater, we must be mindful of our leadership role in global affairs and cognizant of its responsibilities. Leadership and influence cannot be achieved from our distant shores alone; they must

be forged through close and personal relationships, shared experiences, presence, and tangible support to time honored commitments. Our Nation earned the respect of the entire world when we stood side-by-side with our friends and allies in Europe for nearly a half century. As our interests expand, we should not abandon the character of a strategy that cultivated so much goodwill, resulting ultimately, in an historic victory. Our expanding alliance openly seeks both our leadership and our commitment. EUCOM's true value to our Nation is the uncompromising leadership we provide and the indispensable influence that can only be attained by our presence. This is also our best chance for success in fighting the global war on terrorism and, in bringing about a more peaceful and more prosperous world.



Chairman WARNER. Thank you very much.

Colleagues, we will proceed on a first round of 6 minutes each.

General Jones, those of us who have had the privilege of being on this committee for many years recall instances when Senator Stennis, Senator Jackson, Senator Goldwater, and Senator Tower would have to rally the forces against the cry at home: Let us bring NATO back to the shores of the United States. There seems to be a little rumbling here and there on that score.

Speaking for myself, I believe very strongly in the doctrine of forward-deployed forces. We have had a long association in NATO. I am not suggesting that we bring it all back. But even the thought, at this particular point in time in the war on terrorism, of making any significant reduction of forces concerns me greatly.

Could you describe your assessment of this movement, and your own personal, professional views on the importance of keeping and maintaining the forward-deployed forces of NATO, and how the challenges of even a greater NATO role in Iraq and Afghanistan are coming about? I think that this is certainly not the time for any reassessment of that. What you recommend to the DOD with re-

spect to restructuring by reducing NATO installations in Western Europe and putting in smaller units in the nations that are soon to join NATO.

General JONES. Thank you, Mr. Chairman. I come from the view that forward basing is extraordinarily important. The lesson of the 20th century is that forward engagement has probably precluded as many wars as it has aided our capacity to fight and win them. I think all of us who wear the uniform or are associated with the national security are extraordinarily proud of the dividend that forward engagement plays.

Not only is it strategically important because it places you closer to where you might have to actually use your forces, but equally important is what your forces do on a daily basis. In EUCOM we have forces deployed not only all over Europe, but also Eastern Europe, assisting our friends and allies in the transformation of their forces, teaching Eastern European allies who desire to have noncommissioned officer (NCO) structures in their forces that have been foreign to them as members of the former Warsaw Pact how to do that, how to train NCOs in our schools, how to aid some of our African friends and allies to better protect their borders through the small expeditionary teams that go and teach counterterrorism and antiterrorism. We develop common tactics, techniques, and procedures.

I believe the United States, by virtue of its successful and ongoing transformation, provides for NATO a very good and very important example as to what can be done through the proper reduction of forces. Mr. Chairman, we reduced our forces by somewhere between 37 and 40 percent during the decade of the 1990s, but we made them operationally more capable, more agile, more sustainable, and more expeditionary.

This is the direction that NATO wishes to go. The strong leadership provided by the forces that are forward deployed as examples, as friendly partners and helpful allies, is extraordinarily important. The three component commanders—Admiral Johnson, General Bell, and General Fogelsong from the Air Force—are all NATO commanders and as such bring their experience to NATO to help NATO with this very important period of transformation.

It is particularly important for us to appreciate that because the degree of success that NATO has is going to significantly lighten the load that we traditionally carry almost by ourselves. To the extent that we achieve the goals of the Prague capability commitments and we help our friends and allies transform themselves from a very large land-based army-centric infrastructure to more efficient, more appropriate force levels with great reliance on technology and the techniques of the 21st century warfighting, commanders like General Abizaid will have more forces to draw on because more allies will be more capable.

It has been estimated that within the NATO Alliance in 2003 only between 3 and 4 percent of forces are actually expeditionarily deployable. We seek to make dramatic changes in that in a very short period of time, and I have been extraordinarily impressed with the interest that chiefs of defense all over the alliance have in making their forces more usable.

So the value of being forward deployed, I think, goes almost without saying. It is as important to our national security and our national interest as anything else that we do.

With regard to Iraq, Mr. Chairman, we have received no tasking from NATO to prepare any military advice on how NATO might operate in Iraq. But I should emphasize a point that you made and that is that there are NATO allies who are in Iraq. The Polish-led multinational division received NATO help, NATO assistance, in making its deployment from Europe to Iraq, as did other NATO nations, and we are extending the helping hand to any nation that wishes to have that assistance in the future. So that will continue until I am, at least as the Allied Commander, I am tasked by the North Atlantic Council to provide military advice.

With regard to Afghanistan, it is a different matter——

Chairman WARNER. If they were to take such action you would simply go out and not have to do anything more than put up a sign on the door saying that the units are there and it is structured overnight, am I not correct, as a formal NATO unit?

General JONES. I am sorry, sir; I did not understand.

Chairman WARNER. You could structure it overnight. With the assets that you have in country in Iraq now, were the council to act formally the next morning that unit would be stood up; is that correct?

General JONES. If NATO wished to act, there are several ways in which it could act very quickly to establish a NATO flag and a presence. Yes, sir, that is correct.

Chairman WARNER. My time is concluding. In Afghanistan, you are looking there at NATO taking over even a greater role in what time frame?

General JONES. As opposed to Iraq, in Afghanistan I have been tasked to prepare a plan to provide more assets and more capability, to establish up to five PRTs within as short a time frame as possible. That is ongoing work as we speak. Some nations have stepped right up to the plate and said: We wish to provide a PRT.

General Abizaid and I are in constant contact on how we deconflict his operation from the NATO operation. So there will not be a military difficulty in doing that.

Chairman WARNER. Lastly, General Abizaid, give us a little greater detail on the threat scenario in Iraq and what we are learning. There is a change in the composition of the individuals and to such an extent there are units that are working against the coalition partners, a greater emphasis on people coming from beyond the confines of Iraq in-country to participate in these actions against the coalition forces.

General ABIZAID. Senator, in November, I was fairly clear that the main threat in Iraq came from former regime elements (FREs), ex-members of the Iraqi intelligence services, the Republican Guard units, special security organizations, et cetera. After the capture of Saddam Hussein, to a certain extent we saw a diminishment of their activity. But they continue to play an important role in the insurgency that is being conducted in the area of Baghdad, ar-Ramadi, and up into Tikrit.

On the other hand, a lot of the loyalty of the FREs seems to be shifting towards extremists, and certainly there are indications

that, along with the professional terrorist groups, such as Zarqawi, Ansar al-Islam, al Qaeda, and others that are operating now in Iraq, that some of this FRE capacity is cooperating with them.

In addition, we have foreign fighters that infiltrate in through various means. The borders are very long and, despite good efforts by Iraqi and coalition forces, infiltration continues. Most of the infiltration continues to come from Syria into Iraq, although a certain amount also comes from northern Iran into Iraq.

But the number of actual foreign fighters that we continue to engage, capture, kill, et cetera, remains relatively low to the overall insurgent activity we see, which is primarily Iraqi. But I would say, Senator, that there is no doubt that the nature of the terrorist tactics have changed and the nature of the insurgency is changing. As they have become unsuccessful in operations against us, they have targeted what they consider to be the key node, which is emerging Iraqi security capacity. So you will see a continuing attack profile against Iraqi police, Iraqi leadership, Iraqi Civil Defense Corps (ICDC) units, et cetera, in the hope that by undermining the emerging Iraqi security capacity they will derail the process of moving towards an Iraqi transitional sovereign authority.

Chairman WARNER. Undoubtedly they are trying to incite a civil war type of situation. I do hope that there are no signs of that coming to the forefront.

General ABIZAID. I guess I am very optimistic, but I believe there are many more people inside Iraq trying to hold it together than tear it apart. There is certainly a possibility that things could move toward civil war. We certainly know that the Zarqawi network is attempting to foment civil war. That certainly was the motivation in the attack against the Shia yesterday.

I believe that everybody understands that for a moderate government to move forward, to take its place in the international community of nations, will require a lot of cooperation among various groups, political and ethnic. I think we see in the transitional process for restoring sovereignty an awful lot of good cooperation among many parties.

So I remain optimistic that, with continued security emphasis from coalition forces and our Iraqi partners and a solid political process that offers legitimate hope for the future, that we will be successful there.

Chairman WARNER. Senator Levin.

Senator LEVIN. Thank you, Mr. Chairman.

General Abizaid, we read in the paper this morning that the Shia in Iraq are calling for the maintenance of their own militias. Can you give us your opinion as to what the implications of that are?

General ABIZAID. Sir, ever since we have been in Iraq the major Shia political party, SCIRI, has been advocating the standup of the Badr Corps militia as a formal security force inside of Iraq. Of course, we did not recognize the Badr Corps during major combat operations in the movement phase of the war, and we still do not recognize them, nor do we believe that the standup of external militia to the established security organizations that are starting to mature in Iraq is a good idea.

On the other hand, we have allowed Badr Corps members and officers to enlist in the ICDC, the Iraqi Army, participate in the po-

lice activities, and to informally work as parts of the security apparatus in some of the holy site areas around Najaf, Karbala, and other places up in Baghdad.

So while we value the opportunity to bring a number of experienced Shia into the security apparatus of Iraq, we are not looking for Badr Corps units to stand up. I think it would be a destabilizing event because it would give the impression that ethnic militia are standing up and create the impression that they are standing up for other than strictly defensive measures, which would not be good for Iraq.

Senator LEVIN. General Abizaid, there is a plan now to transfer sovereignty to some entity on June 30 or July 1. In your judgment, from a military perspective, how important is it that the transfer of sovereignty have the support of the Iraqi people, that the entity to which sovereignty is being transferred have that support?

General ABIZAID. Sir, I believe it is absolutely essential if we are going to be successful in Iraq. The single most important thing that must emerge, I believe, is a legitimate, sovereign authority that is viewed by the majority of Iraqis as representing their interests and their hopes for a better future. Senator Levin, we have, despite our best efforts, been perceived as the occupation force of Iraq and the broader Middle East, and it is important that we move from this period of perceived occupation to one of partnership.

Partnership with a legitimate Iraqi authority with a strong executive core, I believe, will allow us to move forward in a positive direction.

Senator LEVIN. General, it is my understanding that our senior uniformed leaders were not involved in the planning for the stability operations phase, so-called Phase IV, of this effort. I think you were director of the Joint Staff during the planning of the operations. Do you know whether it is true that our uniformed military was not involved in the planning for these stability operations?

General ABIZAID. Sir, there are of course many levels of activity that took place concerning what we called then Phase IV operations. There was certainly planning that went on in CENTCOM that I know about, that I participated in when I was the deputy commander there and when I was the director of the Joint Staff, and the Joint Staff participated in some level of Phase IV planning activity. But the uniformed military was primarily focused on operations that would require the buildup of the force and the conduct of the combat operation, and most of the activity regarding Phase IV stability planning took place in the Office of the Secretary of Defense (OSD), although the Joint Staff was represented in that.

Senator LEVIN. Given the fact that violence was foreseen for the so-called stability operations phase, or Phase IV, is it your personal view that it would have been beneficial for professional military advice of senior uniformed leaders to have been sought and considered as part of the planning process?

General ABIZAID. Sir, it is my belief that our opinion was sought and was considered to a certain extent. But our focus was primarily on the mission at hand. I certainly believe that the stability operation that emerged in Iraq has not really surprised us, although you may find that surprising for me to say. Certainly there

are difficulties that were not fully anticipated, but we never thought it would be easy, and we conveyed that to our leaders.

Senator LEVIN. Is it your personal judgment that the professional uniformed leadership should have been involved in the planning of that phase to a greater extent than it was?

General ABIZAID. It is always difficult for a person to look back and say what should have been done. There are always things that we can do better. I am not so sure that I would say there should have been more uniformed work on it, but I do think that we as a Nation can do better in the manner in which we engage our entire interagency planning. The lesson that I would take from the planning of stability operations is that we have great power, and we know that these operations require military, economic, diplomatic activity for success, and the synchronization of that effort is something that we do well, but we should do better.

Senator LEVIN. Thank you.

My time is up. Thank you, Mr. Chairman.

Chairman WARNER. Senator McCain.

Senator MCCAIN. Thank you, Mr. Chairman.

I would like to thank both General Abizaid and General Jones for their service to our Nation. To me they are two American heroes and I am grateful for their service.

General Abizaid, I believe we now have the largest number of guardsmen and reservists on active duty since World War II. Roughly, it will be 38 percent. Are you concerned about the strain on the Guard and Reserve and the consequent lack of retention because of the extended deployments of guardsmen and reservists?

We accept that they are doing an outstanding and professional job. I am not talking about the job they are doing. I am talking about the retention of these outstanding men and women in the Guard and Reserves.

General ABIZAID. Senator, I think we should be concerned about the long-term effects on not only the Guard and Reserve, but also those that are active duty people, with regard to how long they are deployed, how long they are away from their family. In the Guard and Reserve it becomes even more of a concern because of employment concerns, although, interestingly enough, when I talk to them in the field, which I do frequently, I detect a great commitment and a tremendous amount of pride in what they are doing. I have not detected from them what I would call the warning signs that they are going to leave in large numbers.

I think we have to consider this thing very carefully. I am also very concerned about junior officers in particular for both Reserve and active.

Senator MCCAIN. Well, I do not want to debate it, but I am hearing something different from the families. Again, they are doing a superb job. There is no doubt about that. But it is hard to make an argument for someone to stay in the Guard if they are constantly deployed on active duty. Either become an active member or leave. I think we will pay a very heavy price.

I would like to address one more area with you. I am not sure that the members of this committee or the American people know exactly how things are going to work once authority is passed over

to the Iraqi government, whatever that might be at that time. So let us have a for-example scenario.

The IGC or the Iraqi government, whatever it is, is now in charge in Iraq. There is a violent demonstration in downtown Baghdad which the Iraqi police and Armed Forces, whatever they are, are unable to contain. Then who gives you orders, and who carries them out, and who decides who goes and who stays, and under what circumstances?

General ABIZAID. Sir, according to the language that I saw in the Transitional Administrative Law, it is clear that there is a desire by the Iraqi side, as well as the other people that have interests in the emergence of a stable Iraq, that the multi-national force commander, the coalition commander, will maintain operational control of coalition forces and Iraqi forces for a period to be determined.

Senator MCCAIN. Does that mean that the decision to deploy troops into an area of conflict is made by the military commander, not by the Iraqi government?

General ABIZAID. That is correct, Senator. It also means that, while Iraqi police will trace the chain of command to the Ministry of Interior and conduct their local law enforcement activities under the Ministry of the Interior, Iraqi military forces will have a what I will call a title 10 relationship with the Ministry of Defense in Iraq and yet an operational assignment to the coalition military commander.

Now, this requires that we build a chain of command that goes all the way from the lowest Iraqi private to the Ministry of Defense, and the Ministry of Defense does not exist yet. But I believe that we will also have joint coordination cells in localities throughout Iraq where police, coalition, and Iraqi military officers will be together to discuss deconfliction.

If it becomes necessary for police units to participate in a military operation, that will also come under the coalition commander.

Senator MCCAIN. I am more concerned about the decisionmaking process as to the deployment of U.S. military into a situation. That would be the sole judgment of the military commander, the U.S. military commander or the coalition commander. Does that mean that you would have to have some kind of fairly rapid decisionmaking process?

General ABIZAID. Sir, that means we will have to have very rapid decisionmaking.

Senator MCCAIN. Does that mean it would go to you?

General ABIZAID. Pardon me?

Senator MCCAIN. If there was an imminent situation, would the decision be made by you?

General ABIZAID. The commanders in the field have the authority to employ their forces in a wide variety of situations that require the use of military force.

Senator MCCAIN. For offensive military operations?

General ABIZAID. Offensive military operations will continue against terrorist entities, those forces that are targeting Iraqi and coalition forces, and that will continue at the lowest level.

Senator MCCAIN. This procedure has not been formalized yet?

General ABIZAID. Sir, it is not formalized other than to say that the multi-national force commander will retain operational control of all forces.

Senator MCCAIN. Thank you very much. Thank you, General. Thank you, General Jones.

Thank you, Mr. Chairman.

Chairman WARNER. Thank you, Senator McCain.

Senator Kennedy.

Senator KENNEDY. Welcome. Thank you very much for being here and for your service to the country.

General Abizaid, I would like to just focus in the time I have on the High Mobility Multipurpose Wheeled Vehicle (HMMWV) issue. I mentioned this just before the course of the hearing. I talked to you on the phone last year. You were good enough to say, put it down in a letter, which I did, and you responded to me at that time in October of last year.

At that time you said: "The fiscal year 2004 supplemental request will permit the Services to rapidly resolve many of the equipment you mentioned, to include the procurement of up-armored HMMWVs." That was on October 20.

Then Secretary Brownlee testified in November that the requirement would not be filled until the summer of 2005, a date we all agreed was unacceptable. Then 2 days ago Secretary Brownlee told us that we could meet it in July or August. Secretary Brownlee went out to Ohio himself and he has now committed to increase the production of up-armored HMMWVs from 220 a month to 450 a month over a period of 5 months starting in May, and at that rate the Army will meet its current requirements of 4149 by July of this year instead of May 2005—this is what he has told me—as he testified in November.

Because he is concerned the requirement will keep rising—and you are aware that over the period of time that the Department has testified the numbers or the increase has been continuing to rise—he has told the companies to continue the production rate of 450 a month indefinitely. He has paid for part of this increase with an internal Army reprogramming and asked OSD Comptroller for the additional funds.

He has also increased the production of steel and ballistic glass kits to protect the soft-skinned HMMWVs, and he hopes to have 6,000 of these units installed in Iraq by July or August. So he has set an internal deadline—we have heard it was going to be much later—in order to spur the Army to get it done faster. He said they are also cutting steel into blister protection for HMMWVs in Iraq.

Now, this is enormously impressive. Then Dov Zakheim testifies at the Defense Appropriations Committee that he is not on that schedule and he says that they will not have the funding to do this as rapidly because they do not have the funds to do it, so they will not be able to meet that requirement until October.

Will you review that and find out why in the world we do not have those funds to do it? We lost 10; a third of the young men from my State have been killed in these kinds of incidents with light-skinned HMMWVs. The parents, all of them, have talked to me about this. I have talked both with you and Secretary Brownlee about it.

We understand the technical kinds of problems about increasing the production, it appears, and I admire what the Secretary has done to try and get the rapid-fire production of this at as fast a production level, as necessary, and he seems to have done it. It would be inexcusable not to have the funding for that.

There is no way that you could have known about what the DOD's Comptroller has said about the funding. Can you give us at least the assurance you will do everything you can to make sure, if they can get the production, that the funds will be there as a result of reprogramming or just asking the appropriating committees to get the funding for it?

General ABIZAID. Senator, we certainly favor moving as quickly as we can to get up-armored HMMWVs to the requirement level that has been established by the Army, and we also favor the interim fix with regard to the kits moving in as quickly as possible. For us, of course, as a combatant commander in a combat zone, the money is not the issue. I understand it may be for, and it certainly is for, the Department. But I have had nothing but support from the Secretary to do this as fast as possible and also from our fellow combatant commanders, such as General Jim Jones sitting next to me right here today.

We have moved his up-armored HMMWVs out of his theater and given them to our troops. We have also taken up-armored HMMWVs out of the Air Force inventory and started to move them into CENTCOM.

So, Senator, we certainly want to move as quickly as we can to ensure that our troops are well protected.

Senator KENNEDY. Well, that is fine. Now, if you would answer my question: Will you get the money to make sure that there is not going to be a deficiency in terms of funding the HMMWVs if they can meet the production line? That is what my question is, General.

General ABIZAID. Well, sir, I hope that I will get the money, but I do not make the money. It comes from my Department.

Senator KENNEDY. Well, will you let us know if you cannot get the money, please?

General ABIZAID. I will.

Senator KENNEDY. Thank you.

No further questions.

Chairman WARNER. Senator Inhofe.

Senator INHOFE. Thank you, Mr. Chairman.

Let me just repeat what all the rest have said, that you two are the right people at the right time, and we are so eternally grateful for the work that you do. I want to thank you also, General Abizaid, for responding to my request in coming and making that excellent presentation at the National Prayer Breakfast. You were the right person to do that and I appreciate it very much.

Along the same line that Senator Kennedy was talking about, we do hear from families of deployed people, whether it is Guard and Reserve or regular forces, and I happened last week to be out in California and saw some new technology I think you may be familiar with. One is called Close-In Countermeasures (CICM), which is a way of intercepting a rocket-propelled grenade (RPG) after it is

deployed. Now, this is mounted on an armored vehicle. It can be on any, I suppose a tank or anything else.

The second one is the Active Protective System, which does the same thing, intercepting the same way as a missile defense system does missiles that are coming towards the—and actually I saw videos of how they work.

It seems like most of the casualties we have are a result of the incoming small missiles or RPGs. Are you familiar with those systems and what would be your recommendation in getting into that type of defense system?

General ABIZAID. Sir, I am familiar with both of the systems. I have yet to see the final testing reports that have come out of the Department of the Army that is looking very closely at them. We have an Improvised Explosive Device (IED) Task Force that is at the DOD level, within the Department of the Army. The Air Force has one also, and it comes together in CJTF–7 in Iraq.

We are looking at all these technologies and any promising technology we will ask to bring into the field.

Senator INHOFE. I think we are going to make a request that they look at these two specific technologies. I think it is very significant and very impressive, what they have done.

First of all, let me just say that the way the whole thing has been executed has been just beyond our expectations. I know there is a lot of criticism in going into Iraq and now we have the definite connection between Saddam Hussein and the tragedy here in this country, the fact that his intelligence officers met repeatedly with bin Laden before this came about, that his top explosives guy, Salem al-Ahmed, I think it is, actually met with them prior to September 11. This Shakir helped gain the passports for two of the pilots that went into the World Trade Center. He also was involved in the U.S.S. *Cole.*

Now, in addition to that, there has been a recent interception of a CDROM with 17 pages confirming this. So I think that our actions were the right actions and we are doing a great job over there.

I think I would specifically say to you, General Abizaid, during the time that we were talking about your taking this position, you are unique. You have the ethnic background, the culture, and the knowledge. You know more about the way people in the Middle East think than probably anyone who is in uniform today. So I compliment you for that.

Having said that, there are those who are suggesting that we abandon the war, bring the troops home, and negotiate with the terrorists. Drawing from your background in the Middle East, how do you respond to that suggestion?

General ABIZAID. Sir, I think that one of the most important things the United States of America must accomplish in the foreseeable future is bringing stability to Iraq and allowing a moderate government that is representative of the Iraqi people to emerge there. It is so important that the extremists not gain the upper hand in Iraq. Whatever the arguments may have been before, it is a battle in Iraq now between extremists and moderates, and the vast majority of the people want the moderates to be victorious.

They want to live a better life. They want to have a chance to have a say in their future.

If we allow the extremists to win in Iraq, I am afraid that we are in for a very tough time, not only there but throughout the world.

Senator INHOFE. I would assume that by abandoning it and bringing the troops home and trying to negotiate with terrorists it would allow the extremists to——

General ABIZAID. That is my opinion. We should not leave until the Iraqis are ready to take control, not only of their government, but of their security.

Senator INHOFE. Thank you very much.

General Jones, one of the things that you and I have talked about several times is this—and yet it does not seem to get much attention—is a better way to spend our money on our forward-deployed troops. We have some 40,000 families in Western Europe now. I took the time to go over—in fact, I will ask our chairman if I can be kind of the point person in bringing this about. I took the time to go to Romania, Ukraine, Bulgaria, and other places over there.

A problem we have that we are all sensitive to in Eastern Europe is that we are becoming more and more restricted every day. A lot of it is environmental encroachments on our training ranges. Then of course the expense of keeping families over there and having the housing and having everything that is necessary to support that type of thing.

The concept of changing these 2- or 3-year deployments with families to perhaps 2- or 3-month deployments, keeping the families stateside, and going over and—believe me, I do not have to tell you this, but I will share this with my fellow members of this committee. I have never seen groups wanting us more and saying, we will not have restrictions, you can train, you can use live fire any hour, 7 days a week. Consequently, with the great training resources they have in the countries that I saw personally, I think that is going to be something that we should move up at a more rapid rate.

I have talked to Secretary Doug Feith about this. He is kind of doing that end of it. Do you have any comments, General Jones, as to our progress, and as to the desirability of that program, the restructuring?

General JONES. Thank you, Senator. This is an important moment in time and it is important that we get this right. It is important that we explain to our friends and allies as we implement a realignment of forces that we are attempting to do more and not less. I think that the plan we have proposed will do that. It will make us strategically more effective, more agile. We will have access to training areas in the eastern part of Europe, where we are welcome, where there are wider open spaces, where urbanization has not come up to the front doors and the front gates of our bases, as they have in the western part of Europe. Obviously, you and I have talked for many months about the similar problems in the United States. This is a problem of urbanization and base locations.

So we have spent a lot of time in EUCOM going all over not only Eastern Europe, but also parts of Africa, where the welcome mat for a presence of some type with U.S. forces and engagement is out, and there are open spaces where we can actually train the joint force in the manner in which we need to have it trained so that it can do the things that we would expect it to do.

It has the ancillary benefit of strategically reaching out to new friends, new allies, becoming more interoperable in the alliance, and helping the security concerns of our friends and allies come to fruition in a very cohesive way. It is not all that important that every country has its own army, navy, and air force. To an alliance like NATO there are many specialized contributions that smaller nations can make.

The example of the Czech Republic, which decided and determined that they could contribute a chemical, biological, radiological, nuclear (CBRN) battalion and did so—state-of-the-art, at considerable expense, available for NATO, because they accept Article V of NATO, which means that they expect that they will be defended if they are attacked, and they will be. So they are willing to contribute special capabilities that are in short supply in the alliance.

So it is a very powerful movement. From the United States' standpoint it is an opportunity to expand our presence. You are aware of the impact of the Georgia Train and Equip Program, where if we stay with it for another 2 or 3 years we will have trained the entire army of Georgia in western values. They will have an NCO corps. Their young leaders will all be trained at our schools. This is for a very small investment.

We are looking in EUCOM for other countries where we could make that similar small investment with huge payoffs and bring more alliance capability and obviously provide more training areas for our forces.

The future basing concepts of the proposal have more to do with strategic effect than occupation in the traditional 20th century theory. The family of bases we propose are bases that are in the main already built; second, with small improvements can come up to a certain standard; and have a very flexible capability from a usability standpoint. In other words, we could use it for 6 months, then turn off the lights and go to another base if we need to. It could be to respond to crisis or to training.

The network effect both to the east and to the south in Africa and the potential of that effect is truly very impressive and we are looking forward to it.

Senator INHOFE. Thank you very much.

Thank you, Mr. Chairman.

Chairman WARNER. Thank you very much, Senator Inhofe.

Senator Reed.

Senator REED. Thank you very much, Mr. Chairman.

Thank you, gentlemen, for your service to the Nation, which begins and ends with the profound appreciation of the service and sacrifice of the young Americans you lead, and I thank you for that, too.

General Abizaid and General Jones, you depend in your areas of operation on Army forces significantly. General Schoomaker was

here a few weeks ago and said that at the current burn rate of spending on Iraq and Afghanistan he would be out of funds by October 1 unless there was a supplemental appropriation.

Secretary Brownlee this past Tuesday has miraculously extended that to the spring of 2005. Now, we have heard your discussion of Senator Kennedy's questions of shortfalls in HMMWV production and gaps between the money he has committed and the money he has from the Secretary of Defense. I would like your observations and perceptions about the situation of when we will run out of money in Iraq and Afghanistan at the current expenditure rate? General Abizaid?

General ABIZAID. General Jones, are you sure you do not want to take that one?

General JONES. Sir, those service chiefs cannot be relied upon.

Senator REED. Until they get promoted to be a combatant commander.

General JONES. Exactly right.

General ABIZAID. Senator Reed, I think all of us know that we have to have what we have to have in order to fight the war in Afghanistan and in Iraq. I know that the Army may be experiencing difficulty in trying to figure out where they are going to meet all their operations and maintenance (O&M) requirements, but I also understand that that may not be the case for the Navy, it might not be the case for DOD agencies, et cetera. So I do not know the answer to the question whether or not there is a problem Defense-wide.

But I do know that we have the complete commitment of the Secretary of Defense to spend what we need to spend to fight the war.

Senator REED. Well, there are no funds, as I understand it, in the President's budget for operations in Iraq and Afghanistan. You have the Chief of Staff of the Army, the Commandant of the Marine Corps, and the Chief of Staff of the Air Force saying they are going to run out of funds by October 1. They have not communicated those concerns to you or you have not been able to communicate with them your concerns?

General ABIZAID. I am not concerned about running out of money to fight the war, Senator.

Senator REED. Does that mean that you think there will be a supplemental appropriation?

General ABIZAID. I do not know whether there will be one or not. That is a departmental issue for the Secretary.

Senator REED. General Abizaid, you indicated the strategy has changed somewhat. The targets now are civilians and perhaps the ultimate goal is to foment a civil uprising that will make our position untenable there. A key to our response there is the Iraqi security forces. I understand that General Eikenberry has conducted a survey of those security forces. Is that survey complete?

General ABIZAID. Yes, sir, that survey is complete.

Senator REED. Can we get a copy of that survey?

General ABIZAID. I believe so, sir. There should be no reason not to provide you with a copy. I will have to discuss that with the Secretary and I will do so tomorrow.

Senator REED. Can you share with us the conclusions? Is there adequate funding, adequate training? When will they be capable of stepping up to a role and relieving us of some of our roles?

General ABIZAID. I think that the Eikenberry Report is an important report about the adequacy of Iraqi security forces, the composition, et cetera. But I think it is also important to note that I do not agree with all the conclusions that were contained in there. What is key to us is that we continue to build Iraqi national military capacity for the New Iraqi Army (NIA), continue to build the militia units that are working for the Iraqi military, that are called ICDC units.

We are in the process now of fielding 36 of those battalions. Clearly, there has been a requirement to speed the equipment that is being issued to the police, to obtain the contracts necessary to get the right things to the right police stations that are most under threat, and also to increase the quality and the capacity of training in third party states such as Jordan that will help increase the capacity of Iraqi police.

Until recently, most of that police training was coordinated primarily through the capabilities of the CPA, but now we are shifting some of that responsibility, and I think rightfully so, to General Sanchez in Iraq.

The most important thing to me, Senator, is that we build a quality Iraqi force that is capable of withstanding the pressures that the insurgents and the terrorists will place upon it and that will be loyal to the Iraqi transitional government and eventually the Iraqi independent government. I think that this quality requires us to curb our appetite about numbers to a certain extent and it also requires us to build Iraqi chains of command all the way from the lowest private to the Ministry of Defense, and that needs to be work that has to be accomplished, I think, by the 1st of July.

That will require not only building these chains of command, but officering it with people that will be loyal to the government. I believe that the points that I mentioned are generally consistent with the Eikenberry Report, with the exception of his belief that we should decrease the speed at which the NIA is fielded in order to speed the ICDC units' development, and I do not agree with that nor does General Sanchez, and we have conveyed that to the Department.

Senator REED. My time has expired. But you are looking at a July 1 completion date of a daunting task, not just technical training, but changing in fact the orientation, the attitudes, the cultural perspective in some cases, of these individuals. That seems to me an extraordinarily daunting challenge within the next several months.

General ABIZAID. Well, Senator, I do not believe that we will have completed the task by July 1, and I did not mean to give you that impression. We will be in the midst of this task for some time. I think really the most important thing that we will do with the Iraqi Armed Forces and the Iraqi security establishment is inculcating in them the idea of civil control of the military and respect for their own population. This is a cultural change that has to take

place if a moderate state is to emerge and it will certainly not be accomplished by July 1.

Senator REED. Thank you very much.

Chairman WARNER. Thank you very much, Senator.

Senator Collins.

Senator COLLINS. Thank you very much, Mr. Chairman.

General Abizaid, General Jones, let me begin by joining my colleagues in applauding your outstanding service. Both of you are truly extraordinary leaders and we are very grateful for your services. So I thank you for that.

General Abizaid, a key part of our strategy in Iraq is to place more responsibility for security on the Iraqi police force and the NIA. You have mentioned this morning that insurgents are increasingly targeting Iraqi security forces for attacks. A recent New York Times piece cited a recent attack on an Iraqi police station, I think it was in Fallujah, as revealing two very serious problems.

One is that the Iraqi forces had insufficient weapons, communications equipment, and ammunition. Second, some of the attackers who were captured turned out to be members of the ICDC.

First, do you agree that there is a problem with the training and the adequacy of equipment for the new Iraqi security forces? Second, are you seeing a significant effort by insurgents to join the police and the army and how are we trying to screen out those individuals?

General ABIZAID. Senator, with regard to the first question about how have we done with regard to training and equipment and is it adequate at the present time, in some areas it certainly is not. Having personally been to the location that you are talking about in Fallujah, I would say that those forces there are not adequately trained or equipped, we have to get the equipment to them, and we have to speed it to them and we have to enhance their training. We will do this by doing more mentoring with U.S. forces and working directly with Iraqi units, especially ICDC units.

I would also ask you to remember that in May we started out at zero and it is not even a year since May and we are up to 200,000. Inevitably, to go from nothing to this level there will be various degrees of success in some geographical areas versus others. Of course, in those areas where there has been the most resistance, such as Fallujah, Ar Ramadi, Baqubah, Samarra, and others, it has been necessary on occasion to start again from zero.

So for example, we fielded a police force in Fallujah once. We had to bring it back down nearly to zero again in order to get it right, and getting it right is as much about equipment as it is about attitude and the willingness to serve and a willingness to do your duty.

With regard to your second question, there is no doubt that terrorists and insurgents will attempt to infiltrate the security forces, and we know it is happening and we know it has happened. We attempt to do our best with regard to vetting people. We certainly rely very much on Iraqis that will tell us how to regard certain people, a certain person who is applying for service, and we have more stringent vetting authority as you go up the chain of command for officers, for example.

That having been said, particularly in the areas where the extremists are heavily embedded, it is difficult to sort through tribal loyalties, familial loyalties, ethnic loyalties, loyalties to the former regime, et cetera. I also believe, however, that in every instance the number of people that are coming forward to serve in the new Iraqi security services and the number of people that are currently serving there are overwhelmingly supportive, positive, and determined to make the new Iraq succeed.

So I think we will have to continue to be vigilant, just like in the building of any new enterprise, and ultimately over time the Iraqi security forces will assume more and more responsibility. I think there is a misreading in the press that somehow or other we are leaving them out there to their own devices, which is certainly not our intent. The fact that we have doubled our number of SOF in the country to operate directly with Iraqi battalions, for example, is evidence of our desire to help them help themselves.

But ultimately, Senator, the key to success is Iraqis being in charge of their own security as well as their own government.

Senator COLLINS. I agree.

My second question has to do with the stockpiles of weapons and ammunition that our troops are repeatedly finding. Indeed, they have been very effective in uncovering these caches of weapons and ammunition. Could you tell us if you believe that most of these weapons stockpiles appear to be left over from the Iraqi regime, or is there evidence that these are new caches of weapons and ammunition brought in by foreign terrorists?

General ABIZAID. Senator, that is a great question. It is my clear opinion that the majority of the weapons, ammunition, and other military paraphernalia that are found in Iraq are left over from the previous regime. No doubt that there is a small amount of weapons and explosives that may be coming across the border, but we actually find that most of the foreign fighters infiltrate on either falsified documents or good documents that get them past routine security checkpoints, and then they go to safe houses within Iraq and become armed. That is primarily from the arms and ammunition that are left over from the old regime.

I am amazed every day by how much we find. I cannot tell you where the bottom of the barrel is. We are making some strides in it, I know that because the price of certain weapons on the street has gone up.

Senator COLLINS. Thank you.

Chairman WARNER. Thank you very much, Senator.

Senator Akaka.

Senator AKAKA. Thank you very much, Mr. Chairman.

General Jones, I want to express to you and General Abizaid how proud I am and we are of our troops and what you are doing in Iraq and in Europe. My question is a follow-up on a question that was mentioned by Senator Inhofe on basing in Europe. I understand that part of the plan is to make additional use of ranges in East European countries. Since I have been to Poland and visited one of them, I am curious about ranges in other countries.

Has either your staff or the OSD done any analysis of any upgrades in land or instrumentation that would be needed to create

a more robust training environment for new ranges in Eastern Europe?

General JONES. Senator, we have extensively. We have, prior to putting our proposals together as to where our forces might be able to go train and interoperate, made a survey of all available ranges. East European nations, to include Poland, were very forthcoming, particularly the seven new NATO members. So we have a very good site picture of what is available and what we might wish to do to enhance some of those ranges.

But generally they bring the scarcest quality in Western Europe and that is simply space—air space, ground space, in some cases sea space. It is not limited to Eastern Europe. We have also done extensive inventories in North Africa. For example, Morocco has made extraordinarily generous offers of access to their bases. Senator Inhofe would be very pleased during the debate that we had on Vieques if we would be able to, as we have now, look at the ranges in Morocco where they are more than happy to have us come and train in the totality of a naval expeditionary force in whatever way we wish to, within certain limitations of course, but certainly satisfactory.

It is a very exciting opportunity. So the good news is a lot of those bases already exist and the level of infrastructure that we would have to add could be borne by NATO nations, could be borne bilaterally. It does not have to all be borne by the United States.

Senator AKAKA. Thank you.

General Abizaid, we have had multiple Army witnesses testify in the last month and they expressed their concern about the rate at which we are expending our funds for operations in your theater. That was touched on by Senator Reed. But I want to be a little more specific on that. Again, I repeat that they expect to have significant difficulties making it to the end of the fiscal year.

One of the main drivers for high costs—and this is where I want to be specific—is logistics support contracts. The Army reports that it has recently issued guidance directing its units not to spend additional money on these contracts, but that combatant command decisions can override such guidance.

My question is, what is your understanding of the costs associated with the logistics support contracts, and what efforts are you making to try to keep these costs down?

General ABIZAID. Well, Senator, the logistics contracts that the Army enters into are their contracts. They also enter into them as the executive agent to the Coalition Provisional Authority (CPA). I have no doubt that logistics costs are high. They are high because you have to pay a lot for insurance for people to conduct—for civilians to conduct operations in an area that is obviously dangerous, and they are high because of the lines of communication and the amount of equipment that has to be moved.

While I appreciate the difficulties that the Army has in meeting their obligations, it is also paramount to me that our operational requirements be met, and the operational requirements are constantly changing as we reposition the force to deal with the emerging enemy threat. When we do this, it is done for reasons that are expensive to the Army as a Title 10 authority, but are essential to

the commander, General Sanchez, in order to get his forces in the right place and at the right time.

There is no doubt that the movement of some of our bases from key urban areas to more important military locations costs a lot of money. Yet we consider that to be operationally essential. I can assure you, Senator, that both General Sanchez and I are mindful of the costs associated with the Logistics Civil Augmentation Program (LOGCAP). We agree with the Army's requirement on its subordinate units to cause those costs to be as reasonable as possible.

But on the other hand, we also make it very clear to the Army that we have to fight this war the way the commanders on the ground need it to be fought.

Senator AKAKA. So there is no misunderstanding, we want our forces to have all they need and at whatever costs. But whatever way we can help in trying to spend wisely is what we are looking at. We hope that we can continue to do this.

General ABIZAID. I agree with that, Senator.

Senator AKAKA. General Jones and General Abizaid, the Navy is implementing a new operating concept called the First Response Plan (FRP). The Navy claims that they will be able to provide more readiness for less money under this plan, which also involves providing less habitual presence overseas but more surge capability to meet the combatant commanders' needs.

What are your views of the Navy's plan and the changes in how the Navy plans to provide presence in your theaters? General Jones?

General JONES. Thank you, Senator. I have a certain amount of passion for maritime questions and the value of naval presence, so I have been involved with many discussions from a unified commander's perspective with the Commandant of the Marine Corps and the Chief of Naval Operations (CNO) on this issue.

I think that the value of forward presence is beyond question and it is very important to the future of our Nation, not only to fight and win wars, but hopefully to also prevent wars and to do those things in the interregnum to prevent conflicts and to do so by very focused and active engagement.

In the 93 countries that I am responsible for, I see an increasing demand for forces, naval forces in particular, along the west coast of Africa in the future. In the past we have generally limited ourselves to naval expeditionary forces coming through Gibraltar, spending time in the Mediterranean, and in the case of helping CENTCOM flowing those forces from Europe, either maritime forces or land-based forces, to the CENTCOM region for operations.

When those demands lighten up, and I am confident that they will in due time, we will go back to the business of how we want to shape and how we want to engage. I think it would be a mistake to relegate naval forces to a crisis response type force only, in other words, that you only use them when you have a crisis. I do not think that is the CNO's intent, but I think we can make a more intellectual and far-reaching judgment as to how those forces should be deployed to do those things that do not have necessarily much to do with a crisis but to do with influencing the areas of operations to preclude crises. You do that through focused engagement.

I think that maritime forces will be useful in the Mediterranean, but also useful in a newer context along the west coast of Africa as this continent struggles to find its place among the developing areas of the world that we should be concerned about.

I think it is interesting to note that in the NATO Response Force that is developing, there is a strong maritime component that will also have the ability to sail proactively to those areas that we wish to engage in, to help other nations defend themselves, to develop their security plans, and to reap the benefits that a nation of great influence can bring to stabilize entire regions before they become a crisis.

So with that caveat, I would say I support the concept. It will be a better utilization of forces, but I would emphasize that it is for crisis response, but it also is for very focused work to prevent crisis.

General ABIZAID. Senator, I also support the concept. The presence of naval forces in the CENTCOM area of operations gives us added air power. It gives us great flexibility for intercepting terrorist maritime activities. Our maritime interdiction operations have been successful in a number of cases as a result of the maritime presence in the region and certainly the ability to move shipboard forces represented by the Marine Corps into Iraq and out of Iraq and into Afghanistan and out of Afghanistan has given me a flexibility as a theater commander that is absolutely important to me.

I do not think, however, it is necessary for us to always have a 100 percent carrier battle group in the region or an Amphibious Ready Group (ARG) or MEU in the region. We can work these things, especially when the adjoining combatant commander, such as General Abizaid, is more than willing to help us out if the situation starts to deteriorate in the theater, and I am willing to do the same thing for him.

So we know that the assets are not available to do everything that everybody wants to do, and I think what the Navy has come up with is a plan that we can certainly live with.

Senator AKAKA. Thank you very much for your responses.

Thank you, Mr. Chairman.

Chairman WARNER. Thank you very much, Senator Akaka.

Senator Roberts.

Senator ROBERTS. Thank you, Mr. Chairman.

Let me join my colleagues in praising you both for your perseverance, your performance, and your resolve. I think we all say that. I note we also ask you questions that you cannot answer. Namely, I do not think any combatant commander can respond or control, for that matter, any decision by the DOD Comptroller, decisions on funding. But we sure as hell can.

In that regard, General Abizaid, I appreciate your assurance that you will continue to provide us a straight-shooting candor type of advice and counsel. That also goes for General Jones, who has done that in the past. As a matter of fact, if I could think of two individuals that I would like to have by my side or on either side if it was high noon in Dodge City and we were on Front Street, you would be the two I would pick. As a matter of fact, I would just go back to the Long Branch and let you take care of the black hats and that would be that.

Let me say that we had a subcommittee hearing yesterday in the Emerging Threats Subcommittee. Senator Reed is the ranking member, I am the chairman. The issue of HMMWV protection did come up, as it should, and I think my numbers are correct in regards to the HMMWV kits, which were on display, in terms of 1300 being in theater, 3,000 on the way, and the need would be 11,000 in addition to the improved vehicles. So we are making some progress.

I was also interested in a different vehicle that was talked about there in our science and technology (S&T) hearing, and also trying to get 3 percent of the DOD budget still committed to S&T so that we can have the technology to do the kinds of things that you want to do and to maintain our superiority. I think that vehicle is called the Water Buffalo. I am not sure, but at any rate there will be another vehicle on the way down the road if the tests prove adequate.

I was also interested to know or to find out, General Abizaid, that basically any time there is an attack by an explosive device it goes to that center you described in regard to Baghdad, but then also goes to Quantico, which I did not know, and then from Quantico back to the S&T community with Dr. Sega, who is our defense research head within the DOD, and the military commanders who testified before us at the Emerging Threats and Capabilities Subcommittee.

I do not know if we need to institutionalize this a little bit in regards to legislative action or not. But at least in terms of what is happening in Iraq and how things change and how we need better force protection and to assist our troops and the warfighter, I think we are making some progress, and I wanted to make sure that everybody was aware of that chain of information and the rapid reaction time that we now can get what we need, either off-the-shelf or what the Defense Advanced Research Projects Agency (DARPA) has in line.

I am making a speech as opposed to asking questions, but I think it is important. As chairman of the Intelligence Committee, we are taking a look at the prewar intelligence on postwar Iraq. You have spoken in great detail, General Abizaid, about the ever-changing climate and the challenges that you face. We have the largest station in the world in regards to the Central Intelligence Agency (CIA) in Baghdad. We have had some startup problems. There was an article in the press today that sort of summarized all of that in regards to turnover and stress and strain and some other problems that we will go into in the Intelligence Committee.

Can you comment in regards to not only the value, but your judgment as to the efficacy of the intelligence that you are receiving now? More especially with these attacks on religious sites and how you have described the situation with the Shias and the people who are trying to either produce a civil war or even greater instability.

General ABIZAID. Thank you, Senator Roberts. The single most important thing to General Sanchez in Iraq is having good intelligence. With good intelligence you can get precise targeting. With precise targeting you can start to unravel the enemy cells.

As you recall, back in the September-October period when it was clear that the insurgency was spreading, it became obvious to us

that we really need to fuse the intelligence system and improve it and ensure that the wonderful intelligence that was being developed at the tactical level made it all the way up to the operational level, so that we could make the battle one of the entire force versus just platoons and squads that were out there operating in their own individual areas. I think, largely with the help of our various intelligence agencies, with wonderful work by my J–2, John Custer, and General Sanchez's J–2, Barbara Fast, we managed to get an intelligence system working that has given us great insight against the insurgents and has allowed us to unravel their organizations in a way that, I think, will be viewed as a model when people have a chance to look at it.

Now, this does not mean that the enemy does not adjust their tactics, because they do. They are adjusting their tactics. They are adjusting the way that they conduct their own operational security. You can see by the letter from Zarqawi, for example, how concerned he was about how many eyes were out there and how dangerous the operation was. But this war is a war of intelligence and perception, and it is just so important that the intelligence part of the battle be adequately organized and that we think out of the box about who is doing what and not worry about turf.

I am happy to report to you that I think that the relationship that has developed in Baghdad with the CIA and CENTCOM has been one that has allowed us to get at this problem in an important way.

However, I would like to say one thing if I may, Senator, because I know it is so important to you. We do not have enough intelligence professionals in our Nation. We must increase our human intelligence (HUMINT) capacity. We must increase our ability to have translators and interrogators in the field. To me, as we fight this global war on terrorism, if we do not do that, we are putting the Nation at risk.

Senator ROBERTS. I can assure you the Intelligence Committees on both sides, both the House and Senate, are aware of that and we are trying to address that on an emergency basis.

I have just one real quick question. My time has expired, but that does not seem to bother anybody here. General Jones, why could we not have or what would be the value of an integrated intelligence center? I do not think I am describing that right, but those are the words that I am using. You are going from 19 to 26 countries. You have those kinds of things in operation now. We really have to rely on better intelligence. When we expanded NATO before, we were worried about vetting certain people. If we are actually going to be a viable force like we are in Afghanistan and perhaps in Africa, et cetera, we have to have better intelligence.

Is there any value in having some kind of an integrated intelligence center? Would that be a help?

General JONES. Senator, I think it would be an enormous help. One of the critical shortfalls in NATO's capability is fused intelligence. Intelligence is still very much a national responsibility and we have not really broken through to the extent that we should the sense of sharing of intelligence in depth.

What we are working on in Europe is looking to see if we can come up with a plan to collocate in the U.S. Joint Analysis Center

in Molesworth, England, and perhaps also develop a NATO intelligence center right next to it. That would begin to bridge this gap and compensate for the shortfall. I think it needs to be done.

Senator ROBERTS. Mr. Chairman, my apologies to Senator Nelson, whose time I have taken, maybe 2 or 3 minutes. So I owe you. I do not know how I am going to pay you, but I owe you.

Chairman WARNER. Before we move on, I think that, Senator Roberts, you ought to take note of the comment made by General Jones about the Joint Analysis Center. I think it is a very good idea.

Senator ROBERTS. Mr. Chairman, we have talked about it. As a matter of fact, we talked about it in London when you were there, sir, about the possibility of that.

Chairman WARNER. I remember that.

Senator ROBERTS. I think it is an excellent idea. So we are not just going to take it under consideration; we are going to see if we can move that.

General JONES. Thank you, sir.

Chairman WARNER. That is something the North Atlantic Council (NAC) has addressed?

General JONES. Sir, it is in the embryonic stages. In my U.S. hat, I have asked EUCOM to develop a plan whereby—that would show how this could be achieved, and then we will propose it to the nations and see if they accept.

Chairman WARNER. Well, I would hope they do, because I think we could get some very strong support and a little money for that back here.

General JONES. Thank you, sir.

Chairman WARNER. Thank you.

Senator Nelson.

Senator BEN NELSON. Thank you very much, Mr. Chairman.

Let me add my appreciation to both of you and to the men and women in service who are protecting us in so many places around the world. Thank you all.

General Abizaid, as you indicated, in terms of building up an emerging Iraqi security capacity, numbers are not necessarily what we ought to focus on that ought to be adequate to deal with the challenge. Last September you said, "While Iraqi police capacity still remains below requirements, joint coalition and Iraqi police operations are bringing to justice criminal gangs that have been preying on the Iraqi people."

Having said all of that, is there a time frame that we might look toward when we can say that it is not below the requirements, that we are actually meeting the requirements? Because it is an integral part of turning over the control to the Iraqi government, once it is duly elected and appropriately installed.

General ABIZAID. Senator, by September we will have met the numerical requirements by and large, and we are, of course, always evaluating the size of the NIA, the size of the ICDC, police, et cetera. We certainly know, for example, that our original target numbers for the Iraqi Border Service were not adequate, and we will have to increase that number.

But, by September, the numbers will largely be met. What is difficult for me to tell you is when they will be good enough to assume

partial responsibility, full responsibility, et cetera. Already, in parts of the country, such as up in the north and down in the south in the Basra area, the police services and the ICDC units are performing very well and they bear most of the responsibility, and also, to a certain extent in key parts of Baghdad. ICDC units and police corps units in many parts of the country lead operations against terrorists and insurgent cells, and they do so very well.

But the key part that is missing now, Senator, is this Iraqi chain of command that must be built. It is not good enough for Iraqi units to work with us and not report to a hierarchy that is Iraqi. Ultimately this force must be all Iraqi, and it must be under their command and control and their complete ability to use it in a way that will not only solve the internal problems that they face, but also the external problems.

Senator BEN NELSON. Will that be corrected, at least in part, in July by turning over the authority, or will that just simply be one step in the necessary progression to get that kind of command and control?

General ABIZAID. I believe by July 1 the command and control will be established. But it will be about 6 to 8 months after that before I would regard it as being effective.

Senator BEN NELSON. The difference between saying somebody is in control and actually being in control, is that accurate?

General ABIZAID. I would say that is accurate, sir.

Senator BEN NELSON. Thank you.

General Jones, in connection with NATO turning over the mission in Bosnia to the EU, obviously the transition offers great opportunities for NATO and the EU. NATO will have a partner to hand peacekeeping responsibilities to, and the EU will begin to develop its own security identity.

Wearing your NATO hat, do you see the emergence of the EU's military capabilities as a matter of competition to ongoing NATO operations?

General JONES. Senator, I see it as complementary. Most of the member nations of the soon to be expanded EU are also NATO countries. We are showing, I think, through our daily interaction, through the leadership of distinguished officers like Admiral Feist, here present, who is the single EU operational officer embedded in the allied command at SHAPE, that the worst scenario in my opinion would be to try to create a separate standing force structure, a separate headquarters, that would all draw on the same pool of assets that are already somewhat limited.

Senator BEN NELSON. Well, that could have the effect of draining——

General JONES. It would have a draining effect.

Senator BEN NELSON. Which is one of my concerns.

General JONES. It would have a draining effect on the alliance, in my opinion, and it would reduce our capabilities overall, because the percentage of the budgets that are being devoted to national security across the alliance are generally not increasing. As a matter of fact, we are finding it very hard to make sure that they hold, at least at their current level. It would have, I think, a negative effect on the overall capability and significantly impact—again,

putting my NATO hat back on—the general momentum that we have in NATO to achieve a NATO transformation.

Senator BEN NELSON. Well, without intending to be indelicate as I say this, I must admit that I do have a concern with siphoning away or diminishing overall the capacity of NATO because of the limited resources both in Europe and here at home and among the NATO nations.

General Abizaid, the Personnel Subcommittee—I am taking the 3 minutes that Senator Roberts stole from me—has had a series of personnel discussions and hearings on sexual assault as it relates to military operations, setting aside the other issues that have been raised with respect to our military schools.

What are your thoughts on what impacts the actual situation has created with respect to troop morale? Is there an impact on troop morale that you have been able to detect? It cannot be helpful, I understand.

General ABIZAID. Sir, any time that there is a sexual assault within a unit it affects the effectiveness and morale of the unit. There is no doubt about it. Our key concern is to make sure that we have the mechanisms in place in a combat theater, which I do not currently think are adequate, to ensure that when sexual assaults are reported, we can look into them quickly. Also that a reporting mechanism for women, who may not feel comfortable going through the chain of command exists outside the chain of command.

We have them well established here in the U.S., and we need to have them well established in the combat zone as well. I believe that any organization where ill discipline occurs always starts to have difficulties. One of the key things we are looking at is what type of units have these incidents happened in? Are there classes of events that have taken place?

Certainly, Senator, when these things come to our attention, the chain of command moves them into the Uniform Code of Military Justice (UCMJ) system as quickly as they can. But there is room for improvement, and it is important that we focus on the enemy and not at one another.

Chairman WARNER. Thank you, Senator, very much.

Senator BEN NELSON. Thank you very much, Mr. Chairman.

Thank you, General.

Chairman WARNER. Senator Chambliss.

Senator CHAMBLISS. Thank you, Mr. Chairman.

Gentlemen, let me commend you for your service to our country, and when you get back to your respective commands, I hope you will convey to the men and women serving under you the appreciation of this body for their service and their professionalism.

General Abizaid, we are having a debate that is going to be ongoing for some time relative to prewar Iraqi intelligence. But I want to focus for a minute on what is going on right now, because obviously that is the heart and soul of the operation that you are carrying out and obviously things have gotten somewhat better. I know you are limited in what you can say in this forum, but first of all I would like to compliment you for the intelligence activities surrounding the capture of Saddam. It was truly amazing to me that you could get that intelligence, you could interpret it, you could

analyze it, you could get boots on the ground as quickly as you did and carry out that mission. That was one of those situations where a best laid plan came together perfectly.

But with respect to what is going on now, are you comfortable with where you are from an intelligence-gathering standpoint? Are you utilizing more local Iraqis on a daily basis than you have in the past? How reliable is the information that you are getting?

General ABIZAID. Senator, I certainly agree with you that the key to success in Afghanistan and Iraq happens to be effective use of intelligence. It all comes down to whether you can link the intelligence and the operations in a way that allows you to take out a target precisely.

No, I am not satisfied. I will not be satisfied until the people that we have identified as enemies of this Nation are dealt with, and that will take some time. That requires a lot of hard intelligence work. But it is not just United States intelligence work. As you have described, it has to be intelligence-sharing with all other nations in the region to the extent possible. It has to include, in Iraq and Afghanistan in particular, the establishment of indigenous intelligence capabilities, because ultimately in Iraq it will be Iraqis that defeat the terrorists and the insurgency threat, and they will do that by good intelligence, by good police work, and by good operational activities.

We are starting to see some development of that now. But I remain optimistic that we will develop a capability that is both effective and controllable by the emerging government. One of the things that we have to keep in mind about Iraq in particular is that the Iraqi Intelligence Service was much more pervasive, much more in control, and much more of a terrorist organization than any of us had ever quite understood. So, whatever happens, we cannot allow the old mentality of the Iraqi Intelligence Service to emerge in the new police intelligence or national intelligence services that develop there.

Without going into details, I would tell you, Senator, that we have good intelligence that is provided by a lot of people in Iraq who believe in the future of their country, and they come forward to us and they tell us what is going on. They do not tell us out of a sense of reward. They tell us out of a sense of knowing that if we do not take care of these terrorist problems, there will be no future for Iraq.

So the number of people coming in and giving us information is great. Our ability to shift our focus and sift through it properly, of course, is always something that requires a lot of work. That is why I come back to this absolute need for intelligence professionals to stay with the team, to serve in these theaters, and to help us organize the effort against the extremists.

Senator CHAMBLISS. Well, that is encouraging.

General Jones, some of the countries that are under your jurisdiction or your command have pushed back somewhat with respect to sharing of information. But over the last several weeks and months, we have seen the terrorists attack some of these folks who now understand that this has to be a worldwide effort.

Are you seeing any softening in any of these countries relative to the sharing of intelligence information with your command?

General JONES. Senator, the events of 2003, particularly the attacks in Istanbul, had a very sobering effect throughout Europe, and I think that there is an increased sense of urgency that this global war on terrorism is really serious business. But Europeans have not been idle in their treatment of the problem. Over the past few years there have been over 9,000 arrests of people in Europe connected with suspicions of being associated with terrorist organizations. So you might not hear about it in the headlines, but they have been very effective in their own way in their own countries at understanding what is going on, tracking the movement of not only illegal immigrants, but drug trafficking and the like, the things that finance terrorist organizations.

So I think that there is a sense of urgency, and I think that we are moving closer together with regard to tearing down some of the historical barriers to good comprehensive sharing of intelligence.

Senator CHAMBLISS. Thank you.

Chairman WARNER. Thank you very much, Senator.

Senator Clinton.

Senator CLINTON. Thank you, Mr. Chairman.

I too want to thank both of you for your service and for your patience in being here today and answering all these questions.

I am struck, General Abizaid, by the last pages of your testimony where you list the needs that you continue to have both with respect to personnel requirements as well as logistics support and even some legislative authority changes. I appreciate the specificity that you have presented here and we will certainly follow up on that.

I particularly support the Commanders Emergency Response Program (CERP), which I saw firsthand and its effects when Jack Reed and I were there. Again, thank you for meeting with us during our time in Iraq and Afghanistan. I think getting the flexibility for those funding decisions down to local commanders made a huge difference and I am glad we were able to fix some of the glitches and get the money flowing again, and I appreciate your raising that.

I wanted to ask for your comment on a recent news report that I found very interesting and somewhat troubling. It concerned a report by NBC News a couple of days ago that "The Bush administration had several chances to wipe out Zarqawi's terrorist operation and perhaps kill Zarqawi himself, but never pulled the trigger."

The story goes on to report, with both on-camera sources and off-camera anonymous sources, that, "In June 2002, U.S. officials say, intelligence officials had revealed that Zarqawi and members of al Qaeda had set up a weapons lab at Khoram in northern Iraq producing deadly ricin and cyanide. The Pentagon quickly drafted plans to attack the camp with cruise missiles and air strikes and sent it to the White House, where, according to U.S. Government sources, the plan was debated to death in the National Security Council (NSC)."

The report also went on to say that, "4 months later, intelligence showed Zarqawi was planning to use ricin in terrorist attacks in Europe. The Pentagon drew up a second strike plan and the White House again killed it."

General Abizaid, do you have any knowledge of this report or do you have any information about any opportunities we might have had to take Zarqawi out?

General ABIZAID. Thank you, Senator. Also, before I answer I just want to say thanks for your support on the CERP. You are absolutely correct that ammunition is money and money is ammunition. It really has an important impact on the troops in the field.

With regard to Zarqawi, I read the report. I think we all know from open sources that we were always looking at this Fort Campbell in Khoram up in northern Iraq, which we did attack during the war. But the association with a particular terrorist at a particular point with the quality of targetable information I would dispute.

I do not think—and of course I did not have full access to all the information at the time. But I would be very surprised to find out that we had a precise location on Zarqawi or Osama bin Laden or Zawahiri or half a dozen of these other people that would allow us to launch a cruise missile from afar, and I suspect that that portion of the report is not correct.

Senator CLINTON. Mr. Chairman, I would ask consent to submit to the record the transcript of the report. I do think it bears further investigation.

Chairman WARNER. Without objection.

[The information referred to follows:]

Copyright 2004 National Broadcasting Co. Inc.
NBC News Transcripts

SHOW: NBC Nightly News (6:30 PM ET) - NBC

March 2, 2004 Tuesday

LENGTH: 475 words

HEADLINE: Bush administration passes up several opportunities to kill terrorist Abu Musab al-Zarqawi

ANCHORS: TOM BROKAW

REPORTERS: JIM MIKLASZEWSKI

BODY:
TOM BROKAW, anchor:

The spiritual leader of Iraq's Shiites, Ayatollah Ali al-Sistani, was among those blaming the United States for the attacks, saying American forces have not done enough to secure the borders. But the real suspect in the attacks is a well-known terrorist: Abu Musab al-Zarqawi. He is widely believed to have ties to al-Qaeda, and the Bush administration apparently passed up several opportunities to take him out well before the Iraq war began. More on that tonight from NBC's Jim Miklaszewski at the Pentagon.

JIM MIKLASZEWSKI reporting:

With today's attacks, al-Zarqawi, a Jordanian militant with ties to al-Qaeda, is blamed for more than 700 terrorist killings in Iraq. But NBC News has learned that long before the war, the Bush administration had several chances to wipe out his terrorist group, Ansar al-Islam, **perhaps kill Zarqawi himself,** but never pulled the trigger.

June 2002, US government officials say intelligence revealed that Zarqawi and members of al-Qaeda had set up a weapons lab at Kirma in northern Iraq, producing deadly ricin and cyanide. The Pentagon quickly drafted plans to attack the camp and sent them to the White House, where, say government sources, the plans were debated to death.

Mr. MICHAEL O'HANLON (Military Analyst): Here we had targets, we had opportunities, we had a country willing to support casualties or--or risk casualties after 9/11, and we still didn't do it.

MIKLASZEWSKI: Four months later, intelligence showed Zarqawi was planning to use ricin in terrorist attacks in Europe. The Pentagon drew up a second strike plan, and the White House again killed it. By then, the administration had set its course for war with Iraq.

Mr. ROGER CRESSEY (Terrorism Expert): People were more obsessed with developing the coalition to overthrow Saddam than to execute the president's policy on pre-emption against terrorists.

MIKLASZEWSKI: January 2003, the threat turned real. Police in London arrested six terror suspects

and discovered a ricin lab connected to the camp in Iraq. The Pentagon drew up still another attack plan and, for the third time, the National Security Council killed it.

Military officials insist their case for attacking Zarqawi's operation was airtight. But the administration feared that destroying the terrorist camp inside Iraq could undercut its case for going to war against Saddam.

The US did attack the camp at Kirma at the beginning of the war, but it was too late: Zarqawi and many of his followers were gone.

Mr. CRESSEY: Here's a case where they waited. They waited too long, and now we're suffering as a result inside Iraq.

MIKLASZEWSKI: And despite the Bush administration's tough talk about hitting the terrorists before they strike, Zarqawi's killing streak continues today. Jim Miklaszewski, NBC News, the Pentagon.

Senator CLINTON. I understand that the general may not have direct knowledge, but I think that we should inquire further on the basis of that.

General Jones, I appreciated your report about NATO and I was intrigued by your reference to expanding the PFP to include some of the countries that may not yet have formal membership in NATO. I would be interested in hearing specifically which countries those might be, if that is possible in an open hearing.

But, second, I am still bewildered by the delay that we have seen with respect to NATO deploying further assets in Afghanistan. When Senator Reed and I were there we looked for somebody in authority in NATO to talk to us. We could not find anybody. We landed at Kabul with German and Belgian troops obviously assigned there. But despite the fact that they took action under Article V, despite the fact that they came in early to provide military support and policing support, despite the fact that for months we have heard they are considering going in in greater numbers and working PRTs, and despite the fact that both Secretaries Rumsfeld and Powell were there a few months ago discussing this matter, we have no action.

Can you explain in more detail, what are the problems, the obstacles, the resistance on the part of our NATO allies?

General JONES. Thank you, Senator. First, the PFP Program is one of the singular successes of the alliance in terms of expanding the alliance this year to 26 nations. The seven countries that will become full members have actually graduated through this program and met the requirements for accession to full NATO membership.

Universally through the corridors of Brussels and other NATO capitals, the PFP Program is widely regarded as being responsible for this happy state of events. The alliance is now considering what the future holds for PFP and what other nations might be admitted as members. It is a decision to be made at the political level. The options would obviously range from additional countries to the east, without being specific for obvious reasons, but we also might wish to perhaps look at some countries in the Mediterranean, particularly the North African countries, like Morocco and Algeria and others that are showing tremendous progress, not necessarily to be future members of NATO because that might be a little bit of a

stretch for some, but to have another type of partnership program that would cement the southern flank of the alliance a little bit better than it currently is.

So I think the encouraging news is PFP is recognized as being one of the key instruments of NATO. The alliance will consider the candidacy of several nations. There are nations in the Balkans that wish to be considered. Serbia has been interested in becoming a member of the PFP. Bosnia and Macedonia have been fairly vocal in wishing to join the PFP Program.

It is a program that people recognize. Its intent is that it leads to full partnership, and Russia is also involved in a certain special way in the PFP. It is an extremely important program; and it will be interesting to watch the discussions and the evolution. I think it is very important that we continue this program.

With regard to the speed with which NATO reacts to a mission in Afghanistan, there are now about 6,200 NATO troops located in and around Kabul, which was the original mission, and Germany has taken the lead in a PRT in the northern province of Konduz. That PRT is up and operating.

Recently, at the informal ministerial meeting in Munich, Germany, ministers of defense met and we were able to propose a plan for expansion of NATO's footprint to include another five PRTs, two additional in the north and three in the west towards Herat. Nations are now deciding how they wish to proceed, but there have been offers of forces and capabilities to establish those PRTs.

Admiral Feist, who I introduced to the committee earlier, the Deputy Supreme Allied Commander in Europe, is generating the force. It is my belief that within the next few months we will have an impressive expansion of capability. It takes time. It is a 26-nation alliance of sovereign nations. They are committed in the Mediterranean and in the Balkans. Some nations are committed to Iraq and also to Afghanistan.

So, I cannot fully explain why it does not happen quicker except to say that there is progress, and I am encouraged with the direction we are taking that we will eventually get the job done in Afghanistan.

The ambition, the problem that I have, is to make sure that the political ambition is matched by the resources required. Historically, that has been a problem in the alliance. We have to recognize that. It is beyond question that once the political decision is made and the force generation process commences, that until recently, the ability to fully resource the force to the military requirement stated has been something less than desirable. If NATO is changing, and I believe it is, culturally, if it wishes to be able to have a global impact and an expeditionary capability and go to the very dangerous places that General Abizaid has cognizance over in Afghanistan and perhaps ultimately even, who knows, maybe even in Iraq, and wishes to get there in time to make a difference, then it has to be resourced out adequately in order that we do not put people at risk even though they are doing security, stability, and reconstruction type operations.

This is very much a transition period for NATO as it turns itself into the wind of the 21st century. There are many cultural changes that are going on simultaneously to embrace the new realities of

the world that we live in. I think we should be critical at the right time. I think we should be encouraging and supporting because, I think, in general the trend is very positive.

Thank you, ma'am.

Chairman WARNER. Thank you, Senator, for bringing up the concept of the PFP. I believe we are on the 10th anniversary. It started under the administration of President Clinton, and I remember very well being in the North Atlantic Council (NAC) conference the day that Russia walked in. It was quite a memorable day. I was in Secretary of Defense Cohen's party that day, and it has worked well. I thank you for your strong endorsement of that program, General Jones.

Senator Sessions.

Senator SESSIONS. Thank you, Mr. Chairman.

General Abizaid, we want to thank you for the tremendous work you are doing, the incredible hours you and your staff and soldiers are giving every day in a dangerous situation to protect the legitimate interests of the United States and help create a new Iraq that will be a country that people can live in safely and progress economically and have freedom to choose their futures, to help women have a better chance to succeed. It is a dangerous area, but you are doing it with great skill and I am very appreciative.

General Jones, thank you for your leadership. Growing up in Europe as you did, you have the unique perspective and ability to communicate there. I hear nothing but good reports on your leadership. I know you are winning respect from the European military leaders and other leaders. That is very important to us.

General Jones, with regard to NATO and the questions Senator Clinton asked about their involvement in Afghanistan first, tell me how big a decision that was for NATO to agree to take a leadership role in Afghanistan, and how do you rate that as part of the relationship we have with NATO?

General JONES. Senator, I think that this was a very good decision. I think one of the most important events that happened in the near past with regard to the future of NATO is the Prague Summit of 2002, which came out with very clear guidance for whoever happens to be the operational commander, very clear guidance as to how the alliance wished to proceed and be perceived in the future.

It demanded the creation of the NATO Response Force and within the NATO Response Force it stipulated that it would have to be a very high readiness force, able to deploy within 5 days, with sustainability for 30 days. That alone signaled the entry of NATO into true out-of-area operations, I would say global operations. The first instance of the seriousness of the commitment is in Afghanistan, where NATO is currently considering and will expand significantly its operations and may in time, with the coordination with OEF, take up the majority, could potentially take up the majority of the stability, security, and reconstruction operations in Afghanistan.

This is a very serious matter. It is being given a lot of thought in Brussels and elsewhere and we are in the first stage of implementing that new capability and that new commitment to be more influential in global affairs, but in real time.

Senator SESSIONS. I was somewhat troubled by a recent report that NATO may not be sending as many troops to Afghanistan as

they were originally projecting because of budgetary concerns. Are you aware of and concerned about that?

General JONES. We have proposed from the military headquarters, which is SHAPE, to the North Atlantic Council the force required to support five additional PRTs. It is my understanding that nations are evaluating that recommendation and that we will soon be generating the force required to support those five reconstruction teams.

So I believe that there will be different opinions, obviously, on the plan. There will be people who might disagree with certain aspects of it. But I believe the alliance is committed to doing more in Afghanistan, and I believe that we are on the way to doing that.

Senator SESSIONS. General Jones, I think those are good developments, and we need to work with NATO and build that relationship that has the potential to create a partnership as we work together to protect our just national interests and preserve a peaceful, prosperous world.

Of course, NATO's military, the number of people in uniform in the NATO European countries, actually is larger, I believe, than the number of United States soldiers in uniform. They are not as well configured, I think, to meet modern challenges, but they have a large number, and we need to work at that.

I want to ask you about your plan to reconfigure our deployment in Europe. I like what you were talking about, a more expeditionary concept, moving more east and south where we can get better basing and air space and also be more available for deployment in hot spots that may occur. As I look at the numbers, the report I have, we have 70,000 soldiers in Germany. I know Germany was not with us in Iraq, and there are still some hard feelings about that. But beyond all that, it strikes me that the 118,000 uniformed personnel we have in Europe with 125,000 dependents is way out of proportion to the reality of our world threat today.

We are going through a base closing and realignment (BRAC) process in the United States. We would like to have bases, too. I am sure the Germans and everybody like our money being spent in their neighborhood. It is very popular. We are going to close a lot of bases in this country on one basis, I hope and trust, that it is good for the United States, it is a good, wise use of our money.

I would just encourage you to fully understand that the American people and I think this Congress want a presence in Europe, a presence around the world. But we want as lean a presence as possible. It is not out of any pique at any other country. But if we cannot justify 70,000 troops and all those dependents in Germany, we ought to bring those numbers down, just like if we cannot justify it in Alabama somebody has to bring those numbers down.

General JONES. Thank you, sir. Transformation is about developing how forces, through fairly dramatic reconstruction, can become more strategically effective. The old basing paradigms of the post-World War II era with the, I call it, fortress America, with the cities and the shopping centers and the families and the schools, while very important in the aftermath of World War II and still important from a standpoint of providing a launching pad for future forces, do not have to be nearly as numerous and, more importantly, we do not have to build new ones.

So that the strategy, the strategic force of the future, at least in EUCOM and I think elsewhere, will be based upon a family of bases that are more expeditionary, that we can get to quickly. In this 93-country AOR, we are building a library of existing runways, ports, facilities, and relationships with countries we may need for response to crisis or response to interoperable training or whatever the reason, we know where these facilities are, so we have an ability to project forces over a broader distance.

The force of the future will have some forward basing. It will be augmented by rotational forces coming from anywhere in the United States. It is an interesting and a little-known fact that the majority of forces in the Balkans come from the National Guard today. It does not matter that they are not based in Europe. They are doing an extraordinarily good job. It is a high morale mission. They are great soldiers. This rotation comes from Minnesota.

So the old concept that we used to justify troop strength in Europe to defend against the former Soviet Union simply does not apply any more, and you will be, I think, pleased with the new structure, when it is announced, of the forces that we have in Europe. But you will also be, I think, energized by the fact that this new force, although lesser in size, will be able to be more effective across the length and breadth of our AOR.

Senator SESSIONS. Thank you.

General Abizaid, I too want to say I support very strongly the idea that our commanders need more funds that they can utilize to deal with situations in their areas of operations. I think it will make their soldiers safer. I think it will be spent more wisely than otherwise would be the case, will be done more promptly and effectively, and I believe we need to move on that. I support that and look forward to my second visit with you in a few weeks.

General ABIZAID. We look forward to seeing you there, Senator.

Senator SESSIONS. Thank you.

Chairman WARNER. Thank you very much, Senator Sessions.

We are pleased to recognize our distinguished colleague, Senator Lieberman. I think the record should reflect that this Senator, the distinguished Senator from Connecticut, has been in the forefront of the war on international terrorism. You were my principal cosponsor in 1991 of the resolution to authorize then-President George Herbert Walker Bush to use force in Iraq. Again, you rejoined me, Senator McCain, and Senator Bayh in authorizing the resolution in the fall of 2002.

Senator, we are very honored to have you as a vital member of our committee.

Senator LIEBERMAN. Thank you very much, Mr. Chairman. It was an honor to join with you on both of those occasions and many others. I certainly feel a sense of pride about what we did together and a confidence that the result was to make the American people and the world safer than they would otherwise be.

Of course, the reason for that is the military, represented by General Jones and General Abizaid before us today, who implemented the resolutions that we were honored to put before the Congress. I thank both of you.

I thank you, Mr. Chairman, Senator Levin. This has been a very productive and informative hearing. I must say, with the unique

perspective I have just coming off the presidential campaign trail, I think it has focused us with regard to Iraq exactly where we ought to be. There is an inevitable way in which the natural drift of our politics may well continue the focus on how we got into Iraq, what the quality of the intelligence was, who did what. Those are not unimportant questions. They are quite important, but they cannot be allowed, even in this election year, to take us off the target, and the target is to successfully complete the mission in Iraq.

It is of enormous importance now in the wider war against terrorism because of the forces that are engaged there. It is of enormous importance in our long-term commitment to create stability and hopefully opportunity and democracy in the Middle East, and it is enormously important to our security as Americans that the battle is really joined in Iraq between the forces of terrorism and the forces of security, the forces of tyranny and the forces of freedom.

I do think, Mr. Chairman, under the leadership of yourself and Senator Levin, that this committee has a uniquely important role to continue to focus Congress, particularly in this election year when the normal cross-currents and swirling will be going on in public debate, on coming together, as we have most of the time certainly at our best on this committee, to focus on helping our military successfully complete this mission on our behalf. I think this hearing today is particularly focused on that.

General Abizaid, just to focus now for a moment on the security question, which is clearly critical. The successful completion of our mission is a combination of our ability to work with the Iraqis and coalition forces to maintain security and also to create the social and economic conditions in Iraq that will make the country more secure.

Obviously, this has been a tough week and a tough period of time. Tuesday, I gather, was the deadliest day in Iraq since May of last year. Maybe as many as 185 people were killed. Clearly, the insurgent and terrorist forces want to destroy security, want to create a civil war. It is creating unrest, unhappiness, anger among the Iraqi Shiites.

I saw a quote today in the paper from one of them: "We do not want the police and the military, we do not trust them." It is also creating problems for our Intelligence Community, which is critical to our success there, as you said. Someone was quoted in the paper today from an unnamed intelligence agency: "The violence is making it more difficult to operate."

So I wanted to first ask you this question. There have been reports that there is a plan for our military to essentially move out of our major urban bases and occupy more fortified bases for regional control, as somebody described it to me, conducting selected operations from there and yielding most of the security responsibility, in the urban areas at least, to the Iraqi forces.

So my question is: Is there such a plan? If so, when do you hope to implement it? Of course, the larger question is: Are the Iraqis really ready to take on that responsibility alone, or certainly more than they are today?

General ABIZAID. Senator, there is a strategic direction which as an outline of a long-term effort makes a lot of sense to me, which

is over time, and where geographically possible, you turn over more and more control to Iraqi security forces as they are able to take control. I believe that we have characterized this correctly by calling the first step local control, and local control means essentially Iraqi police units and ICDC units doing the day-to-day policing of major urban areas or those areas where they are capable of doing it and that there is good cooperation between the populace and the security forces.

We can envision a time where we move to a greater standoff, where Iraqi military forces are more and more capable and Iraqi border police forces are more and more capable, where essentially coalition forces are used more to defend the territorial integrity of Iraq against external threats. Then obviously I think you get to the point where you go into the period of what I would call strategic standoff, which allows you to continue to build Iraqi security capacity through a robust system of security cooperation, that it puts expeditionary forces in readiness to come to the aid of an Iraqi government should it, number one, require it; number two, request it.

To me this is a logical way of looking at how the mission would progress. But there is a misreading largely in the press of the idea that we are going to move to regional control immediately, and we will not do that. We will reposition forces in places like Baghdad, for example, in order to get enduring installations in the right locations.

The number of patrols in Iraq is pretty much the same today as it was 6 or 7 months ago, with the exception that there are more patrols in Iraq being done jointly between Americans, Iraqi military units, and Iraqi police units. So the natural evolution certainly has to take place, but it is an evolution that has to be synchronized with political activity and economic activity to a certain extent.

People seem to think that you must have security before the others can move forward. But the truth of the matter is you have to synchronize security, economy, and politics in a manner that allows people to have a better future. I think we all need to understand that there is a certain level of violence in Iraq that as long as we are there we will face, and there are no places in Iraq that we can retreat behind and allow us to be safe.

The safest way to deal with Iraq is to be out with the population, to be developing security forces, to engage with people, to try to make their lives better, and at the same time aggressively confront the enemies that are trying not only to kill us but to kill them, their own people.

So I know that is a long answer, but I am satisfied that the plan that General Sanchez and I have discussed militarily is one that will continue to keep military forces properly engaged. Ultimately all of us understand that we have to take some risks in turning over control and authority to Iraqis. We have to understand that this is not our country. There is nothing in Iraq that belongs to the United States of America, and we have to have this courage to look at the Iraqis when we think they are ready and say: This is now your street to patrol, this is now your city to control; and when they need help, come in and help them.

There will be times, Senator, when we will meet with failure. But over time we will have more and more successes. As I said, I believe that is the right thing to do.

Senator LIEBERMAN. Thanks very much for that answer. I take encouragement from it, and I hope it will clarify some questions people have raised, because this plan to move out of the urban areas into a kind of regional control—you used the terms, I believe I am quoting right, "long term" or "longer range," to do it where it is geographically possible and turn over more responsibility to the Iraqi security forces as they are able to assume that control.

So is it fair for me to conclude that you are not on a particular timetable in implementing the plan?

General ABIZAID. Sir, we are not on a timetable. We are on a timetable to do the mission right.

Senator LIEBERMAN. Because the conclusion that some are coming away with—and I agree this is mostly in the press, but I think it is very important. Frankly, going back to what I said at the beginning of my remarks about the intermixing of politics and the carrying out of your mission—that this might actually happen as of June 30 when the transfer of sovereignty occurs. I take it that that is not your plan?

General ABIZAID. Sir, it is not our plan and it is not the plan of the IGC, either. They have clearly put language in the Transitional Administrative Law that talks about a multi-national commander that was established under the provisions of U.N. Resolution 1511 or any other subsequent resolution that may come about, continuing to maintain operational control of all forces, to include Iraqi forces in Iraq.

But I would also say, Senator, that it is very important for us to not only make the Iraqis understand, but make our own people understand that we must move from a position of perceived occupation and control to one of partnership. I would say the post-June 30 period represents an opportunity for us to be in partnership with the Iraqis more so than some might say today.

Senator LIEBERMAN. I know we share that goal. Of course the worry would be—and I am sure you will not do this—that the transfer could occur prematurely, so just while the Iraqis were beginning to assume sovereignty that vulnerabilities or even, at worst, chaos would result, and that the insurgent and terrorist enemy would strike and take advantage of it. That would be the most staggering disaster that could occur.

General ABIZAID. Sir, this mission will take a lot of toughness, a lot of courage, and a lot of determination. Our soldiers have it and so do the Iraqi people.

Senator LIEBERMAN. Thank you very much.

Thanks, Mr. Chairman.

Chairman WARNER. Thank you, Senator Lieberman.

In your response to one of his very able questions, you talked about the patrols by U.S. forces and working elements of the Iraqi army and police and so forth. I just want to make sure that the record reflects that similar patrols outside of the Baghdad area are being conducted by coalition forces, so in no way are just U.S. forces in the more serious aspects of harm's way. Am I not correct on that?

General ABIZAID. You are correct, Senator.

Chairman WARNER. The Iraq Survey Group (ISG) is one that certainly is of great concern to this Senator. I want to make certain that it has the adequate numbers, the adequate resources, and the adequate interest on the part of you and your subordinate commanders as it completes its mission, which mission is quite indefinite. Can you give us a little update on that?

General ABIZAID. Sir, the ISG continues to carry out its mission. I agree with you that one of the most important things we must understand is what happened to the weapons of mass destruction, and we do not know the answer to that. Until we know that answer——

Chairman WARNER. Well, we know part of the answers, but the full picture is yet to be developed.

General ABIZAID. Sir, I agree we know partially, but we need to know completely.

Chairman WARNER. Yes, and I share that view.

General ABIZAID. So I think, Senator, that the mission will continue, but the mission will continue in a way that is complementary to the counterinsurgency work that is going on in a way that has already proven to be very beneficial to both General Dayton's mission and General Sanchez's mission. So I would expect that we will continue to look, not only on the ground, but look in the documents for some sort of an indication as to what happened.

Chairman WARNER. Very often the ISG has come across intelligence which is of direct value to those performing the counterinsurgency operations, and therefore I think that is what you meant when you said they work in a cooperation and are related.

General ABIZAID. Those are great people in the ISG.

Chairman WARNER. Oh, they are. I am very impressed with General Dayton. I have met with him each time he has been back here. I like the new civilian counterpart, Dr. Duelfer, who is over there working with him.

Now let us turn to—I think it is important that every record of this committee, when it is appropriate, reflects your views with regard to Osama bin Laden and current efforts under way and the extent to which the government of Pakistan and its forces are contributing and supporting those efforts to try and in one way or another apprehend him and his principal lieutenants.

General ABIZAID. Sir, of course you have read and heard in the press the idea that Osama bin Laden is surrounded, and we have him cornered, and we know where he is, et cetera. Of course, we do not know that. It is our belief that somewhere along the Afghan-Pakistani border area, either on the Pakistani side or on the Afghan side, we will find him and his close companion Zawahiri.

We are conducting very robust military operations on the Afghan side of the border with coalition forces. We have had good effect against Taliban. We have had good effect against al Qaeda forces that we found there. On the Pakistani side of the border, I think it is clear to President Musharraf and the Pakistani people that Osama bin Laden, Zawahiri, and al Qaeda represent a threat to their freedom and a threat to their continued development as a moderate state of great importance in the region.

So Pakistani forces have been operating in the federally administered territories up along the Afghan border in a way that we have not seen in a while, but in a way that I think will have effect on terrorist organizations.

Senator, manhunts are not things that militaries do well. What we do well is put pressure on groups and organizations, and we are continuing to put lots of pressure on al Qaeda and the Taliban in areas along the border that does not allow them to have a sanctuary from which they can plan new attacks against the United States.

I think it is of great importance to our Nation to bring these two people to justice, but it is of even greater importance to our Nation to ensure that this organization, al Qaeda, is destroyed.

Chairman WARNER. I thank you.

General Jones, last spring my distinguished colleague Senator Levin and I co-authored a declaration included in the resolution of ratification of the most recent round of NATO enlargement. That resolution would have the United States bring up for discussion in the North Atlantic Council the question of whether NATO should continue to make all decisions by consensus.

In the areas under your responsibility, such as planning and conduct of operation, has the consensus rule worked? Do you have the authority to plan potential contingency operations before the council formally approves such planning? As you anticipate NATO's expansion to 26 members, in other words giving another significant number of members veto power, do you think it would be useful for NATO to have the flexibility to reach decisions on certain matters by means other than the consensus rule?

We ask this question each time you come before us because it is of great concern to not only this committee, but I believe the Congress as a whole. So this is your opportunity to give us an update on a subject which you have closely followed.

General JONES. Thank you, sir.

The terms of reference that govern our activities, whether for the Military Committee or the two strategic commanders, are products that were created in the 20th century under another time.

Chairman WARNER. When you say "another time," that is a key phrase. You are referencing the Soviet Union and the Warsaw Pact?

General JONES. Yes.

Chairman WARNER. The world threat situation has changed so dramatically to where we are now confronted, NATO and all forces of freedom, confronted with non-state-sponsored terrorism, in which instance you have to move with the greatest of speed to interdict or further prevent their efforts.

General JONES. It is my opinion, and that of Admiral Giambastiani, the Supreme Commander for Allied Command Transformation, that it is time to look at the foundational documents that govern the way we do things, the speed with what we do them, the processes, to see if in fact they are in consonance with what it is we are asked to do.

The Prague Summit signaled a stark change in the capabilities that NATO wishes to acquire, and it also signaled, I think, the entry into a 21st century capability that suggests that NATO wish-

es to be involved on the global scale and have the capability to do so. That includes acquiring some of the higher end items of warfighting: transformation of NATO logistics, transformation of the modes by which we deploy.

The starkest example that I can come up with is the prescripted requirement to develop a NATO Response Force that can deploy within 5 days and sustain itself for 30 days on a mission, presumably anywhere on the globe. We have been working with the authorities, the Military Committee, the chiefs of defense of 19 sovereign nations, soon to be 26, the Secretary General of NATO, and after reviewing the baseline document that governs the way we do business, we are hoping that the decision will be made in the near future, perhaps in May, to open those documents, to rewrite them in such a way that things like prudent military planning and the execution phase of a decision to pass to operations can be done in a manner that is consistent with the overall transformation of NATO.

In other words, the fundamental rules that govern our behavior, that govern the way we make decisions, have to be looked at to see if they are in consonance with the desires of the Prague Summit, and I believe that the Secretary General and others are willing to do that. I would expect that at the next full meeting of the Military Committee with the chiefs of defense that they will look at those documents and decide that it is time to update those documents in a way that will enable us to do those things that 19 sovereign heads of state have mandated us to do.

Chairman WARNER. You mentioned the word "May." That coincides with the Istanbul Summit or it is preliminary?

General JONES. It would actually precede it, Mr. Chairman.

Chairman WARNER. That is a matter that should be brought up at that summit?

General JONES. Yes, sir. I think it will be dealt with by the full meeting of the Military Committee with all 26 chiefs of defense and the two strategic commanders. Really, I think it is such an obvious requirement that I think we will be under way with this.

Chairman WARNER. I will be in consultation with my colleague, but I think that it might be appropriate if we wrote a letter asking specifically that this be an agenda item and the preliminary work done.

I thank you, General.

General JONES. Thank you, Senator.

Chairman WARNER. Senator Levin.

Senator LEVIN. Thank you.

I understand from your answer that the issue which the chairman raised about the consensus requirement, which gets clumsier and clumsier as you have more and more members and have to reach out further and further, that that would be one of the issues that would be under consideration: Is that fair?

General JONES. I think nations would—I do not want to speak for the individual nations at the political level, but I think that is something that has been discussed, and I think the evolution towards whatever solution may be found, would be something along the lines that nations do not have to be bound to support a given operation if they do not wish to, but at the same time do not arbi-

trarily have to say, to bring the operation to a stop simply because we do not wish to participate.

I will say that I think the consensus rule is at least intellectually a good thing, because it stimulates debate and you get good ideas, but at the time when you decide how you are going to announce your decision, that is where building the NATO Response Force and this very capable force kind of comes into a sense of a new dimension where speed of decisions are also important if you wish to affect the outcome of a particular crisis.

Senator LEVIN. Having 26 possible vetoes over moving a force, putting together a force in 5 days and moving it somewhere is not the way to operate.

General JONES. No, sir.

Senator LEVIN. I hope that you are able to get that on the table for a real thorough discussion, because it is a new world.

General JONES. Yes, sir.

Senator LEVIN. General Abizaid, the President of Afghanistan, in response to a journalist's question, last week implied that al Qaeda and the Taliban were becoming—well, he said the following: "That we strongly believe, with evidence, that they are defeated, they are gone. We do not see a resurgence of the Taliban. The Taliban is a movement that does not exist any more."

Would you agree with that?

General ABIZAID. Sir, I would not want to be one to contradict President Karzai. However, I would say that the Taliban as a movement is in very desperate straits and al Qaeda as an organization is under a lot of pressure, but both the Taliban and al Qaeda are resilient in Pakistan, and they are dangerous in Afghanistan.

There are some very promising signs, however. Certainly some mid-level leaders that had been prominent in the Taliban movement have approached various people about chances for reconciliation. So there are hopeful signs that people want to get on with a better future in Afghanistan.

But these are dangerous foes. They remain dangerous to President Karzai and they remain dangerous to us.

Senator LEVIN. General Abizaid, the Marines, I understand, plan on rotating into Iraq in March with two 6-month rotations of 21,000 marines each. Why are the Marines going on 6-month rotations while the Army does 12-month?

General ABIZAID. Sir, I do not know that.

Senator LEVIN. You do not know that what I am saying is accurate?

General ABIZAID. I do not know that the Marines are planning on two 6-month rotations. I know that General Hagee talked with me about being flexible with regard to Marine deployments. Since about one-third of the marines that are entering into Iraq have already served there and as rotational schedules are under the purview of the Services, I am okay with that.

Senator LEVIN. There is a program in Korea called the Korean Augmentation to the United States Army (KATUSA) where Korean soldiers, South Korean soldiers obviously, are integrated into U.S. units. Do you see that that might be a possible program in Iraq?

General ABIZAID. Sir, I think it is a program that we have looked at before and that we talked about before. But I think it is better

to have U.S. mentors in Iraqi units rather than Iraqi soldiers serving in U.S. units in a KATUSA-like program. I think the partnership is important, but the partnership is stronger with U.S. units training and mentoring Iraqi units.

Senator LEVIN. Relative to the Iraqi army, to your knowledge were our uniformed military leaders asked for their recommendation relative to disbanding the Iraqi army prior to that decision?

General ABIZAID. Sir, I am not completely sure whether General Franks was asked about his opinion. At the time he was the combatant commander. I cannot answer that.

Senator LEVIN. Were you asked?

General ABIZAID. No, I was not.

Senator LEVIN. Just one other comment about NATO. General Jones, the chairman made a comment about the importance of a robust NATO and a forward engagement approach, which a number of my colleagues have endorsed here today, and you clearly testified relative to that fact. I just want to join the chairman in those comments.

I think there is a very strong consensus here that you are moving in the right direction, meeting new threats; and you should just be aware that there is, I think, a really strong consensus in Congress supporting the direction that NATO is moving.

General JONES. Thank you very much, Senator. That is very gratifying to hear. I think in the near future you will see that—yes, last year when I was here I characterized NATO as being at the crossroads between two centuries, and "crossroads" means you have choices, directions you can take. I think NATO in this past year has taken a very strong step in the right direction.

We need to have this strong consensus here in the United States and the support of this committee towards that direction, because it will only help the world's situation if we are able to bring an armed force of 2.4 million people in uniform in Europe into more productivity on the world stage. It will help us immeasurably.

Senator LEVIN. Thank you both again.

Chairman WARNER. Thank you, Senator Levin.

Gentlemen, I am faced with the need to get to the floor. There is a very critical amendment, Senator Levin, on Buy America provisions and I am hopeful that Senator McCain and I and others can make some provision for DOD amendments to protect our ability to do contracting and to access the industrial base, weapons base, of other countries in such a way as to strengthen our own forces.

But I am just going to mention quickly subjects of questions and I am going to ask, if I might, for you gentlemen to reply in due course to these questions in the record. The status of forces agreement, General Abizaid; I am concerned about that, particularly how we protect U.S. forces after June 30 from any basis of prosecution under Iraqi law.

Iran again harboring al Qaeda and other interests. The nuclear development program. I would like to have your assessment with regard to the threat of that mission today. Recent change in their political structures, we need an update on that.

Pakistan. General, President Musharraf continues to be a very strong working partner and has done a great deal to date. Nevertheless, they have been involved in alleged activities on prolifera-

tion of WMD, perhaps entirely in the civilian structure. But I need again your assessment on the level of support that we are receiving from the president and other Pakistani security interests in this global war on terrorism.

NATO peacekeepers in the Middle East. This is a subject that you and I discussed regularly, General Jones. I feel that if the governments of Israel and Palestine were to issue an invitation that NATO might have some role to help stop the incredible amount of loss of life on both sides, the instability in that region.

I also feel, General Jones—I think you share this view with me—that we cannot look at Iraq and to a lesser extent maybe Afghanistan, isolated from this conflict, because the strong emotional feelings surrounding this conflict have worked their way into the minds of others who are directly influencing the course of events in Afghanistan and Iraq.

The Horn of Africa. General Abizaid, I am pleased that your command has that AOR and you have given it the focus and attention, because help is needed in that area to the extent we can get it. If we do not, it will spread elsewhere.

The National Intelligence Estimate (NIE) on Iraq. I want to get an update in detail on that and what assistance you might be receiving from other nations and what more can we do to assist you in that.

The Afghanistan illegal drug trade, General Jones. This concerns this Senator a great deal. Mixed reports, but clearly a strong and more robust activity on that front. In parallel, at the same time we are making progress in Afghanistan. Both generals have responsibilities in this area at this time. So I am hopeful that you can provide additional information to this committee.

[The information referred to follows:]

Afghanistan's illegal drug trade has increased over the past 2 years and returned to record high levels of production and processing. Resulting increased discovery of drugs and drug paraphernalia by coalition forces has resulted in the need for field commanders to clarify procedures for disposition of drugs and drug paraphernalia discovered during normal operations. This guidance specifically addresses which items may be retained for possible future transfer to the Afghan Government and which items coalition units retain the authority to destroy. CENTCOM and supporting subcommands do not have a counternarcotic or law enforcement mission. However, subcommands continue to discover drugs and drug paraphernalia during the course of normal operations (i.e. cordon and search, vehicle check point) .

Confiscating drugs and drug paraphernalia found does not convert combat or stability operations into either a counter-narcotic or law enforcement mission. The on-scene commander will report any quantity of drugs or drug paraphernalia found during normal operations and then confiscate and destroy the drugs and drug paraphernalia. This authority does not extend to the destruction of poppies in fields or unprocessed poppies. Additionally, CENTCOM will play a role in supporting the United States Government's commitment to collect drug-related intelligence to include suspected locations of stockpiles, opium bazaars, known traffickers, and shipments of narcotics and precursor chemicals, and will forward this information to the United Kingdom, in accordance with existing arrangements. Our forces will also provide United Kingdom Forces the use of U.S. facilities for storage and forward mounting purposes whenever possible.

Chairman WARNER. All right, gentlemen. We have had an excellent hearing. I know this takes you away from your respective commands, but it is enormously important to Congress. This is the third committee you have been before this week and you fulfill your duties with great distinction. Particularly, both of you have, I guess

I can use the word, mastered congressional relations and work it very well.

Thank you.

Senator LEVIN. Was that a compliment, Mr. Chairman?

Chairman WARNER. I think that is a compliment.

Senator LEVIN. Be careful.

General ABIZAID. Sir, it is a great honor to sit next to General Jones today. We served together. I was his subordinate in northern Iraq, and I would welcome him taking northern Iraq if he would like to, any time he is ready.

General JONES. I was just about to propose. I have 93 countries. I have about half a dozen that I would like to——

Chairman WARNER. That you could shift off.

But I do remember very vividly being with our former distinguished chairman, Sam Nunn, in NATO South headquarters with the then-NATO commander, who later became the CNO. I recall him very well with great fondness. In the room you walked in your combat fatigues and briefed us extensively. Was that the same period of time when you two gentlemen were together?

General JONES. Sir, that was about a year and a half later.

Chairman WARNER. Than when you were first linked up?

General JONES. We were linked up in the spring of 1991 in northern Iraq for Operation Provide Comfort.

Chairman WARNER. I remember that, yes.

General JONES. Then I was subsequently assigned as the Chief of Staff for Operation Provide Promise for the Balkans, and that was at Admiral Boorda's headquarters.

Chairman WARNER. Gentlemen, you offer tremendous inspiration to those young officers, men and women, and their families coming up through the ranks. I think they say: Well, if those two guys can succeed, we have a chance.

Thank you very much.

[Questions for the record with answers supplied follow:]

QUESTION SUBMITTED BY SENATOR SUSAN COLLINS

TROOP ROTATION

1. Senator COLLINS. General Abizaid, in your testimony before this committee in September you said, "One of the most important things for any soldier to know is when are they coming home. They need to know that. Unfortunately, I can report to you that not all of them know that . . . I take it as my responsibility, I will work it, and I will ensure that the new guys coming in know when they're coming home. Nothing is more important. It is not right now and it needs to be fixed. I am concerned about the troops in Iraq who still have not been given dates on when they will return home. That includes the National Guard and Reserve, some of whom have been in Iraq for nearly a year with no clear indication of when they will return. Can you give us a clearer picture of rotation dates?

General ABIZAID. U.S. Central Command (CENTCOM) diligently tracks all force rotations and values the importance of informing every level of command of their established rotation dates. The CENTCOM Force Rotation Tracking Cell meets daily to de-conflict any issues with units exceeding the original deployment dates, or "boots on ground (BOG) date." CENTCOM's guidance is very clear on this issue; all battalion and separate company-level units will know their BOG date and CENTCOM meticulously tracks those dates to mitigate any problems.

Combined Joint Task Force 7 (CJTF–7) tracks unit BOG dates down to the battalion and separate company-level using the CJTF–7 Master Force Tracker. This is an EXCEL Spreadsheet used to track the transition of units between Operation Iraqi Freedom (OIF)–1 and OIF–2. This document is maintained on the CJTF–7 secure Web site for all to view, thus units can check their BOG data at any time.

Several tools assist rotational planners in tracking unit BOG dates.

- The best system for determining unit BOG is the Mobilization Deployment Integration System (MDIS).
    - Web-based database that lists the actual arrival dates of all units in theater and lists the deployment information for units as they arrived in theater. (The most difficult thing when determining a unit BOG date is that no Web site or database actually contains a field titled BOG, thus it is not an exact science).
- Only the Secretary of Defense is authorized to extend a unit beyond their BOG date.
    - Thus far, the Secretary of Defense has granted 15 extensions to unit BOG dates for the OIF–1 and OIF–2 transition, which have affected slightly less than 2,000 soldiers.
    - These extensions have averaged 24 days, with individual unit extensions spanning a period between 5 and 60 days.
- The CJTF–7 Transition Cell conducts weekly Transition Boards, chaired by the Deputy Chief of Staff, to establish dates for unit rotations or redeployments.
    - CJTF–7 coordinates logistics support and administrative arrangements with Coalition Forces Land Component Command (CFLCC) in Kuwait, and then publishes a Fragmentary Order (FRAGO) delineating significant unit transition information.
    - This FRAGO contains the unit's transfer of authority (TOA) date, release date, redeployment assembly area (RAA), the date to occupy the RAA, and the unit's projected available-to-load date (ALD).
    - Along with dates and locations, this FRAGO informs the units how to execute redeployment, giving instructions and points of contact within CFLCC to assist in their movement out of theater. This FRAGO as with all CJTF–7 orders is posted on the CJTF–7 SIPR and CENTRIX Web sites for units to download.
    - Subordinate units have similar tools as the CJTF–7 Master Force Tracker to track additional data to ensure that units depart theater in a timely manner.
    - CENTCOM has no separate channels for informing Guard and/or Reserve units vice active component units. All units are part of a chain of command. Thus, the chain of command informs subordinate units and soldiers of their redeployment instructions.
    - CENTCOM projects all OIF–1 units to be closed back in their home station by end of May 2004. Every effort is made to ensure all units understand and can convey their BOG date to all soldiers. CENTCOM focuses on providing the warfighting commanders with maximum flexibility, and capability to support theater operations, and to maintain security without interruption. This is a critical ingredient to developing a viable rotation schedule of this magnitude. From Jan.–May 2004, CENTCOM will have facilitated the historic movement of over ¼ million servicemembers in/out of the CENTCOM area of responsibility (AOR).
    - Early arrival and late arrival dates to duty station:

UNIT	EAD	LAD
82D ABN		
3RD ACR	27-Feb	9-Apr
3 BCT	28-Feb	12-Apr
4 ID		
1 BCT	19-Feb	6-Apr
2 BCT	4-Mar	8-Apr
3 BCT	24-Feb	8-Apr
4 BCT	1-Apr	9-Apr
555 EN BDE	5-Apr	3-Jun
1-10 CAV	23-Feb	9-Apr
DIV ART	6-Mar	19-Aug
DISCOM	13-Mar	14-Mar
173rd ABN	13-Feb	5-Mar
1 AD		
1 BCT	6-May	17-May
2 BCT	29-Apr	2-Apr
3 BCT	19-Feb	6-Mar
4 BCT	19-Mar	25-Apr
DIV ARTY	21-Apr	22-Apr
DIV EN	19-Apr	22-Apr
DISCOM	21-Apr	25-Apr
2 BCT 82ND	9-Feb	15-Feb
2ND LCR	24-Apr	4-May
76TH SIB	4-Mar	6-Jul
1/152	13-Feb	15-Feb
1/162	18-Apr	24-Apr
53RD SIB	11-Feb	21-Mar
2/124	30-Jan	5-Feb
3/124	30-Jan	14-Feb

QUESTIONS SUBMITTED BY SENATOR ELIZABETH DOLE

INPUT ON RESOURCE ALLOCATION

2. Senator DOLE. General Jones and General Abizaid, I would like each of you to comment as to whether you, as combatant commanders, had sufficient input and whether your priorities were given sufficient weight as the Department of Defense (DOD) conducted its resource allocation decisions leading up to the fiscal year 2005 President's budget.

General JONES. U.S. European Command (EUCOM) was afforded the opportunity to provide input during the program and budget review cycle. At the time my overall analysis showed that risk levels for current theater requirements were as expected and resourcing was about right. With the advent of the Secretary of Defense directed Joint Capabilities Development Process (JCDP) the weight placed on my input will continue to increase.

We have closely coordinated and worked with the Office of the Secretary of Defense (OSD) and with the Services that possess Title 10 authority for funding our requirements. First the components in EUCOM and their respective Services have coordinated and synchronized our requirements in a fiscally challenging time. At the EUCOM level we have further refined and outlined our priorities in the Integrated Priority List (IPL) that was submitted to the OSD. An element from the EUCOM staff visited the Services in December 2003 to continue the coordination with the

Services and ensure that the priorities outlined in the IPL were clearly understood. The Services have been extremely supportive working with us and our components here in EUCOM. OSD has likewise listened to and understands our priorities. One clear example in this regard is that the fiscal year 2005 request for funding reflects three agency projects that were originally requested but not appropriated in fiscal year 2004.

General ABIZAID. The CENTCOM portion of the overall President's budget is minor in comparison to Service budgets. Our direct budget only covers the necessary funds to operate the headquarters. The cost of our day-to-day operations is bourn by our Service components. It is their responsibility to budget through their Service channels for the missions and tasks assigned to them by CENTCOM. As you are aware, each combatant command has a Service Executive Agent for funding. The CENTCOM's funding executive agent is the U.S. Air Force. We work through the air staff to address our headquarters requirements. Between CENTCOM and the air staff, we feel our priorities are well aligned, and we have sufficient avenues of redress to resolve any disconnects that may arise. For those budgetary issues outside of headquarters funding, we work closely with the Service components and the Joint Staff to highlight any issues that we feel need to be addressed. Between headquarters CENTCOM staff, the component staffs, the Joint Staff, and if necessary, the staff of the OSD, there are sufficient mechanisms to influence the budget process.

UNFUNDED PRIORITIES

3. Senator DOLE. General Jones and General Abizaid, what are your top unfunded priorities, and the associated risks, for each of your combatant commands under the fiscal year 2005 President's budget request?

General JONES. EUCOM's top unfunded priorities include theater command, control, communications, and computer (C^4) modernization necessary to improve interoperability in Net-Centric Warfare and Information Superiority operations; and an increased intelligence, surveillance, and reconnaissance (ISR) capability to prosecute the global war on terrorism and provide forward homeland security. The associated risks are that we continue to execute the global war on terrorism with yesterday's capabilities, not taking full advantage of the latest technologies. These technologies will enhance our ability to engage potential terrorist threats earlier and more effectively.

The top unfunded military construction (MILCON) priorities at EUCOM are projects supporting the Efficient Basing Grafenwoehr (EBG) initiative, our number one MILCON priority program. There are four critical MILCON projects: a barracks, $45 million, and three battalion maintenance and operation facilities, $82 million, that if funded would keep EBG on track. The total cost of these four critical unfunded projects is $127 million. Funding these projects in fiscal year 2005 will enable U.S. Army Europe (USAREUR) to continue the planned closure and turnover of 13 installations to the Federal Republic of Germany on the original timeline. This would also, with continued support for the EBG program in fiscal year 2006, allow the consolidation of a Brigade Combat Team to Grafenwoehr beginning in the fiscal year 2007 time frame.

General ABIZAID. We are currently concluding our review of the fiscal year 2005 presidential budget request, and working through any issues we might have with the air staff (for headquarters CENTCOM budget issues), and the Joint Staff and OSD (for any Service component funding issues). It would be premature to discuss any shortfalls or associated risk until a full review has been completed.

INTEGRATED PRIORITY LISTS

4. Senator DOLE. General Jones and General Abizaid, integrated priority lists (IPLs) are reportedly your main mechanism to inform the DOD resource allocation process. In your opinion, how much weight have your IPLs been given during the development of the budget request?

General JONES. The EUCOM fiscal year 2004–2009 IPL was given a great deal of weight and served as a programmatic document. We were able to use the IPL in order to demonstrate and maintain consistency in presenting theater requirements. The fiscal year 2005–2009 IPL carried those requirements forward. The Secretary of Defense has introduced, starting with the fiscal year 2006–2011 cycle, a refocused IPL which reflects the DOD's emphasis on capabilities based planning. This is designed to create a more effective IPL which should receive greater weight in resource allocation decisions.

General ABIZAID. The IPL is one of several mechanisms available to CENTCOM to inform the Department of resource issues. Beginning with the fiscal year 2006 budget request, the Department revised the IPL process to add even more emphasis to this resource shaping tool. The Department has transformed the IPL to address individual combatant command capability gaps. It is then up to the Joint Requirements Oversight Council (JROC) to cross-walk the combatant command IPLs and develop a coherent Department position. The JROC takes these gaps and translates them into guidance to the Services in the Strategic Planning Guidance (SPG) and the Joint Planning Guidance (JPG), issued by the Secretary of Defense. These two documents are directive in nature and guide the Service budget build. In their budget submission, the Service must demonstrate to the satisfaction of the Joint Staff, and indirectly the combatant commands, that they have addressed the identified capability gaps. CENTCOM has several opportunities throughout this process to ensure our priorities are known and addressed.

SUCCESS AND CHALLENGES OF THE CURRENT UNIFIED COMMAND PLAN

5. Senator DOLE. General Jones and General Abizaid, the Unified Command Plan (UCP) delineates each of your areas of responsibility (AOR) as a combatant commander; however, the world's hot spots do not always fall neatly into just one combatant commander's area of responsibility. Could both of you please comment on the success and challenges of the current UCP with particular attention to the countries and regions that fall along your geographic boundaries, such as India, Pakistan, Syria, the Horn of Africa, and Lebanon, to name a few?

General JONES. It is important to note that within the UCP, there is no intent to restrict combatant commanders from accomplishing assigned missions, rather geographic AOR are delineated as a basis for coordination by combatant commanders. The UCP provides adequate flexibility with respect to 'hot spots' and combatant commanders may operate forces wherever required to accomplish these missions. When significant operations or 'hot spots' do occur and overlap boundaries, a task force is formed. Command of the task force is determined by the Secretary of Defense and assigned to the appropriate commander. Also, forces directed by the Secretary of Defense may conduct operations from or within any geographic area as required for accomplishing assigned tasks.

OIF and Joint Task Force Horn of Africa (JTF–HOA) highlight both successes and challenges involving geographic borders of EUCOM and CENTCOM. EUCOM has worked closely with CENTCOM in these critical areas: northern Iraq and the Horn of Africa. Our two staffs meet via video teleconference on a regular basis and exchange information critical to U.S. operations along these so-called "seams." Additionally, the massive deployment and redeployment of thousands of troops and unit rotations are visible signs of the successful coordination and transit between combatant commanders. EUCOM has provided and continues to provide thousands of soldiers, sailors, airmen, and marines, as well as combat equipment, supplies, and logistics in support of CENTCOM operations. However combatant commanders do face challenges in building and developing cooperative relationships with coalition partners along geographic borders. During peacetime, security cooperation programs enable combatant commanders to improve regional security and create synergy between partners within and between AORs. These successes are evident today as numerous countries have become willing coalition partners and are providing troops and assistance to OIF. Challenges arise when state relations between the U.S. Government and some countries become strained and thus do not foster security cooperation programs, which was recently the case with two countries in the EUCOM AOR. As a result of these differences, the President and Secretary of Defense reassigned these countries to the CENTCOM AOR to improve the coordination with respect to OIF.

General ABIZAID. The UCP establishes the responsibilities and clearly defines geographic boundaries for combatant commands; however, these delineations are not intended to create "borders" or limitations for the combatant commander. Recognizing that "hotspots" do not respect boundaries the UCP states that "combatant commanders may operate forces wherever required to accomplish their mission."

The key to effective operation of forces across a boundary is coordination. Currently, if a major operation was to be conducted involving two combatant command AOR it would be appropriate to form a JTF with input and assistance from the combatant commanders involved. Additionally, in order to improve combatant commander coordination across AORs the Secretary of Defense has called for a "seam mitigation" effort. The intent of this initiative is to "blur" the lines created by the artificial boundaries of the UCP and thereby improve the United States' ability to

accomplish military objectives. CENTCOM has initiated this effort with regards to India and Pakistan. In addition to improving coordination among combatant commanders, there is continual refinement of the geographic AORs though biennial UCP reviews.

Review and refinement of the UCP is made in an effort to strengthen unity of effort, to achieve a more manageable span of control, and to improve warfighting effectiveness. Recent UCP initiatives have dealt specifically with countries positioned on the CENTCOM boundary. Syria and Lebanon are scheduled to be transferred to the CENTCOM AOR in the near future. These nations are more closely aligned culturally and politically with the current CENTCOM area and should military operations be necessary in either, it is likely these operations would be linked with other central region countries.

The Horn of Africa is playing an increasingly important role in the global war on terrorism. As pressure is brought to bear in South Asia, terrorists could migrate into states adjacent to the CENTCOM AOR such as Uganda and Tanzania. These EUCOM nations, along with Kenya—which is in the central region—make up the Central African Community. Based on this established relationship, and the spillover of terrorists from the central region to Uganda and Tanzania, both the CENTCOM and EUCOM staffs are carefully linked to ensure appropriate coordination occurs.

Finally, the situation with Pakistan and India is a crucial one. The United States' interest in the military posture of these two nuclear powers is significant. We must take measures to ensure the seam created between them by the UCP does not aggravate the existing issues. Accordingly, we recently conducted CENTCOM and Pacific Command (PACOM) staff talks on "seam mitigation" between these two nations. During these talks, the security cooperation plans of both combatant commands were examined in order to determine ways to leverage each combatant command's activities to foster regional stability. We intend to continue this dialogue and have additional forums planned on a recurring basis. CENTCOM will pursue stronger bilateral security relations with both Pakistan and India to reduce tensions, enhance peace, and security on the sub-continent, and develop concrete steps for reducing the risks of nuclear conflict.

The issues created by the UCP can be significant and in some cases adjustment of the boundaries is necessary and appropriate. Periodic review of the existing boundaries and close coordination and cooperation between the regional combatant commands is the key to successfully executing our global strategy.

NATIONAL GUARD AND RESERVE FORCE READINESS

6. Senator DOLE. General Abizaid, the military is extremely busy executing the global war on terrorism, and military personnel from all components have deployed frequently to conduct operations in either Afghanistan or Iraq. National Guard and Reserve Forces will reportedly make up 40 percent of the military forces executing OIF–2. Under this operation, the 30th Heavy Separate Brigade, "Old Hickory" from North Carolina, recently began its deployment to Iraq, the first deployment of a full National Guard brigade in recent times. Lieutenant General Blum recently stated that the National Guard soldiers being sent to Iraq this year are the best equipped and trained forces, of any component, that the United States has sent into battle. As the supported combatant commander, could you please relate your assessments of the National Guard and Reserve Force readiness as they have arrived in theater and assumed their duties?

General ABIZAID. Lieutenant General Blum was accurate when he said the National Guard soldiers being sent to Iraq this year are some of the best-equipped and trained forces the United States has sent into battles. In fact, all the military forces the United States has deployed to the CENTCOM area of operation are without question the best trained and equipped forces on the globe. As you noted, the Reserve component will make up approximately 40 percent of the forces participating in OIF–2. This includes the major combat formations from your State of North Carolina, the 30th Heavy Brigade, as well as the 39th Light Infantry Brigade from Arkansas and the 81st Heavy Brigade from Washington.

The Reserve component forces are integral in our strategy to fight and win the global war on terror. By resource allocation design, most Reserve component forces are not resourced to the same level as their active component counterparts. However, upon Federal mobilization, Reserve component forces are provided additional resources and training to be on the same level as the active component, and go through validation before deployment. Once validated, Reserve component forces arrive in theater with the preparation to assume their duties successfully.

I have received positive readiness feedback from State Adjutant Generals though our Joint Monthly Access for Reserve Components (JMARC) visits to Afghanistan and Iraq. On the topic of equipment and training, Major General William A. Cugno of Connecticut on his recent visit to Afghanistan last January stated, "It was a tremendous validation and accentuation of the 'One Army Concept'," and said "I am able to explain with credibility that our guys have the best over there. I was able to put criticism to bed about the treatment of the National Guard troops and the accusations of a double standard. The bottom line is that the National Guard is being treated equally over there. The Division Commander, Brigadier General Austin of the 10th Mountain Division, briefed me and he could not say 'thanks' enough for the Reserve component. He told me that 70 percent of his aviation unit is Guard and he has not had a single negative incident."

UNGOVERNED SPACES

7. Senator DOLE. General Jones and General Abizaid, Director Tenet and Admiral Jacoby recently briefed the Senate Select Committee on Intelligence regarding current and worldwide threats to the United States' national security. Both gentlemen raised transnational issues associated with ineffective governments that can result in "stateless zones" or "ungoverned spaces." Your combined AORs include 118 nations with varying degrees of governmental effectiveness. While the majority of these nation states are under stable control, many are failing to provide basic public services and lack effective control of their populations or geographic boundaries. As the United States and its allies conduct the global war on terrorism, this has significant ramifications as ungoverned spaces have become prime breeding grounds for terrorist. Could each of you describe how you are addressing this threat, and its priority relative to challenges within the rest of your AORs?

General JONES. The issue you identify with "ungoverned spaces" is part of a larger problem set we identify as "Terrorist Safe Havens"; that is, those places where terrorists operate with impunity, without hindrance from governmental or non-governmental agencies. This broader definition of safe havens is important, as we find that 21st century safe havens are often multi-dimensional—and it is the blend of factors that work in the favor of the terrorist. Using Western Europe for example we could imagine a scenario where legal or jurisdictional "havens" could inadvertently delay the extradition of a wanted terrorist. So to answer the simple question first: the war on terror is the number one priority of the EUCOM, and denying terrorists their safe havens is our first priority.

Within the EUCOM AOR we have identified a number of the physical safe havens you have identified as "ungoverned spaces." These areas are located throughout our AOR from the deserts of Northern Africa and the Pan Sahel region to the Caucasus region affected by the insurgency in Chechnya to the war-torn areas of the Gulf of Guinea. Through our Campaign Plan, "Defeating Terrorism in the AOR", we have examined the different regions in our AOR to identify the different types of safe havens extant in each.

Our current focus lies on the vast, remote, and sparsely populated deserts of North Africa and the Pan Sahel (NA–PS). This area is more than twice the size of Afghanistan and Pakistan combined. The NA–PS region is beset with a host of challenging problems: smuggling and other illegal activities; disenfranchised, often violence-prone, cultures susceptible to the proselytizing of radical Islam; and extremely limited infrastructure and government services. Moreover this area crosses the borders of eight nations—each with different capabilities and historically distrustful of one another.

EUCOM is working on a long-term approach to eliminating this region as a potential terrorist safe haven. EUCOM recognizes the economic, social, and political conditions that enable terrorists to thrive, and the need to combat terrorism with more than just a military approach. Recognizing the multi-faceted nature of the challenge, we are working closely to ensure we support other U.S. Government efforts in the region.

Militarily EUCOM, through our various components, is working on various aspects of the plan as we speak. Special Operations Command Europe (SOCEUR) is leading the way with a program training and equipping company sized, rapid reaction units, in the Pan Sahel. By providing training and some equipment we can prepare these nations to provide their own border security, internal defense, and counterterrorism efforts.

While the NA–PS is our priority effort, it is not our only one. You heard in the testimony of March 4 the work being done in the Georgia Train and Equip Program. That program is nearly completed and it is already considered a success. Programs

like Georgia Train and Equip, and the Pan-Sahel Initiative are an efficient, cost-effective way to deny terrorists access to potential physical safe havens. By training and equipping the military forces of nations which support the global war on terrorism, we enable our partners to establish the rule of law across their territories and deny their use to terrorists.

General ABIZAID. Within the CENTCOM AOR, ungoverned spaces present several challenges. Somalia, as a failed state is an governed area that provides an operating environment for Al-Ittihad al-Islami and al Qaeda. Pakistan is currently conducting operations in their loosely-controlled "tribal territories" bordering Afghanistan. Saudi Arabia and Yemen are increasing their cooperation and counter-terrorism capabilities to eliminate threats from their loosely-controlled common border area. In the case of Iran, lack of diplomatic relations results in a governed space in which CENTCOM has no access or authority to internally address terrorist threats that may emerge from that particular country; accordingly, containment is our primary tool.

Winning the global war on terrorism depends on individual nations defeating terrorists within their own borders, thus establishing operational partnerships that help countries increase governmental control within their territory is a top priority. For example, in the Horn of Africa, Commander, JTF–HOA, is conducting maritime interdiction operations and working with governments in the region to strengthen their counterterrorism capabilities. In ungoverned areas such as Somalia or governed areas in which we do not have direct access, such as Iran, we are actively working to contain terrorist groups operating from and within these locations.

Our ongoing efforts to defeat and/or deter terrorism in ungoverned spaces, as well as in governed areas in which we do not have direct access, are integral to executing the global war on terrorism in the CENTCOM's AOR.

"SMALL WARS"

8. Senator DOLE. General Abizaid, in General Hagee's testimony before this committee, he said that the Marines are drawing on lessons learned from its sister Services, coalition partners, interdepartmental agencies, and the Marine Corps' own "Small Wars" experience as it prepares for OIF–2. According to news reports, the Marine Corps is planning to take a "fresh" approach as it prepares to take over in areas currently occupied by the United States Army (for example, emphasizing restraint and cultural sensitivity, and living among the Iraqi population in platoon size elements). Does this mean that the Marine Corps and the Army will deliberately employ different strategies in OIF–2 and if so, why are different forces planning to operate jointly with different strategies? Is this consistent with the DOD's priority of enhancing joint warfighting capabilities?

General ABIZAID. The situation in Iraq has changed as we are now facing a insurgency within Iraq. In addition, we now have some Iraqi security forces established and working with coalition forces. These two factors will require changes in the approach a unit must take to achieve objectives. Our strategy emphasizes the empowerment of Iraqis and gaining the confidence of the Iraqi population to achieve our objectives. The Marine Corps' approach reflects this changing security framework, and their ability to apply past experiences embodied in their manual "Small Wars" to this situation. This approach is consistent with the coalition strategy which is also evolving based on the changing nature of the conflict. The Marine Corps, like other U.S. and coalition forces, are drawing on what they have found to be the best of their own experiences to achieve their objectives.

The approach described by General Hagee simply means that the Marines will be using different techniques to achieve their objectives. The situation in Iraq is dynamic, and the proposed operational approach reflects the Marines' willingness to adapt to the situation to overcoming unique operational problems. Some of these techniques are currently being employed by other coalition forces in other parts of the country. The Marines intend to use the transition period to implement these techniques and test their ability to achieve our objectives using a less kinetic approach. The main objective is to adapt to the changing environment, a counterinsurgency, and use what works. The approach taken by the Marines is an effective strategy against a counterinsurgency and is consistent with CENTCOM's strategy.

BUDGET TO SUPPORT CONTINGENCY PLANS

9. Senator DOLE. General Abizaid, the military services are transforming and investing heavily towards the next generation of capabilities. Yet less than 5 percent of the procurement and research, development, test, and evaluation (RDT&E) budg-

et, across the Services, is dedicated to strategic lift. Our national military strategy requires our forces to be capable of rapidly deploying and operating in multiple theaters at varying levels of conflict. As the supported commander, do you believe the DOD budget request sufficiently resources and programs strategic lift to support your contingency plans?

General ABIZAID. The vast expanse and distance from our homeland, coupled with an immature logistical infrastructure in the CENTCOM AOR, presents unique challenges when conducting even the most simple operations, let alone responses to an emerging crisis. Adequate lift capacity capable of closing the force rapidly within the timelines dictated by both planned and unplanned responses always remains a concern for any commander. Adequate strategic lift has been the focus of the Department's budget submission in the past, and is being addressed in the future budget planning. I'm confident that recent events in the CENTCOM AOR have helped to focus the Department on the importance of strategic lift to a commander operating at great distances from our homeland infrastructure, and the right emphasis will be in place to assure our capability to rapidly and efficiently deploy our forces anywhere, anytime, and in sufficient strength to accomplish the mission, now and in the future.

[Whereupon, at 12:50 p.m., the committee adjourned.]

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2005

THURSDAY, MARCH 11, 2004

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

MISSILE DEFENSE

The committee met, pursuant to notice, at 9:34 a.m., in room SR–325, Russell Senate Office Building, Senator John Warner (chairman) presiding.

Committee members present: Senators Warner, Inhofe, Allard, Sessions, Dole, Levin, Lieberman, Reed, Akaka, Bill Nelson, Ben Nelson, Dayton, Bayh, Clinton, and Pryor.

Committee staff member present: Judith A. Ansley, staff director.

Majority staff members present: Charles W. Alsup, professional staff member; and Brian R. Green, professional staff member.

Minority staff members present: Richard D. DeBobes, Democratic staff director; Madelyn R. Creedon, minority counsel; Kenneth M. Crosswait, professional staff member; and Richard W. Fieldhouse, professional staff member.

Staff assistants present: Michael N. Berger, Nicholas W. West, and Pendred K. Wilson.

Committee members' assistants present: J. Mark Powers, assistant to Senator Inhofe; Jayson Roehl, assistant to Senator Allard; Arch Galloway II, assistant to Senator Sessions; Frederick M. Downey, assistant to Senator Lieberman; Elizabeth King, assistant to Senator Reed; Peter A. Contostavlos and Caroline Tess, assistants to Senator Bill Nelson; Eric Pierce, assistant to Senator Ben Nelson; Andrew Shapiro, assistant to Senator Clinton; Terri Glaze, Randy Massanelli, and Nathan McCarroll, assistants to Senator Pryor.

OPENING STATEMENT OF SENATOR JOHN WARNER

Chairman WARNER. Good morning everyone. The committee meets this morning to seek testimony on the fiscal year 2005 ballistic missile defense budget request that was made by the President. I was very pleased to schedule this hearing at the request of my distinguished ranking member, Senator Levin, Senator Akaka, Senator Allard, and others who are, like myself, very concerned that this program receives the strongest of oversight but hopefully

the strongest of support by the committee, and indeed by the full Senate.

We welcome our witnesses today, Acting Under Secretary of Defense for Acquisition, Technology, and Logistics, Mike Wynne; Director of Operational Test and Evaluation (DOT&E), Thomas Christie; Commander of U.S. Strategic Command (STRATCOM), Admiral James O. Ellis; Director of the Missile Defense Agency (MDA), General Ronald T. Kadish; and the Commander of the Army's Space and Missile Defense Command, General Larry J. Dodgen. I thank each of you for finding the opportunity to join with us here this morning.

Protecting our Nation, our allies, our friends, and foremost, our troops deployed overseas from a very real threat of ballistic attack is an urgent national defense priority. The need for effective missile defenses could not be clearer, whether it is here at home or abroad. Dozens of nations already have short- and medium-range ballistic missiles in the field that threaten U.S. interests, military forces, allies, and friends, and others are seeking to acquire similar capabilities, including missiles that could reach the United States.

The importance of our missile defense was forcefully demonstrated during Operation Iraqi Freedom (OIF). Iraqi military forces fired more than 20 ballistic missiles at coalition forces. The Patriot Air and Missile Defense System engaged nine of those missiles that were aimed at valuable targets. All nine threat missiles were destroyed in flight. There is no debate about the success of these engagements.

No coalition soldiers and citizens within coalition nations were hurt in any of these ballistic missile attacks. The systems simply work, for which we are very grateful to all of those who have spent so many years of their lives doing research and development (R&D) to prepare them.

On December 17, 2002, President Bush reiterated his commitment to defend our Nation from these types of attacks: "The new strategic challenges of the 21st century require us to think differently, but they also require us to act. The deployment of missile defenses is an essential element of our broader efforts to transform our defense and deterrence policies and capabilities to meet the new threats we face. Defending the American people against these new threats is my highest priority as commander in chief, and the highest priority of my administration."

On that date, the President announced that he would be directing the Secretary of Defense to proceed with fielding an initial set of missile defense capabilities to begin operations in 2004 and 2005.

I strongly support the President's decision. I will withhold the balance of my statement such that we can get under way with this hearing. Senator Levin, do you have a few opening comments, and then Senator Allard?

STATEMENT OF SENATOR CARL LEVIN

Senator LEVIN. Thank you, Mr. Chairman. Let me join you in welcoming all of our witnesses here this morning. This hearing is important for a number of reasons. First, the magnitude of the fiscal year 2005 budget request for missile defense is truly staggering.

The total request is more than $10 billion and that's for 1 fiscal year.

Of that amount, more than $9 billion is for what the Pentagon calls the Ballistic Missile Defense System (BMDS). As far as I know, that is the largest single year funding request for any weapons system in history. The majority of this funding is in pursuit of a rudimentary and uncertain defense against the unlikely long-range missile attack.

To put the missile defense budget request in perspective, this request is close to twice the entire 2005 budget request for U.S. Customs and Border Protection and the Department of Homeland Security (DHS), the program dedicated to keeping would be terrorists out of our country. The missile defense request has more than doubled the next largest annual request for a weapons system, the F–22 fighter jet. It is more than the entire annual R&D budget of the United States Army.

One reason this hearing is important is to try to understand the justification for this record breaking budget request for missile defense. How will this missile defense help keep this country safe from terrorist threats that we know exist right now? If we spend this money, will we actually get an effective defense for this country, or will we get instead a system that was rushed to the field prematurely that will have to be fixed repeatedly at additional costs as operational tests reveal significant problems?

That brings us to the second reason that this hearing is important. The administration plans to deploy a national missile defense system in September of this year, just 6 short months away. That is despite the fact that the last major test of the system was more than 1 year ago, and that test was a failure.

Then inexplicably, seven of the eight intercept tests of the system that had been scheduled for 2003 and 2004 have either been canceled or have been delayed until next year. The plan to deploy in September, however, remains, despite the fact that only one of the intercept tests which were to occur before deployment is still planned, and even that test will be a well-scripted event in which the system's radar will not be functioning. Instead, the target itself will broadcast its position to the BMDS. A real enemy missile heading towards the United States will not be broadcasting its position to us.

The administration plans to deploy in September despite known problems with the interceptor, problems that could affect the interceptor's ability to track the target and hit it. This is according to the most recent report of the Pentagon's chief tester, Tom Christie, who is with us today.

General Kadish has said that he plans to fix the interceptor problems and increase the realism of national missile defense testing in future years, but only after we buy a large number of missiles and deploy them. History shows how essential realistic tests are, and the system the administration plans to deploy in September will have completed no realistic tests. Zero.

The administration's missile defense plans are at odds with longstanding acquisition laws. These common sense laws require major weapons systems to be independently tested under combatlike con-

ditions prior to going into mass production and being deployed to our troops. Collectively known as fly before you buy.

The laws reflect fundamental principles of good government and are intended to protect the safety of our military personnel and our Nation, as well as the taxpayers' money. The heart of these laws is the requirement to do operational testing prior to full-time production of a weapons system. By law, operational tests must be conducted under realistic combat conditions by typical military users. That is to ensure that the system actually works when needed, rather than simply in an artificial test environment.

The missile defense tests to date have all been developmental tests which need not be conducted under realistic combat conditions. In fact, the missile defense tests have not been.

According to Mr. Christie's latest report to Congress, testing of the national BMDS is still needed under more combatlike conditions, using the full system rather than just individual parts of it. Testing is also needed against targets which look more like actual threat missiles and are not already preprogrammed into the missile defense system's computer.

Unlike the developmental tests conducted to date, the law requires that operational tests must be approved and overseen by Mr. Christie, the Pentagon's independent test authority. Why is it important that the Pentagon's independent test authority oversee and approve the operational tests that must successfully be completed prior to giving the go ahead to full rate production of a weapons system? Because this is the only way a military program can be judged by an expert who is independent of the program, who therefore is at liberty to tell the unvarnished truth about the program's successes or failings.

Developmental testing by contrast is conducted by the program's contractors and managers who clearly have a considerable financial and other stake in the future of the program. Their careers may depend on the program's success. Many Pentagon programs have sailed through in developmental tests with glowing results reported by the contractor, but when the time comes for operational testing, serious problems are suddenly revealed by the DOT&E.

The whole point of operational testing is to fix those problems prior to buying and deploying the system. Operational testing is one of the major reasons the U.S. military is second to none. Last year, the administration requested billions of dollars to begin to field a largely untested missile defense in September, consisting of 20 interceptor missiles as a rudimentary defense capability.

The administration acknowledged that this initial capability would not be robust, but said that the 20 interceptors were part of a missile defense test bed. At a missile defense hearing 1 year ago, administration witnesses, including General Kadish, Mr. Christie, and Secretary Aldridge, who held Secretary Wynne's position at the time, all said that one of the reasons for deploying these 20 interceptors starting this September was to conduct more realistic tests of the system.

Secretary Aldridge assured us at the hearing that "the reason we have the test bed and we are developing the test bed is to enable operational testing."

One year later, operational tests still have not been performed on the system and apparently none are planned soon, yet the administration has requested more than half a billion dollars in 2005 to begin buying 20 additional interceptor missiles, over and above the 20 that they plan to deploy in September.

Some of these additional 20 interceptors are to be deployed at a new unspecified missile defense site and all of this with no near-term plans for realistic operational testing of the first 20 interceptors.

It is dubious enough to buy and field 20 largely untested intercepters as part of a test bed and claim that something is better than nothing as the administration did last year. It is plain wrong and in violation of our procurement laws to continue to buy another 20 of these missiles as fast as possible in what is clearly a full production mode.

It is not clear to me how racing to build and deploy 40 missile defense interceptors in multiple deployment sites without successfully completing operational tests to the system is consistent with the provisions of the fly before you buy procurement laws.

If we approve another 20 missiles this year, without demanding operational tests in accordance with common sense and with the law, what would prevent the administration from asking for another 20 next year and another 20 the year after that. If we don't demand realistic operational tests of this system now, when will we? How many more billions of dollars should we spend on this system prior to knowing whether it will really work against a real threat?

Finally, Mr. Chairman, I'd like to just briefly review the track record of the only missile defense system that has ever seen actual battle, the Patriot system. I think this track record shows clearly why the common sense notions of the fly before you buy laws are so important. The Patriot missile defense was rushed to the front lines of the 1991 Gulf War amid much fanfare but with virtually no testing against ballistic missiles.

Pentagon claims of extraordinary high success rates against Iraqi SCUD missiles proved hollow when it became clear that most of the supposed intercepts were actually Patriot missiles blowing themselves up in futility as the SCUD missile warhead continued to the ground only to explode there as designed.

One of the SCUDs missed by the Patriot system destroyed a U.S. military barracks in Saudi Arabia, killing 28 Americans. Following the Gulf War, the Pentagon labored for years on an improved version of the Patriot, the PAC–3, which was specifically designed for SCUDs.

Between 1997 and 2001, a string of 10 developmental tests were conducted, run by the contractor and overseen by the Patriot program manager. These tests were almost all "completely successful" because they were so easy and unrealistic. Then it was time for operational testing. Combat realistic testing approved and overseen by the Pentagon's independent test authority, with actual Army soldiers, not contractors, at the Patriot controls.

Operational tests ran from February to May of 2002, and at every single operational test, a major Patriot failure occurred. Out of the seven targets launched, only three were hit. One Patriot mis-

sile missed a cruise missile target, one missed a ballistic target, and two Patriots failed to launch all together. The problems discovered in operational tests were severe and would have seriously degraded the performance of Patriot in an actual battle.

Because of rigorous testing, major problems were fixed just in time for the new Patriots to see action in OIF. Even with rigorous operational testing, there were still failures with the Patriot, which was involved in three friendly fire incidents which killed three coalition airmen, but the Patriot performance would have been calamitous without the operational tests.

The story of the Patriot shows that if we want an effective weapons system, be it missile defense or any other system, rigorous, independent, operational testing is absolutely essential. Our laws require it. Common sense demands it. Our commitment to our military personnel and the taxpayer call for it, and not to do so will surely waste money if the system is ever called to battle, it could result in a far greater tragedy than just the loss of resources and funds. Thank you, Mr. Chairman.

Chairman WARNER. I feel that I have to go back into the opening statement which I put in the record, because I gave detailed accounts of the experience here in this country on this issue of testing, which is a legitimate issue. I want to point out that this will not be the first time a defense system in development has been used for operational purposes prior to completion of testing.

There are many examples of such uses in the past driven by an urgent need. Some of these examples are well-known, two Joint Surveillance and Target Attack Radar System (JSTARS) aircraft flew hundreds of hours of combat missions during the 1991 Persian Gulf War, and provided warning to our forces on the ground when the Iraqi Army was on the move. They were preproduction aircraft that had not even started operational test evaluation.

Indeed, in the wake of the outstanding performance of JSTARS during the 1991 conflict, our committee increased the administration's request for JSTARS aircraft long prior to completion of operational tests and evaluation.

More recently, the Predator and Global Hawk unmanned aerial vehicles (UAVs) have proven to be valuable assets to our forces during the global war on terrorism. Our military put these assets in the field in Afghanistan even though the Predator failed its operational evaluation, and the Global Hawk had not yet started its operational evaluation.

Senator LEVIN. Mr. Chairman, in my humble opinion in all of those cases operational testing was planned at the time it was fielded, and it was carried out. That is not present now. We do not have the plans for operational testing for this system.

Chairman WARNER. We will start off this morning, I think, with Mr. Christie. Is that the desire? Or is it Mr. Wynne? What is preferable? Mr. Wynne, would you lead off.

STATEMENT OF HON. MICHAEL W. WYNNE, ACTING UNDER SECRETARY OF DEFENSE FOR ACQUISITION, TECHNOLOGY, AND LOGISTICS

Mr. WYNNE. Thank you, Mr. Chairman. Good morning, Mr. Chairman, Senator Levin, members of the committee. Thank you

for the opportunity to appear before you today to discuss the fiscal year 2005 Department of Defense (DOD) Missile Defense Program.

The National Missile Defense Act of 1999 established the policy of the United States to deploy as soon as possible an effective national missile defense system capable of defending the territory of the United States against limited ballistic missile attack.

The President more recently directed the Department to begin fielding missile defense capabilities in 2004. I am pleased to report to you today that we are on track to deliver a useful ground-based Ballistic Missile Defense (BMD) capability later in 2004. The initial capability of this system will likely be limited, but will still be a dramatic improvement over our current condition of being defenseless against ballistic missile attack.

The system will have been tested against postulated ballistic missile attack scenarios and evaluation of its military utility assessed. The MDA continues to incorporate increasing realism and operational factors in the test program. The test program for 2004 and 2005 will have target geometries and test conditions which approximate the most plausible operational attack scenarios.

The plan and budget for 2005 and 2006 reflects a good balance between added testing, replication of test articles, and maintenance of a warm line for missiles, as well as plans for future deployment.

The flexibility derived from the Secretary's direction on this program has enabled the Director of the MDA to make programmatic moves that make the fielding of initial ballistic missile defense capabilities possible. Congress has been concerned that the Department will provide proper oversight of this effort.

I have examined this oversight structure and am confident that it facilitates the decisive action needed while providing extensive and frequent insight to senior Department leaders and to Congress.

In my role of managing the defense acquisition process, I ensure that key DOD stakeholders are involved in the process leading to programmatic decisions. I solicit the advice and support of the various DOD interests represented by the Defense Acquisition Board members.

The streamlined oversight process of the Missile Defense Program changes the collaborative process, reducing the formal reporting to a more informal basis, but retains its essence. I meet with and influence the Director in his ongoing management role. I have also personally reviewed the systems engineering that underlies the missile defense system of systems and the testing and simulation methodology in a disciplined use of engagement scenarios to proof out components and combinations of systems.

The Joint Requirements Oversight Council (JROC) monitors the progress of the development program and concurs with missile defense goals and program plans. Members of the Joint Theater Air and Missile Defense Organization and STRATCOM interact with the MDA in the construct of operational concepts for BMD and in the assessment of the system's military utility.

United States leadership in BMD has encouraged several of our allies to join our effort. We have formal agreements with the United Kingdom (U.K.) for missile defense cooperation and are negotiating with Japan which is investing on its own behalf signifi-

cantly. Australia and Denmark are other nations that are asking for cooperative agreements.

Other nations have expressed a desire to participate. We plan to facilitate their participation, which is another aspect of the President's defense; missile defense direction.

We are grateful for the support of Congress, which has made this bold effort to field missile defense capabilities possible. Congressional approval of the President's request for missile defense funding has been absolutely critical to our smooth execution of the program and we appreciate your support.

Thank you for this opportunity to testify before this committee. I'd be happy to answer any questions that you might have.

[The prepared statement of Under Secretary Wynne follows:]

PREPARED STATEMENT BY HON. MICHAEL W. WYNNE

Good morning, Mr. Chairman, Mr. Ranking Member, and members of the committee. Thank you for the opportunity to appear before you today to discuss the Fiscal Year 2005 Department of Defense (DOD) Missile Defense Program and budget submission. I am pleased to provide you this update on the progress of the Missile Defense Development Program.

The National Missile Defense Act of 1999 established that it is the policy of the United States to deploy as soon as technologically possible an effective National Missile Defense system capable of defending the territory of the United States against limited ballistic missile attack. Upon taking office, President Bush directed that the DOD examine the full range of available technologies and basing modes for missile defense that could protect the United States, our deployed forces, and our friends and allies. In light of the changed security environment following September 11 and the progress made in development efforts, the President directed the Department to begin fielding missile defense capabilities in 2004.

During this past year, the Department has been hard at work developing the missile defense capabilities that will respond to the President's direction. We are using postulated ballistic missile attack scenarios to incorporate increasing realism into our test program. Although we have encountered and solved a number of technical difficulties and can expect further challenges on the path ahead, we are on track to deliver a useful ballistic missile defense capability later in 2004. That initial capability will likely be limited, but will still represent a dramatic improvement over our current condition of being defenseless against ballistic missile attack.

As additional components of our initial configuration are placed in service in 2004 and 2005, the effectiveness of the missile defense capability will incrementally improve. Further improvements planned for 2006 and beyond will enhance both the capability of fielded missile defense components and the depth of those capabilities. The Ballistic Missile Defense (BMD) program differs from the classical major defense acquisition program, so our approach to acquisition differs. Rather than produce and deploy a fixed "objective" missile defense configuration to serve its entire operational life, we plan an ambitious program of technology insertions and additional fielding actions to enhance the capability. Such an approach, implemented in an integrated system of systems to provide layered defense, will deepen the protection of our Nation, extend protection to allies and friends, and keep pace with the developing threat.

Our confidence in the capabilities we are about to place in service is based on an assessment of the performance of individual elements of the system and of the overall system during testing conducted throughout the development program, supplemented by modeling and simulation. As we have progressed in the test program, we have incorporated increasing realism and operational factors. The flight test program for the remainder of 2004 and 2005 has been structured to incorporate target geometries and test conditions which closely approximate the most plausible operational attack scenarios. The outcome of those tests will yield valuable information for assessing the effectiveness of the fielded missile defense system and strengthening our confidence in the capability. As we field additional elements of the planned Block 2004 configuration, such as the sea-based X-band radar in 2005, we also improve our ability to evaluate the system. So while the initial capability will be limited, progress in fielding the rest of Block 2004 will improve both the capability and our ability to test it.

The flexibility that resulted from the Secretary's direction to consolidate BMD development activity within a single program and to streamline our oversight process has enabled the Director of the Missile Defense Agency (MDA) to make the programmatic moves that make the fielding of initial BMD capabilities possible. Congress has been rightly concerned that the Department provide proper oversight of this effort and that Congress retain its insight into missile defense program developments. I have examined the oversight structure and am confident that it facilitates the decisive action needed, while providing extensive and frequent insight into the program to senior Department leaders and to Congress.

I believe this new approach is proving successful in developing the Missile Defense Program. In comparison to other programs, my interactions with the Director, MDA, to provide guidance, and my interactions with the Secretary, to provide feedback and receive guidance, are more direct and generally carried out in face-to-face discussions. The success of the program in preparing for initial fielding later this year demonstrates the effectiveness of this approach. In addition, the Missile Defense Program is setting DOD standards for such activities as systems engineering and effective testing of complex systems of systems, and we are beginning to apply those lessons to other programs.

The President's budget for fiscal year 2005 fully supports the BMD program. It will allow us to complete the fielding of the initial defensive configuration, to maintain that configuration both on alert and as a test bed, and to proceed with development of future improvements to the system. I urge the committee to support the President's budget for this important program.

In my role of managing the DOD acquisition process, I strive to ensure that all of the key DOD stakeholders are involved in the process leading to programmatic decisions. I solicit the advice and support of the various DOD interests represented on the Defense Acquisition Board. The streamlined oversight process instituted for the Missile Defense Program changes the mechanics of the collaborative process, but retains its essence. The extensive, ongoing dialog within the Department on all aspects of the Missile Defense Program provides advice and support to the Secretary, the Deputy Secretary, the Director of MDA, and me.

The Missile Defense Support Group (MDSG), playing a key role in oversight, has continued to provide beneficial advice and comment to the Director of MDA and to me on various aspects of the program. These senior, experienced representatives of 15 principals of the Department have met 41 times since the MDSG was created in March 2002. They have provided advice on various aspects of the development program for the integrated BMD system, options for fielding capability, and ways of implementing those options. They have also provided valuable advice for involving our allies in the Missile Defense Development Program. Recognizing the challenge of placing this developmental system into operational service, we have added the U.S. Strategic Command (STRATCOM) to the MDSG to gain an improved understanding of the concerns of the warfighter as we approach the commencement of Initial Defensive Operations (IDO). No program in the Department receives more scrutiny—either in level or frequency—than the Missile Defense Program.

In addition to the MDSG, engagement between Office of the Secretary of Defense (OSD) officials, the Joint Staff, the military services, and the MDA is extensive and ongoing. I meet weekly with the Director of MDA to address important issues and provide guidance on the way ahead. The Director and Principal Deputy of Program Analysis and Evaluation (PA&E) have met periodically with the MDA Director and his senior staff to develop strategies for fielding missile defense capabilities and to resolve other programmatic issues. PA&E's staff monitors the progress of the Missile Defense Program, within the framework of the MDSG, through the program and budget review process, and by periodic engagement with their MDA counterparts.

The Joint Requirements Oversight Council (JROC) monitors the progress of the development program, concurs with MDA's goals and program plan, and is satisfied with overall Missile Defense Program cost and schedule performance. Members of the Joint Theater Air and Missile Defense Organization and STRATCOM interact regularly with MDA in the development of operational concepts for BMD and in the assessment of the system's military utility.

The relationship between MDA and the OSD Cost Analysis Improvement Group is governed by a formal memorandum of agreement guiding the development of cost models and shared databases essential for the preparation of cost estimates for the BMD system. This ongoing interaction has facilitated the completion of independent cost estimates for elements to be fielded in Block 2004.

The Director of Operational Test and Evaluation (DOT&E) and the Service Operational Test Agencies (OTA) are fully engaged with MDA. The DOT&E and the leadership of the Service OTAs meet periodically with MDA's senior leadership. The Deputy DOT&E has near-daily interaction with MDA's senior staff. DOT&E person-

nel work closely with MDA in the development and review of test plans, observation of testing, participation in data reviews, and the assessment of results. DOT&E's annual reports to Congress are informed by the ongoing exchange between DOT&E, the Service OTAs, and MDA.

The military service acquisition chiefs meet regularly with MDA's leaders to resolve issues relating to the ballistic missile defense capabilities which will, ultimately, be operated and maintained by the Services.

U.S. leadership in BMD has encouraged several of our allies to join the effort. Allied engagement, which was in its infancy a year ago, has now taken root. We have entered into a formal agreement with the United Kingdom (U.K.) for missile defense cooperation and are negotiating agreements with Japan, Australia, and Denmark. Other nations have also signaled their desire to participate. We are structuring our efforts to facilitate their participation, another aspect of the President's missile defense direction.

We are grateful for the support of Congress, which has made this bold effort to field missile defense capabilities possible. Congressional approval of the President's requests for missile defense funding has been critical to our smooth execution of the program. Continued cooperation between the Department and Congress will only grow in importance as we execute our mission to provide for the national security of the United States. I look forward to continuing that cooperation.

Thank you for this opportunity to testify before the committee. I would be happy to answer any questions you might have.

Chairman WARNER. Thank you very much, Mr. Secretary. I think at this time, the most orderly presentation, unless you have a different view, Secretary Wynne, would be to hear from Mr. Christie, and then proceed with our military witnesses. Do you agree with that?

Mr. WYNNE. Yes, sir.

Chairman WARNER. Thank you. Mr. Christie.

STATEMENT OF HON. THOMAS P. CHRISTIE, DIRECTOR, OPERATIONAL TEST AND EVALUATION

Mr. CHRISTIE. Mr. Chairman, Senator Levin, and members of the committee, I appreciate this opportunity also to appear before you today, to provide you with an update on where we stand with respect to testing the BMDS. I continue to strongly support the construction and integration of the BMDS test bed. This test bed will provide the elements that make up the Initial Defensive Operations (IDO) architecture.

While I am very encouraged by the improved testing environment and capability that the BMDS test bed will provide, I am even more pleased with an increased emphasis on system integration and user involvement that I have seen over the past year. STRATCOM and Northern Command (NORTHCOM) are developing tactics, techniques, and procedures for operating the system.

The MDA and the element program offices are making the developmental tests progressively more realistic. They are ground testing with the available system hardware and software and involving soldier operators to the degree possible.

As I have said in the past, the system must be built before we can properly test it, and test it under more realistic conditions than our present capability permits. The MDA is still building this capability. We have just begun to ground and flight-test some of the system components in a tactical configuration. General Kadish is restructuring the BMDS testing program in 2005 to focus on further characterizing and evaluating the performance envelope of the IDO capability.

This testing will become more operationally realistic in that test scenarios will include more complex target presentations and engagement scenarios. It also will provide a better understanding of the IDO, end-to-end performance capability. The MDA continues to be proactive when it comes to testing. General Kadish has adopted a test-find-fix-test philosophy.

This approach provides a higher likelihood of finding design and workmanship problems early in the program. The decision to exploit the test bed elements for an initial operational capability has required some substantive changes in test planning.

Test objectives have shifted from demonstrating component capabilities to demonstrating integrated system capabilities. My staff and I remain involved on a daily basis with the MDA and the BMDS element program offices in order to ensure that operational test issues are addressed in their testing.

I have recently sent forward for your review the master test plan for the Block 04 BMDS, along with the developmental test plans, master plans for the four major elements (global missile defense (GMD), Aegis, Airborne Laser (ABL), and Terminal High Altitude Area Defense (THAAD)). While statute prohibits me from having authority or responsibility for developmental testing, we are involved in an advisory role in the development of these plans.

Aegis and GMD are the two primary elements of the test bed that will comprise the near-term capabilities of the BMDS IDO. In both the GMD and Aegis programs, operational testers are involved with ensuring that developmental testing addresses as many of the operational objectives as possible.

The Navy's Operational Test Agency (OTA) is advising the Aegis missile defense program on how to make their testing more realistic without compromising important developmental test goals.

The GMD program's Combined Test Force effectively integrates the operational testers into the program development activities and the test design and planning efforts. The Service OTAs are working jointly and in concert with my office to independently advise the MDA and the GMD Combined Task Forces on test plans and are independently evaluating all ground and flight test data.

My office has reviewed and approved the operational test objectives for the last three GMD integrated flight tests. The OTAs, in close coordination with my office, have developed a characterization plan that provides the basis for continuous operational assessments of demonstrated the BMDS capability as it is baselined in 2004 and for each Block as it matures.

The MDA has supported this effort. I am pleased with their openness and cooperation with my office and the Service OTAs. We have agreed on the data sources that will support both the MDA and operational capability assessments. This will help ensure that the test planning will address both developmental and operational objectives.

The operational test community places less emphasis on component level test results, though we agree that such testing can provide a robust characterization and insight into individual component and subsystem performance. Realistic operational testing requires an integration of all internal and external system elements, including operators employing approved tactics and doctrine in ac-

cordance with their training to accomplish mission planning and engagement through kill assessment.

When integrated system performance is not confirmed by integrated system level testing, the burden of combining component performance into system performance falls to models and simulations. Modeling and simulation are not a good substitute for integrated system testing. However, when modeling and simulation are used to provide context to integrated system hardware in the loop test, they can help to overcome test limitations and give a more complete picture of mission capability.

I feel that the MDA is acting responsibly in using models and simulations to estimate system performance, but would caution that since the system is still in development, model-based estimates will almost always contain uncertainties.

Fielding the test bed provides an opportunity to gather operational data on system performance, safety, survivability, reliability, availability, and maintainability. We should expect these data to drive system enhancements. The challenge will be achieving a defensive posture that is flexible enough to accommodate the necessary changes to hardware, software, and processes that will be necessary to maintain a highly available BMDS, while supporting a comprehensive test program that is designed to mature, improve, and demonstrate mission capabilities through continued development.

In summary, let me say that for years, my office has advocated more comprehensive developmental testing, leading up to realistic operational testing. Specifically, we have encouraged programs to do more hardware and software in the loop testing early during system integration in order to avoid problems typically found during operational testing of complex network weapons systems.

The System Integration Laboratory is being employed by the MDA and its elements are addressing this important aspect of system maturation. The test bed is adding flexibility and complexity to the flight test program that will pay dividends in the future.

The commonality of architectural components between the test bed and the operational system poses management challenges, but should speed the integration of new capabilities as they are confirmed through the testing.

Mr. Chairman, ladies and gentlemen, my staff and I continue to work with General Kadish and his staff to ensure that the capabilities and limitations of the BMDS are well characterized as the system proceeds in development and testing. This concludes my opening remarks and I welcome your questions.

[The prepared statement of Mr. Christie follows:]

PREPARED STATEMENT BY THOMAS P. CHRISTIE

Mr. Chairman, members of the committee, I appreciate the opportunity to appear before you today and provide you with an update on where we stand with respect to testing the Ballistic Missile Defense System (BMDS). I continue to strongly support the construction and integration of the BMDS test bed. This BMDS test bed will provide the elements that make up the Initial Defensive Operations (IDO) architecture. While I am very encouraged by the improved testing environment and capability the BMDS test bed will provide, I am even more pleased with the increased emphasis on system integration and user involvement I have seen over the past year. Strategic Command (STRATCOM) and Northern Command (NORTHCOM) are developing tactics, techniques, and procedures for operating the

system. The Missile Defense Agency (MDA) and the element program offices are making the developmental tests progressively more realistic. They are ground testing with the available system hardware and software and involving soldier operators to the degree possible.

As I have said in the past, the system must be built before we can properly test it. The MDA is still building it. We have just begun to ground and flight-test some of the system components in a tactical configuration. General Kadish is restructuring the BMDS testing program in 2005 to focus on further characterizing and evaluating the performance envelope of the IDO capability. This testing will be more operationally realistic in that test scenarios will include more complex target presentations and engagement geometries. It also will provide a better understanding of the IDO end-to-end performance capability.

The MDA continues to be proactive when it comes to testing. General Kadish has adopted a test-find-fix-test philosophy. This approach provides a higher likelihood of finding design and workmanship problems early in the program. The decision to exploit the test bed elements for an initial operational capability has required some substantive changes in test planning. Test objectives have shifted from demonstrating component capabilities to demonstrating integrated system capabilities. My staff and I remain involved on a daily basis with the MDA and the BMDS element program offices to ensure that operational test issues are addressed in testing. I have recently sent forward for your review, the master test plan for the Block 04 BMDS, along with the developmental master test plans for the four major elements (global missile defense (GMD), Aegis, the Airborne Laser (ABL), and Theater High Altitude Area Defense (THAAD)). While statute prohibits me from having authority or responsibility for developmental testing, we are involved in an advisory role in the development of these plans. Aegis and GMD are the two primary elements of the test bed that will comprise the near term capabilities of the BMDS IDO. In both the GMD and Aegis programs, operational testers are involved with insuring that developmental testing addresses as many of the operational objectives as possible. The Navy's Operational Test Agency (OTA) is advising the Aegis missile defense program on how to make their testing more realistic without compromising important developmental testing goals. The GMD program's Combined Test Force effectively integrates the operational testers into the program development activities and the test design and planning efforts. The Service OTAs are working jointly and in concert with the Director of Operational Test and Evaluation (DOT&E) to independently advise MDA and GMD Combined Test Forces on test plans, and are independently evaluating all ground and flight test data. My office has reviewed and approved the operational test objectives for the last three GMD integrated flight tests. The OTAs, in close coordination with my office, have developed a characterization plan that provides the basis for continuous operational assessments of demonstrated BMDS capability as it is baselined in 2004 and for each Block as it matures. The MDA has supported this effort. I am pleased with their openness and cooperation with my office and the Service OTAs. We have agreed on the data sources that will support both MDA and operational capability assessments. This will help ensure that the test planning will to address both developmental and operational objectives.

The operational test community places less emphasis on component level test results, though we agree that such testing can provide a robust characterization and insight into individual component and subsystem performance. Realistic operational testing requires the integration of all the internal and external system elements, including operator personnel employing approved tactics and doctrine in accordance with their training, to accomplish mission planning and engagement through kill assessment. When integrated system performance is not confirmed by integrated system level testing, the burden of combining component performance into system performance falls to models and simulations. Modeling and simulation are not a good substitute for integrated system testing. However, when modeling and simulation are used to provide context to integrated system hardware in the loop tests, they can help to overcome test limitations and give a more complete picture of mission capability. I feel that MDA is acting responsibly in using models and simulations to estimate system performance, but would caution that since the system is still in development, model based estimates almost always contain uncertainties.

Fielding the test bed provides an opportunity to gather operational data on system performance, safety, survivability, reliability, availability, and maintainability. We should expect these data to drive system enhancements. The challenge will be achieving a defensive posture that is flexible enough to accommodate the necessary changes to hardware, software, and processes that will be necessary to maintain a highly available BMDS, while supporting a comprehensive testing program that that is designed to mature, improve, and demonstrate mission capabilities through continued development.

In summary, let me say that for years my office has been advocating more comprehensive developmental testing, leading up to realistic operational testing. Specifically we have encouraged programs to do more hardware and software in the loop testing early during system integration to avoid problems typically found during operational testing of complex networked weapon systems. The system integration laboratories being employed by the MDA and its elements are addressing this important aspect of system maturation. The test bed is adding flexibility and complexity to the flight test program that will pay dividends in the future. The commonality of architectural components between the test bed and the operational system poses management challenges, but should speed the integration of new capabilities as they are confirmed through testing. Mr. Chairman, ladies and gentlemen, my staff and I continue to work with General Kadish and his staff to ensure that the capabilities and limitations of the BMDS are well characterized as the system proceeds in development and testing.

This concludes my opening remarks and I welcome your questions.

Chairman WARNER. I find your remarks very clear, Director. I thank you.

Admiral Ellis.

STATEMENT OF ADM JAMES O. ELLIS, JR., USN, COMMANDER, UNITED STATES STRATEGIC COMMAND

Admiral ELLIS. Thank you, Mr. Chairman, Senator Levin, distinguished members of the committee. It's an honor for me to once again appear before you today representing the outstanding members of STRATCOM men, women, military, and civilian alike.

I have submitted a written statement. I ask that that be included in the record.

Chairman WARNER. The full statements of all witnesses will be made part of the record.

Admiral ELLIS. Thank you, sir. I'm pleased to share the panel today with Mr. Wynne, Mr. Christie, Lieutenant General Kadish, and Lieutenant General Dodgen. During the past year, all of us, together with Ed Eberhart, Commander, NORTHCOM and Tom Fargo, Commander, United States Pacific Command (PACOM) have worked closely as we develop and exercise a concept of operations (CONOPs) that establishes a baseline configuration of all global BMD mission elements. This includes active and passive defense, as well as offensive operational planning.

When I came before this committee last April, I reported that the new STRATCOM was created first and foremost to provide responsive, integrated, and synchronized combat capability and support across geographic boundaries.

Since then, we have made significant progress in all four of our newly assigned mission areas, including global strike, information operations, communications and intelligence, and the coordination and integration of the global BMD capabilities.

This morning, I'm here to report on STRATCOM's role and progress in bringing the global BMDS to an initial alert status. As Mr. Christie has already noted, and Secretary Wynne as well, the Missile Defense Act of 1999 directed us to pursue this course, and it was outlined in the presidentially directed 2002 Unified Command Plan (UCP) Change 2 that assigned STRATCOM the role of planning, integrating, and coordinating our GMD capabilities.

As we bring on line the capabilities being developed by the MDA, STRATCOM is developing doctrine, CONOPs, and operational plans in coordination with our components and other combatant commanders. We are defining broad interrelationships between the

GMD mission and other mission areas such as intelligence, surveillance, and reconnaissance (ISR) strike operations, and information operations.

We are refining rules of engagement, planning force employment, assessing force readiness, and defining logistic support requirements. In short, we are advocating future desired missile defense and warning characteristics even as we implement the ongoing developmental capabilities as spokesmen for all combatant commanders.

NORTHCOM and PACOM are our principal partners in preparation for activation of the IDO capability. I meet and talk frequently with Ed Eberhart and Tom Fargo to refine and validate our plans. Our commands have participated in a continuing series of exercises and ongoing readiness assessments.

You will hear soon from Lieutenant General Larry Dodgen. He is my Army component commander and in his role as Commander, Army Space and Missile Defense Command, and Army Strategic Command (ARSTRAT), he oversees the Army National Guard element that will man and employ the Nation's ground-based midcourse defense system as it comes into being this year under the operational control of the NORTHCOM.

We continue to work closely with Ron Kadish and his MDA staff to identify and develop procedures to share assets that must support both ongoing BMDS development and testing as well as fully support the alert force.

The foundation for the global BMD CONOP is a centralized plan, led by STRATCOM, operational control appropriately maintained by the regional combatant commanders employing their assigned forces.

In coordination with NORTHCOM and PACCOM, STRATCOM will ensure that multimission sensors are coordinated to support the missile defense mission. We have a long history of managing the Nation's early warning sensors and that expertise will be applied to the global BMD mission area as well.

The STRATCOM is also responsible for assessing the military utility of the ongoing developmental system and providing the combatant commander's view of the military utility of the BMDS at IDO in 2004.

We also will periodically report the combatant commander's assessment of the evolving system's capabilities and limitations with a focus on three key metrics, effectiveness, interoperability, and suitability.

The Military Utility Assessment (MUA) and the Operational Test and Evaluation (OT&E) team, referred to by Mr. Christie, share a common database of observations on capabilities and limitations derived from system and element testing and simulation.

The IDO capability is the first increment of the capabilities-based approach to developing and providing BMD. We will take full and early operational advantage of the system's anti-missile capabilities under development.

In fact, moving the initial capability into the operational environment provides opportunities for more immediate, rigorous, and realistic testing of the system elements, command and control processes, and operational crew performance.

Our written statement outlines the progress we have made over the past year and our continuing effort to validate operational processes, systems, and capabilities in order to successfully achieve IDO in the months ahead.

As the men and women of STRATCOM support the new constructs and processes being developed for operationally testing and operationally employing the nascent missile defense system, we will gain important operational experience and insight. These opportunities will enable us to better shape and refine the system as we go through this development process and also permit fielding of an IDO capability to further enhance the security of the Nation.

In my mind, this represents an appropriate and realistic approach to development of this unique defensive capability of unprecedented scope. I thank you for this opportunity to discuss these important issues with you, but I look forward to your questions.

[The prepared statement of Admiral Ellis follows:]

PREPARED STATEMENT BY ADM JAMES O. ELLIS, JR., USN

THE OPERATIONALIZATION OF GLOBAL MISSILE DEFENSE

I. Introduction

It is my honor to appear before the Senate Armed Services Committee today to discuss the role of U.S. Strategic Command (STRATCOM) in operationalizing the Global Ballistic Missile Defense (GBMD) system.

In the words of Secretary Rumsfeld, "We have truly entered a new age—one that may well be the most dangerous America and the democracies of the world have ever faced." Our ever-increasing dependence of space systems, computer technologies, and information management systems, combined with the proliferation of weapons of mass destruction (WMD) and the threat from continued global terrorism, has forever changed the security environment in which we live. The United States can no longer know for certain which nation, combination of nations, or non-state actors may pose threats to our vital interests. Many of the threats we face are global in nature, often operating in the seams between national boundaries, political systems, and ideologies.

Clearly, the tragedy of September 11, 2001, demonstrated the challenges of "one-size-fits-all deterrence." These attacks led us to accelerate the reexamination of how we defend the homeland and further served to accelerate ongoing discussions regarding the effectiveness of strictly threat-based approaches towards potential adversaries.

Our changing national security environment demands new ways of thinking and a strategy that anticipates capabilities of rogue states and non-state actors and seeks to dissuade or deter the action of potential adversaries. Preparing for the future requires us to develop capabilities that can adapt quickly to new challenges and to unexpected circumstances. Tomorrow's conflicts will likely consist of asymmetric attacks focused on perceived U.S. vulnerabilities.

The effects of globalization and the growth of transnational threats continue to reshape the Department of Defense's (DOD) thinking in all fundamental mission areas. Reflective of this effort, Change One to the 2002 Unified Command Plan (UCP) combined the former STRATCOM and U.S. Space Command on October 1, 2002.

Three months later, on January 10, 2003, President Bush assigned STRATCOM the responsibility of planning, integrating, coordinating, and when directed, executing four previously unassigned mission areas: Global Strike, Global Missile Defense (GMD), DOD Information Operations, and command and control, computers, communications, intelligence, surveillance, and reconnaissance (C^4ISR). As is the case with the traditional missions of nuclear deterrence and space operations, this new portfolio of missions transcends geographical boundaries.

Missions that cross regional boundaries require a global approach. STRATCOM is specifically tasked to integrate each of those missions in support of warfighters around the globe. We believe that integrating these capabilities can maximize our Nation's ability to respond to a broad range of global threats and contribute significantly to our Nation's security.

II. U.S. Strategic Command's Role in Global Ballistic Missile Defense

The missile defense mission requires a global approach. Missile defense concepts have evolved from separate efforts focused on terminal intercept of short- and medium-range ballistic missiles and mid-course intercept of intercontinental ballistic missiles, to a multi-layered missile defense system contributing to the defense of the U.S., our allies, and our forces and interests abroad. Change Two of the 2002 UCP tasked STRATCOM to plan, integrate, and coordinate the GMD capabilities of the Nation.

STRATCOM is operationalizing the capabilities being developed and deployed by the Missile Defense Agency (MDA). We are leading the development of the necessary doctrine, concepts of operations (CONOPs), and operational plans in coordination with our subordinate Service component commands and the other combatant commands. This effort requires that we define the broad interrelationships among the GBMD mission and other mission areas, such as intelligence, surveillance, and reconnaisance (ISR), strike operations, and information operations. Operationalizing GMD capabilities also requires detailed planning to address the policy, rules of engagement, force employment, force readiness, and logistics support, and tying together diverse system elements including sensors, interceptors, and the command and control network.

The UCP also tasks STRATCOM with advocating the desired GMD and missile warning characteristics and capabilities as a spokesman for all combatant commanders. As the advocate for GBMD, STRATCOM, in coordination with our fellow combatant commands, provides direct input to the MDA and the DOD requirements process regarding our operational and technical views on the system, all aspects of the Ballistic Missile Defense System (BMDS) integration, and the desired capabilities for future incremental (Block) improvements. Clearly, close cooperation between operators and developers is essential. Unequivocally, STRATCOM and the MDA have forged a strong relationship over the past 18 months affording us the opportunity to shape the program to better represent the needs of the combatant commanders and the Nation.

U.S. Northern Command (NORTHCOM) and U.S. Pacific Command (PACOM) are our principal warfighting partners in preparation for activation of the initial defensive capability. With them, we are continuing to refine and validate our plans in a series of exercises and readiness assessments designed to prepare the responsible combatant commands, comprised of Army, Navy, and Air Force units, for assuming operational responsibility for the initial elements of this nascent defensive system. In addition, we are working closely with the MDA to identify and develop procedures to share assets that must support both ongoing BMDS development and testing as well as the operational alert forces.

Operation Iraqi Freedom (OIF) demonstrated an unprecedented level of cross-theater missile defense cooperation and coordination. Integrated early warning data from Army, Navy, Air Force, and other intelligence sensors provided vital data supporting Patriot missile engagements of all threatening theater ballistic missile launches. Expanding upon OIF's example of an integrated and effective defense, STRATCOM is developing the global missile defense concept of operations and the battle management architecture to provide full capabilities for regional combatant commanders to defend their areas of responsibility (AOR).

Concept of Operations

The foundation for the GBMD CONOPs is centralized planning, led by STRATCOM, with decentralized execution by the regional combatant commanders (RCCs) employing their assigned forces. This concept of operations also achieves unity of effort by placing under STRATCOM the overarching responsibility for GBMD.

STRATCOM synchronizes and integrates all combatant commanders' BMD plans into a fully coordinated, cohesive GBMD strategy. The concept is designed to minimize operational vulnerabilities, mitigate risk, and appropriately set and prioritize resource requirements from a global perspective. Additionally, STRATCOM monitors and assesses vulnerabilities that may arise in a potential crisis and recommends to the Nation's senior civilian leaders courses of action such as the reallocation of forces, to mitigate risks to the overall strategy.

Of the $10.2 billion requested for the missile defense program in fiscal year 2005, about $3.2 billion will go to the anti-intercontinental ballistic missile (ICBM) portion of the overall system—Ground-Based Midcourse Defense. This includes approximately $860 million for deployment. Most of the remaining funding will go to other elements of missile defense including procurement, upgrades, and advanced research on systems such as Theater High Altitude Air Defense (THAAD), PAC–3,

SM–3, and the Aegis—all systems that provide medium- and short-range protection to our troops.

The Ground-Based Midcourse Defense system is a primary element of the BMDS initially designed to protect the 50 United States. STRATCOM's component, Army Strategic Command, oversees the Army element that will man and employ the Ground-Based Midcourse Defense system. This element consists of both the Ground-Based Midcourse Defense Brigade and Battalion, under the operational control of NORTHCOM for execution of defense of the U.S. and other areas as directed by the President and Secretary of Defense. Commander, NORTHCOM will protect Hawaii in support of Commander, PACOM. PACOM's primary role in missile defense at Initial Defensive Operations (IDO) is the employment of Aegis surveillance and tracking capabilities in the Pacific Region to provide direct threat tracking support to NORTHCOM's defense of the homeland.

Command and Control

The Command and Control Battle Management and Communications (C2BMC) system will be integral to the execution of the GBMD mission. This system will link combatant commanders, enabling them to share a common operational picture and conduct near real-time collaborative planning and execution of GMD operations. The C2BMC system provides new missile defense displays and will supplement the routine voice conferences that have been expanded to address both offensive and defensive operations.

The C2BMC system will be installed at STRATCOM and NORTHCOM in late July. During that same installation, PACOM will have access to the system's situational awareness displays. The complete suite of command and control equipment will be installed in PACOM by December 2005. The system, as initially deployed, will provide the essential functionality for executing the GBMDS.

The global focus and reach of STRATCOM's operations have raised significant interest among international friends and allies. STRATCOM is exploring the implications of future multi-national system participation in the missile defense mission area by continuing dialogue with our military counterparts including the United Kingdom, Australia, Canada, Denmark, and Japan.

Offense/Defense Integration

In May 2001, President Bush stated, "We need new concepts of deterrence that rely on both offensive and defensive forces." The inclusion of active and passive defenses in America's deterrent strategy and force posture is a significant departure from past strategy. Circumstances have changed profoundly; the threat may be numerically smaller, but it is certainly more diverse and less stable.

Currently, our only defense against an adversary with long-range ballistic missile technology is our offensive strike capability. Deployment of the BMDS gives our Nation a military capability with greater flexibility to assure our friends and allies, adds to the deterrent equation, and begins to actively defend and protect our interests on a global scale.

STRATCOM, in coordination with NORTHCOM and PACOM, is refining the cross-command procedures for integrating offensive and defensive operations. Potential offense response options will include both kinetic and non-kinetic conventional weapon systems and information operations.

An active missile defense provides a broader range of options to senior leadership decisionmakers while adding additional strategic deterrent capability. Integrating these capabilities with responsive offensive actions further increases the probability of success in countering an adversary's attack.

Information and Intelligence Support

A key enabler for GBMD operations is real-time, unambiguous intelligence. We are working closely with the DOD's intelligence organizations to develop and disseminate necessary intelligence information in order to further enhance missile defense capabilities.

Part of our responsibility is to ensure each combatant commander is working from the same intelligence threat assessment baseline. That effort will be coordinated by the STRATCOM's Joint Intelligence Center. A common intelligence assessment will ensure all combatant commanders are planning their active defense, passive defense, sensor positioning, readiness levels, and ready attack options to counter a consistent threat.

Enabling capabilities, such as the Defense Support Program (DSP) and Space Based Infrared System (SBIRS), will be vital components of the development of more advanced missile defense systems. For the initial missile defense capability, the on-orbit DSP will provide the necessary indications and warning to fully support our operations against long-range ballistic missiles. SBIRS will expand our ability

beyond the current capabilities of the DSP to detect shorter-range missiles. Unlike DSP, SBIRS was designed from the outset to support both tactical and strategic requirements. DSP and SBIRS, once operational, will likely remain the source of the first missile warning we receive, and as such, will represent the essential first link in the chain of a layered, integrated missile defense.

III. Training, Exercises, and Readiness Assessment

To validate operational capabilities, STRATCOM, in coordination with NORTHCOM, PACOM, and the MDA, developed a series of exercises designed to assess our ability to perform critical tasks for missile defense. The series, referred to as Thor's Shield, is part of a continuous process designed to ensure readiness and to provide feedback to the MDA for development of future capabilities. The combatant commanders will use Thor's Shield to incrementally certify their forces and exercise GBMD across their AOR at the tactical, operational, and strategic levels.

The initial cadre of the Ground-Based Midcourse Defense Brigade was established on October 16, 2003. The subordinate Ground-Based Midcourse Defense Battalion was activated in Fort Greeley, Alaska, in January 2004. The Army National Guard is being trained to operate both units. All missile defense crews will complete their initial training by summer 2004 and will be certified ready to conduct sustained operations by this fall.

At the tactical level, training and certification for the Ground-Based Midcourse Defense Brigade have been in process for over a year. At the operational level, PACOM, NORTHCOM, and STRATCOM staffs are being trained and will be ready to support IDO. Combatant command participation in Thor's Shield will continue to support development of the current command and control structure, rules of engagement, and other key operational doctrine. This process contributes to developing operator competency and proficiency prior to IDO and ensures trained operators and a responsive command and control structure will be available to meet contingency missions. Of course, user confidence and proficiency will continue to grow with increased hands-on training experience with the deployed system.

At the strategic level, in November 2003, we completed a senior military and civilian leadership exercise to help formulate key national policy guidance. Interim proposed Ground-Based Midcourse Defense employment policy guidelines for IDO are currently under final review.

In addition to events dedicated to training, warfighters from STRATCOM, NORTHCOM, PACOM, along with their component commands, are active participants with the MDA in all Ground-Based Midcourse Defense flight and ground tests and wargame exercises. This broad participation has proven invaluable in documenting and assessing the military utility of the Ground-Based Midcourse Defense System and increasing the warfighters' confidence in its system capabilities and performance.

Military Utility Assessment (MUA)

STRATCOM is responsible for conducting a MUA of the BMDS. The MUA is designed to support two purposes. First, to provide the combatant commanders' view of the military utility of the BMDS at IDOs in 2004. Second, to provide the combatant commanders' assessment of the BMDS IDO capabilities and limitations. These assessments will be derived from system and element testing and simulation by the OTAs working for the Director of Operational Test and Evaluation (DOT&E). Overall, the MUA serves as a report to the Secretary of Defense on the progress made to date and the projected utility of the system. STRATCOM and the Joint Theater Air and Missile Defense Organization, in coordination with NORTHCOM, PACOM, the OTAs, and MDA, will assess the degree to which delivered capabilities support execution of the missile defense mission with a focus on three key metrics: effectiveness, interoperability, and suitability.

The MUA is an iterative, event-driven process. The initial increment of the assessment is based on data available on BMDS performance in the September-December 2003 timeframe and provides preliminary conclusions on IDO military utility and capabilities and limitations at IDO. A more comprehensive assessment of the BMDS capabilities for IDO will be based on test events that are executed in 2004, including both flight tests and ground tests. Additionally, we will draw insights from exercises and wargames that employ C2BMC elements and guide the development and refinement of operating procedures. Confidence in assessed capabilities will improve as more system performance data is gathered and analyzed, and future iterations of the assessment will be adjusted to match any change in testing or schedule.

The MUA and the assessment of the DOT&E are closely related in that they share a common database of observations on BMDS capabilities and limitations de-

rived from system and element testing and simulation. The information in the database developed by the OTAs provides the information critical to the conduct of the MUA process. We rely on the expertise within the test community of more than a hundred highly skilled data collectors and analysts who utilize an array of analytical tools to evaluate system performance and characterize system behavior. The warfighter and OTAs have been involved in the collaborative process and we continue to influence the development of test objectives through close coordination with the developer and the operational test community. Working closely with Mr. Christie's team, the developers in the MDA, and, importantly, the users of the system in the combatant commands and Services, we will quantify system performance and assess mission execution, fully mindful of the developmental capabilities and limitations identified. We will work closely with the developer to define and evaluate any required corrective action. Observations and insights on system performance gained from wargames will be added to determine whether modifications to tactics, techniques, and procedures can further enhance system capabilities.

Unlike classic OT&E evaluations, the MUA is not assessing the system performance against a hard and fast performance threshold. The MUA is instead a determination of the extent to which the capability provided by a developmental system contributes to mission accomplishment and national security even as the system continues to evolve and mature.

The MUA is properly baselined against today's capability—an inability to intercept any long-range ballistic missile launched against the United States. At IDO, the BMDS is intended to provide a rudimentary capability to defend against a limited, long-range ballistic missile attack against the United States. We are confident that we are on track from both the technical and operational perspectives to successfully field and operate an initial BMD capability. Further testing, wargames, and exercises in 2004 and beyond will provide us with additional data for completing a more in-depth assessment.

IV. Conclusion

Mr. Chairman, STRATCOM is ready to meet the critical challenges of operationalizing all elements of the GBMD system.

We will be ready to operate an initial defensive capability this year. In the years ahead, we will fulfill the Nation's goal of deploying a system to defend the United States, our deployed forces, and our allies against the full spectrum of ballistic missile threats. This global system will ultimately deliver a military capability we currently do not have to defend the Nation. When fully fielded, this capability will increase the operational flexibility of our forces and dramatically increase the range of options available to our national leadership. Future advances will have great potential to similarly protect and assure our allies. In the face of adversaries seeking more sophisticated means to threaten our Nation, we must continue to pursue and rigorously assess evolutionary capabilities in order to further improve our BMD.

We are mindful of the magnitude of the task before us, but remain confident in the talent of our staff, components, and industry and agency mission partners. Ours is a very different time, fraught with very different challenges. In the words of Abraham Lincoln, "The dogmas of the quiet past are inadequate to the stormy present. The occasion is piled high with difficulty, and we must rise with the occasion. As our case is new, so we must think anew, and act anew."

I appreciate your continued support of the men and women of STRATCOM and the unique and essential contributions they continue to make to safeguard our Nation. I look forward to reporting our progress to you in the future, and I welcome your questions.

Chairman WARNER. Admiral, we thank you for your long distinguished service to our Nation, and particularly in this role that you are now playing.

General Kadish.

STATEMENT OF LT. GEN. RONALD T. KADISH, USAF, DIRECTOR, MISSILE DEFENSE AGENCY

General KADISH. Good morning, Mr. Chairman, Senator Levin, and members of the committee. Today I'd like to briefly summarize some key points of the fiscal 2005 budget submission that we have before you.

Our direction from the President is to develop the capability to defend the United States, our allies, friends, and deployed forces against all ranges of missile in all phases of flight. Beginning in 2001, we proposed development of a single integrated BMDS, and we are building over time layered defenses to enable engagements in all of those phases against all of those ranges, and make it possible to have a high degree of confidence in the performance of the missile defense system.

Our program is structured to deal with the enormity and complexity of this task. Our budget request continues to implement that guidance in two ways. First, it continues an aggressive research, development, test, and evaluation (RDT&E) effort to design, build, and test elements of a single integrated BMDS in an evolutionary way.

Second, it provides for a modest fielding of this capability over the next several years so that we can rapidly improve our capability in the field.

We are requesting $9.2 billion to support this program and work in fiscal year 2005, which is approximately a $1.5 billion increase over the fiscal year 2004 request.

Now, about $1 billion covers costs associated with the continued fielding of the test bed and the first ground-based midcourse defense in Aegis and sensors and command and control and battle management equipment that make that up. Also, for the Block 4 alert configuration.

About $500 million of that amount will allow us to purchase long lead items for further improvements beyond the test bed, in an evolutionary capability improvement for what we call Block 6. In other words, about $1.5 billion in fiscal year 2005 request supports the initial configuration of the test bed and activities to place the BMD system on alert initially, and for systems improvements in block 2006. About $7.7 billion lays the RDT&E foundation for the continued evolution of the system to include a significant amount of testing.

This budget is consistent with the approach I have described in many previous years. Last year, we made it clear that this initial capability inherent in the test bed would be very basic. We also emphasize that instead of building a test bed that could be used in an emergency, we would field this year more interceptors, put them on alert and continue to test. As of today, despite some setbacks, we are on track to do just that.

So with an evolutionary capabilities-based acquisition approach, and our aggressive RDT&E program, we can put together a capability to put in the field, to test it realistically, to train with it, to get comfortable with it, learn what works well, learn what doesn't, and improve it over time as rapidly as we can.

This is a unique, unprecedented capability in its early stages that we will continue to mature. We have to strike a balance between our need to continue to test and develop missile defenses and our goal to provide effective defenses where there are none today. I believe we have struck that balance in this budget, and we can do both of those things starting this year.

We are working with Admiral Ellis and the warfighting community, as he said, to ensure that we can do both of those efforts:

RDT&E and operations. Once the system is placed on alert, we will continue to conduct tests concurrently to gain ever greater confidence in this operational capability.

We are working very closely with Mr. Christie and the operational test community. As our tests are planned, executed and evaluated, the BMDS Combined Test Force, which brings together representatives from across the testing community, is combining requirements for both developmental and operational testing capability. There are approximately 100 operational test personnel, full-time embedded in all facets of missile defense test planning and execution who have access to all of our test data. They have the ability to influence every aspect of our test plan.

The missile defense test program helps define the capabilities and limitations of the system. The thousands of tests we conduct in the air, on the ground, and in the laboratory and with our models and simulations help identify problems so we can fix them and they highlight gaps so that we can address them.

This accumulated knowledge has and will continue to increase our confidence in the overall performance of the system and its potential improvements. The research and development program is working. We have focused on the development of the most promising near-term elements, namely the ground-based midcourse system and Aegis BMD. THAAD is progressing well and will add capabilities to engage in late midcourse and terminal layers.

Achieving a capability in a boost phase as soon as we practically could would be a revolutionary high payoff improvement to this layered system. In this budget we increase investment in the development of that boost layer. Two program elements, a directed energy ABL capability and a new kinetic energy or hit to kill capability in the boost phase represent parallel paths complementary to each other, but significantly different technologies.

Interest among foreign governments and industry in missile defense has risen absolutely and considerably over the past year. Because geography and allied partnerships really do count, we are undertaking major initiatives in the international arena in this budget. We will begin in 2005 to expand international involvement in the program by encouraging foreign industry participation and investment in the development in the complementary boost and ascent phase of element component development. Our international work is a priority that is consistent with the President's direction, our vision and supportive of our overall goals.

In particular, in December 2003, the Government of Japan became our first ally to announce its intent to invest more than $1 billion in the development in the multilayered BMD system, basing its initial capability on upgrades to their Aegis destroyers and acquisition of SM–3 and Patriot-3 (PAC–3) missiles. We have also concluded important agreements with the U.K.

Mr. Chairman, thanks to the tens of thousands of talented and dedicated people across this country, America's Missile Defense Program is on track.

The MDA is doing what we told Congress we would do, and your support has been absolutely critical to the progress we have made. We have listened to your concerns over the years and sought to address them in a responsible manner. Our tests and analyses will

give us the confidence that we can take these first steps toward initial defensive operations while we continue to prove out new technologies and increase the confidence in the system to realistic testing.

I continue to believe there is tremendous benefit in putting the unprecedented technology that we have today into the field in manageable increments to provide some defenses where none exist today, to learn more about it, to gain experience with it, to test it more realistically and ultimately to improve it as fast as we can.

Thank you, Mr. Chairman.

[The prepared statement of General Kadish follows:]

PREPARED STATEMENT BY LT. GEN. RONALD T. KADISH, USAF

Good morning, Mr. Chairman, members of the committee. It is an honor to be here today to present the Department of Defense's (DOD) Fiscal Year 2005 Missile Defense Program and budget.

Today, I would like to outline what we are doing in the program, why we are doing it, and how we are progressing. I also will address why we proposed taking the next steps in our evolutionary development and fielding program. Then I want to emphasize the importance of the acquisition strategy we are using and close with some observations about testing and the Department's approach to Missile Defense Agency (MDA) management.

Our National Intelligence Estimates (NIEs) continue to warn that in coming years we will face ballistic missile threats from a variety of actors. The recent events surrounding Libya's admission concerning its ballistic missile and weapons of mass destruction (WMD) programs remind us that we are vulnerable. Ballistic missiles armed with any type warhead would give our adversaries the capability to threaten or inflict catastrophic damage.

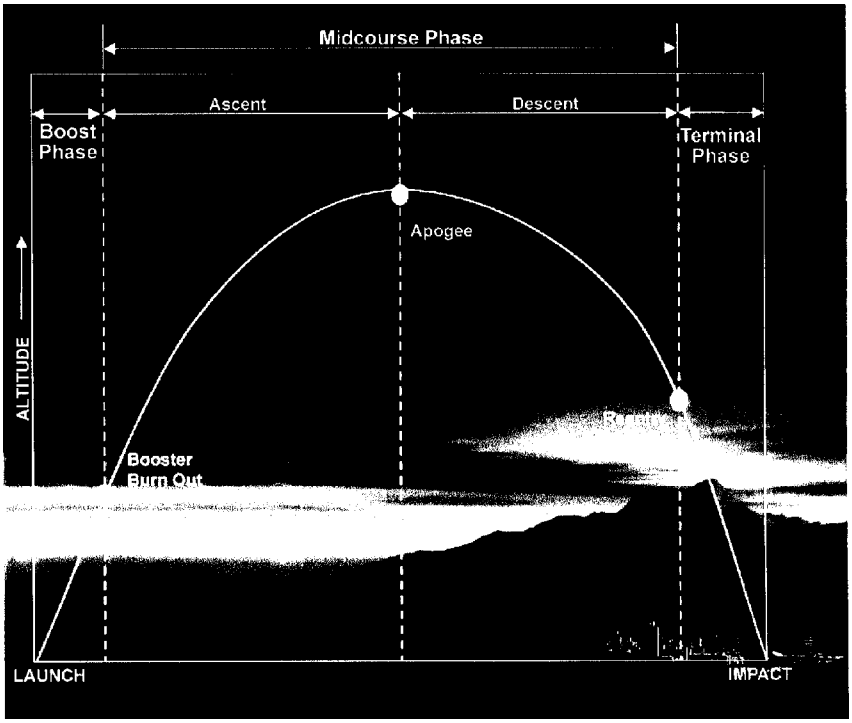
Our direction from the President is to develop the capability to defend the United States, our allies and friends, and deployed forces against all ranges of missiles in all phases of flight. This budget continues to implement that guidance in two ways.

First it continues an aggressive research, development, test, and evaluation (RDT&E) effort to design, build, and test the elements of a single Ballistic Missile Defense (BMD) system in an evolutionary way. Second, it provides for modest fielding of this capability over the next several years.

We recognize the priority our Nation and this President ascribe to missile defense, and our program is structured to deal with the enormity and complexity of the task. The missile defense investments of 4 administrations and 10 Congresses are paying off. We are capitalizing on our steady progress since the days of the Strategic Defense Initiative (SDI) and will present to our combatant commanders by the end of 2004 an initial missile defense capability to defeat near-term threats of greatest concern.

BALLISTIC MISSILE DEFENSE SYSTEM

Layered defenses help reduce the chances that any hostile missile will get through to its target. They give us better protection by enabling engagements in all phases of a missile's flight and make it possible to have a high degree of confidence in the performance of the missile defense system. The reliability, synergy, and effectiveness of the BMD System (BMDS) can be improved by fielding overlapping, complementary capabilities. In other words, the ability to hit a missile in boost, midcourse, or terminal phase of flight enhances system performance against an operationally challenging threat. See Chart 1.



All of these layered defense elements must be integrated. There must be a battle management, command, and control system that can engage or reengage targets as appropriate. It all must work within a window of a few minutes. We believe that a layered missile defense not only increases the chances that the hostile missile and its payload will be destroyed, but it also can be very effective against countermeasures and must give pause to potential adversaries.

So, beginning in 2001 we proposed development of a joint, integrated BMDS. Yet such unprecedented complexity is not handled well by our conventional acquisition processes. At that time, the Services had responsibility for independently developing ground-based, sea-based, and airborne missile defenses. The Department's approach was element- or Service-centric, and we executed multiple Major Defense Acquisition Programs (MDAPs).

Today, as a result of DOD transformation and a streamlined process instituted by the Secretary of Defense in 2001 to enhance overall integration, we are managing the BMDS as a single MDAP instead of a loose collection of Service-specific autonomous systems. We have come to understand over the years, though, that no one technology, defense basing mode, or architecture can provide the BMD protection we need. Redundancy is a virtue, and so we established a system-centric approach involving multiple elements designed, developed, and built with full integration foremost in our minds. When we made this change, we instituted a "capability-based" acquisition process instead of a "threat-based" process. Let me explain why this is important.

Most defense programs are developed with a specific threat—or threats—in mind. Twenty years ago, the ballistic missile threat was pretty much limited to Soviet intercontinental ballistic missiles (ICBMs) and sea-launched ballistic missiles. But today we have to consider a wide range of missile threats posed by a long list of potential adversaries. Those threats are constantly changing and unpredictable. Our potential adversaries vary widely in their military capabilities and rates of economic and technological development. Many of them have a tradition of political instability.

Weapon systems developed using a threat-based system are guided and governed by Operational Requirements Documents (ORDs). These documents establish hard

thresholds and objectives for the development and deployment of every component. ORDs may be entirely appropriate for most development programs because they build linearly on existing systems. For example, aircraft program managers understand lift and thrust from previous programs going all the way back to the Wright brothers.

Not so for missile defense. Most missile defense development takes place in uncharted waters. Any ORD developed for an integrated, layered missile defense system would be largely guesswork. ORDs rely on very precise definitions of the threat and can remain in effect for years, making this process all the more debilitating for the unprecedented engineering work we are doing. The reality that we may have to introduce groundbreaking technologies on a rapid schedule and also deal with threats that are unpredictable render the threat-based acquisition structure obsolete.

A capability-based approach relies on continuing and comprehensive assessments of the threat, available technology, and what can be built to do an acceptable job, and does not accommodate a hard requirement that may not be appropriate.

Perhaps the most telling difference between the two acquisition approaches is that our capabilities to perform are updated every 4 to 8 months to reflect and accommodate the pace of our progress. We are no longer compelled to pursue a 100-percent solution for every possible attack scenario before we can provide any defense at all. We are now able to develop and field a system that provides some capability that we do not have today with the knowledge that we will continue to improve that system over time. We call this evolutionary, capability-based development and acquisition.

INITIAL DEFENSIVE CAPABILITY—THE BEGINNING

On December 16, 2002, President Bush directed that we begin fielding a missile defense system in 2004 and 2005. The President's direction recognizes that the first systems we field will have a limited operational capability. He directed that we field what we have, then improve what we have fielded. The President thus codified in national policy the principle of evolutionary, capability-based acquisition and applied it to missile defense.

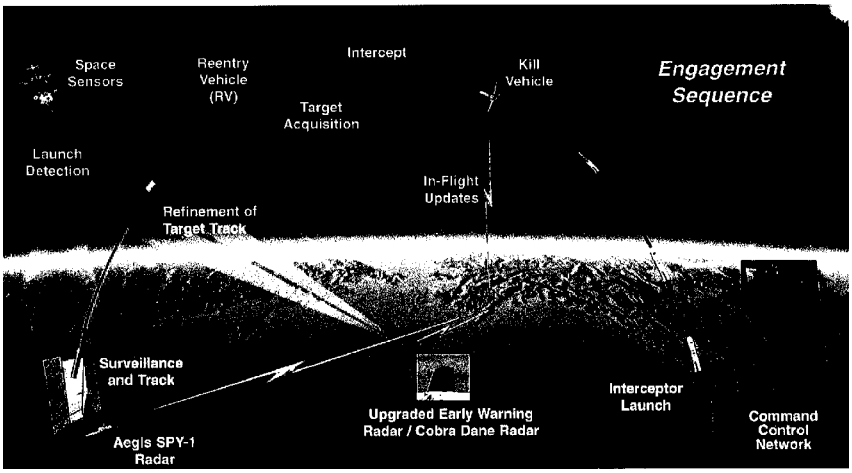
The President's direction also builds on the 1999 National Missile Defense Act. Under this act, deployment shall take place "as soon as technologically possible." The fact is that BMD has proven itself technologically possible. Not only have most of the well-publicized flight tests been successful, but so have the equally important computer simulations and software tests. Those tests and upgrades will continue for a long time to come—long after the system is fielded and long after it is deemed operational. After all, this is the heart of evolutionary, capability-based acquisition. This is not a concept designed to trick or mislead. It is simply the logical response to the following question: Defenseless in the face of unpredictable threats, which would we rather have—some capability today or none as we seek a 100-percent solution?

When we put the midcourse elements (Global Missile Defense (GMD) and Aegis BMD) of the BMD system on alert, we will have a capability that we currently do not have. In my opinion, a capability against even a single reentry vehicle has significant military utility. Even that modest defensive capability will help reduce the more immediate threats to our security and enhance our ability to defend our interests abroad. We also may cause adversaries of the United States to rethink their investments in ballistic missiles. Because of this committee's continued support, we will have some capability this year against near-term threats.

I must emphasize that what we do in 2004 and 2005 is only the starting point—the beginning—and it involves very basic capability. Our strategy is to build on this beginning to make the BMDS increasingly more effective and reliable against current threats and hedge against changing future threats.

We have made significant strides towards improving our ability to intercept short-range missiles. Two years ago we began sending Patriot Advanced Capability 3 (PAC–3) missiles to units in the field. Based on the available data, the Patriot system, including PAC–3, successfully intercepted all threatening short-range ballistic missiles during Operation Iraqi Freedom (OIF) last year. Today, it is being integrated into the forces of our allies and friends, many of whom face immediate short- and medium-range threats. We believe it is the only combat-tested missile defense capability in the world.

This year we are expanding our country's missile defense portfolio by preparing for alert status, a BMDS to defend the United States against a long-range ballistic missile attack. Chart 2 provides a basic description of how we could engage a warhead launched against the United States.



Last year, we made it clear that this initial capability would be very basic if it were used. We also emphasized that instead of building a test bed that might be used operationally, we would field more interceptors and have them available for use while we continue to test. Because the test bed provides the infrastructure for this initial capability, the additional budget request for the 20 Block 2004 interceptors and associated support was about $1.5 billion in fiscal year 2004 and fiscal year 2005.

Forces to be placed on alert as part of the initial configuration include up to 20 ground-based interceptors at Fort Greeley, Alaska and Vandenberg Air Force Base, an upgraded Cobra Dane radar on Eareckson Air Station in Alaska, and an upgraded early warning radar in the United Kingdom (U.K.). We are procuring equipment for 3 BMD-capable Aegis cruisers with up to 10 SM–3 missiles to be available by the end of 2005. The Navy is working very closely with us on ship availability schedules to support that plan. Additionally, 10 Aegis destroyers will be modified with improved SPY–1 radars to provide flexible long-range surveillance and track capability of ICBM threats by the end of 2005, with an additional 5 destroyers with this capability by 2006, for a total of 15 Aegis BMD destroyers and 3 Aegis BMD cruisers.

The fiscal year 2005 request funds important for Block 2006 activities to enhance those capabilities and system integration, which I will discuss in a moment.

The MDA, the combatant commanders, the Joint Staff, the military services, and the Director, Operational Test and Evaluation (DOT&E) are working together to prepare for Initial Defensive Operations (IDO). Using the core capability provided by Ground-based Midcourse Defense (GMD) and augmenting it with the appropriate Command, Control, Battle Management, and Communications (C2BM/C) infrastructure between combatant commanders and exploiting the Aegis contribution in a surveillance and track mode, we have created an initial capability from which we can evolve.

Our current fielding plans have been built on the test bed configuration we proposed 2 years ago and are within 60 days of our schedule. Silo and facility construction at Fort Greeley, Alaska and Vandenberg Air Force Base in California is proceeding well. Preparations at Eareckson Air Station in Shemya, Alaska are on track. Over 12,000 miles of fiber optic cables connecting major communication nodes are in place, along with 9 satellite communications links. We are in the process of upgrading the Early Warning Radar at Beale Air Force Base and are well underway building the sea-based X-band radar. Our brigade at Schriever Air Force Base and battalion fire control nodes at Fort Greeley are connected to the Cheyenne Mountain Operations Center. The C2BM/C between combatant commanders, so essential to providing situational awareness, is progressing well and is on schedule. Upgrades to the Cobra Dane Radar are ahead of schedule. The Chief of Naval Operations (CNO) has identified the first group of Aegis ships to be upgraded with a BMD capability, and the work to install the equipment on the first of these ships has begun.

Once the system is placed on alert, we will continue to conduct tests concurrently to gain even greater confidence in its operational capability. Additionally, we plan activities to sustain the concurrent test and operations and support of the system. We are laying in the infrastructure to build, test, sustain, and evolve our system as a part of the capabilities-based approach inherent in our strategy.

An integral working relationship with the warfighter, the BMDS user, is critical to the success of this mission. We are working together to ensure that we field a system that is militarily useful and operationally supportable and fills gaps in our defenses. The support centers we are establishing will provide critical training to commanders in the field. The necessary doctrines, concepts of operation, contingency plans, and operational plans are being developed under the lead of U.S. Strategic Command (STRATCOM) and in cooperation with U.S. Northern Command (NORTHCOM), Pacific Command (PACOM), European Command (EUCOM), and United States Forces in Korea (USFK).

IMPROVING FIELDED CAPABILITY THROUGH EVOLUTIONARY ACQUISITION

The system's evolutionary nature requires us to look out over the next 3 or 4 years and beyond in our planning. Although it is not easy, we have laid out a budget and a plan to shape the missile defense operational architecture beyond the Block 2004 initial defensive capability.

In this budget, beginning with Block 2006 we will increase GMD Ground-Based Interceptors (GBIs) and Aegis SM–3 interceptors, deploy new capabilities (such as Theater High-Altitude Aerial Defense (THAAD)), expand our sensor net (with a second sea-based midcourse radar and forward deployable radars), and enhance the C2BM/C system integration. The fiscal year 2005 request begins to fund important Block 2006 activities to enhance existing capabilities and system integration. Our improvement plan is to add up to ten GBIs to the site at Fort Greeley and possibly initiate long-lead acquisition of up to ten more for fielding at a potential third site or at Fort Greeley. We will continue to augment our sea-based force structure with additional SM–3 interceptors and BMD-capable Aegis-class ships.

Much of this system augmentation effort involves extending and building on capabilities that we have been working on over the past several years, so I am confident that what we are doing is both possible and prudent and in line with our missile defense vision.

The confidence we achieve through our entire test program is reinforced by the fact that many missile defense test articles fielded in the existing test bed are the same ones we would use in an operational setting. Except for interceptors, which are one-time use assets, we will use the same sensors, ships, communications links, algorithms, and command and control facilities. The essential difference between an inherent capability in a test bed and the near-term on-alert capability is having a few extra missiles beyond those needed for testing and having enough trained operators and logistics on hand and ready to respond around the clock. Once we field the system, we will be in a better position, literally, to test system components and demonstrate BMD technologies in a more rigorous, more operationally realistic environment. Testing will lead to further improvements in the system and refinement of our models, and the expansion and upgrades of the system will lead to further testing.

The system we initially will put on alert is modest. It is modest not because the inherent capabilities of the sensors and interceptors themselves are somehow deficient, but rather because we will have a small quantity of weapons. The additional ten missiles for Fort Greeley will improve the overall system by giving us a larger inventory. Yet today, and over the near-term, we are inventory poor. Block activities throughout the remainder of this decade will be focused in part on improving the system by delivering to the warfighter greater capabilities with improved performance.

Why is this important? In a defense emergency or wartime engagement situation, more is better. A larger inventory of interceptors will handle more threatening warheads. Our planning beyond the Block 2004 initial configuration has this important warfighting objective in mind. There are no pre-conceived limits in the number of weapon rounds we should buy. We will build capabilities consistent with the national security objectives required to effectively deter our adversaries and defend ourselves and our allies.

We also must think beyond the initial defensive capability if we are to meet our key national security objective of defending our friends and allies from missile attack. In Block 2006, we are preparing to move forward when appropriate to build a third GBI site at a location outside the United States. Not only will this site add synergy to the overall BMD system by protecting the United States, but it will put

us in a better position to defend our allies and friends and troops overseas against long-range ballistic missiles. For the cost of 10 GBIs and associated infrastructure, we will be able to demonstrate in the most convincing way possible our commitment to this critical mission objective. The location of this site is still subject to negotiation with no final architecture defined nor investment committed until fiscal year 2006.

As I have said all along, we are not building to a grand design. We are building an evolutionary system that will respond to our technical progress and reflect real world developments. We added about $500 million to last year's projected fiscal year 2005 budget estimate to begin funding our Block 2006 efforts. As you can see, the system can evolve over time in an affordable way in response to our perception of the threat, our technical progress, and our understanding of how we want to use the system. Yet even as it does evolve, our vision remains constant—to defeat all ranges of missiles in all phases of flight.

TESTING MISSILE DEFENSES—WE NEED TO BUILD IT TO TEST IT

Another key question surrounds the nature of missile defense systems themselves. How do you realistically test an enormous and complex system, one that covers eight time zones and engages enemy warheads in space? The answer is that we have to build it as we would configure it for operations in order to test it. That is exactly what we are doing by building our test bed and putting it on alert this year.

By hooking it all up and putting what we have developed in the field, we will be in a better position to fine-tune the system and improve its performance. Testing system operational capability in this program is, in many ways, different from operational testing involving more traditional weapon systems. All weapon systems should be tested in their operational environments or in environments that nearly approximate operational conditions. This is more readily accomplished for some systems, and is more difficult to do for others.

For example, an aircraft's operational environment is the atmosphere. Similarly, when we conduct rigorous operational tests of our Navy's ships, we do so at sea—in their environment. The BMDS's operational environment is very different. It is a geographically dispersed region that is also a test bed. For both missile defense testing and operations, geography counts. After we have gone through the simulations, the bench tests, and the flybys, we want to test all missile defense parts together under conditions that are as nearly operationally realistic as we can make them—with sensors deployed out front, with targets and interceptors spaced far enough apart to replicate actual engagement distances, speeds and sequences, with communication links established, and with command and control elements in place. We in fact have conducted a number of events that exercise the projected communication and command and control paths required to link elements of the BMDS in what we call "Engagement Sequence Groups," building our confidence that we can combine threat data from different systems across a third of the globe to allow for the engagement of ballistic missiles threats to the entire United States.

One of the key questions that we have to answer is: What is the role of operational testing in an unprecedented, evolutionary, capability-based program? The answer is that the DOT&E, and the operational test agencies (OTAs) play a critical role in missile defense. Since evolutionary, capability-based processes do not fit the traditional ORD-based operational test methodology, we have applied an assessment approach that provides for a continuous assessment of the capabilities and limitations of the BMD system. Since testing is central to our RDT&E program and our operational understanding of the system, we are continuing to modernize and improve our test infrastructure to support more operationally realistic testing.

We are working very closely with Mr. Christie, the DOT&E, and the operational test community. As our tests are planned, executed, and evaluated, the BMDS Combined Test Force, which brings together representatives from across the testing community, is combining requirements for both developmental and operational capability testing. Wherever possible, we are making every test both operationally realistic and developmental. We have been working daily with the appropriate independent OTAs to ensure they are on board with our objectives and processes. There are approximately 100 operational test personnel embedded in all facets of missile defense test planning and execution who have access to all of our test data. They have the ability to influence every aspect of our test planning and execution.

Now, how much confidence should we have in using this test bed in an alert status? The full range of missile defense testing—from our extensive modeling and simulation and hardware-in-the-loop tests to our ground and flight testing—makes us confident that what we deploy will work as intended. We do not rely on intercept flight tests to make final assessments concerning system reliability and perform-

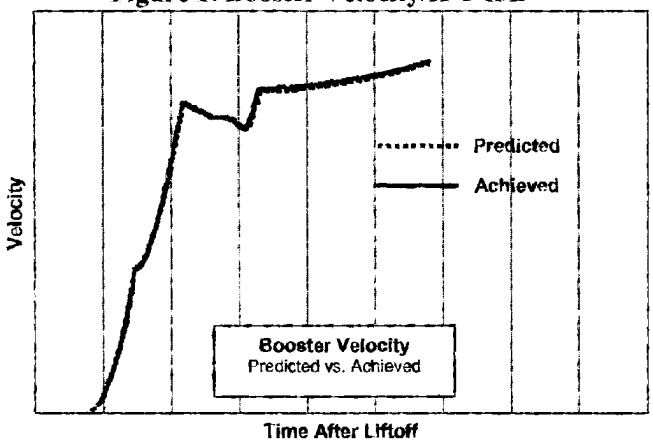
ance. Our flight tests are important building blocks in this process, but the significant costs of these tests combined with the practical reality that we can only conduct a few tests over any given period of time mean we have to rely on other kinds of tests to prove the system. System capabilities assessed for IDO will be based on test events planned for fiscal year 2004 as well as data collected from flight- and ground-tests and simulations over the past several years.

The missile defense test program helps define the capabilities and limitations of the system. The thousands of tests we conduct in the air, on the ground, in the lab, and with our models and simulations in the virtual world predict system performance and help identify problems so that we can fix them. They also highlight gaps so that we can address them. This accumulated knowledge has and will continue to increase our confidence in the effectiveness of the system and its potential improvements. None of our tests should act as a strict "pass-fail" exercise telling us when to proceed in our development or fielding. We can approximate realistic scenarios, though, after we have put interceptors and sensors in the field and integrated them with our C2BM/C network.

We conduct other kinds of tests that provide valuable information about the progress we are making and the reliability of the system. Integrated ground tests, for example, are not subject to flight test restrictions and can run numerous engagement scenarios over the course of a few weeks. Our modeling and simulation activity is an even more powerful system verification tool. It is important to understand that in the Missile Defense Program we use models and simulations, and not flight tests, as the primary verification tools. Missile defense ground and flight tests anchor the data we insert in our models, which in turn enhance our confidence regarding the operational capability we can achieve, because we can understand the system's behavior in many hundreds of test runs.

For example, our modeling and simulation capabilities are very accurate and allow us to mirror the achieved outcome of a flight test. The graphic below provides an example of why we believe our simulation capabilities to be the most powerful tools for projecting the reliability of the initial BMDS. In Figure 1 we have mapped out the predicted performance of the Integrated Flight Test 13B interceptor and matched it up with performance data we collected during the flight. The match up is nearly exact, and it shows that the Exo-atmospheric Kill Vehicle Mass Simulator was very close to the predicted insertion point velocity.

Figure 1: Booster Velocity/IFT 13B



Generally, when we deploy a weapon system in a traditional mission area, it is appropriate to conduct initial operational testing to ensure that the replacement system provides a better capability than the existing system. Put another way, there is a presumption that the deployed system should be used until a better capability is proven. In the current situation, where we have no weapon system fielded to defend the United States against even a limited attack by ICBMs, that presumption must be re-examined. With the provision of a militarily useful capability, even if it is limited, it is presumed that the capability can be fielded unless it is determined

that operating the initial capability is considered to be an unacceptable danger to the operators, or any other similar reality.

STRATCOM will factor in all available test information into its military utility assessment of the fielded condition.

BALLISTIC MISSILE DEFENSE SYSTEM RESEARCH AND DEVELOPMENT PROGRAM

We have requested $7.6 billion in fiscal year 2005 to continue our investment in missile defense RDT&E. Why do we need this level of investment in RDT&E? We need to press forward with our missile defense research and development (R&D) if we are to improve the system by integrating upgraded or more advanced components and by exploiting new basing modes to engage threat missiles in, for example, the boost phase of flight. We have to lay the RDT&E foundation for evolutionary improvements to the BMD system. We intend to improve the capability of the midcourse phase while adding additional layers.

The RDT&E program is working. The ability to make trade-offs among our development activities has allowed us to focus on the development of the most promising near-term elements, namely, GMD, Aegis BMD and PAC–3. GMD and Aegis BMD make up elements of the midcourse defense layer while PAC–3 provides capability in the terminal layer. The GMD fiscal year 2005 budget request is $3.2 billion; the request for Aegis is $1.1 billion.

In this budget we increase investment in the development of a boost layer. Two program elements, a high energy laser capability and a new kinetic energy interceptor (KEI) or "hit to kill" capability, represent parallel paths and complement each other. Achieving capability in the boost phase as soon as practicable would be a revolutionary, high-payoff improvement to the BMD system. Although the technologies are well known, the engineering and integration required to make them work are very high risk. Therefore, having parallel approaches, even on different timelines, is a very prudent program management approach. We expanded our efforts in the boost phase as soon as we were able after withdrawal from the 1972 Anti-Ballistic Missile (ABM) treaty, which specifically prohibited boost phase development against long-range missiles.

The Airborne Laser (ABL) program has been in development since 1996. Development of an operational high energy laser for a 747 aircraft is a difficult technical challenge. Although we have had many successes in individual parts of the program, we have not been able to make some of our key milestones over the past year. The last 20 percent of the program effort has proven to be very difficult, and some of the risks we took early in the program have impaired our present performance. Consequently, I reviewed the program late last year and directed a restructure that focused on our near-term efforts, delaying the procurement of the second aircraft until we could gain more confidence in our ability to meet schedules. I have adjusted the resources accordingly.

We no longer plan for ABL to deliver a contingency capability in Block 2004. There have been, nevertheless, several technical accomplishments to date. We have demonstrated the capability to track an ICBM in the boost phase using ABL technologies and improved beam control and fire control technologies. At this time there is no reason to believe that we will fail to achieve this capability. This is such a revolutionary and high payoff capability; I believe we should again be patient as we work through the integration and test activities. But the risks remain high. The fiscal year 2005 budget request is $474 million for ABL.

We undertook the KEI boost effort in response to a 2002 Defense Science Board Summer Study recommendation. In December 2003 we awarded the contract for development of the KEI boost effort. This was the first competition unconstrained by the ABM Treaty. It was also the first to use capability-based spiral development as a source selection strategy. The contract requires development of a boost phase interceptor that is terrestrial-based and can be used in other engagement phases as well—including the midcourse and possibly exo-atmospheric terminal phases. In other words, it could provide boost phase capability as well as an affordable, competitive next-generation replacement for our midcourse interceptors and even add a terminal phase capability should it be required. In 2005, we will begin conducting Near-Field Infrared Experiments to get a close-up view from space of rocket plumes to support the development of the terrestrial-based interceptor seeker and provide additional data needed for the development of a space test bed.

We have budgeted about $500 million for the KEI boost effort for fiscal year 2005. I believe this funding is necessary for a successful start. Those who would view this amount as a significant increase that is unwarranted for a new effort do not understand the importance of prudent programming and the preparatory work required to make such a program ultimately succeed. There are many examples of an under-

funded systems engineering effort, where engineering costs sky-rocketed because adequate upfront work was not done. Mr. Chairman, I urge the committee to look carefully at our proposal and allow us to get a solid start on this essential piece of the layered BMDS.

OTHER BUDGET HIGHLIGHTS

Funding in the fiscal year 2005 request supports the Block 2004 initial configuration as well as activities to place the BMDS on alert. It also lays the foundation for the future improvement of the system. We are requesting $9.2 billion to support this program of work, which is approximately a $1.5 billion increase over the fiscal year 2004 request. The increase covers costs associated with fielding the first GMD, Aegis BMD, sensor, and command, control, and battle management installments and will allow us to purchase long-lead items required for capability enhancements in Block 2006.

We have made a successful transfer of the PAC–3 program to the Army and remain convinced that the Department made the right decision in doing so. In the Patriot system, missile defense and air defense are so intertwined that attempting to manage them separately would be difficult if not futile. We continue to believe that the Army is in the best position, given the maturity of the PAC–3, to manage future enhancements and procurements. Meanwhile MDA remains fully cognizant of the Army's efforts and maintains the PAC–3 in the BMDS as a fully integrated element, with interfaces controlled by our configuration management process. PAC–3 is part of our ongoing system development and testing.

The fiscal year 2005 funding request will buy equipment to ramp up the testing of THAAD, which, once fielded, will add endo-atmospheric and exo-atmospheric terminal capabilities to the BMD system to defeat medium-range threats. THAAD is progressing well and will add capabilities to engage in the late midcourse and terminal layers. THAAD recently completed the Design Readiness Review, and development hardware manufacturing is underway. The fiscal year 2005 budget request is $834 million for THAAD. Delivery of the THAAD radar was completed ahead of schedule and rolled out this month. Flight testing is scheduled to begin in the first quarter of fiscal year 2005 at White Sands Missile Range, New Mexico.

We will be able to begin assembly and integration of two Space Tracking and Surveillance System (STSS) satellites. The fiscal year 2005 budget request for STSS is $322 million.

We will continue development of the C2BM/C "backbone" to provide real-time sensor-netting to the warfighter for improved interoperability and decisionmaking capability. Additional BMD system C2BM/C suites and remote capability will be deployed to combatant commanders as the system matures.

We also have several science and technology (S&T) initiatives to increase BMDS firepower and sensor capability and extend the engagement battle space of terminal elements. One of our main efforts is to increase BMDS effectiveness in the midcourse phase by placing Multiple Kill Vehicles on a single booster, thus reducing the discrimination burden on BMD sensors. We also are conducting important work on advanced systems to develop laser technology and laser radar, advanced discrimination, improved focal plane arrays, and a high-altitude airship for improved surveillance, communication, and early warning. In support of this, we have requested about $200 million in the fiscal year 2005 budget request for the development of advanced systems.

INTERNATIONAL PARTNERSHIPS

In December 2003, through a formal Cabinet Decision, the Government of Japan became our first ally to proceed with acquisition of a multi-layered BMDS, basing its initial capability on upgrades of its Aegis destroyers and acquisition of the SM–3 missile. In addition, Japan and other allied nations will upgrade their Patriot units with PAC–3 missiles and improved ground support equipment. We have worked closely with Japan since 1999 to design and develop advanced components for the SM–3 missile. This project will culminate in flight tests in 2005 and 2006 that incorporate one or more of these components. These decisions represent a significant step forward with a close ally, and we look forward to working together on these important efforts.

We are undertaking major initiatives in the international arena in this budget. Interest among foreign governments and industry in missile defense has risen considerably over the past year. We have been working with key allies to put in place mechanisms that would provide for lasting cooperative efforts.

We will begin in fiscal year 2005 to expand international involvement in the program by encouraging international industry participation and investment in the de-

velopment of alternative boost/ascent phase element components, such as the booster, kill vehicle, launcher, or C2BM/C. This approach reduces risk, adds options for component evolution for potential insertion during Block 2012, and potentially leads to an indigenous overseas production capability. We intend to award a contract for this effort this year.

In 2003 the United States signed a Memorandum of Understanding on BMD with the U.K. and an annex enabling the upgrade of the Fylingdales early warning radar. We are continuing our consultations with Denmark regarding the upgrade of the Thule radar site in Greenland. Australia has announced plans to participate in our efforts, building on its longstanding defense relationship with the United States. Canada also has entered into formal discussion on missile defense and is considering a BMD role for the U.S.-Canadian North American Aerospace Defense Command (NORAD). Our North Atlantic Treaty Organization (NATO) partners have initiated a feasibility study for protection of NATO territory against ballistic missile attacks, which builds upon ongoing work to define and develop a NATO capability for protection of deployed forces.

We are continuing work with Israel to implement the Arrow System Improvement Program and enhance its missile defense capability to defeat the longer-range ballistic missile threats emerging in the Middle East. We are also establishing a capability in the United States to co-produce specified Arrow interceptor missile components, which will help Israel meet its defense requirements more quickly and maintain the U.S. industrial work share. We are intent on continuing U.S.-Russian collaboration and are now working on the development of software that will be used to support the ongoing U.S.-Russian Theater Missile Defense exercise program.

We have other international interoperability and technical cooperation projects underway as well and are working to establish formal agreements with other governments. Our international work is a priority that is consistent with our vision and supportive of our goals.

WORLD-CLASS SYSTEMS ENGINEERING—THE KEY SUCCESS FACTOR

The President's direction to defeat ballistic missiles of all ranges in all phases of flight drove us to develop and build a single integrated system of layered defenses and forced us to transition our thinking to become more system-centric. We established the Missile Defense National Team to solve the demanding technical problems ahead of us and capitalize on the new engineering opportunities created by our withdrawal from the ABM Treaty. The National Team brings together the best, most experienced people from the military and civilian government work forces, industry, and the Federal laboratories to work aggressively and collaboratively on one of the Nation's top priorities. No single contractor or government office has all the expertise needed to design and engineer an integrated and properly configured BMDS. Let me give a perspective on why the National Team is so important.

What we have accomplished is an unprecedented integration of sensors, communications, infrastructure, and weapons that cut across Service responsibilities on a global scale. Even our first engagement sequence involves an unparalleled accomplishment.

The BMDS will engage a long-range ballistic missile threat across 9,500 miles. Threat messages sent by an Aegis destroyer will pass this data across eight BMDS communication nodes. System data travels across approximately 48,000 miles of communication lines. The engagement takes place 3,500 from Fort Greeley at an altitude of 100 kilometers. At no time in history has there been an engagement performed by detection and weapon engagement systems separated by such distances. Over the past year and a half, we have rapidly built confidence in this weapon engagement capability through the use of proven systems and technologies coupled with robust integrated tests and exercises.

The National Team's job has not been easy. System engineers work in a changed procurement and fielding environment, which in the missile defense world means making engineering assessments and decisions based on technical objectives and goals and possible adversary capabilities rather than on specifications derived from more traditional operational requirements documents. This unified industry team arrangement does not stifle innovation or compromise corporate well-being. There is firm government oversight and greater accessibility for all National Team members to organizations, people, and data relevant to our mission. We accomplished this without abandoning sound engineering principles, management discipline, or accountability practices.

Significant benefits have resulted from this unique approach. Early on, this team brought to the program several major improvements, including: system-level integration of our command and control network; adoption of an integrated architecture

approach to deal with countermeasures; development of a capability-requirement for forward-based sensors, such as the Forward Deployable Radar and the Sea-Based X-Band Radar; and identification of initial architecture trades for the boost/ascent phase intercept mission. The National Team also developed and implemented an engagement sequence group methodology, which optimizes performance by looking at potential engagement data flows through the elements and components of the system independent of Service or element biases. If we had retained the traditional element-centric engineering approach, I am doubtful that any one of the element prime contractors would have entertained the idea of a forward-based radar integrated with a "competing" system element. The National Team is central to this program.

RESPONSIBLE AND FLEXIBLE MANAGEMENT

Congressional support for key changes in management and oversight have allowed us to execute the Missile Defense Program responsibly and flexibly by adjusting the program to our progress every year, improving decision cycle time, and making the most prudent use of the money allocated to us.

One of the key process changes we made in 2001 was to engage the Department's top leadership in making annual decisions to accelerate, modify, or terminate missile defense activities. We take into account how each development activity contributes to effectiveness and synergy within the system, technical risk, schedules, and cost, and we then assess how it impacts our overall confidence in the effort. We have successfully used this process over the past 3 years.

Today's program is significantly different from the program of 3 years ago. In 2001 and 2002 we terminated Space-Based Laser development in favor of further technology development; restructured the Space-Based Infrared Sensors (Low) system, renaming it the Space Tracking and Surveillance System, to support more risk reduction activities; cancelled the Navy Area program following significant cost overruns; and accelerated PAC–3's deployment to the field. We also proposed a modest beginning in fielding the BMDS and put Aegis BMD and its SM–3 interceptor on track to field.

This year we have restructured the ABL program to deal more effectively with the technical and engineering challenges before us and make steady progress based on what we know. We also decided to end the Russian-American Observation Satellite (RAMOS) project because of rising levels of risk. After 8 years of trying, RAMOS was not making the progress we had expected in negotiations with the Russian Federation. So we are refocusing our efforts on new areas of cooperation with our Russian counterparts.

These periodic changes in the RDT&E program have collectively involved billions of dollars—that is, billions of dollars that have been invested in more promising activities, and billions of dollars taken out of the less efficient program efforts. The ability to manage flexibly in this manner saves time and money in our ultimate goal of fielding the best defenses available on the shortest possible timeline.

Such decisive management moves were made collectively by senior leaders in the Department and in MDA. I believe these major changes are unprecedented in many respects and validate the management approach we put in place. The benefits of doing so are clearly visible today. When something is not working or we needed a new approach, we have taken action.

CLOSING

Mr. Chairman, I would like to recognize the many talented and dedicated people across this country who have made, and are continuing to make, our efforts successful. I have met with people from manufacturing facilities, R&D centers, and test centers. I have met with people from many different parts of the world who are working on our international efforts. Our fellow citizens should be proud of the talent, commitment, and dedication that every one of these people provides.

We take our responsibilities very seriously. We have an obligation to the President, Congress, and the American people to get it right. With the continued strong support of Congress and this committee, we will continue our progress in defending the United States, our troops, and our allies and friends against all ranges of ballistic missiles in all phases of flight.

Thank you, and I look forward to your questions.

Chairman WARNER. General, that is a very encouraging report that you have given. Thank you for your long service. It is extremely important to have that system. Thank you.

General Dodgen.

STATEMENT OF LTG LARRY J. DODGEN, USA, COMMANDER, SPACE AND MISSILE DEFENSE COMMAND

General DODGEN. Mr. Chairman, Senator Levin, and members of the committee, thank you for the opportunity to appear before this distinguished committee and for your ongoing support of the Army.

This panel has been a long-time friend of the Army, particularly of our efforts to field missile defense forces for the Nation. The Army considers it a privilege to be counted in the ranks with Mr. Wynne, Mr. Christie, Admiral Ellis, and Lieutenant General Kadish as advocates for a strong GMD system.

Today I appear before this committee as the Army proponent for a ground-based midcourse defense system. In a broader context, I'm a member of the joint missile defense team as the Army component commander in support of STRATCOM.

Chairman WARNER. General, let me interrupt you to ask you to get that mic on a very directional basis. Just think of it as a missile coming up to get you. Put it right there so you can get into it.

General DODGEN. I have been there, Senator. The joint user representative working closely with the MDA, other Services, and combatant commanders to ensure that our national goals of developing, testing, and deploying a missile defense system are met.

Mr. Chairman, as we speak, Army men and women are training to operate the GMD system being deployed at Fort Greeley, Alaska. During the past months an initial cadre of GMD brigades and a subordinate battalion were activated. Once IDO are stood up, these soldiers will stand as part of the joint team in our Nation's first line of defense against any launch, either accidental or hostile, of an intercontinental ballistic missile (ICBM) toward our shores. I am proud to represent them. Meeting their needs in training and support is our highest priority.

In addition to deploying a GMD system, the MDA, the Army, and other DOD agencies, and Services have focused attention on improving Theater Missile Defense (TMD) systems. Both GMD and TMD systems are vital to protecting our homeland, deployed forces, friends, and allies.

Missile defense is a key component in support of our Army's core competency of providing relevant and ready land power to combatant commanders as part of the joint force. Today I've been asked about and I'm happy to focus on developments concerning the Patriot missile system, particularly the PAC–3, and its follow-on system, the Medium Extended Air Defense System (MEADS). Both of these systems are designed to counter theater missile threats in their terminal flight phase as well as cruise missile threats. These systems will bring an umbrella of security for deployed forces well into the future. I would like to thank Congress for its continued support of these important systems.

Mr. Chairman, in 1991, during Operation Desert Storm (ODS) we witnessed the first use of the Patriot Air and Missile Defense System. Following ODS, the Army implemented a series of improvements to address the lessons learned. Nearly 1 year ago, we saw the improved Patriot system including the Guidance Enhanced Missile (GEM) and the PAC–3 debut in combat during OIF. In OIF, the Patriot system saved lives from ballistic missile attacks, as you pointed out.

The Patriot system remains the Army's premier TMD system. PAC–3 is the latest evolution of a phase material change improvement program to Patriot. Combining developmental testing and operations, this program has allowed for the development and deployment of the PAC–3, thus bringing a new high velocity kinetic hit-to-kill, surface-to-air missile with the range, accuracy and lethality necessary to effectively intercept and destroy most sophisticated ballistic missile threats.

Recently, the Army, after approval by the Defense Acquisition Board, the executive rather, embarked on a path to merge the Patriot and MEADS missile systems. In doing so, the combined aggregate program was established. The objective of the cap is to achieve MEADS capability through incremental fielding of MEADS major end items into the Patriot system.

MEADS is a trinational codevelopment program that consists of Italy, Germany, and the United States. Once fielded, MEADS will provide linkage to the Army's fully networked battle command capabilities, serve as a bridge from the current to the future force, enable interdependent network-centric warfare, provide for Future Combat System (FCS) interoperability, and fully support joint operational concepts.

The MEADS system is transformational. It offers a significant improvement in strategic deployability and tactical mobility. The system uses a netted and distributed architecture with modular and configural battle elements, allowing it to integrate with other airborne and ground-based sensors and shooters.

These features and capabilities will allow MEADS to achieve a robust 360-degree defense against all airborne threats, tactical ballistic missiles, cruise missiles, UAVs, and manned aircraft.

Mr. Chairman, by combining the resources available to both Patriot and MEADS, the Army is able to achieve incremental development and accelerate incremental fielding of MEADS major end items. This incremental fielding approach reduces sustainment costs while delivering increased anti-missile defense capabilities across the force earlier. This approach offers the most efficient use of limited valuable resources while giving maximum flexibility in regard to funding and developing requirements of the warfighter.

The Army and the entire missile defense community continue to strive to improve our Nation's missile defense capabilities. The established combined aggregate program effort will be just that. The Patriot architecture will become more robust as enhancements are integrated into the existing system. Simultaneously, lessons learned from the present missile defense capability will be incorporated into the MEADS follow-on system. We are confident that this path will provide our service members, our allies, our friends, and our Nation with the most capable missile defense system possible.

Mr. Chairman, the Army is relevant and ready, fighting the war on terrorism, deployed in Southwest Asia and elsewhere. Also, we are deterring aggression throughout the world while transforming to meet future needs. Within its responsibilities for GMD, Patriot, and MEADS, the Army is a key player in the development of the BMDS which will counter existing and emerging threats to the U.S., our deployed forces, and friends and allies.

I appreciate having the opportunity to speak on these important matters and look forward to addressing any questions you and other members of the committee may have. Thank you, Mr. Chairman.

[The prepared statement of General Dodgen follows:]

PREPARED STATEMENT BY LTG LARRY J. DODGEN, USA

INTRODUCTION

Mr. Chairman, Senator Levin, and members of the committee, thank you for the opportunity to appear before this distinguished committee and for your ongoing support of our Army. This panel has been a long time friend of the Army, particularly of our efforts to field missile defense forces for the Nation. The Army considers it a privilege to be counted in the ranks with Mr. Christie, Mr. Wynne, Admiral Ellis, and Lieutenant General Kadish as advocates for a strong global missile defense system. Today, I appear before this committee as the Army proponent for the Groundbased Midcourse Defense (GMD) System. In a broader context, I am a member of the joint missile defense team as the Army component commander in support of the United States Strategic Command, and the joint user representative working closely with the Missile Defense Agency (MDA), other Services, and combatant commanders to ensure that our national goals of developing, testing, and deploying a missile defense system are met.

Mr. Chairman, as we speak, Army men and women are training to operate the GMD System being deployed at Fort Greeley, Alaska. During the past few months, an initial cadre of the GMD Brigade and a subordinate GMD Battalion were activated. Once Initial Defensive Operations (IDO) are stood up, these soldiers will stand as part of the joint team in our Nation's first line of defense against any launch, either accidental or hostile, of an intercontinental ballistic missile toward our shores. I am proud to represent them. Meeting their needs, in training and support, is our highest priority.

THEATER MISSILE DEFENSE—PATRIOT/MEADS

In addition to deploying a GMD system, the MDA, the Army, and other Department of Defense (DOD) agencies and Services have focused attention on improving Theater Missile Defense (TMD) systems. Both GMD and TMD systems are vital for protecting our homeland, deployed forces, friends and allies. Missile defense is a key component in support of the Army's core competency of providing relevant and ready land power to combatant commanders as part of the joint force.

Today, I have been asked about, and I am happy to focus on, developments concerning the Patriot Missile System, particularly the Patriot Advanced Capability-3 (PAC–3), and its follow-on system, the Medium Extended Air Defense System (MEADS). Both of these systems are designed to counter theater missile threats in their terminal flight phase as well as cruise missile threats. These systems will bring an umbrella of security for deployed forces well into the future. Again, I would like to thank Congress for its continued support of these important systems.

Mr. Chairman, in 1991, during Operation Desert Storm (ODS), we witnessed the first use of the Patriot Air and Missile Defense System. Initial reports praised the system; however, further analysis determined that it was partially effective, still providing, for the first time in history, some protection against ballistic missiles for relatively small but high value assets. Following ODS, the Army implemented a series of improvements to address the lessons learned. Nearly 1 year ago we saw the improved Patriot system, including the Guidance Enhanced Missile (GEM) and PAC–3 missiles, debut in combat during Operation Iraqi Freedom (OIF). Detailed analysis from a variety of data sources confirm that eight of nine warheads intercepted by the Patriot system during OIF were destroyed. There is insufficient data on the ninth intercept to conclusively validate a warhead kill. In OIF, Patriot saved lives from ballistic missile attack.

The Patriot system remains the Army's premier TMD system. PAC–3 is the latest evolution of the phased material change improvement program to Patriot. Combining developmental testing and operations, this program has allowed for the development and deployment of the PAC–3, thus bringing a new high-velocity, kinetic hit-to-kill, surface-to-air missile with the range, accuracy, and lethality necessary to effectively intercept and destroy more sophisticated ballistic missile threats.

COMBINED APPROACH

Recently, the Army, after approval by the Defense Acquisition Executive, embarked on a path to merge the Patriot and MEADS missile systems. In so doing, the Combined Aggregate Program (CAP) was established. The objective of the CAP is to achieve the MEADS capability through incremental fielding of MEADS major end items. MEADS is a tri-national co-development program that consists of Italy, Germany, and the United States. Once fielded, MEADS will provide linkage to the Army's fully networked battle command capabilities, serve as a bridge from the current to future force, enable interdependent network-centric warfare, provide for Future Combat System (FCS) interoperability, and fully support joint operating concepts.

The MEADS system is transformational—it offers a significant improvement in strategic deployability and tactical mobility. The system uses a netted and distributed architecture with modular and configurable battle elements allowing it to integrate with other airborne and ground-based sensors and shooters. These features and capabilities will allow MEADS to achieve a robust 360-degree defense against all airborne threats: tactical ballistic missiles, cruise missiles, unmanned aerial vehicles, and manned aircraft.

Mr. Chairman, by combining the resources available to both the Patriot and MEADS programs, the Army is able to achieve incremental development and accelerate incremental fielding of MEADS major end items. This incremental fielding approach reduces sustainment costs while delivering increased anti-missile defense capability across the force earlier. This approach offers the most efficient use of limited, valuable resources while giving maximum flexibility in regard to funding and developing requirements of the warfighter.

There are several key elements of the combined program that further demonstrate the benefits. First, the existing PAC–3 Missile is the internationally accepted missile for MEADS. The Missile Segment Enhancement (MSE) is an improvement over PAC–3 and under consideration by the tri-national partners. The PAC–3 MSE will replace the standard PAC–3 in production. It will provide an increase in battle space against both missile and air breathing threats.

Second, battlefield management, command, control, communications, and intelligence will continually evolve during the CAP; therefore, the new system will take into account recent developments while simultaneously remaining integrated within the MDA's and the Army's System of Systems requirements. Additionally, operational Patriot units will be modernized as these new enhancements are added to their equipment.

Third, the program allows for earlier procurement of the objective lightweight launcher in lieu of the recapitalization program and conversion of existing launchers.

Fourth, MEADS requires the development of a new Multifunction Fire Control Radar (MFCR) and a new Surveillance Radar (SR) to achieve 360-degree engagement capabilities. The fielding of this new sensor suite will complete the CAP and provide Army air and missile defense forces with the capability to counter threats of the 21st century.

The Army, and the entire missile defense community, continues to strive to improve our Nation's missile defense capabilities. The established CAP effort will be just that. The Patriot architecture will become more robust as enhancements are integrated into the existing system. Simultaneously, lessons learned from the present missile defense capability will be incorporated into the MEADS follow on system. We are confident that this path will provide our service members, our allies, our friends, and our Nation with the most capable missile defense system possible.

CONCLUSION

Mr. Chairman, the Army is relevant and ready, fighting the war on terrorism, deployed in Southwest Asia and elsewhere, and deterring aggression throughout the world while transforming to meet future threats. With its responsibilities for GMD, Patriot, and MEADS, the Army is a key player in the development of the Ballistic Missile Defense System which will counter existing and emerging threats to the U.S., our deployed forces, and friends and allies. I appreciate having the opportunity to speak on these important matters and look forward to addressing any questions you or the other members of the committee may have.

Chairman WARNER. Thank you very much, General. We will proceed to a round of 6 minutes for each Senator, and at some junc-

ture I will have to depart for another commitment. I will ask Senator Allard to chair the hearing at that time.

My questions will be very direct to get a concise reply on what principal issues face us. So Mr. Wynne, we have heard a very excellent report from General Kadish. I would like to have in your own words the following. In December 2002, the President directed the Secretary of Defense to field an initial set of missile defense capabilities starting in 2004.

How would you assess the progress to date, and are we on schedule?

Mr. WYNNE. I will assess the progress to date as being categorically good. It is a fragile system. We had an explosion in one of the bases of our dual supply system for solid rocket motors, which lends me some caution as to our capability to proceed in the future, but I will tell you that the missile defense office had a marvelous dual strategy which allowed them to continue on for IDO capability, as well as testing.

I would also tell you that I personally reviewed their systems engineering plan, and I found it to be remarkably forward-leaning. In fact, I have asked the rest of the Department to check in on that to see what they can do.

Their testing is rigorous. It's involved. It involves the users, which is also unusual in the sense of a strategic system like this, which I find exemplary. I think their use of the operational testers as consultants to the development testers has allowed a certain additional rigor into their test philosophy and discipline.

Frankly, the quality discipline that I find is excellent and I believe that they are on track, sir, to bring the capability as the President directed by the end of 2004.

Chairman WARNER. Thank you. The next question, again, is to Secretary Wynne, but I ask that Director Christie and General Kadish make such replies as they desire.

Gentlemen, I know that concerns have been expressed about the level of involvement by the operational test community in missile defense development. You have all stated your commitment to realistic and rigorous testing. What is the appropriate role for operational testing as it relates to missile defense development? Second, are there lessons learned from the successful development of other weapons systems that might provide insights into the proper role of operational testing of the BMDS?

Mr. WYNNE. Mr. Chairman, the role of operational tests in this instance is very interesting because this is a system of systems and the role of operational testing is different as each system is developed.

We asked that they oversee the testing that goes on of the components and the subsystems. As Senator Levin inferred, the Patriot missile, for example, has undergone a rigorous operational test although it is a component of the total ballistic missile defense.

I see a gradual turn over the years, as we become more and more operationally effective. I know that the inclusion of STRATCOM and the user of developing the MUA is particularly profound in that there is a three-way feedback, if you will, from developmental tests, but also operational tests and from user involvement into the development of an evolutionary plan here.

I will tell you that the rigor is going up dramatically. The capability is going up dramatically, and I feel quite confident of the testing capability.

Chairman WARNER. Director Christie?

Mr. CHRISTIE. This program is again a typical development program, albeit a very complex program. My involvement is much stronger in this program than in most development programs.

General Kadish and I meet quite often, and he keeps reminding me that I have 100-some-odd operational testers crawling all over his programs, which is rather unique, I think, at this stage.

Again, I think the issue that we are talking about here is the building of missiles that will be put into silos that are a part of the test bed. We have to have this test bed in order to accomplish testing that will become more realistic and have more realistic engagement in terms of geometries, for example, than we have been able to do before.

Some of these attributes of this test bed are in response to a lot of the criticism that came from my office and my predecessor in the previous administration, most of which were well taken. Don't get me wrong, but as far as my involvement is concernced, I'm very much satisfied with it. Two years ago I was not satisfied and expressed that in front of this committee, as a matter of fact, but I think it is unprecedented at this stage of a development program.

Chairman WARNER. Thank you, Mr. Director.

General Kadish.

General KADISH. Sir, I would agree with the previous assessments but add just a couple of ideas. I know we say it a lot of the time in different ways, but this is a system that has to operate in a fire control mode, that is actually real time determining what to hit and how to hit it, that crosses eight time zones, involves nine satellite communications links, many different types of interceptors and locations, is an unprecedented achievement.

We have to adjust some of our normal procedures to handle that. When we say we have to build it before we can operationally test it along those lines, we really do mean that. I think Mr. Christie said we have to put the radars and the missiles in the spots that we intend to use as a definition of being realistic. That is what this test bed is designed to do.

They are in those positions. We can use them in an operational configuration and that's where we are working very hard with Admiral Ellis and the warfighters.

Chairman WARNER. I would like to shift to the Admiral to finish off on that subject. You are the representative of the operational community, and I ask that you assess the value of the missile defense test bed in terms of the operational utility that it represents, and provide us your assessment concerning the viability of using a test bed both operationally and for continued testing.

Admiral ELLIS. Thank you, Mr. Chairman. As has already been noted, we have been actively involved with this effort now for well over a year as these responsibilities came to STRATCOM under the realignment. We are chartered to do a MUA and that process is ongoing and the first of those elements is in review.

Suffice it to say it very closely corresponds with reports that you have seen from Mr. Christie and his elements in terms of the tech-

nical assessment. We see no technological obstacles to successful initial deployment of these capabilities in the months ahead.

From a military utility standpoint, the analysis that has been done clearly shows that this will bring a capability, admittedly rudimentary and initial, that is of military utility and that has even greater potential as the evolutionary development that General Kadish and Mr. Christie have described further optimizes it in the years ahead. So we are very comfortable based on the data that we have seen, and we have full access to Mr. Christie's team as well as Ron Kadish's team of analysts, where we are working in concert with them to apply the operator's perspective on all of this.

Based on what we have seen to date, we are confident both in their ability to begin to deliver this capability before the end of the year, and its ultimate utility even as we evolve the systems.

I spoke in my opening remarks about our ability and our focus on each element of this weapons system that we are designing to have an alert capability, at the same time as we are fully supporting the developmental efforts that are absolutely critical to continued progress.

In some cases that involves parallel paths, in other words, duplicate networks, if you will. We are beginning to quantify operational guidelines and alert states that will allow us to structure, as a function of the international security environment, our allocation of the elements of the systems to testing or to the alert status. We are very confident in that. I work very carefully with the regional combatant commanders, as you have heard, to assure myself and them that it fully meets their requirements as we look to place elements of this system on alert in the months ahead.

So we are confident about the technical side, as well as the operational side in our success.

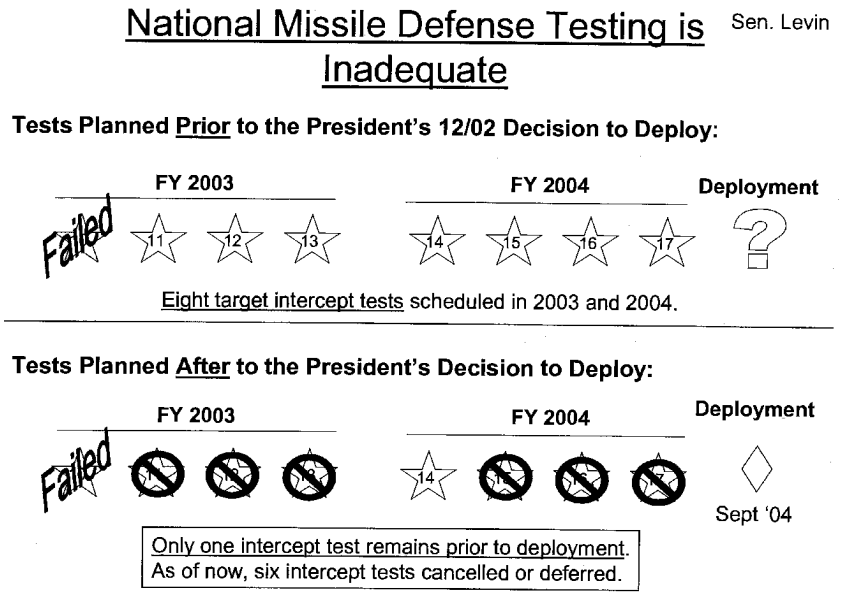
Chairman WARNER. Thank you very much, Admiral. Senator Levin.

Senator LEVIN. Thank you, Mr. Chairman. We are going to circulate a chart showing the scheduled intercept tests which were planned prior to the President's decision to deploy, which was in December 2002, and then showing all the cancellation of those tests.

If you could take a look at this chart first of all, General Kadish, the last intercept test of the ground-based national missile defense system took place on December 11, 2002. The test was a failure. Less than a week after that failure, the President announced that he intended to deploy this system in 2004.

Now, prior to the President's decision to deploy three more intercept tests were scheduled in fiscal year 2003, followed by four more tests in fiscal year 2004. Why were those tests scheduled originally? Was there a purpose for them?

[The information referred to follows:]



General KADISH. The purpose of the tests was to continue the maturation of the system so that when we reached a point after our last test failed for lack of separation of the kill vehicle, it had nothing to do with the intercept capability of the system.

We decided that doing further tests of that nature without a new configuration that we were actually going to put in the test bed was not a good use of the taxpayers' money. So we have spent the time focusing on booster tests and things of that nature that are more valuable to us, and then we intend to start up this year in the coming weeks and months with the actual intercept tests as we progress into the test bed configuration.

So the way we manage our tests is to take a look after every event to make sure that our plans are going to get us where we need to go and adjust for the realities that we face and make sure that we are spending our money wisely.

Senator LEVIN. Is there any relationship between the fact that the President made a decision to deploy in December 2002 and shortly thereafter, you decided to cancel all these tests?

General KADISH. No.

Senator LEVIN. That is a coincidence.

General KADISH. It is a coincidence. We deal with this every day.

Senator LEVIN. That you cancel six or seven tests? You deal with that every day?

General KADISH. Senator, we did not cancel those tests. We reoriented them, rescheduled them, put their objectives in different pots.

Senator LEVIN. Has there been any precedence in this missile defense system for delaying seven tests for 2 years?

General KADISH. I am not sure I understand the question.

Senator LEVIN. This is test number 10, I believe. In the history of this system, has there ever been an occasion where all of the next seven tests were delayed for 2 years?

General KADISH. I think that when we were into the previous Maritime Missile Defense (MMD) program a few years ago after we had a failed test, we stood down for over a year.

Senator LEVIN. Seven scheduled tests?

General KADISH. I am not sure how many were scheduled. We did not do another test until we fixed that problem, so we want to make sure, as is the interest of everyone involved in this, that we are testing the hardware to the best of our ability. Those decisions are made on a technical basis.

Senator LEVIN. The production rate capacity for these interceptors is what? How many per year?

General KADISH. I think we are able at this point in time to reach about one per month on an interceptor basis.

Senator LEVIN. That is the maximum capacity of production?

General KADISH. I am not sure it is the maximum capacity. That is the maximum rate we are planning right now.

Senator LEVIN. Is that called full rate production in your budget? Isn't that what is described as full rate production in your budget, one per month?

General KADISH. I think that is just a statement of the reality of what we can produce.

Senator LEVIN. That is obviously greater than low rate initial production, is it not?

General KADISH. Senator, I have been dealing with programs for a lot of years. The definition between low rate initial and full production has to do with the idea that you have to build these things gradually and you are developing a manufacturing process at the same time you are developing the system. So time is important. You can't just turn on a spigot and in 2 days produce a complex weapons system.

Senator LEVIN. Would you agree, however, that full rate production is greater than low rate initial production?

General KADISH. By definition it is.

Senator LEVIN. The law says that you must do operational testing before you proceed beyond low rate initial production. Are you doing any operational testing yet?

General KADISH. Mr. Christie and I have worked really hard over the past few years, and we intend to have every one of our tests be operational and developmental in nature. It is already underway.

Senator LEVIN. You are saying operational testing is underway?

General KADISH. Components of it, yes.

Senator LEVIN. Components?

General KADISH. Of operational testing.

Senator LEVIN. OT&E is defined in the law. Are you doing that? Here is the definition: a field test under realistic combat conditions of any item or key component item of weapons, equipment, or munitions for the purpose of determining the effectiveness and suitability of the weapons, equipment, and munitions. The evaluation of the results of such tests.

You are saying you are meeting that test?

General KADISH. At the component level, we are trying very hard to do that.

Senator LEVIN. At the missile level?

General KADISH. We don't have the missile that is the configuration that we would say is realistic right now. That is our next test.

Senator LEVIN. Mr. Christie, are they engaged in OT&E, in your judgment, as defined by law, at this time? Have they engaged in that yet?

Mr. CHRISTIE. At this point in time, I would say no, as I understand end to end operational testing. However, I agree with General Kadish that, in fact, a lot of the component testing that we are on top of has a lot more operational flavor than we have had before. But as he says, you know we have had problems with components of the missile, and rightly so, those tests have been postponed. To do real operational—or more operational testing, or testing of a more operational nature, let me qualify it in that manner, we need the test bed. We need the test bed installed.

Senator LEVIN. Therefore, we have not done operational testing.

Mr. CHRISTIE. As I would define it, full-blown operational testing, no. I think I said that in my report.

Senator LEVIN. Let us understand then that the law requires before you go beyond low rate initial production there must be operational testing. Mr. Christie, who is our expert independent on this, says in his judgment it has not occurred, and yet you have gone beyond low rate initial production. That is an inherent conflict it seems to me here that you and the DOD must address.

Now, you sought a waiver in the DOD last year of that requirement. Congress decided not to give you a waiver, and it seems to be quite clear you are trying to do something here by proceeding to a level of production above low rate initial production before you do the operational testing required by law.

You are trying to do it I guess component by component, or trying to redefine what operational testing is, but Congress specifically said we will not waive that requirement and you are proceeding anyway. I think there is a real conflict here which Congress and the DOD have to address.

Mr. CHRISTIE. Can I make an input here? I am not sure that I would consider 12 missiles a year, or 1 a month beyond low rate, to be full production.

Senator LEVIN. What is beyond low rate?

Mr. CHRISTIE. I am not sure in this program. Beyond low rate is different for every program.

Senator LEVIN. I think you should decide then what is beyond low rate.

Mr. CHRISTIE. That is usually a decision to be made by the acquisition executive.

Senator LEVIN. General Kadish said by definition we are beyond low rate.

Mr. WYNNE. Senator Levin, low rate initial production of one a month sustains a warm line. I would say that hopefully we will never have to use these rockets before their time, but with the amount of time it takes to develop and use these and introduce the new times, I think sustaining a warm line base of one a month is not a full rate production.

In fact, I would tell you that just based on our experience in OIF, we have had to go to enormous additional capacities as these things have produced into use. I do not believe that this is a rate production issue.

Senator ALLARD. We need to move forward.

Senator Dole.

Senator DOLE. Thank you, Senator Allard. I want to thank our distinguished panel not only for being here today, but for the great work that you're doing leading our national effort to field a capable BMDS as soon as possible. The need for this capability is becoming increasingly clearer considering what we have learned regarding the proliferation of weapons and the established programs such as North Korea's.

Presently 36 countries possess ballistic missiles, of which 25 either possess or are acquiring nuclear, chemical, and biological weapons. It is quite apparent that we cannot rely solely on traditional arms control agreements to ensure the safety of the American people.

Though much remains to be done, it is important for us to appreciate the significant progress the United States has made in missile development. This has been a long road dating back to World War II when the V–2 missiles first fell on Paris and London. Since then the United States has developed numerous systems designed to shoot down missiles, but establishing a system to protect the entire country has been a formidable challenge.

In less than 1 year the United States is scheduled to have an initial capability through its fielding of the ground-based midcourse defense system. We have discussed at length how the major pieces of this complex endeavor such as facilities, interceptors, trained operators, and the communications infrastructure are planned to be in place for an initial operating capability this year.

General Kadish, Mr. Wynne, and General Dodgen, what are the most significant challenges that could threaten attainment of this goal?

Mr. WYNNE. Senator, I would tell you that one of the largest challenges we have is making sure that our solid rocket motor development proceeds in a safe and direct manner. We were not pleased to discover that we had lost one of our suppliers in that regard as a result of coincident explosions in the chemical systems division.

In a program like this, I would also say that the upgrades are going on, the MUA is proceeding. Every time we do conduct a test, we give feedback to our engineers. I think we are right now very confident with every day that goes by we obtain more data and we make re-evaluation of what, of when, and where.

Right now, we are stressing to you our confidence and our current confidence is real.

Senator DOLE. General Kadish?

General KADISH. I would agree with Mr. Wynne. Every day we are doing a lot of testing and working with the using community, and right now a surprise of some sort, or a big mistake could affect our ability to proceed.

But so far, when those have happened to us, as Mr. Wynne said, with the explosion at our solid rocket plant, our strategies and our

ability to overcome that have been in place to deal with it. So that is why I can say we're on track right now. But every day brings a new opportunity.

Senator DOLE. General Dodgen.

General DODGEN. Senator, the biggest challenge for us was bringing online Fort Greeley and the soldiers that will man it. So the pace of work over the past year and a half has been tremendous, but I am happy to say that those things are on track now and the soldiers are falling in and Fort Greeley has been removed from the Base Realignment and Closure (BRAC) list for missile defense purposes and that is all coming together very well.

Senator DOLE. Thank you. With recent media reports stating the missile defense testing may be inadequate and the system ineffective, it is important for the American people to have confidence in the protection this system will provide. I understand that your testing programs are designed to provide this confidence by integrating a comprehensive and phased approach which repeatedly incorporates levels of complexity.

While much of the debate focuses on flight tests, I also understand this is only one facet of your testing programs. How do ground tests, flight tests, and systems capability analysis work together to form the basis for an overall system assessment?

Mr. WYNNE. Senator, I would tell you that have we long relied on simulation and component to component, man in the loop testing to proof out componentry. I would also advise that we are putting into practice a lot of the capabilities of our test community as we expand this ground-based test bed up in Fort Greeley, and combine it with Vandenberg and combine it with the Aegis test system across the eight time zones as General Kadish had mentioned.

All of this, though, is a continuous building of confidence that the end vision of a great layered defense to prevent a surprise or even inadvertent attack is coming together.

Senator DOLE. The initial capability of the missile defense system will focus on destroying a missile while in the midcourse segment of flight. The BMDS as envisioned will not focus on a single capability. Instead, it is intended to have multiple layers of defense and the ability to destroy missiles while in any stage of flight.

General Kadish, could you explain why you are pursuing boost phase capability and what it would bring to a layered defense? Please discuss any plans you may have for space-based components or any movement towards space-based capabilities such as kinetic energy boost phase interceptors.

General KADISH. Senator, we have very few dollars in the budget at this point to handle a space-based capability at all. Our primary focus is all terrestrially-based in our efforts.

I think you point out something very important. A layered integrated defense is absolutely key to the success over time. Now, the midcourse we have just talked about. In the boost phase prior to the Anti-Ballistic Missile (ABM) Treaty, or during the ABM Treaty days, we had specific prohibitions for doing much in that area, and therefore once we started exempting afterwards, we came up with the idea that a kinetic-based boost phase capability, along with an airborne laser using the speed of light would be a tremendous addition to our capability to defeat missiles.

It is a very simple concept that the earlier you shoot at a target and the more often you shoot at the target, the more chance you have of making sure it doesn't get through. That's the fundamental layer of the concept. The boost phase will be coming later based on the fact that we have to do more with experimentation for it to be a critical addition to that ability.

Senator ALLARD. Thank you, Senator.

Senator Lieberman.

Senator LIEBERMAN. Thank you, Mr. Chairman. Thanks, gentlemen, for being here today. I have been a strong supporter of the development of national missile defense because I do think that the threat to us is real and is growing. I was one of the original co-sponsors of the 1999 legislation that you described. It was very brief. The stated policy of the United States is to deploy as soon as technologically possible an effective system capable of defending the territory of the United States against ballistic missile attack whether accidental, unauthorized, or deliberate.

Then it said the funding is subject to the annual authorization of appropriations and the annual appropriation funds for national missile defense. I always thought, as one of the co-sponsors, that meant exactly what is happening here today.

We would have an annual evaluation of the threats of the reality and urgency of a missile threat as compared and related to the other threats to our security that we face. That would determine how much money we would put into the system and how quickly we would fulfill the words here, to deploy. Of course it says "technologically feasible."

So Secretary Wynne, because you have DOD-wide responsibilities, I want to ask you if you can share with us the judgements that were made by the Pentagon and the administration about the relative urgency of the threat of ballistic missile attack as compared to the threat of terrorism, other attacks that our country faces, to justify the very significant investment that the administration is asking us to make in this system, which as Senator Levin said in some sense may be unprecedented.

Mr. WYNNE. Thank you very much, Senator. The National Defense Authorization Act for Fiscal Year 1999 is an extraordinary step forward. This is not just about quality of the threat. It is about the quality of the catastrophic effect of not having a defense in this situation.

So I think it is on a relative basis, it is almost like the probability of the occurrence times the type of effect that may occur could balance out the investment. This investment also has a certain amount of urgency, which makes it important over the course of a 20-year span in the sense that you are striving right now to put together the essence of it and of a fairly robust R&D program to make that happen.

Those having been coupled together create a seeming imbalance, but not over the long term, about deterring strategic foes versus deterring tactical foes versus deterring economic foes.

Senator LIEBERMAN. Excuse me for interrupting. Is it fair to say that you are stating here that the Pentagon and the administration went through a process of balancing all the other systems that

come out of your office, and that we are investing a justified $10 billion for the system?

Mr. WYNNE. I believe it does, sir. What we go through every year is a rigorous budget buildup that goes through many reviews as to how we invest in some of the resources. The comptroller will probably be a more formal, eloquent speaker on the topic.

Senator LIEBERMAN. Let me go to the second question that I have and it relates to the questions that Senator Levin has raised. Senator Levin correctly says that we have a longstanding principle here, we fly before we buy. To some extent, Mr. Christie, it's a sensible principle.

Mr. Christie, you are amending that for the system and say you have to build before you can test, in that sense, before you can fly, to use the expression. It puts us in an awkward position.

I want to see if I understand whether you are saying one, that we are going to declare initial operational capability (IOC) for the system in September or at the end of the year or whenever it begins. If so, doesn't that mean that IOC is going to be achieved before operational testing occurs? Is this related to the discussion with Senator Levin earlier about what low rate initial production is?

You are saying that your judgment is that the Pentagon is living within the law in the testing that has or has not been done so far in this proposal.

Mr. CHRISTIE. Yes, I think it is living within the law. I do not characterize what will happen sometime later this year, when we will have IDO, as an IOC in the classic sense of introducing a weapon system across the board into our forces.

Again, we are building a test bed. We will install interceptor missiles in silos at two different locations from where they have been in the past that will be useful in the case of an emergency.

Senator LIEBERMAN. Would you have the same judgment about the 20 additional interceptors we are being asked to fund this year prior to the kind of operational testing that would seem normally to be required?

Mr. CHRISTIE. From what I understand, we are buying or manufacturing missiles that will be used, for the most part, in testing.

Senator LIEBERMAN. That is the first one we already funded, but the second one as well.

General KADISH. Could I explain that, sir? I believe the $500 million request we have is for 10 missiles in the 2005 buying period, so it is not the full 20. Every year we are going to evaluate this. It certainly adds to the uniformity of the test bed, but in the meantime we are going to be testing some of those missiles and using them up, so how that is going to turn out in terms of how many missiles we have for an actual alert posture will change almost monthly.

The idea of fly before you buy is very difficult for this system. Every generation or so, there comes a time where a system of this type that is technologically unprecedented or so useful that you have to take it out of the normal understanding comes up. Fly as we buy is basically the way we have done that.

Senator LIEBERMAN. The reason I think you are all set for that is that you cannot fly. I am using the phrase fly it before you build it. You cannot use it until you test it.

General KADISH. Yes.

Senator ALLARD. Senator Inhofe.

Senator INHOFE. Thank you, Mr. Chairman. As I listen to General Kadish, in your opening remarks, and I am reading off your statement, "we feel that we have an improved system." I sense an urgency in that statement, that he is recognizing that this is something that we need to get up there and get working even if it is not perfected, and I totally agree with this.

I appreciate very much Senator Lieberman and his activity in seeing to it that we are going to ultimately have a system that is going to defend our American cities, and I applaud him for that. However, when you talk about the relevant threats between terrorists, I have a hard time with that because the ultimate weapon of a terrorist would be a missile with a warhead that would kill a lot of people.

I think back and I can remember, General Kadish, that you were actually before this committee back in 1998 when we asked the question, how long will it be until this threat is imminent in the United States? How long will it be specifically, and I remember asking the question, August 24, 1998, would it be until the North Koreans have reached the United States? The response was simply: In the range of 5 to 10 years. Seven days later on August 31, 1998, they launched them.

That threat is out there. We know it is there. We know these are not stable people. So I hope we will all realize that when you look back on the days of conventional warfare where you make the wrong decision and wrong timeline it might cost 200 or 300 lives. But in this case it could be 200,000 or 300,000, so I believe that sense of urgency that the President has charged you with is one that you are responding to in a very forceful way.

As I looked at the system, we are talking about two things. First, we have to detect and we have to kill it. There are two projects that we have going at the same time. You change the names on me all the time so I cannot keep up, but I have a similar system. You are up there and you are looking down, as opposed to their system where you are down and looking up, and it should have the capability of detecting and processing information.

Ultimately that is where we want to be. We transition into this system, which I think is the same thing in partnership with the Russians, and that has now been terminated. My first question is, what will that termination do, and will that affect the timeline of ultimately having the system of protection?

General KADISH. The short answer is no, Senator. We changed the names to Space Tracking Surveillance Systems (STSS) to have no confusion between what we used to have, Space-Based Infrared Radar System (SBIRS)-Low or SBIRS-High which are still two different programs. But the Russian American Observation Satellite (RAMOS) program, although it would explore some of the technology we could use for the STSS or SBIRS component, was not critical to the performance of that program.

Senator INHOFE. I see. I have been told my microphone is not working, but you obviously did hear the questions and the comments. Now, I understand that the MDA has had great success in using the air system of detection which is down here looking up. It is something I have always thought in my mind is kind of an interim system of detection until we have the system we have been discussing. Is that accurate?

General KADISH. That is true. Although, today, we use the Defense Support Program for the initial detection. That is already on orbit and uses the same technology. So we are planning and working very hard to continue to put infrared capability in orbit through the STSS, and we are currently on schedule to put up our first two proof of principle satellites in the fiscal year 2007.

Senator INHOFE. The 2005 budget estimate states that once the test evaluations are complete, then the management and security of the sites will be transferred to the individual Services. In this day and age of jointness and all that, have you thought about whether that is more efficient and effective than if you were to do it in one place under one control or one joint control?

General KADISH. Senator, that is a good question. Admiral Ellis, General Dodgen, myself, and others are working to see whether or not our original understanding of that process is right or whether we need to change it. I do not know if I overstate this, but I do not think I do. This effort that we are doing at Fort Greeley, the initial IDC configuration is truly a joint development and fielding activity, more than I have ever been associated with in my acquisition career.

We are kind of inventing new processes here, if I could say that.

Senator INHOFE. It is something to think about as we move along. Now, going from the detection to the kill part, the ABL weapons system, which consists of a laser mounted on a modified 747, what is the current timeline for the fielding of the ABL system? I have been interested in timelines to meet this concern of emergency that I believe is there.

General KADISH. Well, we have run into some integration problems on the ABL. It is extremely complex technology, revolutionary, even more so than hit to kill was a few years ago, I believe. So I am not able to at this time give you what I would call a high confidence answer to that question in terms of time.

We have about the last 20 percent of the first airplane to prove our principles on whether that laser combination with the airplane is going to work correctly. Once we get our next two milestones, which are laser light out of the ground-based system test laboratory and flying activity of our lenses, I can give you a better estimate. But it will be no earlier than 2005 or probably a little later than that. No earlier than that.

Senator INHOFE. I know my time has expired. I do have some other timeline questions. I'm going to ask for response on the record. Thank you very much to all five of you for the great service you're performing.

Senator ALLARD. Thank you. Next is Senator Reed.

Senator REED. Thank you very much, Mr. Chairman. General Kadish, in your written testimony you say, "it is important to understand that in the missile defense program we use models and

simulations and not flight tests as primary verification tools." But Mr. Christie, in your recent report to Congress you point out, "due to the immature nature of the system, models and simulation with ballistic missile defense system can not be adequately validated at this time."

You also say in your prepared testimony today, "modeling and simulation are not a good substitute for integrated system testing." There seems to be a variance here on views about modeling and simulation.

But is it fair to say, Mr. Christie, that the Missile Defense Program is neither fully integrated nor mature enough to develop models and simulations that can be validated as correct?

Mr. CHRISTIE. That is right, sir.

Senator REED. So when we simulate a launch of a North Korean missile against the United States, this simulation cannot be shown to be fully correct yet because the system is still too immature?

Mr. CHRISTIE. I did not understand the question. I cannot hear you.

Senator REED. Let me repeat it. If we simulate a launch of a North Korean missile against the United States, this simulation cannot be shown to be fully correct yet because the system is still too immature?

Mr. CHRISTIE. I would say that. But as we go on during this year, we will mature some of the components of this test bed that will form part of the IDO, and then we will have more confidence in the ability of the systems to act as they were designed. As of right now, no.

Senator REED. But at this time, we cannot be sure that the actual system would work against a real North Korean missile threat?

Mr. CHRISTIE. I would say that is true. At this point in time, that is true.

Senator REED. The next major flight test of the ground-based missile defense system is called IFT 13C. According to the official test plan provided to Congress, IFT 13C will use global positioning system (GPS) to guide the interceptor to the target. The target has a GPS receiver on it, and it broadcasts its position down to the missile defense system.

I think it is safe to say that a real threat would never have a GPS broadcasting its position down to the defense system. General Kadish, you plan to deploy the system in September. Do any of the tests between now and September not include this GPS device to signal the presence of the target?

General KADISH. First I would like to say why the GPS system is on the target. It is for safety purposes to make sure that we can control the flight test properly.

Senator REED. It has nothing to do with cuing the target——

General KADISH. That is the primary reason why the GPS is on the target. The secondary reason is that we are not able to have the radar in the right spot for this test. An operationally useful spot. That's why we need to build the test bed, to some degree.

So our only method of actually simulating that sensor is for the GPS process to provide that input. But it will provide that input just as the sensor that we are simulating would.

Senator REED. When will the sensors that you are simulating be in place?

General KADISH. They will never all be perfectly aligned in any test that we do. I cannot remember the exact date. Over the next 18 to 24 months, we are going to remove much artificiality in the test and make them as realistic as we can.

Senator REED. When will these sensors be in place so that you do not have to rely upon a GPS?

General KADISH. For testing or for operations?

Senator REED. First the testing.

General KADISH. In testing, I think—I would have to get you the answer to that question, I just don't remember.

[The information referred to follows:]

We will continue to use GPS for flight safety. GPS will not contribute to the Weapon Task Plan on tests where we have censors such as Aegis, UEWR, or SBX available in the test bed. This will first occur in mid calendar year 2005.

Senator REED. Is it safe to say it's after deployment, after September?

General KADISH. We are doing a lot of testing. I just don't know.

Senator REED. That's a very unsatisfactory answer, General. I mean, you tell me you are planning these tests out many months in advance. You know you are deploying in September. It is very simple. Are you going to be using the GPS?

General KADISH. But Senator, I do not look at the test program before or after IDO as an end point or start point. I look at the test program for the next 5 years.

Senator REED. General, this is a very simple question. Will you be using this GPS on the target missiles after September deployment dates?

General KADISH. To some degree, I think we will. I just do not know the details.

Senator REED. So we are deploying a system which we cannot simulate through validated simulations of a North Korean attack, and we rely upon GPS for engagement. It just confounds in my mind the idea of deploying the system. Testing it is something. But standing up there and saying this deployed system that will protect this country against a real threat stretched my imagination.

Let me go on. We have heard a lot of testimony today about, Mr. Christie, your operational test organization. I have a quote from the plan submitted to Congress about IFT 13C: "IFT 13C is a prime contractor planned and joint program office approved development test. Because of prime contractor and joint program office constraints, little opportunity exists for input of unique operational test agency team requirements."

What this suggests to me is that you are not controlling these tests at all. The contractors are controlling the tests. BMD is controlling the tests.

Mr. CHRISTIE. BMD is controlling the tests. I am not controlling the tests, because they are developmental tests. We are quite successful, I think, in getting more operational ingredients into these tests. But these are R&D tests.

Senator REED. I think that is right. But I heard the dialogue before in response to Senator Levin's question about whether they are

development tests or operational tests. There are some development parts, some operations part.

One of the key aspects of an operational test is that you control the tests, not the contractors. So this quibbling about what is operational and development has to be settled. These are developmental tests.

Mr. CHRISTIE. That is right.

Senator REED. Thank you.

Senator ALLARD. Thank you. It is my turn to ask a few questions. I will go ahead and proceed. On this adequate testing, I have a schedule, and it is called "events schedule on testing." It looks to me like you have at least 20 tests scheduled for the rest of this year. For next year, a large number of tests, 22 or so. Seems to me like that is a pretty heavy test schedule out here, and my question is to General Kadish, how many flight tests have been conducted in 2004 so far?

General KADISH. 2004, of all types?

Senator ALLARD. Yes, flight tests.

General KADISH. I think we have done at least five or six. I would have to get the exact number.

[The information referred to follows:]

If the question refers to fiscal year 2004, since October 1, 2003, there have been two intercept tests. One Aegis and one Patriot. Both were successful. During the same period we conducted two non-intercept flight tests of ground-based midcourse boosters. Additionally, we have participated in two tests of opportunity by aiming our sensors at Air Force Space Command launches.

In calendar year 2004 thus far we have conducted two booster flight tests and one Patriot intercept test.

Senator ALLARD. Were they successful?

General KADISH. Yes.

Senator ALLARD. How many more are planned for this year?

General KADISH. We have flight tests and intercept tests, I think three more. If you count the other flight tests for other elements of the system, I think there are three or four others of that nature.

Senator ALLARD. Thank you. Admiral Ellis, STRATCOM has adopted a number of new missions recently, including information, operations, computer network attack, computer network defense, and space operations.

In addition to the mission of global strike, integrating these new missions would be a huge workload, I think, for any organization. Has this workload impeded your progress in any way in preparing for the missile defense IOC?

Admiral ELLIS. No, Senator. It has not. We have had a great deal of support from the elements of what formally comprised the United States Space Command as we brought them under the STRATCOM umbrella. We have been able to engender a great deal of support from elements of our components who have expertise in these areas, including the Joint Theater Air and Missile Defense Organization (JTAMDO), Air Force Space Command and the like. That, coupled with the priority that we ascribe to this effort, and this timeline that we're on have allowed us to effectively balance the apportionment of resources to ensure that we, in our role, contribute as fully as possible to its success.

Senator ALLARD. So there have been synergies there in preparing for an integrated defense?

Admiral ELLIS. Absolutely, sir. In fact, as you think about it, many of the things we are talking about have a deterrent character to them and are a part of effective information operations in a real sense. So we are very satisfied with that, coupled with our space responsibilities that deal with the sensors that General Kadish was speaking of earlier. So there is a very synergistic effect that comes with bringing not just the systems and the platforms, but the overall mission responsibilities, together in a single global organization.

Senator ALLARD. Now, I want to get back to you, General Kadish. Now, Senator Levin feels that you are in full rate production of the ground-based interceptor and therefore operational testing is required.

Senator LEVIN. Would you yield on that? I have not said they are in full rate. I said that they are beyond the initial rate.

Senator ALLARD. Okay. I am glad you clarified that for the record, because we understood that you had. Let me go ahead and continue with this question. Is the interceptor synonymous with the system?

General KADISH. Everybody thinks so, but it is not in my view. When you look at the radars, communications links, and ships involved, the interceptor is just one component.

Senator ALLARD. You do operational testing of the interceptor independent of the BMDS?

General KADISH. Not in my opinion, Senator.

Senator ALLARD. Thank you. Mr. Christie, I have a question here. Are you satisfied with the working relationship with the MDA and that your organization's voice is heard when missile defense plans are crafted?

Mr. CHRISTIE. I am, sir. Yes, I am.

Senator ALLARD. I have a question now for the whole panel. Do any of you feel that there is not adequate testing going on? Is there any reason to believe there is not adequate testing?

Mr. WYNNE. No, sir. I think the type of testing is extraordinary for the eight time zones and the lay down of the test bed.

Admiral ELLIS. I am quite satisfied, sir.

Mr. CHRISTIE. I would always want more testing. I have to admit to that.

Senator ALLARD. But from a practical aspect——

Mr. CHRISTIE. From a practical aspect, with this particular program, and the complexity of it, General Kadish has, in fact, postponed several tests because of the problems that have been uncovered. That is the very purpose of development testing—test, find out if you have problems, and fix them before you go too far.

Senator ALLARD. I think that is a reasonable approach. I think it is unrealistic to think that during testing you are not going to have failures. In my view, if you do not have failure you are not pushing the system. You need to push the system to know what the limits are.

General Kadish, do you think we have enough testing?

General KADISH. I think we have adequate testing. I am looking for every chance to do more.

Senator ALLARD. General Dodgen.

General DODGEN. I am satisfied with the testing, Senator.

Senator ALLARD. Let me talk a little bit about international cooperation, General Kadish. I understand that the United States and the U.K. recently signed a formal memorandum of understanding and agreed to upgrade the Fylingdales radar facility. I also understand Japan recently agreed to provide nearly $1 billion for their own sea-based and ground-based missile defense in cooperation with the United States.

We are negotiating a BMD framework with Australia and redefining our cooperative defense agreements with Canada. It seems to me that the ballistic missile threat is a global problem that requires a global solution, therefore I applaud your efforts to build a cooperative relationship with our allies.

Can you expand upon your vision for international cooperation on missile defense?

General KADISH. We have been working with Mr. Wynne and others across the world to find out exactly what we could do. Because fundamentally, the geography counts in missile defense. Where we put things is important. They are important to ourselves and with our allies.

So the objective here is a confluence of interests between our international partners and allies and our needs for missile defense. That is where we are going. We have long-range money in the budget to try to make that happen.

I would not underestimate the difficulties, however, in making those arrangements successful. International partnerships and cooperative development activities are important but very difficult.

Senator ALLARD. Senator Akaka.

Senator AKAKA. Thank you very much, Mr. Chairman. It is my understanding that the radar you intend to use for the missile defense deployment starting in September cannot protect Hawaii from a long-range missile attack. In order to protect Hawaii, you plan to use existing ship-based radars which we understand are much less powerful than normal BMD radars and were never designed to track long-range missiles.

General Kadish, with no help from the GPS, how many live target intercept tests have you conducted to date using only ship-based radar to track a long-range target?

General KADISH. We have done many tests of the different parts of that radar system in Aegis that convince us we can do this mission with Aegis radar systems. We have tracked long-range targets, and I have to point out that we would like to be a little bit further along in that. However, prior to the ABM Treaty withdrawal, we were prohibited from using those radars in that regard.

We have just done a review, I guess it was last week, that looked at the capability of Aegis to perform this mission. We are all comfortable that it will work based on the testing we have done to date.

We have set up a test set over the next 18 months that will actually prove those things more in what we call an end-to-end fashion, and use it against a live warhead. We are not to that point yet, but this is part of our evolutionary upgrades. But I think we will have that capability rather soon.

Senator AKAKA. Have you conducted live intercept tests?

General KADISH. Not as of this date using that full engagement sequence. I would prefer to get into more classified arrangements before I talk further than that. Senator, I would be glad to do that with you at any time.

Senator AKAKA. Mr. Christie, I am concerned about Hawaii. Should I feel confident that the State of Hawaii will be protected by this system starting in September?

Mr. CHRISTIE. We have not done a thorough analysis. That is one of the scenarios that we are looking at. At this point in time, I cannot say one way or another. I am not saying we are not confident in stating that, but that is one of the engagement scenarios that are being looked at in the operational assessments— the continuing operational assessments that will go on between now and the end of the year.

So I cannot comment on that at this point in time.

Mr. WYNNE. I would like to add, Senator Akaka, that the great State of Hawaii is certainly included in the defense of the United States, and we are making every move to make sure that we have extended the umbrella of protection to the great State of Hawaii.

I think General Kadish has said it best. We have a few engagement scenarios that in fact are complicated to try and make sure that we have adequate understanding of the mission. I think Mr. Christie is correct in saying that until he gets a detailed evaluation of that particular engagement scenario, and that is how they are doing their testing, he cannot and probably will never be able to tell you in an open forum exactly the level of confidence that you can create. But I will assure you, sir, that we are, in our evolutionary design, have the great State of Hawaii always in mind.

Senator AKAKA. Admiral Ellis, you have the responsibility of protecting all of the 50 States from missile attacks. I am concerned about ship-based radar protection, so my question is, what kind of plan do you have especially for Hawaii? Do you plan to have a Navy ship in this case on station 24 hours a day to protect Hawaii from long-range missile attacks starting in September?

Admiral ELLIS. Thank you, Senator. I want to echo Mr. Wynne's comments. Based on my extensive time in the Pacific, I fully understand and appreciate Hawaii's unique location and contributions to our national defense. As has been noted, it is an essential element within the defended area that's been described for the system.

We are very mindful of the demands of the various intercept geometries that both Mr. Christie and Mr. Wynne have talked about. One of my roles as a combatant commander, as you are fully aware, is to provide capabilities to Ed Eberhart at NORTHCOM and to your friend Tom Fargo at PACOM to ensure that they have all the tools they need to appropriately defend the United States territory within their area of responsibility (AOR).

Now, from a Navy perspective, as you have heard from Ron Kadish, Navy ships will be on station for their initial search and track capabilities and contribute to the sensor net that Mr. Wynne spoke of. That will enable the employment of the interceptors that have been described as an essential element of this system.

So there will be Navy ships involved in contributing to the effectiveness of the entire network, and that entire network will then

contribute to our ability to defend all of the United States from this threat, and that includes, of course, Hawaii.

Senator AKAKA. Thank you for your responses. Thank you, Mr. Chairman.

Senator ALLARD. Call on Senator Sessions.

Senator SESSIONS. Thank you, Mr. Chairman. I am delighted to have each of you with us. Admiral Ellis, it is good to see you again. General Kadish, we appreciate your service. General Dodgen, it is a delight to have you here, as well as Mr. Wynne and Mr. Christie.

A lot of good things have happened. A lot of us believe strongly that we needed to move to a national missile defense program. We had a debate on that in the late 1990s. As Senator Lieberman indicated, he and a number of us joined that issue. In 1999 we voted overwhelmingly, and President Clinton signed a policy of the United States to deploy as soon as feasible a national missile defense system.

Our goal was to do so by September of this year. I believe that was the date, and I know it is about 200 days from now, General Kadish. Can you tell us how we are looking for September of this year in a deployment of a system? If you are able to do so, will it provide additional protection to this country from a missile attack?

General KADISH. Senator, the September date was an internal planning date for the test bed. I can tell you that based on where we are today, we are on track for the general time frame that we set in motion. As with most programs of this nature, we are trying to figure out how to make sure that we either do it earlier or on our internal schedules. That is what we are trying to do today.

Despite some setbacks, we may not have as much equipment available as we thought on a specific date, but by and large, most everything is going to be in place and then we will work with the senior leadership of the DOD to see how much protection that would afford us, and so we are on track.

Senator SESSIONS. There was a lot of controversy early on about the hit to kill technology. Are you satisfied now that that is a proven capability?

General KADISH. Yes.

Senator SESSIONS. If you are testing as it continues, and it is very robust as that testing continues, are you able to make adjustments and will you be willing to slow down and make changes if need be?

I believe we utilize the theory of spiral development. As I understood it from the very beginning, that said that you would wrestle with each problem that came up and try to overall make the system work, rather than trying to design a system from beginning to end at the start and doing it whether it worked or not.

Are you happy with that philosophy and are you prepared to deal with any difficulties that arise?

General KADISH. Again, the short answer to that question, Senator, is yes. I believe we have been able to make the progress we have made over the last few years because we have adopted that philosophy. We have taken action in many cases, not only in the test bed construct we have been discussing, but in programs like ABL and THAAD and the boost program we have put in to reduce our cycle time in decision making to make the overall effort better.

I believe that the strategy is absolutely correct for this type of program. It may not be correct for every program, but for this one that I deal with every day, it is working very well from my perspective.

Mr. WYNNE. Senator Sessions, if I would add that the position of the Secretary is this is an event-driven program, that we will follow the disciplines and the quality procedures and make sure we have the MUA, and test reports. I think even the date, if there ever is a date which we do not have a date certain right now, it will appear because there is a MUA that has been completed and reported.

Senator SESSIONS. Mr. Christie, you have looked at this from a critical eye, as you should. We hope you are. Do you observe any technological or other problems that would keep us from eventually solving the challenges that face us with regard to establishing a system that would work?

Mr. CHRISTIE. At this point in time, no, I see no technological issues that have jumped up that say we are not going to be able to do this or that.

Senator SESSIONS. There are problems, and we need to deal with them.

Mr. CHRISTIE. There are problems.

Senator SESSIONS. Testing reveals those?

Mr. CHRISTIE. I would hope so, and I think the fact that we are being criticized, maybe rightly so, for having less tests during this last year—that reflects that philosophy that we found some problems and we have postponed the schedule, we scheduled tests in order to take care of those problems and to have some confidence before we put the system back into test that we have solved the problems.

Senator SESSIONS. You favor that slowing down rather than pressing forward in some artificial way?

Mr. CHRISTIE. Absolutely, sir.

Senator SESSIONS. General Kadish, if the budget were to be reduced for national missile defense, how would it impact your ability to do adequate testing and research if need be?

General KADISH. Senator, it would slow us down, depending on what the nature of the cuts were. We balanced out the program to the best of our ability, and we have made consistent, and I believe rapid progress in many areas. If Congress continues to fund us, we will continue to make that progress.

Senator SESSIONS. I want to congratulate you. Thank you for your good work. I appreciate the work of General Nance and Major General Holly in Birmingham, who worked on that deployment. It appears to be on time. A lot of people said it could not be done. You are about there. I think it is an extraordinary accomplishment, Mr. Chairman. Really, the American people have not appreciated the immensity of the challenge, technologically and just infrastructure-wise, and they have done it and on time. I believe that if a problem was revealed it will be met and overcome.

Senator ALLARD. As I am calling on Senator Nelson from Nebraska, Admiral Ellis, I hope you are prepared for the question of whether you are going to root for the Big Red, or are still in support of the Colorado Buffalos.

Admiral ELLIS. Yes, sir. I have been torn in those directions before.

Senator BEN NELSON. Thank you, Mr. Chairman. I want to thank all of you gentlemen for what you are doing for our national defense and for the difficult nature of research, development testing, deployment. Things always seem to blend together, and I was taken by what General Kadish said, fly and buy, but sometimes you are flying and buying at the same time because of the need to have the equipment for further field testing.

Admiral Ellis, as a fellow Nebraskan, it is good to have you here. I appreciate so much what you are doing there in a very difficult time frame to integrate all the kinds of things that have to go into bringing offensive and defensive positions together. So thank you.

One of my questions is, I think this will probably go to General Kadish. Fort Greeley will be obviously the first fielded missile defense site, but is it also a test bed? I think we are really trying to understand where we are in testing and how it blends or morphs into a national defense posture.

General KADISH. Senator, you are correct. It is also a test bed because we were going to put the system together to watch it operate on a daily basis, we will gather that data to improve the system. Vandenberg Air Force Base will also have some missiles and they will do the same there.

In fact, we have plans to fly out of those silos at Vandenberg in an operationally realistic testing effort. So again, we have to build it before we can test it in an operationally capable way. Fort Greeley is that location, as well as Vandenberg, Shemya Island out in the Aleutians, and ships at sea.

Senator BEN NELSON. So is it fair to say that we are buying to test rather than buying to stockpile weapons?

General KADISH. In some sense, we are doing both at the same time.

Senator BEN NELSON. Well, that would take me to Mr. Wynne. I know that in testing, we try to reach the goal of perfection, but never expect anything to be quite perfect. Given the experience with the Patriot system and deployment, do you think that we are going to get better results percentage-wise with the missile defense system than we have gotten with the Patriot system?

I am not going to ask you whether it is 10 percent accuracy or 50 or 60 percent except in a classified setting. But are we going to get to a point where field testing or deployment testing in some way gets us a better result? A better percentage, anyway.

Mr. WYNNE. I will compliment the PAC–3 and let Lieutenant General Dodgen talk about it, but it has gotten tremendously better as time goes on. I will tell you that it has gotten tremendously better also because of the capability we have for man in the loop testing on the sensors and on the device itself. It has gotten tremendously better because of the training we have given to people who operate the system and I was very pleased to hear that he feels like that same discipline and training is being translated into Fort Greeley.

This allows me to tell you that the way that we are doing the component and subsystem tests and putting men in the loop and emulating, which is different than simulation, which means you

take the actual signal as it would have come from a certain part of the system into the other one, I would tell you that we are far better in our capability of emulating an actual intercept than we were in 1991 when the first of the Patriot missiles was designed.

Senator BEN NELSON. We have had more opportunity to test the Patriot missile system in the most realistic setting possible, in war. Field testing or realistic testing is not the same for a missile defense system because we hope not to have to test it under similar conditions.

So Mr. Christie, do you think that we are going to be able to get the kind of result that we would be able to say it is good or it is good enough? Perhaps the most important question is, how do we know? The testing is not necessarily as realistic as it is in actual combat.

Mr. CHRISTIE. Well, as time goes on, I think the realism of the testing that we will be doing with this system, particularly after we have all the components of the test bed in place, to include the ship-based X-Band radar, we will certainly have far more confidence in our estimates of our capability than we have today.

In fact, back to the issue of the number of missiles that we will manufacture in this R&D program, I would hope and think that as we look to the future, we have tests planned in the next couple of years where we will be firing some of these very expensive missiles in salvos. We will increase the complexity of the tests with multitargets and multimissiles, so the more missiles we have available for testing, the better I think we will be in having confidence.

Senator BEN NELSON. I would agree with you. That is why I was a little concerned by General Kadish's comment that we are both building to test and also building some to stockpile. Because I am concerned with ammunition, as a hunter, that is a dud. I would hate to think we are stockpiling in any sense whatsoever before we know that we have reached some level of acceptance in terms of the successful capability, because otherwise I think we are spending a lot of money stockpiling when we still should be testing until we are satisfied.

I guess maybe that is not a question, it is a statement. In any event, I appreciate what you are doing. I think oversight sometimes requires some heavy questions, but you are doing some heavy duty testing and heavy duty defense work for the country, so you are used to heavy duty activity. So thank you very much. I appreciate it. Keep up the good work.

Senator ALLARD. Senator Dayton.

Senator DAYTON. Thank you, Mr. Chairman. Gentlemen, this is the fourth time I have been involved in this process as a member of this committee. In each of those instances my experience has been unanimous support among its members for the R&D, testing, and deployment of this system. The law says you should deploy when possible, but I would say when proper.

What you are getting today are questions, and I have these questions as well, about whether the deployment timetable is being dictated by professional judgments or political pronouncements. I realize you are constrained by the orders you have been given by your civilian commanders.

This comment is not directed toward you. Personally and philosophically, I have a hard time with people who run for public office stating that government does everything badly and then when they are elected they go out to prove themselves correct.

I cannot conceive of business executives who are responsible, corporate leaders who would go to their board of directors or to their shareholders and say, we have this major new product we are going to bring out, and it is breakthrough technology, unproven, untried, but we are already building the first sites. We are starting production based on this degree of testing.

Last week, we debated standards of liability and negligence for producing handguns and rifles. If those products—and it is not an exact comparison, because they are in the general public—but if those products were deployed with this degree of testing, they would be liable for negligence, gross negligence, anything you would want to find. It would be unthinkable by corporate prudence, by fiscal sanity, by government oversight, and by public common sense to be undertaking this, in my judgment, based on what I know and based on what you are telling me here.

I mean, some of these comments are just unbelievable. We are using scenarios to incorporate increasing realism into our test program. I would think realism would be a starting point, not the ending point of test programs. Again, certainly before you start talking about building sites and authorizing the production, paying for the production of missiles and putting those out and deploying them and then stating that they represent a useful BMD capability, a dramatic improvement over our current condition of being defenseless against ballistic missile attack.

This is a rudimentary system, as one of you said, in a situation which requires incredible, as others of you have pointed out, sophistication and perfection. Another comment made was that there is now being incorporated a certain rigor in the testing philosophy. We are now using more complex target presentations and engagement geometries.

I assume that means things like testing not just on sunny days and not just with single missiles whose trajectory is already known, at the time already known and without confusing and distracting other measures.

Again, if that is where we are at in the development of this technologically, so be it. I do not question that all is being done that can be done, but I certainly question the wisdom of this deployment and construction. As a public works project in Alaska, I guess it is worth something as a jobs program. It is limited, but it is certainly vastly more effective than moving the estate tax repeal from the year 2010 to 2009.

I would personally feel a lot better about it if the administration would agree to a highway construction bill that would at least benefit the other 49 States, including my own. Those are established technologies. We are along for the ride on this. Two years ago, there was even the thought mentioned of shaving a slice, a sliver of the funding based on funds that had been determined to be not used in the previous fiscal year and would be available for the next fiscal year. The administration responded with veto threats and suggested or posed that we would be emasculating the entire na-

tional defense of the Nation—gutting is the operative word these days, gutting our capability.

I do not even imagine those considerations in my darkest moments at night. We are along for the ride on these decisions and so is the American public and the taxpayer. Whether it is the most efficient use of tax dollars, I just seriously doubt whether these expenditures are even putting us on the most expeditious path of what we want and need.

We have agreed here. We need a system that can perform incredibly complex functions over distances at speeds within seconds, and with the precision necessary to accomplish the results under all weather conditions despite enemy subterfuge and disruptive tactics and do it perfectly every time. We have to rely, it seems to me, on your making the right decisions for the right reasons to produce the right results.

I hope and I pray that you are. I hope that we and everyone else involved in the political realm can permit and not prevent you from doing so. My time has expired. Thank you.

Senator ALLARD. Senator Clinton.

Senator CLINTON. Thank you very much. The General Accounting Office (GAO) is publicly releasing a report today that expresses concern about the lack of test data, something we have been focusing on here. The report warns that the test plans through 2007 do not include sufficiently challenging targets and decoys. Now, the report, General Kadish, says that the first attempt at launching two interceptors against two targets is not scheduled until 2007. Is that correct?

General KADISH. That is incorrect. I have not read the report specifically, but part of the problem we have here is that we have continually evaluated our test programs and changed our plans significantly sometimes based on the performance of the system. So we are not able to keep it up realtime given how those reports are made. So I am sure at one time that was what the schedule was, but I believe we have accelerated that effort.

Senator CLINTON. So sometime after deployment in 2004 but before 2007?

General KADISH. I will have to make sure it is right for the record. I think it is next year.

[The information referred to follows:]

Our current estimate to flight test two interceptors against two targets is the fiscal year 2008 time frame.

Senator CLINTON. The report also says that no plans exist to assess the effects of severe weather on the system's performance or to conduct flight tests under unrehearsed and unscripted conditions.

I assume that relates to Senator Reed's point about the GPS. But with respect to weather and the unscripted conditions, is that a fair statement?

General KADISH. I do not think it is fair in the sense that we do not currently wait for a storm to do our test. We have time lines to meet. We have certainly had weather effects on our system, rain storms occurring during the tests, that type of thing.

Senator ALLARD. Senator Clinton, if I might caution you, this report from the GAO that you are referring to ended up being a clas-

sified document. I know it came into the committee as an unclassified document, but then the committee reclaimed it as a classified document. So I think we have to be a little careful about it. I just want to warn you about that.

Senator CLINTON. I appreciate that caution. It is my understanding that is a different document. The GAO report I am referring to is going to be publicly released today. I believe there is a confusion about the reports.

Senator ALLARD. Okay, as long as you understand and are aware of that.

Senator CLINTON. I am very much aware of that, Senator. In fact, I am reading from The Washington Post.

Senator ALLARD. Well, there was an article written about the classified document that I understand should not have been made public.

Senator CLINTON. I know, but that is a different issue.

Senator ALLARD. That is a different issue.

Senator CLINTON. Yes, sir.

Senator ALLARD. Okay, very good. Just as long as we are aware of that.

Senator CLINTON. I assume this does not come out of my time.

Senator ALLARD. It does not.

Senator LEVIN. Mr. Chairman, I would also ask for 30 seconds not out of Senator Clinton's time to put in the record GAO highlights of the report that Senator Clinton is referring to, because there are indeed two reports. The one that she is referring to is not the classified report. But I'd put in the record the one page that we have which is clearly unclassified that I know she is——

[The information referred to follows:]

GAO

Highlights

Highlights of GAO-04-251, a report to the Honorable Pete Geren

Why GAO Did This Study

In August 2003, the Defense Department's (DoD) Director, Operational Test and Evaluation (DOT&E), made 30 recommendations on a test program for a system to defeat long-range ballistic missiles that are aimed at the United States. The Missile Defense Agency (MDA) plans to begin fielding the system by September 2004.

GAO examined (1) how MDA addressed DOT&E's recommendations and (2) what is known about the effectiveness of the system to be fielded by September 2004. GAO issued a classified report on this subject in June 2003. This unclassified, updated report reflects changes in MDA's test schedule.

What GAO Recommends

GAO recommends DOT&E report on the status of MDA's progress in the recommendations and advise MDA how to rectify the test program to address longstanding concerns. DOD agreed with these recommendations, while noting there have been many changes in its test program and the acquisition strategy and structure since DOT&E's August 2003 report. GAO revised the report to reflect the latest approved test program that believes most DOT&E recommendations remain relevant given the significant technical challenges and uncertainties facing MDA.

For more information, contact Paul Francis at (202) 512-4841 or francisp@gao.gov.

February 2004

MISSILE DEFENSE:

Actions Being Taken to Address Testing Recommendations, but Updated Assessment Needed

What GAO Found

MDA is addressing most of DOT&E's recommendations on flight testing but will not complete many actions before September 2004. For example, DOT&E recommended removing flight test range limitations by adding more intercept regions and launch locations to add greater realism to its tests. MDA is expanding the test range infrastructure to add five intercept regions and target and interceptor launches out of new locations. By September 2004, one of the regions will be tested.

MDA is generally not addressing DOT&E's proposals on ground testing. For example, although MDA had begun upgrading a ground facility to provide a realistic testing environment for the interceptor, MDA deferred testing at the facility to fund other priorities. Finally, MDA is addressing DOT&E's recommendations on discrimination–the system's ability to find an enemy warhead among decoys–by funding analysis programs.

Predictions of how well the system will defeat long-range ballistic missiles are based on limited data. No component of the system to be fielded by September 2004 has been flight-tested in its deployed configuration. Significant uncertainties surround the capability to be fielded by September: MDA will not demonstrate in flight tests a critical radar called Cobra Dane before that date or conduct a system-level demonstration, and has yet to test its three-stage boosters as part of a planned intercept.

GMD Interceptor

Source: Ground-Based Midcourse Defense Program Office.

United States General Accounting Offic

Senator ALLARD. Without objection. Thank you. Senator Clinton, you may proceed.

Senator CLINTON. Thank you, Mr. Chairman. Thank you, Senator. The other point raised in the unclassified GAO report refers to the reliance on tracking data from an old surveillance radar called Cobra Dane, but the report notes that the radar will not have been tested in its new role and will lack the ability even with software improvements being contemplated to provide more than a

rudimentary analysis of incoming missile threats. Is that a correct statement?

General KADISH. I do not believe it is going to be correct. It may be correct today. The radar in Cobra Dane, again, I would rather not get into the specifics here for classification reasons, but as of today, we have installed our software on that radar and it is actually tracking objects.

Senator CLINTON. General, last year at our hearing, my colleague, Senator Bayh, asked a question and he unfortunately had to leave, but I want to reiterate the question because I think it really gets to the core of our concerns. Last year, Senator Bayh said suppose that our best efforts at negotiation and containment of North Korea prove unsuccessful. That at some point next year, the President, whoever that is, is confronted with actionable intelligence that for whatever irrational reason, the North Koreans are contemplating or preparing to launch missiles against our territory, and most likely that would mean Hawaii or perhaps Alaska.

The President calls you, General Kadish, and says, tell me, am I ready to defend against a potential attack from North Korea today? Last year, the response, as I recall, to Senator Bayh was that is classified. Is that the same response this year?

General KADISH. The actual performance data would be classified, yes.

Senator CLINTON. What that leaves, though, is a tremendous amount of concern on the part not just of Members of Congress who like myself support a national missile defense system if it is done appropriately, and if it actually works, but it also raises the possibility that whether it works or not at this point, it has deterrent effect. The very fact that we are engaged in it may in some way deter those assuming they act rationally.

Do you have any prediction as to when performance data will be made publicly available so that it can be debated and analyzed by Members of this body and, equally importantly, the American public? I am not talking about detailed information, but at least being able to answer the question, will it work if we are confronted with a launch from North Korea? Is this a defense system that we can count on to work?

General KADISH. I think there are two questions there, so let me try to answer the two questions unless somebody else wants to help me answer this question. From my responsibilities, I firmly believe that the performance characteristics of any weapons system, especially this missile defense system, should be properly protected with classifications appropriate to it.

So public discussions of specific performance capabilities would not be appropriate. I do not think we generally like to discuss in public our offensive performance capabilities for the same reasons.

Having said that, however, the next question is, how are we going to maintain increasing confidence in the effort, and what characterization could you make at any given time in the system? I guess my response to that would be that at any given time, we will have an understanding of the behavior of our systems. It is performance based on testing to date, and it will change over time.

It is my belief, given the investments that we have going here, it will always get better. Now, at any point in time, Admiral Ellis

and our successors in these positions will have to make that judgment. If we are ever asked the question, what is the capability we have today, we will have to describe that in ways that people can understand and act on.

But it is a different equation when you say there is no capability today, zero, and there is something different than zero, and there is a different assessment between when you have something that is constantly improving to describe that in a way that people can understand. I think we will be in a position to do that when and if called upon to do it.

In fact, as we put it on alert, that is part of the process of learning about the system.

Mr. WYNNE. Senator, I would also like to follow up and just say that after each test, I know that the MDA comes and discusses with this committee the results of those tests.

I expect that that interaction will continue to make sure that you do in fact have a very robust knowledge of what the capabilities are. I know that beyond that, this committee has been and continues to be extremely sensitive to making sure that we do in fact express a deterrent effect. I go back to the Strategic Air Command and their nuclear mission.

Peace was their profession and that was their motto, and I know it is the motto of the Atlas missile. People who sit right now under the watchful eyes of Admiral Ellis, and I know it is going to be essentially the mission of the ground-based missile defense that we hope we have invested in sufficiently and are technologically clear that it will have the deterrent effect our triad has had over the years.

Senator CLINTON. Mr. Wynne, do you believe that the recent Russian claim about their development of a capacity to—I do not know if it is fair to say evade—their recent announcement that they developed a maneuvering warhead to evade missile defense?

Mr. WYNNE. I read that in a public policy—I have not seen anything beyond that. There is no doubt that the Russians are continuing to invest in offensive missile capability, and that we do not know yet what the level of development is.

Senator CLINTON. General, do you have an opinion about the Russian claim?

General KADISH. I think the same as Mr. Wynne. At this point in time, our missile defense systems are not oriented to Russia. So I am not paying much attention to that.

Senator ALLARD. Senator Clinton, we need to move forward. I gave you an extra 2 minutes, by the way.

Senator CLINTON. Thank you, Mr. Chairman.

Senator ALLARD. You bet. Senator Pryor.

Senator PRYOR. Thank you, Mr. Chairman. Secretary Wynne, as the Pentagon's acquisition executive, you oversee both the Army missile defense programs and those of the MDA. I have a question regarding budget priorities.

In your budget request for fiscal year 2005, you have requested a very large amount of funding for missile defense, about $10.2 billion. It is more than a billion dollars over last year. Yet, despite the increase in overall missile defense funding, funding for the

PAC–3, as I understand the only operational system we currently have, would drop by almost $350 million from last year's level.

So even though there is an increase overall, there is a decrease in that one operational system. In fact, in response to Senator Nelson's question, you talked about how it had gotten "tremendously better," the PAC–3.

So with such an increase in missile defense, why would you want to reduce the funding for the only operational missile system that we have?

Mr. WYNNE. The priorities that are made are actually designed by the Secretary. I think he will tell you that the PAC–3 missile defense system is also now known as MEADS. It is incorporating, I think, new developments for a 360 degree look radar, some thing that we need to essentially slow down to make sure that we do take into account all the lessons learned in OIF.

I think the allocation is proper. I think the imminence of the threat has been balanced, and I will say that the Army is satisfied with the amount of funding that they have right now for PAC–3. I would not say that any program manager worth his salt would be totally satisfied, but I would have to ask Lieutenant General Dodgen to second the motion.

General DODGEN. Senator, thank you for the question. The RDT&E reductions in PAC–3 and Patriot can be explained by the sheer maturity of the program and the fact that we are moving into more procurement, from a standpoint of percentages of the program.

So we have had a downturn in the Patriot and PAC–3, but MEADS is still flatlined, because we are still doing development of that program.

In addition, we are coming to the end of our procurement of the CONFIG 3 radars, of which we did six last year and we are only doing one this year. We are procuring 108 PAC–3 missiles, which is less than we did last year because of a congressional plus-up that was added last year. But the 108 that the Army had planned for is on the track.

So we are very comfortable with the levels. But as you said, you can always apply more funding if it is offered.

Senator PRYOR. Well, thank you for those responses. I am glad that you all have gotten me inside the numbers here. Because when you just look at the raw numbers, that question popped out at me.

Secretary Wynne, the Pentagon's budget request for the Missile Defense Program is $1.2 billion more than last year, but when you look at the 5 year budget protections for the Block 2004 and Block 2006 ground-based national missile defense program, it has gone up by almost $6 billion since last year with most of the cost in fiscal year 2006 and 2007.

The total cost of the program looks like it has doubled in a single year. In any other program that the DOD would have under the normal acquisition rules, like the F–22 for example, such rapid cost growth might trigger a congressionally-mandated review to determine what is going on in the program and why the numbers are increasing so rapidly.

So let me ask you, what is going on in the program and have you or have you not undertaken any sort of review? Also lastly, what confidence level do you have that such cost growth will not continue in the program?

Mr. WYNNE. There are a lot of questions in there, sir. I will take my time in trying to answer them all. Number one is we do a review with General Kadish for myself once a week. He has been quite challenged, frankly, in the performance because there has been an increasing, I think, surety of schedule achievement. The test programs that we want him to perform are becoming a little bit more robust than we had decided.

Frankly, he has had a little overrun and he has managed the ABL system fairly well. He has taken it upon himself to initiate the cancellation of the RAMOS program that you have heard about and to fund some things from internal funds so he is applying financial management.

The requirements that we have laid on him in the 2006 domain have frankly continued to increase as we have looked to, if the system is effective, then what place holders should we put out there to make sure that we do not, if you will, do not have the capacity to expand.

On the other hand, I will tell you that next year is going to be another year and General Kadish and his successor are going to have to defend their budget against all the priorities that come up. They put place holders in to try to make sure that they in fact have a reservation, if you will. The same thing is going to happen with 2007.

I commented on the fragility of this program development, as well as my confidence in achievement, and I think that is where the place holding should be. General Kadish, do you have anything further on that?

General KADISH. I would just like to re-emphasize the fact that the RDT&E budget remains relatively stable but most of the increases you are seeing within the context of Mr. Wynne's comments are for follow-on place holders for new capability. So it might look like an increase to the overall execution of the program, but it is more oriented to that effort.

Senator ALLARD. Thank you, Senator Pryor.

Senator PRYOR. Thank you, Mr. Chairman.

Senator ALLARD. My plans are for us to go ahead and start another line of questioning. I will start those off.

So first of all, this has to do with the PAC–3. General Dodgen, could you estimate maybe in general terms how many lives the PAC–3 and PAC–2 GEM saved during OIF?

General DODGEN. Given the limited accuracy of the missiles that were coming in, it is hard to put a precise number to it, but we know that several of these were targeted at base camps where there were significant number of soldiers. We are not disputing the CNN program that said that one of them was on top of the command post. So I think there is significant savings of lives with the engagements that did happen, but it is very difficult to put a number to it.

Senator ALLARD. We have heard that something went wrong in every PAC–3 operational test. Should we have developed a PAC–

3 for OIF or did the system have value in spite of the testing shortfalls?

General DODGEN. Well, I think deploying the PAC–3 missile to OIF was a correct decision, and to employ it as a system. It is going to counter tremendous threats that we did not see in OIF, but certainly could have been there in OIF. That increased capability, the extra speed, the hit to kill certainly affords extra protection to our soldiers.

Senator ALLARD. Now, for General Kadish and then Secretary Wynne, I know we do not use the Israeli requisition process, but I would note that Israel declared its Arrow BMDS to operational status quite early in its testing, and that they have continued to improve the Arrow over time. How well has that approach worked for them?

Mr. WYNNE. I can take that a little bit, sir. I would tell you that, first of all, the Israeli nation is faced with continuing threats. They have a marvelous system for rapid deployment. They have a smaller force for the rapid deployment. I think their contribution in the Arrow system is quite significant.

It is telling, however, that they felt they needed it and they, of course, needed it in support of OIF that we were just in. Then when they had a system capability, they brought it online and they hoped they would never have to use it, and I think that is what occurred. General?

General KADISH. I would agree with that since we worked so closely on the Arrow program with the Israelis. I would just make the comment that we have more tests than they did when they put it on alert as of this date.

Senator ALLARD. I'd like to move on, General Kadish, to your national team concept, and it has come under a little bit of criticism here. Would you describe in more detail the roles that the national team plays in your effort to develop the BMDS? Also, how would you quantify the effects of a funding reduction to the program elements that relate to the national team?

General KADISH. The national team is a collection of personnel from all industry partners that we could sign up, as well as government. Their job is to do the systems engineering so critical to make these very complex systems work, and cross the boundaries of the Army, Navy, and Air Force systems that we are using to do the detailed engineering.

If we did not have that entity, I could not at all be confident that we could fulfill our promise in delivering an integrated BMDS. That is how critical it is.

Mr. WYNNE. If I could add to General Kadish's comment, over the years, every time that we wanted to reduce a program, we always seem to go after the systems engineers and then we paid for it later. I have really taken a specific interest in making sure that we reassert the level of systems engineering competence across the Department.

I think the method that General Kadish has used has really contributed in an extraordinarily beneficial way to achieving in 5 years from the 1999——

Senator ALLARD. So you would assess the national team performance as exceptional?

Mr. WYNNE. I would assess the national team performance as essential to what he is trying to do. Yes, sir.

General KADISH. I will just re-emphasize that. Whenever we get resources marked against it, we have to reduce people. That increases our difficulty of getting the job done.

Senator ALLARD. Senator Levin?

Senator LEVIN. Thank you, Mr. Chairman. Mr. Christie, is this system still in developmental testing in your judgment?

Mr. CHRISTIE. Yes, sir.

Senator LEVIN. When will it move over to your office to operational testing?

Mr. CHRISTIE. As of right now there are no plans for that. We are heavily involved with the office in most of the flight tests that will take place over the next couple of years. We will have operational flavor. The operation of the sites at Fort Greeley and Vandenberg will have operational troops, and we will be gathering a lot of operational data from those deployments.

But as far as dedicated operational testing that I am in control of right now, that's not in the plan for the foreseeable future. I can not answer that.

Senator LEVIN. Ever?

Mr. CHRISTIE. It depends on, as the system matures, and if we eventually turn some of these systems totally over to the operators and we can go into what we call real production, then I would think, yes, Title X will kick in then, and we will have operational testing.

Senator LEVIN. What is the purpose of your office?

Mr. CHRISTIE. The purpose of my office is to oversee the operational testing that takes place in the Services for the most part, and to provide our independent evaluation of that testing to the decisionmakers who are in the building and in Congress. One of the items that we are statutorily required to provide is a report to these decisionmakers and to Congress before a system goes beyond low-rate initial production and to do our assessment of the operational effectiveness and suitability of the system under test.

Senator LEVIN. The underlying purpose of all of that is to make sure that we have maximum capability in a system, is that not true?

Mr. CHRISTIE. That we are not delivering something to the troops that is ineffective or unsuitable and we are allowing them to know what they are getting in their hands. That is right.

Senator LEVIN. That is the reason we want maximum confidence in that capability?

Mr. CHRISTIE. Of course.

Senator LEVIN. That is the purpose of your office.

Mr. CHRISTIE. That is right.

Senator LEVIN. That is why your office takes over developmental testing at some point on weapons systems?

Mr. CHRISTIE. That is right.

Senator LEVIN. You have no idea when that is going to——

Mr. CHRISTIE. At this point in time, I do not see it in the plan.

Senator LEVIN. At all. General Kadish, is it your understanding that this is going to be turned over from developmental testing to operational testing at some point in the future?

General KADISH. I think that has always been our vision on this, but the difficulty that Mr. Christie and I are struggling with is when should that happen given the nature of this particular weapons system. It is different from almost anything I have been associated with.

Senator LEVIN. Mr. Christie, at the time of your most recent report to Congress in January, two intercept tests were scheduled prior to the September deployment of the system. At that time, you said, "even with successful intercepts in both of these attempts, the small number of tests would limit confidence in the integrated interceptor performance." Do you stand by that statement of 2 months ago?

Mr. CHRISTIE. Yes, sir.

Senator LEVIN. Now, we are going to see deployment after one intercept test. So would you say that would limit your confidence even further?

Mr. CHRISTIE. It depends on how we conducted that test, and what other tests we will be conducting with the operators on hand. Certainly I would like two tests. I would like four tests between now and then, and with one versus two, obviously we will have less confidence in our assessment.

Senator LEVIN. Even less confidence that you had a month ago?

Mr. CHRISTIE. That is right.

Senator LEVIN. In the budget request, there is a lot of money here for the apparently long lead activity as it is put for ground-based interceptors at a third site, is that correct, General?

General KADISH. I do not believe that to be true. Not in the 2005 budget. If you are referring to the rest of what is noted in the budget, that is true. We do not start looking at that third site until fiscal year 2006.

Senator LEVIN. Let me read you your budget. It says we have added funding for the next increment of BMD capability. The fiscal year 2005 funding for these efforts is approximately $677 million, and approximately $2.6 billion from fiscal year 2005 to 2007. This includes funding for additional ground-based interceptors at Fort Greeley, the upgrade of the Thule early warning radar, and long-lead activity for ground-based interceptors at a potential third site.

General KADISH. I am not sure that's accurate. I'd have to add, sir, for the record. But to the best of my knowledge is that we are asking for the funding for the fiscal year 2005 and 2006, the next 10 if you will. If there is some long lead funding in there for the follow on 10, I am just not aware of it. I will just have to go back and check.

[The information referred to follows:]

MDA has requested funding from fiscal year 2005–2007 for the additional 10 interceptors at Fort Greeley. Also, MDA requested long lead funding for another 10 interceptors for a potential third site. The fiscal year 2005 increment also includes the initial funds for Fort Greeley missile field expansion, forward deployable radar, and Thule UEWR.

Senator LEVIN. For the follow on 10, I want to be real clear as to what we are talking about. We have already funded 20, and you are asking for 10 in this budget, so that is 30. Those are going to go to two sites, correct?

General KADISH. The current planning is that that 10 go to Fort Greeley.

Senator LEVIN. All right. The ten in this year's budget. Now, there is long lead for additional, according to your budget. You are not sure that is accurate?

General KADISH. I am not sure. I would just have to go back and check.

[The information referred to follows:]

Included in the fiscal year 2005 request is $35 million for long lead materials for 10 interceptors for a potential third site.

Senator LEVIN. If there is, that would be for a third site?

General KADISH. Yes.

Senator LEVIN. Where is that third site?

General KADISH. That's the reason why it's not postulated fully in 2005. We still have to determine where that third site's going to be.

Senator LEVIN. Is that part of a test bed?

General KADISH. It will be a larger part of our testing activity. We have not characterized the third site sufficiently yet. That is why the budget is the way it is. We need more time to do that.

Senator LEVIN. It may or may not be part of a third site, is that correct? It may or may not be part of the test bed, is that what you are saying?

General KADISH. It may or may not be, yes.

Mr. WYNNE. Senator, I would tell you that once we start a warm line we want to keep that warm line because of the destruction in industry. The provision of long lead funding, I think where those missiles might go was a speculation in the document. The fact of the long lead I do not think is an issue.

Senator LEVIN. Well, the issue is whether or not those are going to be part of a test bed or not. The answer is you do not know if they are.

Mr. WYNNE. We do not know if they are.

Senator LEVIN. How many of the 30 that are going to be funded if this budget is adopted are going to be launched for flight testing? General?

General KADISH. I think we have postulated three to four flight tests a year. That is what had been our planning factor for the out years. The source of those missiles I am not too sure of in terms of five, six, seven, eight—I mean, six, seven, eight, nine time frame——

Senator LEVIN. What would you estimate would be the maximum number of those 30 that you would be planning on using for launch—for flight testing?

General KADISH. Here is the way we postulate it would work. The missiles that we put in first in the test bed will be the first out to test and actually fly. We will replace those and those new ones would become part of the test bed, and——

Senator LEVIN. How many of the Fort Greeley ones would be launched?

General KADISH. Eventually all of them.

Senator LEVIN. They would be moved somewhere else?

General KADISH. No. Well, they may—this is part of the ongoing planning. That is why we all get frustrated from time to time when

we change our plans. But we are flying out of Vandenberg and although we have not completed the environmental statements for the final decision, our intention is to fly out of Greeley.

Senator LEVIN. Out of Greeley. That is a change?

General KADISH. I have been saying that for a few years now.

Senator LEVIN. It would be a change if that is approved.

General KADISH. It would be a change.

Senator LEVIN. My last question. If we approve these 10 on top of the 20 previously approved, how many of those 30 do you believe would be actually launched as part of flight testing? Could it be as many as 15?

General KADISH. Can I take that for the record, Senator? I want to be precise on that and I just do not have the recollection for those quantities that far out. Those could be tested over the next 5 years or more, or longer. So I just do not know.

[The information referred to follows:]

We currently have 15 flight tests on our schedule that will utilize interceptors.

Senator LEVIN. So you do not know what part of the 30 would be launched as part of either developmental or operational testing, is that correct?

General KADISH. Yes.

Senator LEVIN. Is it fair to say it will be less than 30?

Mr. WYNNE. Senator, I think if the General might think about it, all of those missiles will ultimately launched in tests. The question is when. I think your question goes to how many and when.

Senator LEVIN. No, my question is not when, my question is whether.

Mr. WYNNE. Well, I can tell you that the first several tranches of Atlas missiles have all been launched——

Senator LEVIN. In other words, it is possible that all 30 of those are going to be used for developmental or operational testing, is that your answer?

General KADISH. That is my belief. It is a matter of the timing. If you look at the way our ICBMs go, we launch those regularly. We use up the inventory. I do not think it would be wise in missile defense not to do the same thing.

Senator LEVIN. If there is any change in that answer for the record, let us know. Thank you, Mr. Chairman.

[The information referred to follows:]

No change.

Senator ALLARD. Senator Akaka.

Senator AKAKA. Thank you very much, Mr. Chairman. General Kadish, I have some questions because of the GAO report. The GAO has been looking into the ABL program. They recently provided a review of the preliminary findings and some of the findings are truly, truly astounding.

GAO calls into question whether or not it makes sense for Congress to continue funding this program at the requested level, especially in this era of tight budgets. In regard to the program's costs, GAO concludes, "the prime contracts costs has increased by about $1 billion since 1996. In fiscal year 2003, the cost overrun was $242 million, and that the prime contract could overrun budgeted costs at completion by $431 million to $943 million."

So we are looking at $2 billion in cost overruns before we get to the first operational test of the system. My question to you, General, is what is MDA's estimate of how much this ABL program is going to cost by completion?

General KADISH. Well, the definition of completion is a little bit problematical, given the revolutionary nature of this effort. But I can tell you what is in the budget. We have about $2 billion in the budget to continue development over the next 5 years. In fact, I think it is higher than that. I think it is closer to three.

The nature of the cost turbulence that you pointed out is reflecting the very complex development effort of putting a laser on an airplane like the 747 and making it work. We have a technical challenge, and we have been doing very well against that technical challenge, but it has been costing us more money and taking longer to do.

If I could just use for illustration why we are dealing with this right now, I will use this laser here. If you could look at that wall over there, and I am trying to hold that thing pretty steady, but it is still bouncing around, and we want to do that over 200 miles basically. We are close to doing it. We believe we are close to doing it. It is revolutionary in its impact but it is probably one of the most complicated airplane weapons systems integrations that this country has ever done.

So it is costing more, but we believe the investment is worth it at this time.

Senator AKAKA. General Kadish, when the ABL was first proposed, it seems to me people were very optimistic, maybe even overly optimistic about the engineering problems and greatly underestimated the technology and integration problems. People have to be coaxed, I understand, out of retirement to work on the optical problems. A lot of engineering involved has been described now as a lost art.

I understand that the volume of testing required for hundreds of first of their kind components was never anticipated. The GAO believes that the Air Force put this into an acquisition program before it was ready.

Originally, MDA said it would demonstrate the laser's lethal effectiveness by testing its ability to shoot down a missile in fiscal year 2005, but now, in your 2005 budget request, MDA says only by the "earliest possible date."

You have a technology that we do not know whether it will work, or at least you cannot provide a date when it will or how many billions of dollars more it will cost. So my question to you is, why is this still an acquisition program? Why is it not a S&T demonstration type of program?

General KADISH. Well, I think the ABL program as it is being managed today is typical of the way we are doing everything in the missile defense effort. A capabilities-based evolutionary approach.

That means we are not in a classic acquisition, where we are dealing with a mature technology, where something already exists like an airplane and we are trying to make it better. We are dealing in an area of technology that nobody in the world has ever done before. It requires new management techniques and new understanding of the risks involved.

I think that the dollars we have allocated to this are visible and understandable. The technical progress we have made has been substantial, but we are not there yet. I think that we do not have a production program behind us like a normal acquisition program. We do not have a lot of the other activities that we will be spending money on.

In fact, because of our delay I restructured the program last December, such that we decided not to buy another aircraft and start that integration effort until we made more progress on the first one.

So I believe that the management actions we have taken and the technology we are dealing with is worth the effort to proceed and the dollars required to do that.

Senator AKAKA. General Kadish, I understand from the GAO again that the current ABL contract is supposed to reach its cost ceiling by May 2004. The MDA cannot build a business case for this program, I believe, at this time. An example is in fiscal year 2004, where you requested $345 million and in fiscal year 2005, $150 million. But your fiscal year 2005 budget request is showing $603 million in fiscal year 2004, and $474 million in fiscal year 2005.

My question to you is, how are you justifying this for funding for a program from year to year. It does not seem to have any idea how much it will be expending.

General KADISH. Senator, that is an accounting activity. I think the GAO focused on only one airplane. In the budget, we have projected to start buying that second airplane. As I just mentioned to you, we restructured the program and decided to defer that second airplane, and we applied the funds to the first airplane.

It is not correct to say that we do not understand how much it costs us to do the work in any given year. We certainly know that with great precision. The problem we are having is that it is taking longer for us to do the work. So we have added to the budget to make sure that we adequately fund that effort. But we have diverted the funds from the second aircraft to the fundamental effort.

Senator AKAKA. Mr. Chairman, I have just one more question for Mr. Christie. It has been reported that several critical elements of the ground-based midcourse defense system, which is scheduled to be operational by October 2004, will not be ready on time because of technological challenges.

The MDA has stated that the system will still be deployed as planned, and that replacements will be used in place of these missing components. Of course, I am concerned that we will be deploying an incomplete system that will not protect the American people as we hope.

Can you please discuss that decision to initiate a ground-based midcourse defense system that is not fully tested and explain what risks we are incurring as a result of this decision?

Mr. CHRISTIE. I am not sure what elements of the originally planned test bed will not be online, so I am not sure what you are talking about, that we are foregoing some of the elements such as the missiles in the silos, the upgrade to Cobra Dane, the early warning radar at Vandenberg, and missiles in the silos at Vandenberg.

As we discussed earlier, some of the integrated flight tests that have been scheduled for this year have now been slipped, and we have discussed the reasons for that. So there will be less flight tests to support an assessment that is done sometime—the continuous assessment that will be done during the year concerning what will be the capability that is there when we have an initial deployment.

So I am not sure what elements are not going to be there that we had planned to have there. Are you familiar with that, General Kadish?

General KADISH. Senator, we are going to have all the elements we need based on our schedules today unless something happens between now and then. So we are on track to do that. The hardware will be there. The software appears to be ready to go and then we are going to decide whether or not we are going to have it in an alert posture. The hardware will be there on our internal schedules. As Mr. Wynne said, there is no date certain for us to do that, but we do have our internal target.

Senator AKAKA. I thank you very much for your responses. Thank you, Mr. Chairman.

Senator ALLARD. Thank you. I want to wrap this up with just one final question here. We had the discussion on the number of missiles that you require.

Secretary Wynne, I would like to have you and Mr. Kadish answer this question. How many of the missiles you are requiring will be used in cycle and other lifecycle testing?

Mr. WYNNE. I can tell you, Senator, that the way this program is evolving, every one of the new missiles will be better than the one that was previously produced. The testing is continuous. The workers are learning. The industrial workers are learning. Each one of the missiles will add to the reliability of the system.

In addition to that, as General Kadish said, I think we will have the capability to do an actual operational concept which actually will use two missiles instead of one missile during the test. If we do that on a realistic basis, and depending on whether Mr. Christie or his successor demands that we do an actual operational, I think that is only 15 tests. So every one of them will add to the reliability.

Senator ALLARD. General Kadish, any further comment on that?

General KADISH. I would agree wholeheartedly.

Senator ALLARD. Gentlemen, I want to thank all of you for your service to this country. We have spent a lot of time in front of this committee. We appreciate you sharing your thoughts with us. I wish you well. Thank you very much.

[Questions for the record with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR WAYNE ALLARD

PAC–3

1. Senator ALLARD. General Dodgen, as effective as the PAC–3 is, it remains an expensive tactical missile—over $3 million per copy. Would you describe any efforts the Army has to reduce the unit cost, and how is the contractor incentivized to reduce unit cost? How does reducing the procurement quantity affect the unit cost?

General DODGEN. The approximately $3 million amount that is often quoted for each PAC–3 missile includes not only the cost of the actual missile unit but also administrative overhead, replacement/redesign of obsolete parts, and reasonable

contractor profit. From a production standpoint, unit production costs continues to decrease from the initial PAC–3 production costs. However, the Army and the prime contractor recognize that unit production costs are still too high for the missile. Accordingly, the Government recently contracted for the fiscal year 2004 production of the PAC–3 "Cost Reduction Initiative" (CRI) missile. The CRIs will improve manufacturing of the missile by reducing touch labor and using components currently being used in other Department of Defense (DOD) programs as opposed to PAC–3 unique designs. In addition to reducing unit cost, the CRI missile adds new capability that will enable the missile to be integrated into the future Medium Extended Air Defense System (MEADS). Reducing procurement quantities negatively affects the unit cost as program fixed costs are spread over fewer deliverable missiles.

AIRBORNE LASER

2. Senator ALLARD. General Kadish, I understand that you have restructured the Airborne Laser (ABL) program because of delays in building the laser and complications in integrating the subsystems in the aircraft. What metrics will you use now to measure progress in the program and will you, in this restructure, have insight into the anticipated cost to complete the test aircraft?

General KADISH.

a. The ABL program office will continue to use cost and technical metrics to measure progress and anticipated cost towards completion of the test aircraft, as we have since the inception of the program. The following metrics are all being collected in addition to standard earned value measurement techniques. For example, insight into cost to complete the program will be obtained through the use of an Integrated Baseline Review.

b. The methods for measuring technical progress include inchstone measurements and headcount tracks, which also provide insight into cost. Each inchstone correlates to a key point or task in the schedule and the schedule provides the baseline for cost performance.

c. We will also perform Schedule Risk Analysis, which consists of comparing actual schedule performance against the anticipated progress. This gives us a confidence level in the contractor's remaining schedule.

d. Finally, tracking and forecasting of all full-time equivalent personnel working on the program is well correlated to expenditures since material costs are only a small component, thereby providing another insight into costs.

FLYINGDALES RADAR FACILITY

3. Senator ALLARD. General Kadish, I understand that the U.S. and United Kingdom (U.K.) recently signed a formal memorandum of understanding and agreed to upgrade the Flyingdales radar facility. I also understand Japan recently agreed to provide nearly $1 billion for their own sea-based and ground-based missile defense in cooperation with the United States. We are negotiating a ballistic missile defense (BMD) framework with Australia and redefining our cooperative defense agreements with Canada. It seems to me that ballistic missile threat is a global problem that requires a global solution. Therefore, I applaud your efforts to build cooperative relationships with our allies. Can you expand upon your vision for international cooperation on missile defense and what challenges have you encountered in making this vision a reality?

General KADISH. The Missile Defense Agency (MDA) sees international partners contributing to the Ballistic Missile Defense System (BMDS) in four fundamental ways. First, allies/friends can work with us in development efforts for new or improved elements of the system. Their technical contributions have helped us in the past. As an example, technology used in the focal plane array of the Arrow missile was used in their proof of principle test for Theater High Altitude Area Defense (THAAD). By working together on the Arrow development and its integration with Israel's Patriot batteries, we have learned valuable lessons for our own multi-tiered missile defense system. Second, allies/friends can help by allowing elements of the BMDS to be forward based on their territory. The radar at Royal Air Force Fylingdales is an excellent example of this form of cooperation. Third, allies/friends can help by developing their own capability to defend against ballistic missiles, thereby reducing the burden on the U.S. in some parts of the world. Israel and Japan have both committed to a national missile defense capability. That capability augments U.S. capability and reduces the requirement on U.S. forces in scenarios for the defense of both of those countries, as well as serving to protect U.S. forces that are deployed to each region. Finally, allies/friends lend political support to the

U.S. missile defense program, providing both a rationale and support for military needs leading to further contributions to missile defense such as NATO's pending approval of plans to modify its command and control systems to incorporate missile defense functionality. Our challenges have been centered around allied recognition of both the need for and the viability of missile defense capabilities. Our technical successes over the past several years, coupled with the increased recognition of the inability to halt all proliferation of ballistic missile delivery systems, has increased allied acceptance of and support to the development of an effective missile defense capability.

TRANSFER OF U.S. TECHNOLOGY AND COMPONENTS

4. Senator ALLARD. General Kadish, we have a very complicated export control system that is purposely designed to prevent the unintended transfer of U.S. advanced technology and components to potential adversaries. Yet, we have often seen instances where these same controls have hindered cooperation with our closest allies. To what extent have U.S. export controls complicated your efforts to build cooperative relationships on missile defense with our allies and coalition partners and do we need a fast track process for missile defense-related transfers to our allies and coalition partners?

General KADISH. The technologies needed to make missile defenses effective are some of the most advanced and sensitive technologies found in defensive systems today. On the one hand, we want and need to be able to share necessary technologies with allies/friends working on missile defenses, but on the other hand, compromise of those technologies could have serious consequences to systems across a broad spectrum. For instance, our advanced radar technology could reduce the effectiveness of low observable aircraft. Therefore we must insure that we strike a balance between sharing necessary technology and protecting certain technology that is critical across the board. U.S. export controls have, in the past, complicated our efforts to build cooperative relationships on missile defense with our allies. Both the MEADS program with Germany and Italy and the Arrow program with Israel are examples of cooperative programs whose efforts were complicated by U.S. export control law. However, the Department is streamlining its internal processes to insure a thorough, yet timely review of technology transfers. We are working closely on the export issues for missile defense, and I am already seeing improvement in this process. With an inter-departmental focus on the release of missile defense technology to our allies, we expect to achieve the correct balance between missile defense cooperation and nonproliferation.

QUESTIONS SUBMITTED BY SENATOR CARL LEVIN

STRATCOM AND NORTHCOM ROLES IN MISSILE DEFENSE

5. Senator LEVIN. Admiral Ellis, what are the roles of Strategic Command (STRATCOM) and Northern Command (NORTHCOM) in missile defense, and how are their efforts coordinated?

Admiral ELLIS. Change Two of the 2002 Unified Command Plan (UCP) tasked STRATCOM to plan, integrate, and coordinate the global missile defense (GMD) capabilities of the Nation. STRATCOM is operationalizing the capabilities being developed and deployed by the MDA.

We are leading the development of the necessary doctrine, concepts of operations (CONOPs), and operational plans in coordination with our subordinate Service component commands and the other combatant commanders. This effort requires that we define the broad interrelationships among the Global Ballistic Missile Defense (GBMD) mission and other mission areas, such as intelligence, surveillance, reconnaissance (ISR) and strike operations, and information operations. Operationalizing GMD capabilities also requires detailed planning to address the policy, rules of engagement, force employment, force readiness, and logistics support, and tying together diverse system elements including sensors, interceptors, and the command and control network.

NORTHCOM and Pacific Command (PACOM) are our principal warfighting partners in preparation for activation of the initial defense capability. With them, we are continuing to refine and validate our plans in a series of exercises and readiness assessments designed to prepare the responsible combatant commands for assuming operational responsibility for the initial elements of this nascent defensive system.

Operation Iraqi Freedom (OIF) demonstrated an unprecedented level of cross-Theater Missile Defense cooperation and coordination. Integrated early warning data

from Army, Navy, Air Force, and other intelligence sensors provided vital data supporting Patriot missile engagements of all threatening theater ballistic missile launches. Expanding upon OIF's example of an integrated and effective defense, STRATCOM is developing the GMD CONOP and the battle management architecture to provide full capabilities for regional combatant commanders to defend their areas of responsibility (AORs).

6. Senator LEVIN. Admiral Ellis, how will STRATCOM develop the CONOP that must be in place when the Ground-Based Midcourse Defense System deploys in September 2004?

Admiral ELLIS. STRATCOM's role is to define the CONOPs, begin training and integration, provide command and control capabilities, and to ensure that assumptions regarding the employment, weapons release doctrine, and similar issues are clearly understood and reviewed prior to initiating fielding of this capability by the end of the year. The initial CONOP has been developed in collaboration with NORTHCOM and PACOM.

The assumptions we have made are based on sharing the data that has been generated by the Director, Operational Test and Evaluation (DOT&E) and the MDA through tests and simulations that have been conducted in developing this system. We draw on their expertise and experience with legacy systems. STRATCOM accesses the database in order to understand fully the system capabilities in this developmental mode, to ensure we have a process in place that allows us to bring on line a limited alert capability at the same time as we continue the spiral development process. From these assessments, we craft the Military Utility Assessment (MUA), CONOPs, and the procedures for its employment in support of the Nation's security.

7. Senator LEVIN. Admiral Ellis, what are the assumptions that will be made in the CONOPs including assumptions regarding continued testing of the system, nature of the threat, and availability of naval ships for radar surveillance duty?

Admiral ELLIS. Assumptions used to formulate the CONOPs are being finalized. It is assumed that sufficient BMD Aegis capable ships will be available for 24/7 radar surveillance duties. Commander, PACOM has been working very closely with the Navy and the Chief of Naval Operations (CNO) to ensure this availability is realized.

The operational systems will be at various levels of readiness and operational capability coordinated with the BMDS research, development, test, and evaluation (RDT&E) developmental program. Processes, procedures, and checklist have been developed to rapidly transition from a "Test" status to a fully operational mode.

Finally, downtime required to support test, development, training, maintenance, or logistics requirements will be authorized by the supported commander as part of 24/7 operations in accordance with readiness conditions, indications and warnings, and in coordination with STRATCOM.

OPERATIONAL TESTING

8. Senator LEVIN. Secretary Wynne, Admiral Ellis, Mr. Christie, General Kadish, and General Dodgen, do you support operational testing of weapon systems, approved and overseen by the DOT&E, to ensure the systems work?

Mr. WYNNE. Yes, I do.

Admiral ELLIS. Yes. The intent of the team is to bring as much of an operational character as possible to the process, and to test it when it is appropriate and when the system's maturity permits. It is contingent on the assessments that we make in the early phases, on what milestones are achieved, and what technical capabilities are added. As we quantify the capabilities that we have brought on line through 2004, 2006, 2008 and beyond, we will be better able to characterize the evolving configuration and assess its operational capabilities.

We are supporting independent testing by involving operational test and evaluation (OT&E) people in the process. With large-scale systems, the complexity of the tests, the expense of testing, and modern simulation capabilities allow us to integrate elements of both developmental testing and operational testing as the system evolves. Technology and simulation now allow us, for the first time, to bring these elements together in a concurrent manner that more efficiently uses national resources and, arguably, more quickly delivers the capabilities that we need.

Mr. CHRISTIE. Yes, I do.

General KADISH. Yes, I do. We are working very closely with Mr. Christie and the operational test community. As our tests are planned, executed, and evaluated, the

BMDS combined test force, which brings together representatives from across the testing community, is combining requirements for both developmental and operational testing capability.

There are approximately 100 operational test personnel, full-time embedded in all facets of missile defense test planning and execution, who have access to all of our test data. They have the ability to influence every aspect of our test planning.

General DODGEN. Yes, I do. Operational testing is an important element of system development and acquisition process to ensure successful weapons are provided to the warfighters.

OPERATIONAL ASSESSMENT OF NMD

9. Senator LEVIN. Mr. Christie, in a February 27 letter to me and Chairman Warner, you referred to "operational assessments" of the BMDS. Are you planning to do such an assessment prior to the September fielding of the National Missile Defense system, what is the purpose of the assessment, and when do you plan to complete this assessment?

Mr. CHRISTIE. I plan to provide independent assessments of the BMDS capability as new data becomes available. The purpose of these assessments is to keep the Department apprised of the capability that has been demonstrated during major test events and to provide advice on making future tests more operationally relevant. These assessments will be provided to General Kadish, Admiral Ellis, and to Under Secretary Wynne in accordance with my responsibility to advise the Department on testing matters.

COST INCREASES FOR NATIONAL MISSILE DEFENSE

10. Senator LEVIN. Secretary Wynne, the Pentagon's budget request for missile defense is $1.2 billion more than last year. The 5 year budget projections for the Block 2004 and Block 2006 Ground-Based National Missile Defense (NMD) program have grown by almost $6 billion since last year, with most of the cost growth in fiscal years 2006 and 2007. The total costs for this program have doubled in a single year. In any other program with normal DOD acquisition rules, such cost growth would trigger congressionally-mandated reviews, led by you, to determine what is wrong. What is wrong with the Ground-Based NMD program that is causing such tremendous cost growth, why have you not begun a review of the program in accordance with standard Pentagon procedures, and what confidence do you have that such cost growth won't continue to plague the program?

Mr. WYNNE. In the President's budget (PB) for fiscal year 2004, MDA's budget for Block 2004 and 2006 was $12.1 billion for fiscal years 2005–2009. In the latest budget submission, PB05, this is now $17.7 billion. This budget is for the entire MDA program of work in Block 2004 and 2006, however, not just the Ground-Based Midcourse defense element. The increase is due, almost entirely, to new program content, the fielding of additional capabilities in 2006 and 2007, not cost growth. These capabilities include acquisition of additional ground-based interceptors, upgrades to the Thule early warning radar, an additional third missile field site, 40 Aegis SM–3 missiles, three additional deployed radars and an additional sea-based radar. In addition, this increase, relative to the 2004 President's budget, allows us to acquire 3 additional deployed radars, 40 Aegis SM–3 interceptors, and begin an initial fielding of THAAD.

I review the complete MDA program quarterly and meet with General Kadish on a weekly basis where I review cost, technical progress, and schedule for selected activities. If unwarranted cost growth were to occur, I am confident that it would receive adequate management attention both within MDA and by me.

TESTING AGAINST WARHEADS AND DECOYS

11. Senator LEVIN. General Kadish, in 2000, Mr. Christie's predecessor criticized the NMD program for not having tested against realistic targets and decoys, and specifically urged that "tumbling warheads with tumbling decoys" need to be tested against, prior to deployment of the system, since they pose a particular challenge and yet are easy for an enemy to do. Do you plan to conduct testing again using tumbling warheads and decoys prior to the September deployment date, and if not, when will you?

General KADISH. [Deleted.]

12. Senator LEVIN. General Kadish, do you believe, as your predecessor did, that such warheads and decoys are a concern? If so, do you believe they should be tested against as soon as possible?

General KADISH. Tumbling warheads and decoys are targets of concern and will be tested against. The timing of the testing will be driven by the maturity of the system and the threat the system is intended to deal with at any given point in time.

TEST AND EVALUATION MASTER PLAN

13. Senator LEVIN. Mr. Christie, in your Annual Report to Congress back in 2002, you noted that the Test and Evaluation Master Plan (TEMP) for the National Missile Defense program needed to be updated to reflect the Bush administration's new approach to missile defense. Current law specifies that such plans should be approved by you, the DOT&E. Is there a TEMP, approved by you, for the Ground-Based National Missile Defense program?

Mr. CHRISTIE. There is no TEMP for the BMDS. There is a BMDS Overarching Master Test Plan currently in draft, Block Master Test Plans for each development block, Developmental Master Test Plans for each element, and detailed test plans for each major test event. My staff reviews and comments on each of these documents. My office approves the operational objectives for any combined development and operational tests.

14. Senator LEVIN. Mr. Christie, do such plans exist for other major defense programs to be deployed this year, or which have already been deployed?

Mr. CHRISTIE. Yes, major defense acquisition programs have a TEMP that is updated at major milestones.

15. Senator LEVIN. Mr. Christie, such plans generally include a schedule for operational testing, do they not?

Mr. CHRISTIE. Yes, they do.

16. Senator LEVIN. Mr. Christie, do you still believe, as you did in 2002, that a TEMP should be developed, under your direction and oversight, for the Ground-Based National Missile Defense system, and for other BMDS, and that such a plan should include a schedule for operational testing?

Mr. CHRISTIE. The TEMP is still a valid goal for spiral or capability-based acquisition programs. I believe MDA plans to prepare a TEMP for an element when the decision is made to transition it to the Services. Due to the uncertainty in trying to project when an element will be mature enough to transition to a Service, it is difficult to realistically schedule and plan operational testing. The Services are responsible for planning and executing operational testing on these systems. They would be reluctant to use scarce, valuable resources to plan a test prior to knowing what and when they will be testing. Since the MDA programs are a special acquisition case in the Department, DOT&E and the Services are trying to work within the framework established for the BMD programs. We are, however, attempting to evaluate as many of the operational test objectives as possible during combined developmental and operational testing.

CIRCUMSTANCES NMD DEPLOYMENT WOULD BE DELAYED

17. Senator LEVIN. Secretary Wynne and General Kadish, are there any circumstances under which you would consider delaying the September deployment date of the Ground-Based Midcourse System?

Mr. WYNNE. The initial BMD capability will be placed in operation when it is ready. The exact date that this occurs will depend on the completion of required events, rather than a fixed schedule. Testing of the developing BMDS and assessments of its military utility conducted to date have not provided any indication of problems that would call for a delay in the fielding of the initial capability.

General KADISH. The basis for confidence in the system to serve as an initial defensive capability is its demonstrated performance in ground and flight testing throughout the development test program and extensive modeling and simulation. We evaluate the results of each test event and make that data available to the combatant commands for their MUAs.

DEPLOYMENT DATES FOR GROUND- AND SEA-BASED MISSILE DEFENSES

18. Senator LEVIN. Mr. Christie, in your February assessment of the BMDS, you assessed the sea-based Aegis missile defense as potentially having some operational capability against short-range missiles. However, in this same assessment, you did not say the same for the Ground-Based NMD that is to be deployed in September. For this system, all you said was, "[The Ground-Based Missile Defense] is currently a developmental system with limited deployable hardware and software." Why was your assessment of the two systems different?

Mr. CHRISTIE. In all Aegis tracking and flight testing to date, the Navy has used operational ships and trained crews to conduct these tests. These tests have shown that the operational ships and crews are capable of intercepting short-range unitary targets. Thus, the Aegis has demonstrated some limited operational capability. The Ground-Based NMD System has not yet demonstrated a similar capability using the test bed's hardware and software and trained soldier operators.

19. Senator LEVIN. Mr. Christie, why did you not say that the Ground-Based NMD could be employed against long-range missile threats?

Mr. CHRISTIE. It never occurred to me that this would be a question at the time I prepared my report. It was obvious to me that the Ground-Based NMD System could not be employed against any threat because a deployable system did not exist at that time. Once the planned Ground-Based NMD System test bed is built and integrated, including missiles, it may have some inherent capability that could be used against long-range missile threats. The system has been designed and built to conduct this mission. As we begin to test the integrated system in the test bed, we will be able to characterize its capabilities more thoroughly.

20. Senator LEVIN. General Kadish, the administration plans to deploy the Ground-Based NMD in September of this year, whereas the more mature and more capable sea-based system won't be deployed until next year. Why are you deploying the less mature and less capable system first?

General KADISH. Later this year the United States will field an initial BMD capability as directed by the President. This so-called initial defensive capability will consist of both ground-based and sea-based components, including Ground-Based Interceptors (GBIs), and sea-based interceptors, the Standard Missile–3 (SM–3). The SM–3 interceptor is designed to engage short and medium range ballistic missile threats. A limited number of interceptors will be available during our initial fielding in the fall of 2004. The GBI is intended to defeat long-range missile threats. Both systems will continue to be tested using operationally realistic scenarios. These tests will help to provide enhancements to the systems as the technology matures.

NMD EFFECTIVENESS UNDER UNFORESEEN CONDITIONS

21. Senator LEVIN. Admiral Ellis, would you agree that any launch of a North Korean long-range missile against the U.S. would be an unforeseen event—if the U.S. knew such a launch were coming, surely we would take the necessary actions to prevent the launch from occurring at all?

Admiral ELLIS. As noted in the 2002 National Security Strategy (NSS), North Korea has become one of the world's principal developers and exporters of ballistic missiles and has tested increasingly capable missiles while developing an arsenal of weapons of mass destruction (WMD). The NSS directs that the U.S. maintain the option of preemptive action to counter a sufficient threat to our national security. The new global missions assigned to STRATCOM in Change 2 to the 2002 UCP provide additional capabilities that expand the options available to the President of the United States for deterring the use of WMD against the U.S. or our allies. Our Global Strike mission provides rapid, extended range, precision kinetic and non-kinetic (elements of space and information operations) effects in support of theater and national objectives. STRATCOM is developing capabilities that provide these integrated options, ranging from preemptive strikes prior to a missile launch to coordinated, offensive, and defensive retaliatory responses within our ISR mission, we are working to provide integrated information on threats, wherever they may emerge.

Our military capability to decisively end any conflict on our terms with advanced non-nuclear and nuclear capabilities, if necessary, integrated with GMD casts a long shadow over an adversary's decisionmaking process by threatening unacceptable costs and denying the benefits he seeks. However, we do not rely on a deterrence strategy alone, but on the full range of capabilities we can marshal to protect our Nation and meet commitments to friends and allies.

22. Senator LEVIN. Admiral Ellis, as the person responsible for the defense of the United States, would you like to see the Ground-Based Midcourse Defense System operationally tested in a combat-like way, under unforeseen conditions, as soon as possible to assess how it will work in battle?

Admiral ELLIS. My belief is that this effort is currently underway. Over an extended period of time, as we move through the developmental test phase, we are placing the system and evolving its capabilities in the operational environment where they would be employed. There are obviously elements that cannot and, hopefully, will never be tested from a full operational capability—such as, the launch of threat missiles from potential adversaries. I do believe that the elemental testing that is underway will characterize the dynamics of and the environment in which this system is intended to operate. We will define and refine the sensor capabilities. We will assess the command and control linkage and the command and control processes and all of those elements will then be integrated in a comprehensive manner.

UPCOMING TESTS TO USE GLOBAL POSITIONING SYSTEM TO TRACK TARGET

23. Senator LEVIN. Mr. Christie, the next major flight test of the Ground-Based NMD system is called the Integrated Flight Test (IFT–13C). According to the official test plan provided to us, IFT–13C will use the Global Positioning System (GPS) to help guide the interceptor to the target. The target has a GPS receiver on it, and it broadcasts its position to the missile defense system in the form of radar data that would otherwise exist, but which is not available in this test. Range safety aside, do any of the tests between now and September not use such GPS information to help guide the interceptor to the target?

Mr. CHRISTIE. IFT–13C and IFT–14 will both use GPS information to provide target cluster positions to a simulation of the Cobra Dane radar.

24. Senator LEVIN. Mr. Christie, range safety aside, when is the first test which will not use such GPS information to help guide the interceptor to the target?

Mr. CHRISTIE. IFT–16A will fly a target out of Kodiak, Alaska down the west coast using Aegis and Upgraded Early Warning Radar with a simulated interceptor out of Vandenberg Air Force Base. In mid to late 2005, IFT 17/18 will fly a target out of Kodiak using Aegis and the Upgraded Early Warming Radar, with a salvo firing of two interceptors out of Vandenburg.

TESTING PRIOR TO DEPLOYMENT

25. Senator LEVIN. Mr. Christie, the test plan for the next NMD flight test, known as IFT–13C, says, "the IFT–13C engagement geometry is highly scripted, and remains similar to prior flight tests, even with the advent of [an] improved booster." Is this highly scripted engagement geometry going to change for the tests that are scheduled between now and the September deployment?

Mr. CHRISTIE. The geometries for IFT–13C and IFT–14 will be different from previous tests in that they each fly a target out of Kodiak. Both tests remain scripted in order to control variables due to their developmental nature.

26. Senator LEVIN. Mr. Christie, will the tests that are scheduled between now and the September 2004 deployment all have essentially the same highly scripted engagement geometry which has been used in prior flight tests?

Mr. CHRISTIE. The geometries for IFT–13C and IFT–14 will be different from previous tests in that they each fly a target out of Kodiak. Both tests remain scripted in order to control variables due to their developmental nature.

27. Senator LEVIN. Mr. Christie, is this engagement geometry at all similar to what one would expect to see if North Korea launched a missile at the U.S. west coast, and the interceptors deployed at Ft. Greeley were used to try to hit it?

Mr. CHRISTIE. Testing to date was not planned to demonstrate Initial Defense Operations (IDO) capability and has not been particularly representative of such scenarios. While IFT–13C and IFT–14 do not replicate that engagement geometry, they have been tailored to be more representative of that mission and do create more realistic engagement conditions.

28. Senator LEVIN. Mr. Christie, if the North Koreans ever did launch a missile at the U.S., would the resulting engagement be "highly scripted," as the tests now are?

Mr. CHRISTIE. Obviously, the engagement would not be scripted. There would probably be some warning that an attack is imminent, but, for the most part, the mission would be spontaneous.

29. Senator LEVIN. Mr. Christie, what are some of the uncertainties that a real threat missile would present us with, that the tests between now and the planned deployment will not address?

Mr. CHRISTIE. There are many uncertainties about the threat (launch time, missile flight stability, intended target, type of warhead, countermeasures, etc.) that may affect performance. The MDA is addressing many of these uncertainties through simulation, while others will not be addressed until later blocks. Full-up system testing is building toward more realistic tests, but we will never be able to exercise all the threat uncertainties fully in flight tests. More realistic flight tests will be used to validate system performance models. We will depend on ground tests, hardware-in-the-loop simulations and other models to explore performance in more realistic attack scenarios.

REALISTIC OPERATIONAL TESTING

30. Senator LEVIN. Admiral Ellis, you will be responsible for operating the NMD and protecting the U.S. from nuclear-armed missile attack, beginning in September 2004. Do you want this system tested under realistic, combat-like conditions, as soon as possible?

Admiral ELLIS. The continued testing that OT&E and the MDA are pursuing is, in my view, going as aggressively as is appropriate and prudent. As capabilities are delivered, they are tested and assessed, and changes are immediately made to reflect the lessons learned. A system of this scale and complexity is unique in the history of the Nation. It requires a global test range in order to put all these elements in place, and so in my view, there is a logic in putting it in place where it is intended to operationally serve.

From an operational standpoint, testing at the actual sites from which it will be expected to operate with all of its elements is about as realistic an operating environment as we could expect. As we continue to refine and advance testing in an operational environment, we will significantly enhance the operational character of the tests that will unfold in the years ahead.

31. Senator LEVIN. Mr. Christie, as the Pentagon's chief tester, you have expressed concerns about the maturity of NMD, and its readiness to go up against real threat missile. Would you therefore want to see us focus our resources on realistic operational testing of this system, under combat-like conditions, as soon as possible?

Mr. CHRISTIE. More realistic testing should be performed as soon as the system is ready. It is prudent to exploit the inherent operational capability of the test bed and to characterize that capability as soon as possible.

RUSSIAN MANEUVERING WARHEAD

32. Senator LEVIN. Mr. Christie, the Russians have announced recently that they have developed a maneuvering warhead that can evade the missile defense that the administration plans to deploy in September. Assuming the Russians are telling the truth, could such a maneuvering warhead possibly be able to evade our missile defense?

Mr. CHRISTIE. I am unable to assess the BMDS capability against this maneuvering warhead at this time. In general, weapon systems with a closed loop fire control guidance system can deal with maneuvering targets, within the dynamic limits of the system. The objective BMDS should be able to close the guidance control loop in several ways.

ADVANCE KNOWLEDGE OF TARGET SIGNATURES

33. Senator LEVIN. Mr. Christie, the test plan for the next major NMD test, known as IFT–13C, says that the NMD system has "advance knowledge of the target signatures. The accuracy of this data is much higher than is realistic for [a] threat missile." Do you think we will know what a real enemy missile will look like in such great detail?

Mr. CHRISTIE. Probably not.

34. Senator LEVIN. Mr. Christie, have all previous missile defense tests been conducted with such detailed advance knowledge of the target?

Mr. CHRISTIE. Advance knowledge of the target is a common practice in developmental testing when the objective is to understand and confirm the missile design and technical performance. This is not the practice in operational testing.

35. Senator LEVIN. Mr. Christie, if a real threat missile turns out to look significantly different than the test targets, could that cause the missile defense to be degraded, or even to fail completely?

Mr. CHRISTIE. The MDA is not designing the BMDS to have capability against a specific threat missile or signature. Their design appears to be flexible enough that the BMDS will be capable of engaging threat missiles over a wide variety of signatures, countermeasures and flight dynamics. If they prove successful in this approach, the threat missile signature should not make a significant difference to the performance of the BMDS. Initial analyses indicate their approach is promising. This capability will have to be confirmed in both ground and flight testing.

SPACE-BASED INTERCEPTORS AFFORDABILITY

36. Senator LEVIN. General Kadish, your budget request includes nearly $80 million for space-based weapons-related research and development (R&D). $68 million of that is to actually launch a short-range kill vehicle into space on the Near Field Infrared Experiment (NFIRE) satellite. Are you aware of the study by the American Physical Society (APS) that indicated you would need a thousand or so space-based interceptors (SBIs) in orbit in order to make an effective system, and the follow-on study by the Congressional Budget Office (CBO)—which used much more optimistic assumptions, but still concluded that hundreds of interceptors would have to be launched?

General KADISH. The $68 million of the nearly $80 million you reference is for our NFIRE. NFIRE is an on-orbit satellite experiment that is a risk reduction effort for our BMDS Block 10 land-based Kinetic Energy Interceptor (KEI) program. It is not part of our SBI efforts. The objective of NFIRE is to collect near field (sub-meter resolution) infrared imagery of the plume and hard body of boosting intercontinental ballistic missile (ICBM)-type targets. KEI will use this data to develop the kill vehicle plume-to-hard body guidance algorithms for our land and sea-based systems. We are not planning any follow-on NFIRE satellites.

Yes, I am aware of the APS study and that the CBO is conducting a follow-on study. We have not seen the CBO report yet. In fiscal year 2003, the National Team developed a response to the APS which analyzed space based interceptor constellation sizes and came to a conclusion that constellations of 150–450 would be required.

37. Senator LEVIN. General Kadish, have you done any cost studies to see what the total cost to orbit and maintain such large constellations of satellites would be?

General KADISH. This year (fiscal year 2004) we do not have funding for any SBI efforts. However, we are currently working with the Missile Defense National Team to try to understand the value of SBI to the layered BMDS. For the Nimble Titan 04 wargame, we have modeled a small SBI constellation (10 satellites) to begin to understand the military utility of an SBI as well as to understand the constellation size required to defend against a single threat country.

For fiscal year 2005 we have requested nearly $11 million to continue this analysis. Also we plan to initiate SBI technology risk reduction projects that will focus on capability miniaturization (e.g., seeker and propulsion) and affordability.

38. Senator LEVIN. General Kadish, do you believe we could afford such large constellations of satellites, when we are currently struggling to keep far smaller and less complex satellite programs on schedule and on budget?

General KADISH. One of my goals is to understand the point (minimum constellation size and associated BMDS interfaces) at which an SBI capability begins to cost-effectively contribute to a layered defense against all threat classes in all phases of flight. Until I understand that point, I am not comfortable speculating on affordability.

SPACE-BASED INTERCEPTORS POLICY

39. Senator LEVIN. Secretary Wynne, General Kadish wants to spend close to $80 million next year on research related to SBIs. I understand that such interceptors

could also be easily used to destroy enemy satellites, if we chose to do so. What is the Pentagon's current policy regarding such space-based weaponry, and would such a SBI system be consistent with that policy?

Mr. WYNNE. Americans have come to rely on the unhindered use of space and will demand no less in the future. This includes robust capabilities for assured launch and space control. While the United States supports the peaceful use of space by all, prudence demands that we be able to ensure the United States, its allies, and coalition partners will be able to make use of space.

Of the $80 million referenced in the question, only $10.5 million will be for research related to SBIs. That amount will fund risk mitigation and definition of the operational concept for a space-based test bed that could be available for deployment in 2012. However, a decision is not expected prior to 2008 on whether to proceed with an on-orbit test bed of a small constellation. If fielded, tile SBIs would be part of a layered defense against ballistic missiles, not for attacking enemy satellites. Ultimately, any future action to deploy interceptors in space would require additional Department and congressional decisions and funding.

The remainder of the $80 million figure ($69.5 million) is to fund the NFIRE, an on-orbit satellite to collect measurements of boosting targets. NFIRE is critical to reducing the risk of booster plume-to-hard-body discrimination for the Block 10 KEI program, to maturing the technology of the kill vehicle component of the KEI, and to enabling the verification and validation of the KEI performance.

AIRBORNE LASER PROGRAM

40. Senator LEVIN. General Kadish, the General Accounting Office (GAO), the investigative arm of Congress, recently completed an audit of the ABL program, and briefed the committee staff on the preliminary results. The GAO audit found that the program has experienced tremendous cost growth, driven by numerous technical problems and schedule delays. I know you have recently restructured the program, but you are still requesting at a very high level of funding for it in fiscal year 2005. At what point do the delays, problems, and cost growth for the ABL grow so large that it is not worth continuing such aggressive funding for the program—at what point do you reduce funding to more of a basic science and technology (S&T) level, and focus resources on other areas?

General KADISH.

a. The ABL program represents a revolutionary weapons concept that requires the integration of several sophisticated state-of-the-art technologies. Expertise is required in a diverse range of technologists including laser physicists, optical engineers, and aeronautical engineers. The current level of funding for the ABL program reflects the resources needed to successfully accomplish that complex integration.

b. If you note, the funding request for 2005 actually represents a decrease of over $160 million from the original fiscal year 2004 presidential budget submission. This is the result of a conscious, proactive decision to defer certain work until key knowledge points were achieved. Our external technology reviews continue to conclude the underlying physics is sound, the proposed engineering path forward is sound, and its potential is revolutionary. This explains why steady progress is being made, albeit slower than desired. Regardless, we understand that cost control is an important concern, which is why we continue to monitor the program closely, in accordance with sound financial management principles.

c. The ABL, once completed, will offer a unique and critical military capability of significant benefit to the BMDS in support of boost phase missile defense. As the first system to use directed energy to kill a launching missile, it represents a radical departure from hit-to-kill systems, complementing other BMDS capabilities. It is technically achievable, and affordable within the BMDS. Therefore, at this time the program merits continuation, as currently funded.

EVENT-DRIVEN APPROACH TO MISSILE DEFENSE

41. Senator LEVIN. General Kadish, in 1999, defense expert General Larry Welch completed a review of the NMD program which had been requested by the Pentagon. In written testimony before the Senate Armed Services Committee in June of 2000 you summarized the results of General Welch's report by saying, "General Welch's team highlighted three basic criticisms. One of them, the so-called "rush to failure" criticism, was the judgment that we were being too schedule-driven as opposed to event-driven in the development of the system. In response . . . we made a major philosophical change, namely to be event-driven rather than schedule-driven. . . . The program, in spite of the schedule urgency, must be event-driven, that

is, not held to calendar dates even if performance has not yet been satisfactorily demonstrated. This is our approach." By deciding to deploy by September, apparently regardless of the results of any future flight tests or other major events you have planned, it appears you have gone back to being very schedule-driven in this program. Aren't you now back to the "rush-to-failure" mentality that General Welch criticized you for?

General KADISH. Several things make the current situation very different from the program that General Welch evaluated in 1999. First, General Welch conducted his evaluation in the context of the so-called "3+3" program. That is, beginning in 1997, the NMD program was directed to conduct 3 years of development and deploy 3 years thereafter. This was truly a schedule-driven program such that a predetermined development stage, followed by a predetermined deployment phase, were the driving factors for the effort. MDA took this critique seriously, and we revised the entire program, including the NMD program, transforming it into capabilities-based development effort. Decisions would be made to deploy capability when that capability had reached a sufficiently mature point during development. When we made this transformation, I concluded that we could put in place a BMDS test bed by September 2004 to conduct more realistic BMD testing. The test bed concept addressed another of General Welch's critiques. This decision and the associated date were based on my evaluation of the development program—it was not driven by external direction. At the time, I made the point that this test bed could be used in an emergency role if necessary. September 2004, therefore, was our planning date for a BMDS test bed that could be used in an operational role if circumstance required. Subsequently, the President decided that we must deploy a BMDS. He directed DOD to use the BMDS test bed as the basis for this deployment, and to build on it to provide an evolutionary BMDS. September 2004 date has always been an internal planning date, and we did not change it after the President's decision. The September 2004 date is frequently used internally as a deadline, as a planning tool, and as a motivating tool, but it was derived after the adoption of a capabilities-based approach to the BMD. It was not schedule-driven.

SIMULATED DATA

42. Senator LEVIN. Mr. Christie, in your recent report to Congress submitted in January, you state that, "Due to immature Ballistic Missile Defense System elements, very little system level testing was performed by the close of fiscal year 2003. Therefore, the system capabilities assessed for [the September deployment] will be based on test events planned for fiscal year 2004. These tests will be executed using simulated or theoretical performance characteristics for some elements." Why will you need to use simulated data for these upcoming tests, and how will that affect your ability to assess the system's performance?

Mr. CHRISTIE. Both ground and flight testing will be limited prior to any deployment of elements of the test bed in 2004. Since some of the elements that either will be deployed or are representative of what will be deployed are not yet available, simulations are being used to provide better understanding of the BMDS capability. Since a mobile target launch capability is not yet available to launch a target through the Cobra Dane field of regard, a digital emulation of Cobra Dane will be used. Some of these simulations are considered "theoretical" because the testing has not yet been conducted that will provide the data to validate the simulation. The testbed using actual hardware and software operated by trained military operators is intended to correct this limitation.

43. Senator LEVIN. Mr. Christie, when do you think you will be able to use actual, vice simulated, data for these system elements?

Mr. CHRISTIE. As the BMDS matures and the elements are incorporated into the test bed, they will replace their respective simulations or emulations. The engage on Cobra Dane sequences will continue to rely on simulated Cobra Dane performance until target development permits the launch of a target through its field of regard. The test bed will begin to remove other artificialities beginning with the next flight test.

X-BAND RADAR

44. Senator LEVIN. General Kadish, during your tenure with the previous administration, you testified before Congress, and told the press, that building an X-band radar (XBR) at Shemya in the Aleutians was the "long pole in the tent", meaning that it was on the critical path to establishing a viable system. Yet President Bush

has never requested funds to build an XBR at Shemya, and has decided on a floating XBR system instead. Why have you not requested funds for this radar, and when will the floating radar be available?

General KADISH. The Sea-based X-Band Radar (SBX) was the result of changes in the GMD mission and program focus in 2002 and the U.S. withdrawal from the Anti-Ballistic Missile (ABM) Treaty.

Prior to 2001, a land-based XBR was planned for Shemya Island, Alaska. From that location, an XBR would provide ballistic missile acquisition, tracking, discrimination, and kill assessment for the United States. In July 2001, the GMD Joint Program Office changed its near-term mission from deployment of a missile defense capability covering the U.S. to a robust test architecture in the Pacific that would also provide some limited operational utility.

As the test bed was laid out in 2001, it was discovered that many threat representative trajectories could not be supported by a Shemya-based XBR. This necessitated exploration of additional radar sites and concepts. As a result, the SBX concept was developed. SBX will provide the capability to support identified test bed flight test missions and will be a mobile asset that allows operational capability. This mobility was not allowed under the ABM Treaty.

It is important to note that either an SBX or a land-based Shemya XBR could provide a high degree of ballistic missile sensor capability. The major difference is the actual mission that each performs. The Shemya radar would have been affixed operational asset providing robust missile defense capability but was not located to support the test architecture. The SBX offers a movable sensor that maximizes the test bed's utility, which will ultimately result in a more flexible operational missile defense system.

The SBX is scheduled to be integrated into the BMDS at the end of fiscal year 2005.

45. Senator LEVIN. General Kadish, I understand you plan to use the floating radar as a test asset, as well as an operational one. When the floating radar is participating in a test, can it still be used as a defense against a real missile attack?

General KADISH. Yes, the SBX can fill its defensive role while testing. The SBX, like other BMDS components, is subject to recall for defensive operations whether it is participating in a flight or ground test, undergoing routine maintenance, in transit, or in any other status.

OFFICE OF MANAGEMENT AND BUDGET RATING OF THE MISSILE DEFENSE AGENCY

46. Senator LEVIN. Secretary Wynne and General Kadish, as part of President Bush's Government Accountability Initiative, the Office of Management and Budget (OMB) has graded a number of defense programs, including missile defense. Two of the OMB ratings for the MDA were as follows: Planning: 56 percent; and Results: 67 percent. The OMB said the missile defense program has, "major flaws that would limit the program's effectiveness." One of the major flaws identified by OMB is that DOD has refused to budget for the costs to actually deploy and sustain an effective missile defense. As OMB says, "given that [missile defense] deployments can require multiple billions of dollars, failing to program these funds in advance will result in major budget turbulence following a [missile defense] deployment decision—turbulence that will result in cutbacks or terminations of other DOD activities, potentially including missile defense itself." I would like you to respond to OMB's criticism and tell me how you plan to get better grades next year.

Mr. WYNNE. As stated in a 2002 presidential directive, the DOD will employ an evolutionary approach to the development and fielding of missile defense in order to improve our defense over time. There will not be a final, fixed missile defense architecture. Rather, we will deploy an initial set of capabilities that will evolve to meet the changing threat and to take advantage of technological developments. The composition of missile defense, to include number and location of elements fielded, will change over time. To implement this approach, the DOD will field ballistic missile defense capability in 2-year blocks. The composition of a block will be a function of several factors, including threat developments, advances in BMD technologies, demonstrated performance of developmental components in the test program and the availability of resources. The DOD has programmed funds for Blocks 2004 and 2006, and the Air Force has programmed funds for the ABL, but no decisions have been made concerning the fielding of capability beyond 2008. As a result, we have not yet determined the funding requirements or programmed funds for this purpose.

General KADISH. I would like to add to Mr. Wynne's answer that each year, MDA will assess the capability being developed and make recommendations regarding the

potential to field additional capability. Funding decisions with respect to this additional capability will be made at the departmental level when MDA makes (and the Secretary approves) a fielding recommendation. At that time, MDA will either be provided with identified funding required to field the capability, or will be required to rebalance funding between developing and fielding capability. This approach is consistent with the direction provided by the President in a Presidential Directive dated 2002. Fielding decisions have been made for Block 2004 and Block 2006. Furthermore, funding has been provided to MDA's Total Operational Authority (TOA) to field this capability. With regard to operations and support (O&S), the Secretary of Defense has directed MDA and the Services to develop cost estimates for O&S on systems being fielded and to provide funding in the Project Objective Memorandum (POM) beginning in fiscal year 2006. Currently MDA and Services are collaborating to determine the responsibilities for funding out years. Funding for O&S in fiscal year 2005 is the responsibility of the Services, while funding for Contractor Logistics Support will remain the responsibility of MDA.

LIVE TARGET INTERCEPT TESTING

47. Senator LEVIN. General Kadish, how many live target intercept tests have you conducted to date using only ship-based radars to track a long-range target, with no help from the GPS, as the operational system will have to do to protect Hawaii?

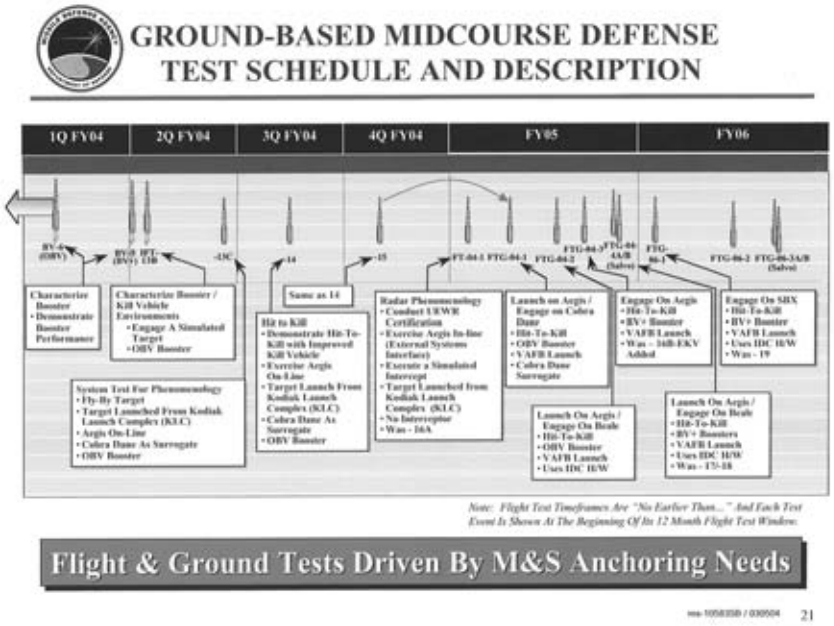
General KADISH. None. We have tested mid-range targets with only ship based radars. We are still in the process of integrating the Aegis radar system and the GMD system for an initial BMDS capability, which is required to use ship-based radars for long range targets. This interface will be tested prior to IDO. However, until we field the SBX we will not be able to conduct tests without the use of GPS on the target for simulated Hawaii scenarios. All GPS data used has been modified to represent the reduced accuracy of the sensor it is emulating.

48. Senator LEVIN. Admiral Ellis, you are the person responsible for protecting all 50 States from missile attack. Will a Navy ship be on station, 24 hours a day, 7 days a week, to protect Hawaii from a long-range missile attack, starting in September?

Admiral ELLIS. As a function of the defined threat level, Navy ships will be on station for their initial search and track capabilities and contribute to the sensor net that will enable the employment of the interceptors that are an essential element of this system. Using a graduated level of alert, Navy ships will contribute to the effectiveness of the entire network, and that network will then contribute to our ability to defend all of the United States from this threat.

49. Senator LEVIN. General Kadish, of the 30 interceptors to be bought in fiscal year 2004 and fiscal year 2005, how many will be launched in tests, what is the approximate schedule for testing for these interceptors, and when will the last of these 30 interceptors be launched as part of a test?

General KADISH. Through the end of fiscal year 2006, MDA plans to utilize 11 interceptors in flight testing. The attached slide entitled "Ground-Based Midcourse Defense Test Schedule and Description" shows the currently planned testing schedule.



SHOOT-LOOK-SHOOT CAPABILITY

50. Senator LEVIN. General Kadish, in previous testimony on the NMD system, you said: "The big advantage of the mid-course, from a defensive point of view, is that we have relatively more time to react than during the other two phases. We have more time to make decisions, to sort the decoy from the warhead, and to ensure human-in-the-loop control. This extra time also allows us the ability to shoot, and then verify the success of that shot, and then shoot again if necessary, a so-called "shoot-look-shoot" capability. Additionally, multiple shots (simultaneously and/or sequentially) at the target give a higher probability of being able to hit it." Will the NMD system deployed in September have the "shoot-look-shoot" capability? If not, why not, and how much will this degrade the system's effectiveness?

General KADISH. Mid-course systems provide much longer decision times. Shoot-look-shoot capability is dependent on locations and orientations of midcourse sensors and the location of the defended asset relative to the threat launch.

INTERCEPT TEST CANCELLATIONS

51. Senator LEVIN. General Kadish, after the December 2002 decision by the President to deploy a NMD in 2004, you decided to cancel six intercept tests that had been planned for fiscal years 2003 and 2004. The last intercept test was IFT–10, conducted in December 2002, and it failed. There is now only one scheduled intercept test between now and the planned September deployment date. When asked at the hearing why you cancelled these tests, you replied that you hadn't cancelled them, you just "rescheduled" them in order to focus on development of the new operational booster rocket. Why did you decide to reschedule them, when they could have provided important data on the performance of the system that you plan to deploy in September?

General KADISH. The decision to reschedule the tests was made for a variety of reasons. The MDA has long held that it will adjust its programs and schedules based on the outcomes of its flight tests. It would be fiscally irresponsible—while adding little to the current pool of data—to conduct another flight test using the same configurations and components that were tested in four previous consecutive successful GMD flight tests. Therefore, the MDA and the GMD Prime Contractor prudently decided to reprioritize the tests and test objectives to concentrate on the least mature component of the GMD element—the booster. Additionally, two sepa-

rate manufacturing process-related accidents in 2003 caused a delay in the development of the Lockheed-Martin BV+ booster, necessitating rescheduling of integrated flight tests with these boosters. Lastly, the rescheduling of these tests will allow MDA to conduct more fully integrated flight testing involving the various MDA elements, using more operationally representative hardware and demonstrate the ability to conduct concurrent test and operations.

52. Senator LEVIN. General Kadish, could you have continued intercept testing concurrently with new booster development—or did the decision to deploy divert funds from intercept tests into new booster development?

General KADISH. Our intercept testing program has continued concurrently with new booster development, but testing has been rescheduled. The presidential direction to field an initial defensive capability by the end of 2004 did not divert funds from intercept testing to new booster development but the testing was resequenced. The additional fielded assets were already fully funded.

It was imperative at the time to focus on the booster development to ensure that the MDA has boosters ready that meet performance objectives. Four successful hit-to-kill missions (IFT–6, IFT–7, IFT–8, and IFT–9) immediately prior to the decision to focus on booster development gave the MDA the confidence in the system to make that decision.

53. Senator LEVIN. General Kadish, the DOT&E, in his Annual Report to Congress submitted in January of this year, noted that a "track gate anomaly" in the kill vehicle had existed in intercept tests IFT–7, –8, and –9. I also understand that repeated attempts to fix this problem have so far proved unsuccessful, and that this problem could cause the interceptor to miss its target by losing track. Why didn't you continue intercept tests at least until this known "track gate anomaly" problem was proven to have been fixed?

General KADISH. The MDA is confident that it has found the root cause of the track gate anomaly, and that proper corrective action has been taken to prevent its recurrence. IFT–10 incorporated design corrections to correct the anomaly, but the Exoatmospheric Kill Vehicle (EKV) experienced a malfunction and did not separate from the booster. This prevented demonstration of the corrective action for the track gate anomaly. IFT–13C and IFT–14 will provide opportunities to prove that the track gate anomaly is corrected.

54. Senator LEVIN. General Kadish, why didn't you continue intercept tests against more stressing targets, as the DOT&E has recommended, to provide higher confidence that the kill vehicle could handle real threat missiles, prior to the deployment in September?

General KADISH. In consideration of the most likely near-term threat and the imperative of the president's direction, it was decided the achievement of basic initial deployment capability as soon as possible was more advantageous than delaying for a more robust system. Targets are progressively evolving to become "more stressing" as each successful flight test proves new GMD capability. The target for IFT–13C is more stressing than earlier flight tests. GMD will take this first step and then mature the fielded system.

55. Senator LEVIN. General Kadish, prior to the President's announcement to deploy a NMD, all of the NMD ground-based interceptors (GBIs) which were already built or were planned had been allocated for flight testing. Do you now plan to use interceptors (or kill vehicles) that had been allocated for intercept tests for deployment instead? If so, how many have been reallocated from testing to deployment and why was this reallocation done?

General KADISH. No interceptors or kill vehicles purchased for intercept tests have been reallocated as fielded assets.

MISSILE DEFENSE PRODUCTION

56. Senator LEVIN. Secretary Wynne, current law says that initial operational test and evaluation needs to be completed prior to going beyond "low rate initial production" (LRIP). You are responsible for defining, for a given program, what LRIP constitutes. I understand that you are requesting funding in fiscal year 2005 to produce NMD GBIs at the production capacity of 12 per year. This would appear to be by definition beyond LRIP. Yet at the hearing, you said that 12 interceptors per year is not beyond LRIP. If producing interceptors at the production capacity is not be-

yond LRIP, what is beyond LRIP for this system, and when will the ground-based missile defense system get beyond LRIP?

Mr. WYNNE. The GBI is part of the Ground-Based Midcourse Defense element of the BMDS major defense acquisition program, which has not entered LRIP. We intend to field a BMDS that fully integrates all program elements such as the Ground-Based Midcourse Defense. Thus, LRIP applies only in the context of the BMDS and not in terms of any element of BMDS. For this reason, the work being done on components of the Ground-Based Midcourse Defense element does not constitute LRIP for the BMDS.

FLYING INTERCEPTORS OUT OF FORT GREELEY

57. Senator LEVIN. General Kadish, you said at the hearing that you had plans to fly interceptors out of the Fort Greeley site, where most of the interceptors you plan to deploy starting in September will be. However, my understanding is that safety restrictions prohibit you from flying interceptors out of Fort Greeley, because the interceptor, or its spent stages, could impact in populated areas. On July 31, 2001, Dr. Patricia Sanders of the Ballistic Missile Defense Organization testified to that fact before the Senate Appropriations Committee. How do you plan to circumvent these safety restrictions in order to launch from Fort Greeley?

General KADISH. We have initiated environmental and safety studies addressing the feasibility of flying test interceptors from Fort Greeley. Once these studies are complete, we will decide if we will pursue such tests, and we will not circumvent any safety restrictions identified. This will not likely occur before 2007.

58. Senator LEVIN. General Kadish, how will you prevent a interceptor that goes off course, or a spent stage, from threatening populated areas?

General KADISH. For GMD flight testing, command destruct systems are installed on interceptors and targets, enabling range safety processes to protect populated areas. Fielded GMD interceptors are not equipped with a command destruct capability. The GMD engagement planning considers spent stage drop zones and utilizes fly-out trajectories that minimize risks to populated areas.

59. Senator LEVIN. General Kadish, by when do you believe you will begin launching interceptors from Fort Greeley?

General KADISH. We have initiated environmental and safety studies addressing the feasibility of flying test interceptors from Fort Greeley. Once these studies are complete, we will decide if we will pursue such tests, and we will not circumvent any safety restrictions identified. This will not likely occur before 2007.

COST INCREASES FOR NMD

60. Senator LEVIN. Secretary Wynne, the 5-year budget projections for the Block 2004 and Block 2006 Ground-Based NMD program have grown by almost $6 billion since last year, with most of the cost growth in fiscal year 2006 and fiscal year 2007. When you were asked about this at the hearing, you and General Kadish said that the cost growth was because you had put "place holders" in so that you have the "capacity to expand" in fiscal year 2006 and fiscal year 2007. What is the basis for $6 billion worth of unidentified "place holders?"

Mr. WYNNE. The budget figures referenced include funds for the Ground-Based Missile Defense element, as well as other components to be fielded in each block. In the President's budget for fiscal year 2004, MDA's budget for Block 2004 and 2006 was $12.1 billion for fiscal year 2005–2009. In our fiscal year 2005 budget submission, the Block 2004 and 2006 budget is $17.6 billion. The primary reason for this increase is the addition of a follow-on Block 2006 capability for deployment; it is not a "place holder." The deployment of the Block 2006 capability added $3.8 billion to the MDA budget. It will provide our Nation with enhanced missile defense capability through the acquisition of additional GBIs for Fort Greeley, Alaska, upgrades to the Thule early warning radar, long lead activities for fielding of a potential third missile field site, and initiates acquisition of an additional sea-based radar. Furthermore, this increase initiates acquisition of 3 additional deployed radars, 40 Aegis SM–3 interceptors, additional ship sets for Aegis destroyers, and begins an initial fielding of a THAAD firing battery.

61. Senator LEVIN. Secretary Wynne, are there any other Pentagon acquisition programs which have $6 billion allocated to "place holders?"

Mr. WYNNE. No. It is important to add that the figure quoted is not merely a placeholder. The funds are being set aside to fund further enhancements to our missile defense capability through the acquisition of additional GBIs for Fort Greeley, Alaska, upgrades to the Thule early warning radar, long lead activities for fielding of a potential third missile field site and initial funding to acquire an additional sea-based radar. Also, the funds would initiate acquisition of 3 additional deployed radars, 40 Aegis SM–3 interceptors, additional ship sets for Aegis destroyers, and begin an initial fielding of THAAD.

62. Senator LEVIN. Secretary Wynne, do you have any ideas as to what this funding could be used for?

Mr. WYNNE. This funding will provide our Nation with enhanced missile defense capability through the acquisition of additional GBIs for Fort Greeley, Alaska, upgrades to the Thule early warning radar, long lead activities for fielding of a potential third missile field site, and initiates acquisition of an additional sea-based radar. In addition, this increase initiates acquisition of 3 additional deployed radars, 40 Aegis SM–3 interceptors, additional ship sets for Aegis destroyers, and begins an initial fielding of THAAD.

63. Senator LEVIN. Secretary Wynne, do you believe it is a wise acquisition policy to lack a firm basis for $6 billion worth of planned funding, and if so, what other acquisition programs, besides missile defense, do you plan to apply this policy to?

Mr. WYNNE. What we are doing with the missile defense program in this regard is similar to what is done in all defense acquisition programs. The budget is an estimate of future requirements. In general, when the Under Secretary of Defense for Acquisition, Technology, and Logistics (USD(AT&L)) authorizes program initiation at Milestone B, the Service having responsibility for the program will have created a program plan and budget that includes funding to procure an inventory objective well in advance of a procurement decision, which occurs at Milestone C. Following approval to transition to Milestone C, the funds previously set aside are used for the approved procurement.

Where the missile defense program differs from this model is the lack of a fixed inventory objective. As stated by the President, we will not have a final, fixed missile defense architecture. Rather, we will deploy an initial set of capabilities that will evolve over time to meet the changing threat and to take advantage of technological developments. The composition of missile defenses, to include number and location of elements deployed, may change over time. Under the DOD's spiral acquisition strategy, a block configuration is developed for fielding on the basis of threat developments, the maturity of technologies, and the availability of funding. When a block fielding decision is made, the DOD allocates funds for that purpose. Until the composition of the block is fully and specifically defined, funds set aside for its fielding may have the appearance of a "placeholder," but it represents the Department's best estimate of the planned program.

IMPACT OF NEXT FLIGHT TEST ON DEPLOYMENT

64. Senator LEVIN. General Kadish, you testified at the hearing that you do not have an interceptor that is in a realistic configuration right now. The next scheduled intercept test, IFT–14, is the first intercept test to use the new "realistic" booster design needed for the operational system and is the only intercept test scheduled between now and the end of September. Will you delay the planned September deployment of the Ground-Based Midcourse NMD system if the IFT–14 test fails to intercept the target?

General KADISH. The determination that the initial defensive capability can be placed on alert is based on many factors, not just a single intercept test. We have taken into consideration the demonstrated performance of the system in ground and flight testing throughout the developmental test program, modeling and simulation, and the fact that a limited capability is better than none at all. If we do not achieve an intercept during IFT–14, we will evaluate the cause, assess the impact of the failure within the context of the wealth of other indicators of system performance, and make the appropriate recommendation to the DOD.

65. Senator LEVIN. General Kadish, if you would not delay the deployment if IFT–14 fails, what basis would you have for claiming that the deployed system works, and are there any circumstances under which you would consider delaying the September deployment date of the ground-based midcourse system? If so, what are they?

General KADISH. The basis for confidence in the system to serve as an initial defensive capability is its demonstrated performance in ground and flight testing throughout the development test program and extensive modeling and simulation. In the event that we do not achieve an intercept during IFT–14, we will evaluate the cause, assess the impact of the failure within the context of the wealth of other indicators of system performance, and make the appropriate recommendation to the DOD.

QUESTIONS SUBMITTED BY SENATOR JOSEPH I. LIEBERMAN

TESTING, TRAINING, AND CERTIFICATION

66. Senator LIEBERMAN. General Kadish, I have remained a strong supporter of missile defense throughout my tenure in the U.S. Senate. I was a co-sponsor of the Missile Defense Act of 1999 and last year I supported funding for the initial 20 interceptors, in order to develop an initial defense against a limited ICBM attack. I was encouraged to hear last year that one of the primary purposes of procuring the initial 20 interceptors was to conduct robust testing. This year, however, I am concerned by the MDA's pronounced lack of recent testing since we have now gone 15 full months without an IFT. I am also troubled by the lack of any plans for realistic operational testing in the near-term; and by the MDA's desire to buy an additional 10–20 interceptors without first determining whether the previous 20 will really work. Why is the MDA not focusing its resources on operational testing before you buy more interceptors, a weapon that at this point may or may not be capable of actually destroying an inbound ballistic missile?

General KADISH. The DOD is proceeding to field an initial defensive capability as directed by the President and in accordance with the NMD Act of 1999. The performance of the BMDS in the developmental test program shows that we have crossed the threshold of technologically possible, and, indeed, have reason for confidence that it will provide a meaningful capability. That initial capability will likely be limited, but will still represent a dramatic improvement over our current condition of being defenseless against ballistic missile attack. As additional components of our initial configuration are placed in service in 2004 and 2005, the effectiveness of the missile defense capability will incrementally improve.

In the last 15 months, MDA has successfully conducted BV–5 and BV–6 test events to verify design, integration, and assembly process and performance of the Lockheed Martin (LM) Booster Vehicle Plus (BV+) and Orbital Science boost vehicle (OBV). IFT–13B was conducted and successfully demonstrated GMD system integration, interfaces, and performance as well as demonstrated the ability of the missile to support future hit-to-kill flight tests. These flight tests, although not intercepts, are a critical step in the development test programs towards future hit-to-kill flight tests. In addition, FM–6 was conducted and successfully intercepted a Short Range Ballistic Missile by an SM–3 from an Aegis ship.

The limited defensive capability that we can put on alert in late 2004 does not represent the BMDS at maturity. With the test bed in place we will be able to conduct flight testing of the on-alert configuration with increasing levels of operational realism. These more realistic tests, involving warfighters and alert-configured hardware and software, will validate the models and simulations that give us the confidence we have in system performance.

67. Senator LIEBERMAN. Admiral Ellis, as the Commander of STRATCOM, your organization will have the daunting responsibility of protecting our Nation from a missile attack. What are your views on fielding a system that has not undergone operational testing?

Admiral ELLIS. We understand where we are in terms of system maturity. We understand the elements of the systems that have been tested—boosters, kill vehicles, command and control networks, and radars—and we understand how they are being brought together for this IDO capability. We will have, in this developmental test bed, a rudimentary capability when the last of these elements is put into place to create this system sometime later this year. Use of this nascent capability as its development continues is both possible and prudent.

68. Senator LIEBERMAN. Mr. Christie, in your most recent report to Congress, submitted in January of this year, you state that, "At this point in time, it is not clear what mission capability will be demonstrated prior to the Initial Defense Operations [which is the deployment of the NMD system in September]". Could you please ex-

plain why you cannot, at this point, assess the capability of this system, and tell me when you might be able to?

Mr. CHRISTIE. At this time, we do not have an integrated operational system to evaluate. Evidence from developmental testing of components and subsystems suggests there should be inherent capability in the IDO architecture. But, as evidenced by the delays in the flight test and ground test schedules, the MDA is still finding and fixing problems with hardware and software as they complete the IDO infrastructure. We may not have much integrated system performance data to demonstrate what that capability is prior to a 2004 deployment. Data opportunities begin immediately with IFT–13C. The opportunities to demonstrate and evaluate the systems mission capability will increase significantly with the deployment of the IDO test bed to support testing.

69. Senator LIEBERMAN. General Dodgen, please explain to me the extent of training, testing, and certification used to prepare the soldiers who will operate the Fort Greeley interceptor site, beginning this September, and act as the Nation's first line of defense against a ballistic missile attack on the U.S.

General DODGEN. The training, testing, and certification process of these soldiers has been nearly continuous, with mastery of the system being the only acceptable standard. First, the Air Defense Artillery School at Fort Bliss, Texas qualifies soldiers/operators in a Military Occupation Skill (MOS). This schooling will last from 13 weeks to 6 months or more, depending on occupation.

Once Air Defense MOS qualified, soldiers enter a rigorous individual training program conducted by the MDA Ground-Based Midcourse Defense Joint Program Office. Here each soldier undergoes an initial 4-week "Basic" course followed by a 6-week "Advanced" course requiring system mastery for completion. The training covers operational theory, functional interoperability of architectural components and system elements, utilizing classroom and hands-on experiences.

Soldiers are then assigned to crews within their unit where they undergo 6 more weeks of intense positional and crew training. During this meticulous instruction they are taught and become expert at there specific individual and crew tasks, tactics, techniques, and procedures.

Upon completion of this training, soldiers begin operational procedures investigations at the Joint National Integration Center (JNIC) in Colorado Springs, where these expert soldiers and crews perfect their skills in a joint environment with NORTHCOM/North American Aerospace Defense (NORAD) command center crews from Cheyenne Mountain. A soldier will experience no less than 6 months, and depending on occupation, as much as a full year of specialized, dedicated, hands on instruction, training, and examinations before they can even be qualified to undertake an operational readiness evaluation (ORE). Successful completion of this ORE would result in an achievement of only the first tier of a strict multi-tiered certification process that includes individual, crew, unit, and combatant commander certification.

The Army is utilizing a trained group of subject matter experts (soldiers, Government civilians, and contractors) to conduct OREs of the crews optimizing every possible event (Exercises, Wargames, Simulations, Integrated Flight and Ground Tests (IFT/IGT), and System Integration and Check-out (SICO) tests) to ensure we have the soldiers trained and certified to defend the Nation with this Strategic Missile Defense capability when it becomes operational.

BALLISTIC MISSILE THREAT

70. Senator LIEBERMAN. General Kadish, a recent Washington Post article dated February 17, 2004, carried an announcement by Russian President Vladimir Putin that his forces had just successfully tested what he called a "maneuver re-entry vehicle." The article later discusses the Russians' desire, following our departure from the 1972 ABM Treaty, to equip its state-of-the-art Topol missile with multiple warheads. According to DOD officials, either of these technologies would be very difficult for our missile defense system to defeat. I realize that our NMD system was not envisioned to defeat a large-scale attack from nuclear powers such as Russia or China. However, with the recent discoveries of the proliferation of nuclear and missile technologies to such states as Iran, North Korea, and Libya I am concerned that in the near future a single high-technology missile launched by a State or organization may have the capability to defeat our defenses. What are the MDA's plans to deal with future threats such as these?

General KADISH. The MDA continues to pursue technologies and capabilities to address adversary missiles of all ranges, in all phases of flight and in all regions.

I will answer the question in two parts—first our plans to defeat maneuvering reentry vehicles and second relative to multiple warheads. [Deleted.]

71. Senator LIEBERMAN. Mr. Wynne, this year's budget request for missile defense is substantial. I recognize the necessity to maintain momentum on research, development, and testing of these extremely technologically complex systems, however, a ballistic missile attack poses just one potential threat against the citizens of the United States. Each year Congress must assess the level of defense spending in order to determine that the country is investing the necessary funds on the correct technologies required to protect our citizens against the most likely threats to our Nation. Are you aware of a process within the DOD, or within the administration as a whole, that assesses the spectrum of probable threats against our Nation and factors the likelihood of these threats into determining which systems are funded (and to what level they are funded) in the annual budget request? Based on your knowledge, why does the administration believe that there is enough of a near-term threat from a ballistic missile attack on the U.S. to warrant fielding an interceptor system before operational testing has been accomplished?

Mr. WYNNE. There are several such processes within the executive branch. The President's NSS sets strategic priorities which guide the Quadrennial Defense Review (QDR), the Nuclear Posture Review (NPR), and the National Military Strategy (NMS). These sources of guidance inform the Department's ongoing assessments of the varied threats to the Nation, our allies, and our deployed forces. The Joint Capabilities Integration and Development System (JCIDS) processes support the Chairman of the Joint Chiefs of Staff and the Joint Requirements Oversight Council (JROC) in identifying, assessing, and prioritizing joint military capability needs. Implementation of direction in the NPR has prompted assessments of the DOD's priorities for strategic defense. These and other ongoing assessments produce fiscal and programming guidance that set budget priorities. The budget is scrutinized by the OMB before submission to Congress to ensure that funding priorities are consistent with Presidential direction and administration policy.

As the events of September 11 demonstrated, the security environment is more complex and less predictable than in the past. We face growing threats from WMD in the hands of states or non-state actors, threats that range from terrorism to ballistic missiles intended to intimidate and coerce us by holding our cities hostage to WMD attack. Hostile states, including those that sponsor terrorism, are investing significant resources to develop and acquire ballistic missiles of increasing range and sophistication that could be used against the United States and our friends and allies. These same states have chemical, biological, and/or nuclear weapons programs. In fact, one of the factors that make long-range ballistic missiles attractive as a delivery vehicle for WMD is that the United States and our allies lack effective defenses against this threat. This rationale underpins the NMD Act of 1999 which established the policy of the United States to deploy as soon as technologically possible an effective NMD system capable of defending the territory of the United States against limited ballistic missile attack. The BMDS developmental test program has demonstrated that the inherent capability of the architecture for IDO may allow us to defend against limited ballistic missile attack. We will continue to characterize that capability and improve upon it as the system matures. In addition, our resolve to develop defenses against ballistic missiles may also deter hostile states from investing resources to acquire them, reducing the global threat.

REQUIREMENTS FOR A VIABLE RADAR SYSTEM

72. Senator LIEBERMAN. General Kadish, in order for a NMD to be effective, it is necessary to be able to locate and identify potential inbound threats. According to officials in the MDA, an XBR system is essential to any missile intercept program. At this time, however, there is no funding slated for the construction of a ground-based XBR, which will ideally be located in Shemya, Alaska. Instead, funding is being used to develop the SBX. However, the SBX will not be fielded until 2005 and, according to a 2002 statement by the Director of the MDA, "the SBX is not a substitute for a Shemya XBR." Until SBX is fielded, the interceptor system will utilize the Cobra Dane surveillance radar system. According to a GAO report recently released, the Cobra Dane radar has never been tested for this missile intercept utility and even with new software upgrade, it will lack the ability to provide more than rudimentary analysis of incoming missile threats. When the SBX is eventually fielded, it will be limited to either providing operational support in Alaska, or support to the current test range in the Hawaiian Islands, not both. Based on these facts, I contend that there is a capabilities gap in our near-term NMD sensor

architecture. You have previously testified before Congress that building an XBR at Shemya in the Aleutians was the "long pole in the tent," meaning that it was on the critical path to establishing a viable missile defense system. Yet the administration has never requested funds to build an XBR at Shemya, and has decided on SBX system instead. Why have you not requested funds for this ground based radar?

General KADISH. The SBX was the result of changes in the GMD mission and program focus in 2002 and the U.S. withdrawal from the ABM Treaty.

Prior to 2001, a land-based XBR was planned for Shemya Island, Alaska. From that location, an XBR would provide ballistic missile acquisition, tracking, discrimination, and kill assessment for the United States. In July 2001, the GMD Joint Program Office changed its near-term mission from deployment of a missile defense capability covering the U.S. to a robust test architecture in the Pacific that would also provide some limited operational utility.

As the test bed was laid out in 2001, it was discovered that many threat representative trajectories could not be supported by a Shemya-based XBR. This necessitated exploration of additional radar sites and concepts. As a result, the SBX concept was developed. SBX will provide the capability to support identified test bed flight test missions and will be a mobile asset that allows operational capability. This mobility was not allowed under the ABM Treaty.

It is important to note that either an SBX or a land-based Shemya XBR could provide a high degree of ballistic missile sensor capability. The major difference is the actual mission that each performs. The Shemya radar would have been affixed operational asset providing robust missile defense capability but was not located to support the test architecture. The SBX offers a movable sensor that maximizes the test bed's utility, which will ultimately result in a more flexible operational missile defense system.

The SBX is scheduled to be integrated into the BMDS at the end of fiscal year 2005.

73. Senator LIEBERMAN. General Kadish, when the SBX is participating in a test, will it be capable of being used to defend against a real missile attack? If not, will you be relying on Cobra Dane to provide radar coverage during these test windows? When, if it all, do you plan to test the Cobra Dane radar system to assess its ability to function as a missile tracking and target acquisition radar?

General KADISH. Yes, the SBX can fill its defensive role while testing. The SBX, like other BMDS components, is subject to recall for defensive operations whether it is participating in a flight or ground test, undergoing routine maintenance, in transit, or in any other status.

Cobra Dane and SBX will complement each other after the sea-based radar is added to the BMDS at the end of calendar year 2005.

Due to Cobra Dane's location and orientation, the only way to test the radar would involve flying an air-launched target through its field of view. MDA is currently examining the best approach to conducting Cobra Dane radar testing.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. AKAKA

AIRBORNE LASER

74. Senator AKAKA. General Kadish, I understand from GAO that the current ABL contract is supposed to reach its cost ceiling by May 2004. Because MDA does not know how to estimate the total cost of this program nor when it will reach program completion, MDA has decided to go to a year-to-year contract. How can you justify asking for funding for a program when you seem to have no idea how much will be expended on that program from year-to-year?

General KADISH.

a. Estimating the costs for a technology program is a challenge that is not unique to ABL. As recognized by the GAO, estimating the cost of development for programs similar to ABL's technology maturity level cannot be done with total accuracy. However, that alone does not make the effort unjustifiable. Furthermore, prudent cost control steps are being taken. We regularly evaluate and adjust our cost estimates, based on past experience and an assessment of the scope of the remaining effort, in order to provide the best picture of the annual funding requirement.

b. Our justification in continuing to request funding is based on the fact that ABL will provide an essential, strategic military capability, as noted above. Our cautious program management approach recognizes the technical complexity of ABL's development and we set near-term programmatic goals to be met, in order to estimate cost. This strategy includes continuation reviews to better understand program tech-

nical progress and system viability. All this is taken into consideration as the MDA updates the ABL program costs and subsequently requests funding.

75. Senator AKAKA. General Kadish, how do you plan to ensure financial accountability for this program over its acquisition cycle?

General KADISH. The MDA has instituted a number of financial review processes for all of its elements to ensure financial accountability and ABL is no exception. We plan to continue to apply prudent financial management principles in managing the program. It should be noted that by continuing to run the ABL program with the same financial rigor as any of MDA's major acquisition efforts, we actually ensure it receives a higher level of oversight than it would ever receive as a technology development program.

76. Senator AKAKA. General Kadish, in January 2001, the ABL Program Manager stated that there are "no showstoppers and [the program] has met or exceeded every technical requirement." Is that statement still true of the ABL system?

General KADISH. The ABL still has not encountered any technical showstopper. Though we have had many technical challenges to date, they have all been overcome and we see nothing to prevent accomplishment of a successful system demonstration.

77. Senator AKAKA. General Kadish, there are expected to be four lasers onboard the ABL: the Active Ranging System (ARS) that locates a target missile; the Target Illuminator Laser (TILL); a Beacon Illuminator Laser (BILL); and finally the Killer Laser. In 2001, it was projected that these four lasers would be operationally ready in April 2002. What is the current status of each of these lasers? Are they all ready to be operationally tested?

General KADISH.

a. The following is a summary of the current status of each laser.

i. First light for first the high-energy laser module was successfully tested in fall 2001, providing 118 percent of design power. First light for the 6-module high-energy laser is projected to be accomplished by the end of calendar year 2004.

ii. As for the illuminator lasers, the BILL and the TILL have been extensively tested in laboratory and end-to-end testing. The total run times on these lasers, from typically 30-second test runs, far exceed what we expect to be seen in the aircraft.

iii. The ARS laser has accumulated nearly 100 ills of run time in ground testing and has been operated for at least 4 hrs. continuously.

b. Integration and development testing of the all lasers onboard the ABL aircraft will begin at Edwards Air Force Base, California, in 2005.

78. Senator AKAKA. General Kadish, are the problems in the ABL system engineering problems, physics problems, or both?

General KADISH. At this point there are no technical showstoppers to the ABL program. Integration challenges center around implementing pioneering technology, completing first-of-a-kind component manufacturing, and developing first-ever engineering and operating procedures for a directed energy weapon. To date, the program has not encountered any insurmountable challenge. Many integration challenges have been met and overcome, including several previously viewed as unsolvable. Therefore, we see nothing to prevent accomplishment of a successful system demonstration.

79. Senator AKAKA. General Kadish, in April 2003, before Senate appropriators, you indicated that the cost of the ABL program could run 15 percent to 20 percent above projections and stated that the MDA is "right on the edge" of proving that the technology can work. Have your projections of cost overruns changed in a year?

General KADISH. Yes, our projections have changed, and our previous estimates have been adjusted upwards. Based on an increased understanding of the complexities involved in integrating the system and using our experience on the progress we have made to date, we have a better understanding of the challenges that lie ahead.

TESTING CONCERNS

80. Senator AKAKA. General Kadish, regarding the BMDS, the fiscal year 2003 Christie Report states: "Due to the immature nature of the systems they emulate,

models and simulations of the BMDS cannot be adequately validated at this time. Confidence in assessed capabilities will improve as more system performance data is gathered to anchor the simulations or directly demonstrate these capabilities." Why is the DOD deploying a system when its capabilities cannot be adequately evaluated at this time?

General KADISH. The models and simulations have given the MDA the confidence to put these systems into the field to gain further operational experience. The DOD is fielding these systems as they become available to give the warfighter a capability where none previously existed and to gain experience in their use. The capabilities at any point in time will be adequately evaluated for use within stated limitations and conditions. The alternative would be not to provide any capability to protect the U.S. and its allies.

81. Senator AKAKA. General Kadish, concerns have been reported regarding the lack of real-world scenarios in which the BMDS has been tested. For example, the tests used to evaluate the ABL program used a laser that is fundamentally different from the type of laser that will be in the final ABL. I am concerned we will have no true measure of the capabilities of these systems before we launch them. Can you discuss the rationale for not testing the BMDS in real-world conditions?

General KADISH. The MDA has always planned to test its systems in realistic operational situations. However, real world scenarios may not be possible, in all situations, for the BMDS. Individual elements of the BMDS, like the ABL, will be tested within the limits of the test ranges to collect developmental data and where possible, using operationally relevant conditions. Multiple test scenarios will be used to characterize the performance of integrated elements; validated models and simulations will be used to verify the full range of capabilities for each phase of the BMDS.

The DOD is fielding these systems as they become available to give the warfighter a capability where none previously existed and to gain experience in their use. The capabilities at any point in time will be adequately evaluated for use within stated limitations and conditions. The alternative would be not to provide any capability to protect the U.S. and its allies.

SPIRAL DEVELOPMENT

82. Senator AKAKA. Secretary Wynne, the National Defense Authorization Act for Fiscal Year 2003 states that once an acquisition program is designated as employing "spiral development," the Secretary of Defense must submit an annual status report on that program, which includes projected prototype costs, to Congress. No such reports have been submitted on the BMDS. The term "spiral development" is used in MDA's budget request to explain the BMDS development process. It has also been used repeatedly by multiple senior officials in the DOD and the MDA in reference to missile defense. Yet according to a 2003 GAO report, none of the missile defense programs have been officially designated as spiral development programs. Can you explain this apparent lack of consistency? Are missile defense programs using spiral development? If so, why have the required reports not been submitted to Congress?

Mr. WYNNE. The BMDS was identified as using spiral development after the reporting deadline of September 30, 2003. It will be included in the Department status report due by September 30, 2004.

[Whereupon, at 12:45 p.m., the committee adjourned.]

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2005

TUESDAY, MARCH 23, 2004

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

ATOMIC ENERGY DEFENSE ACTIVITIES OF THE DEPARTMENT OF ENERGY

The committee met, pursuant to notice, at 9:43 a.m., in room SD–106, Dirksen Senate Office Building, Senator John Warner (chairman) presiding.

Committee members present: Senators Warner, Allard, Sessions, Levin, Kennedy, Reed, Bill Nelson, Clinton, and Pryor.

Committee staff member present: Judith A. Ansley, staff director.

Majority staff members present: L. David Cherington, counsel; and Lynn F. Rusten, professional staff member.

Minority staff members present: Richard D. DeBobes, Democratic staff director; and Madelyn R. Creedon, minority counsel.

Staff assistants present: Michael N. Berger, Bridget E. Ward, Nicholas W. West, and Pendred K. Wilson.

Committee members' assistants present: Jayson Roehl, assistant to Senator Allard; Mieke Y. Eoyang and Jarret A. Wright, assistants to Senator Kennedy; Elizabeth King, assistant to Senator Reed; William K. Sutey and Dan Shapiro, assistants to Senator Bill Nelson; Andrew Shapiro, assistant to Senator Clinton; and Terri Glaze, assistant to Senator Pryor.

OPENING STATEMENT OF SENATOR JOHN WARNER, CHAIRMAN

Chairman WARNER. Good morning, everyone. The committee meets this morning to receive testimony from the Secretary of Energy, the Honorable Spencer Abraham, on the defense-related activities of the Department of Energy (DOE), as well as the President's Defense Authorization Request for Fiscal Year 2005 and the Future Years Defense Program (FYDP). The committee welcomes our distinguished witness, together with his colleagues who have joined him this morning.

This committee has jurisdiction over approximately two-thirds of the DOE's budget. The fiscal year 2005 budget request for the defense-related missions of DOE is approximately $16.8 billion, a 2-percent real increase over the fiscal year 2004 appropriated level.

This funding is primarily for maintaining the reliability, safety, and security of our nuclear weapons stockpile and for the environmental cleanup of Department of Energy (DOE) nuclear facilities.

For the past 2 years, DOE has requested funding or legislation for several research programs which I think are vital for America's defense posture. This includes a feasibility study on the Robust Nuclear Earth Penetrator (RNEP) and advanced concepts research. These important requests generated significant, and I must say, I think quite appropriate, debate in Congress both last year and the previous year.

Last year Congress decided to authorize research and feasibility studies on advanced concepts and the RNEP while ensuring that Congress has the final say on whether more advanced development activities may proceed in the future. Specifically, the National Defense Authorization Act for Fiscal Year 2005 puts in what I believe is a very appropriate condition, namely that before the DOE can proceed to the engineering development, production, or deployment phases of the RNEP, or a low-yield nuclear weapon, Congress must specifically give the authorizations. This is a prudent way to handle a very sensitive issue, which is concerning the public a great deal. I think that is understandable, and it is an issue that is deserving of very careful oversight in the years to come by Congress.

Congress struck the proper balance, which will allow our weapons scientists, engineers, and technicians to conduct necessary research studies to ensure that they can maintain the technical ability to respond to any future military requirements as determined by this and future Presidents.

There are several other DOE matters which require this committee's ongoing oversight. The Science-Based Stockpile Stewardship Program continues towards a goal of ensuring that the United States can maintain its nuclear weapons stockpile and that the stockpile can be certified as reliable, safe, and secure without the need to conduct underground live nuclear tests. I think it is a laudable goal, but I am speaking just for myself that I have a considerable skepticism as to whether this goal can be achieved.

Three major DOE programs are critical to DOE's defense-related mission: the National Ignition Facility (NIF), the Modern Pit Facility (MPF), and the Mixed Oxide (MOX) Facility, and I hope, Mr. Secretary, you will include references to each today.

As the environmental management (EM) program works toward the completion of the first three major closure sites in 2006, there are reasons to both praise these accomplishments and at the same time urge caution as the new challenges emerge. The planned 2006 closure of the Rocky Flats site in Colorado and the Fernald and Mound sites in Ohio, I think, is positive news for the DOE. The early closure of these sites is expected to result in a cost savings of over $12 billion.

Nonetheless, shifting the oversight of the closure sites from the EM program to the Office of Legacy Management (LM) poses a new challenge for the DOE. Environmental stewardship responsibilities, pension and health care needs, and the community concerns will all require a high level of attention to assure a smooth transition.

Consequently, Secretary Abraham, I know that you share the President's priority on nuclear nonproliferation matters and that

you take a deep personal interest in your department's very active role in this area. We look forward to hearing from you this morning about these programs. I thank you and your family for service to the Nation and that of your colleagues. I now turn to the distinguished ranking member, Mr. Levin.

STATEMENT OF SENATOR CARL LEVIN

Senator LEVIN. Thank you, Mr. Chairman. First, let me join you in welcoming Secretary Abraham back. It's always good to have our friend and former colleague here with us. The DOE's total budget request for fiscal year 2005, as you have pointed out, Mr. Chairman, is $23.5 billion of which $16.8 billion, or about two-thirds of the overall DOE budget is for defense-related activities, and thus under the jurisdiction of this committee. These defense-related activities include the environmental cleanup program, the nuclear nonproliferation programs, the nuclear weapons activities, and the naval reactors development program. The National Nuclear Security Administration (NNSA) is responsible for the nonproliferation programs, the nuclear weapons program, and the naval reactors program.

The DOE NNSA has made some progress in its various nonproliferation programs, and I want to commend you, Secretary Abraham, for your efforts with Russia and the International Atomic Energy Agency (IAEA) to establish a task force to identify, assess the risk of, and secure or destroy as appropriate radiologic devices and other nuclear and radiological materials that could possibly be used in a radiological dispersal device (RDD), a so-called dirty bomb.

In addition, the DOE has taken over responsibility from the DOD for a major project to shut down the last three plutonium producing reactors in Russia. To enable the shut-down of these reactors, which also produce energy for their local communities, DOE must build or modify fossil fuel plants to provide the energy that will be lost when the reactors are shut down. This will be a challenging program, and we look forward to working with you, Mr. Secretary, to make this program a success.

One problem that is facing the DOE in the nonproliferation area is the stalemate between the United States and Russia on the issue of liability. The failure to resolve these differences has caused several nonproliferation programs, including the DOE program to convert 34 tons of weapons-grade plutonium to fuel for nuclear power reactors, to essentially shut down. Secretary Abraham, I would very much appreciate your thoughts on how that matter could be resolved.

On nuclear weapons, working to secure nuclear materials and weapons is just one aspect of proliferation. Over the course of the past 3 years, the administration has taken a variety of steps that would indicate more emphasis and importance is being placed on nuclear weapons than on nonproliferation. Nuclear proliferation and the nuclear weapons policies and actions of the United States are inextricably connected, and we should be conscious of that interaction.

The message sent by last year's repeal of the ban on research and development (R&D) of low-yield nuclear weapons is the wrong

message. Other aspects of last year's actions begin to take the United States in a dangerous new direction that marks a major shift in American policy, is inconsistent with our longstanding commitment under the Nuclear Nonproliferation Treaty (NPT) to end the nuclear arms race, and undermines our argument to other countries around the world that they should not develop or test nuclear weapons.

The United States, as the only country to use nuclear weapons, has a responsibility to ensure that nuclear weapons are never seen as just another option for warfare. The Bush administration, through a series of acts taken over the past 3 years, is moving to change the traditional thinking about nuclear weapons to make nuclear weapons more useable and to see them as just another capability. Four years after promising to reduce reliance on nuclear weapons and to reduce the number of nuclear weapons in the stockpile, the United States is still maintaining and supporting a Strategic Arms Reduction Treaty 1 (START 1) stockpile on the order of 8,000 weapons. There have been no reductions in the number of weapons in the stockpile, and it appears that reliance on nuclear weapons as a warfighting option may actually have increased.

The DOE budget request for fiscal year 2005 would more than double the money provided last year to continue work on the RNEP and also increase by 50 percent the money for advanced nuclear weapons concepts. At a time when the United States is trying to dissuade other countries from going forward with nuclear weapons development, and when we are spending over $1 billion to prevent the spread of nuclear weapons material and technology, these actions send a terrible message. The United States is following a policy that we urge others not to adopt.

Secretary Abraham, I look forward to discussing these important issues with you, and again, we welcome you as always back to the Senate.

Chairman WARNER. Mr. Secretary, we will put into today's record your statement in its entirety, and perhaps you can in your opening remarks give us an overview and we'll proceed into the question period.

STATEMENT OF HON. SPENCER ABRAHAM, SECRETARY OF ENERGY

Secretary ABRAHAM. Mr. Chairman, thank you very much, and I will try to give a brief summary of our written statement, which I appreciate having inserted into the record of today's hearing. I want to thank you and the other members. It is always for me, of course, an honor to have a chance to return to the Senate and meet with former colleagues and have a chance to talk about the DOE.

Let me just begin today by commenting that at the level of funding we are proposing for the DOE in the 2005 budget, it constitutes the largest budget submission in the history of the Department. It reflects the success of a number of the programs which we have developed in recent years, as well as the President's confidence in the work that is going on, and really this budget request builds on a number of successes which we have achieved.

I am very proud of what we have accomplished in the last several years in terms of providing for the national energy security

and the economic security of the American people. I am especially proud, I want to just say today, of the performance of the men and women who work at the DOE and whose dedication and hard work make this possible. A testament really to that dedication and capability was a recent announcement by the Office of Management and Budget (OMB), which ranked the DOE first among Cabinet-level agencies in terms of the implementation of the President's Management Agenda. As I think everyone knows, OMB recently put together a scorecard which evaluates agency performance in a variety of areas such as financial management, and it recognized the DOE as the Cabinet-level agency which was leading the pack. As you might imagine, we are quite proud of this. Obviously it is the work of the folks on the front lines throughout our complex who have made this possible.

Let me just comment on a few of the major areas of our budget as it relates to the work of this committee. Of the $24.3 billion total request for this year, 69 percent, or $16.8 billion, is for the DOE's defense programs, which include the NNSA, our environmental cleanup activities, defense nuclear waste disposal, safeguards and security, as well as counterintelligence.

NNSA, our quasi-independent agency, is charged with maintaining our Nation's nuclear stockpile, rebuilding the capabilities of our defense complex, halting the proliferation of nuclear weapons and materials, and providing the Navy with safe, militarily-effective nuclear propulsion. I think the NNSA has been very successful in meeting these responsibilities.

Certifying to the President the safety and reliability of our stockpile is probably the most important responsibility a Secretary of Energy has, and in light of the moratorium on testing, this is a particularly difficult challenge. Through cutting-edge science and advanced computer modeling, NNSA is able to ensure that the weapons complex is ready and prepared to respond rapidly and effectively if required.

In order to ensure the continued reliability of the stockpile, the DOE and NNSA have undertaken an ambitious campaign to modernize and rebuild the complex. This has been a central feature of every budget the Bush administration has submitted, and this year is no exception. That includes a large scale capital improvement program to rebuild decaying infrastructure as well as efforts to restore and improve the basic capabilities to operate our weapons programs in the 21st century.

But as we are working to keep our stockpiles safe, secure, effective, and reliable, we are also taking steps to counter the proliferation of dangerous nuclear materials worldwide, and I am particularly proud of the role which the DOE has played in securing and removing dangerous nuclear materials from a variety of places, most recently from Libya.

As the committee knows, in December, Colonel Qadhafi voluntarily pledged to disclose and dismantle all of Libya's weapons of mass destruction (WMD) programs, including a uranium enrichment project that could produce nuclear materials for several nuclear bombs per year. DOE experts were part of the team that did secure those materials and then brought them to our facility in Oak Ridge, Tennessee, for evaluation, testing, and destruction. The

United States and the world are safer as a result of this nonproliferation triumph.

I am also proud of the great progress which we have made with Russia on nonproliferation issues. We have accelerated the material protection programs and expanded the scope of our work to ensure that dangerous materials do not fall into the hands of terrorists. We have increased our cooperation with Russia's strategic rocket forces by initiating warhead security work at three new sites. We have also extended our international nuclear and radiological cleanout programs to states that were once part of the Soviet Union and its empire.

Working with them, with Russia, and with the IAEA, we have been able to secure radiological materials in these countries before anyone with evil designs could get their hands on them. Moreover, we have begun a MegaPorts program to detect the trafficking of nuclear radioactive materials in the world's busiest seaports. Eventually we hope to have detection equipment in key locations all over the planet.

On top of those responsibilities, the NNSA also receives the naval reactors program, which provides safe and reliable nuclear reactors to power the Navy's war ships. It is responsible for all naval nuclear propulsion work beginning with technological development through reactor operations, and ultimately to reactor plant disposal.

Our 2005 budget continues to support our naval reactors efforts, including work on the design of the next generation of nuclear reactor for aircraft carriers and continued work on the transformational technology core to deliver a significant energy increase to future submarines.

I think a review of all these programs should make very clear that we are dedicated to ensuring America's defense preparedness in the 21st century. We are also, Mr. Chairman, dedicated to cleaning up the legacy of half a century of nuclear defense work in the United States. On a complex-wide basis, we have taken an approach that says we will not allow the legacy of the work done in the weapons complex to be part of a community's burden for as far as the eye can see, and that is why we are seeking the most funding ever for our EM program.

When we took office in 2001, the timetable for cleanup at most sites was 70 or 80 years. Today the measures which we are instituting and have instituted will accelerate completion of the cleanup program by 35 years, and because of the shorter time frame that's involved, it will save the American taxpayers as much as $50 billion, perhaps even more.

The DOE's accelerated cleanup strategy has led to the creation, as you noted, of two new organizations outside of EM, the Office of Legacy Management, and the Office of Future Liabilities. Transferring responsibilities to these new offices will enable the EM program to complete its current cleanup scope, and it allows other departmental programs to focus on their primary missions.

On a related note, we are seeking an increase in funding for our work to establish a permanent nuclear waste repository at Yucca Mountain. Yucca Mountain is key to helping us complete the cleanup of our Cold War weapons facilities. Our 2005 budget request

permits us to stay on schedule to begin operation at Yucca Mountain in 2010.

Finally, Mr. Chairman, safeguarding and securing all of DOE's sites and facilities is a top priority. I'm happy to report that the 2005 budget for all DOE safeguard and security programs fully addresses the requirements identified in the revised Design Basis Threat (DBT), the initiative we undertook to review all of our threat assessments and to update and modernize the complex to deal with the new world in which we live.

At the same time, we are seeking to consolidate the two counterintelligence programs within the DOE into one office reporting directly to the Office of the Secretary. We reached this judgement after extensive review of the current separated or bifurcated counterintelligence functions between the DOE on the one hand and the NNSA, which have proven to be an impediment, frankly, to coherent and effective counterintelligence activities. We believe this must be corrected. I personally think that having a single counterintelligence office reporting directly to the Secretary of Energy will create a more streamlined and effective program, clarify accountability, and provide a clear line of authority for policy development and implementation.

The NNSA Administrator, the National Counterintelligence Executive, the Director of Central Intelligence (DCI), and the Director of the Federal Bureau of Investigation (FBI), share this view as well. Recently, we submitted proposed legislation to Congress to effect the needed consolidation, and I would urge its prompt passage.

Mr. Chairman, that concludes a brief overview of our major areas of responsibility, and obviously I would be happy to answer the committee's questions at this time.

[The prepared statement of Secretary Abraham follows:]

PREPARED STATEMENT BY HON. SPENCER ABRAHAM

INTRODUCTION

Good morning, Mr. Chairman and members of the committee. It is a pleasure to be here today to discuss the President's fiscal year 2005 budget request for the Department of Energy (DOE). In doing so, I want to stress the ways this budget is going to help us accomplish our various missions related to defense and the environment.

At $24.3 billion in gross budget authority, the fiscal year 2005 budget request is the largest in the history of the DOE. Within the $24.3 billion, approximately 69 percent of the total DOE budget, or $16.8 billion, is for the Department's atomic energy defense activities within the jurisdiction of this committee. Within this part of the budget, there is $9.0 billion to support activities in the National Nuclear Security Administration (NNSA), $7.4 billion to fund the environmental cleanup activities, $131 million to fund the Defense Nuclear Waste Fund, and $663.6 million to fund other defense activities.

This budget request builds on a number of successes we have had over the past 3 years. I am very proud of what we have accomplished in terms of fulfilling the President's management vision for this DOE and also what we have achieved to promote energy and economic security for the American people.

The Office of Management and Budget (OMB) recently announced that DOE has made the most progress among Cabinet-level agencies in the implementation of the President's Management Agenda. OMB recognized DOE as the Cabinet-level agency "leading the pack with regard to management improvement" in the areas of human capital, competitive sourcing, financial management, e-government, and budget/performance integration.

Over the past 3 years, with the strong support of the administration and Congress, our national nuclear security programs, through the DOE's NNSA, have achieved a level of stability that is required for accomplishing our long-term mis-

sions. As the post-Cold War era evolves, the NNSA is managing the Nation's nuclear warheads according to the guidance in the Nuclear Posture Review (NPR). The DOE, through the NNSA, works to ensure that the Nation's nuclear stockpile remains safe, secure, reliable, and ready, and to extend the life of that stockpile in support of Department of Defense (DOD) military requirements. Our Nation will continue to benefit from the security resulting from an effective nuclear deterrent and can be confident that the nuclear weapons complex is ready and prepared to respond rapidly and effectively if required.

We have also made great progress in a number of other program areas. We have implemented changes that have fundamentally reformed DOE's Environmental Management (EM) program. Complex-wide, we have taken an approach to accelerated cleanup that says we will not allow the legacy of the work done in the weapons complex to be part of a community's burden for future generations. At the beginning of this administration, the timetable for completing cleanup at all sites was 70 years. Today, we have implemented reforms to accelerate completion of the cleanup program by 35 years and reduce estimated program costs in excess of $50 billion.

With national security as our overarching departmental mission, we cannot be said to be fulfilling our mission with any confidence unless we can guarantee security at our facilities. We are attempting to do that with a request of $1.38 billion in fiscal year 2005 for all DOE safeguards and security activities. We have revised the Design Basis Threat (DBT), which is the post-September 11 analysis of potential threats against which we must protect DOE sites and materials across the country, and are implementing our response to it. We also have a high-level review of security procedures underway by some of the Nation's top military and civilian experts. Lastly, we have made significant managerial changes in the security leadership at our facilities.

A critical component of our national security mission is counterintelligence. Last summer, I informed this committee and others that our national security will be best served by consolidating the two counterintelligence programs within the DOE in one office reporting directly to the Office of the Secretary. I came to this conclusion after extensive review of the current bifurcated counterintelligence functions between the DOE and the NNSA, which have proven to be an impediment to coherent and effective counterintelligence activities. This must be corrected. More recently, I submitted proposed legislation to Congress to effect the needed consolidation.

I believe that having a single counterintelligence office reporting directly to the Secretary of Energy will create a more streamlined and effective program, clarify accountability, and provide a clear line of authority for policy development and implementation. The NNSA Administrator, the National Counterintelligence Executive, the Director of Central Intelligence (DCI), and the Director, Federal Bureau of Investigation (FBI) share this view. I urge prompt passage of the legislation.

The sections that follow provide the details of the fiscal year 2005 budget request.

NATIONAL NUCLEAR SECURITY ADMINISTRATION

Representing approximately 37 percent of the DOE's entire fiscal year 2005 budget request, our national security programs have made great progress and continue to address the challenges of a post-September 11 environment.

The fiscal year 2005 budget request totals $9.0 billion, an increase of $383 million or 4.4 percent. We are making progress in managing our program activities within a disciplined 5-year budget and planning envelope. We are doing it successfully enough to be able to address emerging new priorities and provide for needed funding increases in some of our programs within an overall modest growth rate—notably Safeguards and Security, Nuclear Weapons Incident Response, and Facilities and Infrastructure Recapitalization—by reallocating from other activities and projects that are concluded or winding down.

The NNSA budget justification contains the required 3 years of budget and performance information, as well as similar information for 5 years as required by Sec. 3253 of the NNSA Act, as amended (Title XXXII of the National Defense Authorization Act for Fiscal Year 2000, P.L. 106–65, 50 U.S.C. 2453). This section, entitled Future Years Nuclear Security Program (FYNSP), requires the NNSA to provide to Congress each year at the time the budget is submitted the estimated expenditures necessary to support the programs, projects, and activities of the NNSA for a 5 fiscal year period, in a level of detail comparable to that contained in the budget. Since the inception of NNSA, the FYNSP has been provided as a separate document supporting the budget request. Starting with this budget, NNSA will meet this statutory requirement by including outyear budget and performance information as part of a fully integrated budget submission.

Weapons Activities

The fiscal year 2005 budget request for the programs funded within the weapons activities appropriation is $6.568 billion, an increase of 5.4 percent over fiscal year 2004 due largely to the increase in security and facilities infrastructure. Within weapons activities, the budget structure has been changed in response to congressional concerns to align directed stockpile work funding with individual weapon systems, and to highlight nuclear weapon incident response as a separate line.

The NPR guidance directed that NNSA maintain a research and development (R&D) and manufacturing base that ensures the long-term effectiveness of the Nation's stockpile, and support the facilities and infrastructure that are responsive to new or emerging threats. The NPR also directed NNSA to begin a modest effort to examine concepts that could be deployed to further enhance the deterrent capabilities of the stockpile in response to the national security challenges of the 21st century.

The United States is continuing work to refurbish and extend the life of the B61, W76, and W80 warheads in the stockpile. Within the fiscal year 2005 request of $1.4 billion for Directed Stockpile Work (DSW), funding for the life extension programs increases by 7 percent to $477.4 million. This reflects the expected ramp up in the three systems with First Production Units scheduled in fiscal years 2006–2009 and the completion of life extension activities for the W87. In fiscal year 2005, DSW funding will support R&D of advanced weapon concepts to meet emerging DOD needs that will enhance the nuclear deterrent, and to ensure a robust and capable NNSA for the future. The NPR highlighted the importance of pursuing advanced concepts work to ensure that the weapons complex can provide nuclear deterrence for decades to come. In fiscal year 2005, $9.0 million is requested to support the modest R&D effort in the Advanced Concepts Initiatives (ACI) to meet emerging DOD needs and to train the next generation of nuclear weapons scientists and engineers. The Robust Nuclear Earth Penetrator (RNEP) is the most mature concept being studied in this program. Funds for the RNEP study are included in the fiscal year 2005 budget as a separate line item from the rest of the advanced concepts study activity. A request for $27.6 million is also included for the continuing RNEP feasibility, design definition and cost study. The RNEP study was requested by the Nuclear Weapons Council in January 2002.

The RNEP study is to determine whether either of two existing warheads—the B61 or the B83—can be adapted without resuming nuclear testing to improve our ability to hold at risk hardened, deeply buried facilities that may be important to a future adversary. The request for advanced concepts funding is to investigate new ideas, not necessarily new weapons. For example, we are currently examining the feasibility of adapting an existing weapons carrier and existing nuclear warheads to achieve a delivery system with greater assurance that the intended nuclear mission could not be compromised by either component failure or adversary attack, thus giving greater reliability for nuclear missions. Appropriate uses for additional work in advanced concepts might include examining the feasibility of warheads with improved design margins, easier manufacturing, greater longevity, and improved safety. Any of these ideas would only be pursued for future development if directed to do so by the President and Congress.

Progress in other parts of the Stockpile Stewardship Program continues. The fiscal year 2005 request for campaigns is $2.4 billion, essentially level with fiscal year 2004. This request funds a variety of campaigns, experimental facilities, and activities that continue to enhance NNSA's confidence in moving to "science-based" judgments for Stockpile Stewardship, and provide cutting edge technologies for stockpile certification and maintenance.

While there is no reason to doubt the ability of the Stockpile Stewardship Program to continue to ensure the safety, security, and reliability of the nuclear deterrent, the Nation must maintain the ability to carry out a nuclear weapons test in the event of some currently unforeseen problems that cannot be resolved by other means. Within the guidance provided by Congress, we are beginning to improve our readiness posture from the current ability to test within 24 to 36 months to an ability to test within approximately 18 months. The fiscal year 2005 budget request of $30 million supports achieving an 18-month readiness by September 2005. But let me be clear, there are no plans to test.

The National Ignition Facility (NIF) at Lawrence Livermore National Laboratory (LLNL) remains on budget and schedule. The fiscal year 2005 request of $130 million continues construction, installation, and commissioning of laser beams. Once complete in 2008, the 192-laser beam facility will be capable of achieving temperatures and pressures found only on the surface of the sun and in exploding nuclear weapons. We are anticipating the first Stockpile Stewardship experiments in 2004 using four laser beams. As a result of recent technical advances in capsule design,

target fabrication, and computer simulations, we expect to begin the fusion ignition campaign in fiscal year 2009 with a goal of achieving fusion ignition in fiscal year 2010. The Advanced Simulation and Computing Campaign request for fiscal year 2005 is $741.3 million, an increase of nearly 3 percent over fiscal year 2004. Working with IBM and Cray Research, the program expects delivery of Red Storm in fiscal year 2004 and Purple in fiscal year 2005. These will be the world's fastest machines, operating at 40 and 100 Teraops, respectively, and they will continue to revolutionize supercomputer capabilities and three-dimensional modeling. Having these machines on-line will begin to redress the capacity and capability issues raised in the September 2003 JASONs report required by Congress.

The NPR recognized a need, over the long run, for a Modern Pit Facility (MPF) to support the pit manufacturing needs of the entire stockpile. NNSA's fiscal year 2005 request for the Pit Manufacturing Campaign is $336.5 million, an increase of 13 percent over fiscal year 2004, but with some changes since the last budget request. We delayed the final environmental impact statement (EIS) for the MPF in order to address congressional concerns that it is premature to pursue further decisions on an MPF at this time. The decision to delay the final EIS also delays identification of a preferred site for constructing the MPF.

This decision will in no way affect the W88 pit manufacturing and recertification program underway at Los Alamos, which is reestablishing the technological base to manufacture pits, and which thereby will inform many of the technology decisions, which will be contained in the eventual MPF design.

Readiness campaigns are requested at $280.1 million in fiscal year 2005, a decrease of about 14 percent. The decrease is attributable mainly to continuing progress in construction of the Tritium Extraction Facility that is funded within this account.

NNSA's Readiness in Technical Base and Facilities activities operate and maintain current facilities and ensure the long-term vitality of the NNSA complex through a multi-year program of infrastructure construction. About $1.5 billion is requested for these efforts, a slight decrease from fiscal year 2004 that is attributable to a 20-percent decline in funding needed to support line-item construction project schedules.

In fiscal year 2005 the President's budget provides a total of $201.3 million for the Office of Secure Transportation, which is responsible for meeting the DOE's transportation requirements for nuclear weapons, components, special nuclear materials, and waste shipments.

Facilities and Infrastructure Recapitalization

The Facilities and Infrastructure Recapitalization Program (FIRP) is essential to our ability to maintain a responsive robust infrastructure. I am pleased to note that its mission and performance are commended in the recent preliminary assessment by the National Research Council on DOE's facility management. The fiscal year 2005 budget request for FIRP is $316.2 million. This increase follows a 2-year period of flat funding. The request restores the program to our previously requested FYNSP levels; it places the program back on our previously planned schedule and reflects our commitment to fulfill the direction of Congress to end the program by 2011.

Nuclear Weapons Incident Response

The third growth area in the fiscal year 2005 budget request is the Nuclear Weapons Incident Response programs. The fiscal year 2005 request of $99.2 million reflects an increase of 11 percent over the fiscal year 2004 level, recognizing the greatly increased number of deployments of these assets within the United States and abroad. The long-term sizing of this effort in terms of dollars and people continues to evolve along with its critical role in homeland security. We have relocated this account separately within the weapons activities appropriation to provide additional visibility into these programs and funding request.

Safeguards and Security/Design Basis Threat

Protecting NNSA people, information, materials, and infrastructure from harm or compromise is one of our most serious responsibilities and highest priorities. The fiscal year 2005 budget request for NNSA's Safeguards and Security program is $706.9 million, an increase of 21 percent over the fiscal year 2004 enacted level that is needed to implement our response to the new DBT at all NNSA sites and facilities. I issued the new DBT in May 2003, as a result of a post-September 11 analysis of the threats against which we must protect DOE sites and materials across the country. Implementation plans based on vulnerability assessments for each of the sites are in final preparation. These will delineate the upgrades and associated costs plan to upgrade service weaponry, extend explosive impact zones, consolidate nu-

clear material, and make additional improvements of a classified nature to bring NNSA facilities into full compliance with the new DBT by the year 2006. The fiscal year 2005 NNSA budget includes $107.9 million ($89.6 in Safeguards and Security and $18.3 million in Secure Transportation Asset) to address the new DBT. NNSA will shortly submit a request for fiscal year 2004 reprogramming and appropriation transfer to allow this important work to continue on schedule. The fiscal year 2006 funding request for DBT implementation will be addressed during this spring's programming process, and accommodated within the current 5 year funding profile for NNSA.

In recent months we have had some highly publicized occurrences at some NNSA sites. In each instance, NNSA and DOE have taken immediate and aggressive actions to address these occurrences and to ensure that any potential vulnerability is mitigated as soon as possible and that longer term fixes are put into place as appropriate. Because of these problems, we have chartered two external review groups to provide an independent assessment of our management of security. While we are confident that there has been no compromise of classified material and that no nuclear material is at risk, we believe security can and should be improved. Funding for Safeguards and Security in NNSA has increased over 70 percent during this administration, which is a strong indicator of the priority we place on this responsibility. The Administrator of NNSA and I join together in making it well known that we will not tolerate any reduction, perceived or real, in our protective forces and our abilities to protect the complex.

Nuclear Nonproliferation

We also continue to make great progress with Russia on nuclear nonproliferation. Of the $1.35 billion included in this budget for Defense Nuclear Nonproliferation, $999.0 million is requested for nonproliferation programs with Russia and other countries. We have accelerated the material protection programs and expanded the scope of our work to ensure that dangerous materials do not fall into the wrong hands. We have increased our cooperation with Russia's Strategic Rocket Forces by initiating warhead security work at three new sites.

We have extended our International Radiological Threat Reduction program to states that were once part of the Former Soviet Union (FSU) and others. Working with them, with Russia, and with the International Atomic Energy Agency (IAEA), we have been able to secure radiological materials in these countries.

Moreover, in this budget request we are continuing our MegaPorts program with $15.0 million to detect the trafficking of nuclear or radioactive materials in the world's busiest seaports. We will complete installations at three ports in fiscal year 2004 and complete an additional three ports in fiscal year 2005. Eventually we hope to have detection equipment in key locations all over the planet.

The largest investment in nuclear nonproliferation in fiscal year 2005 is the Fissile Materials Disposition program. We are working to design and build facilities to dispose of inventories of surplus U.S. weapons-grade plutonium and highly enriched uranium (HEU), and supporting concurrent efforts in Russia to obtain reciprocal disposition of similar materials.

One of the major obstacles encountered this year is a disagreement with Russia regarding liability protection for plutonium disposition work performed in that country. This has resulted in a 10-month delay in the planned start of construction of the mixed oxide (MOX) facility in Russia as well as a similar facility in the United States. The liability issue is being worked at high levels in the administration. The President's fiscal year 2005 budget request seeks $649.0 million for this program to begin construction of both the U.S. and Russian MOX facilities in May 2005, as we work to resolve the liability issue by this spring. Our outyear funding profiles reflect the administration's full commitment for proceeding with plutonium disposition.

Not only are we pursuing the disposition of weapons-grade plutonium, but we are also working hard to stop more from being produced. We have assumed the responsibility from the DOD for shutting down the last three plutonium production reactors in Russia and replacing them with fossil fuel plants by 2008 and 2011. This will result in the cessation of the annual production of 1.2 metric tons of weapons-grade plutonium. Under the Elimination of Weapons-Grade Plutonium Production program, we will provide oversight for Russian contractors who will actually be performing the work. The fiscal year 2005 request for this effort is $50.1 million.

In fiscal year 2005, NNSA assumes responsibility for the Off-site Source Recovery Project from the Office of EM. The requested program funding is $5.6 million, with a projected cost of about $40.0 million over the next 5 years to substantially reduce the risk of these source materials being used for radiological dispersion devices. The program works closely with the U.S. Nuclear Regulatory Commission (NRC) to prioritize source recovery.

We are mindful of this committee's concerns about the finances of the programs funded by the defense nuclear nonproliferation appropriation. NNSA is currently developing the framework for the first semi-annual report on uncosted balances and commitments as directed by last year's authorization act.

Naval Reactors

In fiscal year 2005, we are requesting $798.0 million for the Naval Reactors program, an increase of about 5 percent. This program continues to be a prime example of how to manage unforgiving and complex technology. The Naval Reactors program provides safe and reliable nuclear reactors to power the Navy's warships. It is responsible for all naval nuclear propulsion work, beginning with technology development, through reactor operations, and ultimately to reactor plant disposal. The budget increase will support 70 percent completion of the design of the next generation nuclear reactor on an aircraft carrier, and continue work on the Tranformational Technology Core, which will deliver a significant energy increase to future submarines, resulting in greater operational ability and flexibility. The request includes $6.2 million for a new construction start, the Materials Development Facility Building, in Schenectady, New York. The total estimated cost of this facility is $20.4 million, and it is estimated to be completed in 2008.

Office of the Administrator

The NNSA is in the final implementation phase of a re-engineering effort that follows the principles of the President's Management Agenda to modernize, integrate, and streamline operations. As a result, at the end of fiscal year 2004, NNSA will achieve its goal of a 15-percent reduction in Federal personnel since fiscal year 2002.

The fiscal year 2005 budget request of $333.7 million for the Office of the Administrator is about 1 percent below the fiscal year 2004 appropriation. This reflects cost avoidance due to the reduction of about 300 positions since 2002, and no further request for incremental funding needed to accomplish re-engineering in NNSA headquarters and field organizations. The budget request assumes that personnel reductions are achieved, restructuring is finished, and associated employee transfers are completed at the end of fiscal year 2004.

The Defense Nuclear Nonproliferation and Nuclear Weapons Incident Response programs have been excluded from staff reductions due to increased program requirements in those areas. We are not requesting a separate funding control for the Office of Defense Nuclear Nonproliferation, because it is no longer necessary to assure that Federal hiring goals are met for those activities that are experiencing rapid mission growth. Based on hiring to date in fiscal year 2004, it is projected that this organization will meet or exceed its managed staffing plan goal of 244 by fiscal year 2005. A single funding control for the appropriation is necessary to facilitate NNSA's corporate efforts to rebalance the nuclear nonproliferation office's transition from reliance on support service contractors to permanent Federal staff.

ENVIRONMENT

Environmental Management

All of our scientific research is designed in part to meet our Nation's environmental challenges. In addition to research in hydrogen, next generation nuclear technology, and renewable energy, our commitment to the environment includes taking action to address the environmental legacy of our past work, particularly building the nuclear weapons complex that helped win the Cold War. That means cleaning up the contamination caused by the production of nuclear weapons and ensuring our Nation is equipped to safely handle future high-level nuclear waste generated by the use of conventional nuclear power as well as the continued stockpile stewardship of nuclear weapons.

DOE is addressing these responsibilities through our EM program and the work at Yucca Mountain. Our fiscal year 2005 budget requests $8.6 billion to meet our various environmental-related objectives. Within that, we are seeking over $7.4 billion for the EM program—the most funding ever requested for this program, reflecting the peak year of DOE's investment strategy for accelerated cleanup. We anticipate funding will then decline significantly to about $5 billion in 2008.

The request includes five appropriations, three of which fund on-the-ground, core mission work, and two of which serve as support. The five appropriations and associated requested funding are as follows:

- Defense Site Acceleration Completion ($5.97 billion)
- Defense Environmental Services ($982 million)
- Non-Defense Site Acceleration ($152 million)

- Non-Defense Environmental Services ($291 million)
- Uranium Enrichment Decontamination and Decommissioning Fund ($500 million)

Within the Defense Site Acceleration Completion appropriation, there is a proposal to reserve $350.0 million. These funds will be requested pending the satisfactory resolution associated with a recent court ruling dealing with our authority to classify certain lower activity waste incidental to reprocessing (WIR).

This budget reflects several program shifts from EM to other programs within the DOE in fiscal year 2005. The program shifts more focus to EM's mission of Cold War cleanup and supports the EM program initiative to accelerate cleanup and risk reduction while providing the responsible and accountable mission programs with the resources and tools necessary to achieve their objectives. This accountability model is the key to moving each of the enterprises or missions of the DOE forward in attaining the desired outcomes and results important to the administration and supporting our accelerated risk reduction and closure initiative. Transfers include the following:

- Federal staff at the Pacific Northwest National Laboratory to the Office of Science and Federal staff at Headquarters to the Office of the Chief Information Officer;
- EM portion of the Offsite Source Recovery Program to the NNSA;
- Spent fuel storage responsibilities at Idaho National Laboratory, the Foreign Research Reactor Spent Fuel Program, management of NRC-licensed spent fuel, and the National Nuclear Spent Fuel Program to the Office of Civilian Radioactive Waste Management; and
- Formerly Utilized Sites Remedial Action Project records management, responsibility for cost liability and recovery reviews, and Environmental Justice and the Massie Chairs of Excellence Program to the Office of Legacy Management (LM).

We will also be transferring sites, as they are completed, to either the landlord or to LM. Transferring sites to LM will occur if the site has no further DOE mission. EM is working with LM to ensure smooth site closure and transition by:

- Ensuring that site baselines identify functions and elements beyond contract closure to meet all internal requirements;
- Conducting assessments of site readiness for transfer and closure in tandem with LM;
- Having joint teams at each site (Rocky Flats has 2 LM employees) supported by LM personnel who were once EM personnel and EM personnel at sites are transferring to LM positions;
- Holding quarterly meetings between EM and LM senior management to address key issues and make decisions; and
- Developing a communication plan defining roles and responsibilities between EM and LM staff.

Defense Nuclear Waste Disposal

One of the most significant and long-standing commitments addressed in this budget is funding to establish a permanent nuclear waste repository at Yucca Mountain. In order to remain on schedule to begin operation in 2010, the fiscal year 2005 budget requests $880.0 million for Yucca Mountain repository activities, of which $131.0 million is requested from the Defense Nuclear Waste Disposal appropriation. This is key to ensuring the future use of nuclear power in this Nation. It is also important to help us complete the cleanup of our weapons facilities and consolidate high-level nuclear waste in one safe, secure location. This request enables us to finalize and defend the license application for construction of the permanent repository—which we are planning to submit to the NRC by December 2004—as well as other activities associated with repository design and safety upgrades and with developing a transportation system to the Yucca Mountain site.

As I mentioned earlier, this budget reflects several program shifts from EM to other programs within the DOE. One of the shifts includes the transfer of the spent nuclear fuel management program from the Office of EM to the Office of Civilian Radioactive Waste Management. Transferring the responsibility for these activities will ensure a consistent policy and approach to manage and plan for the ultimate disposition of both commercial and DOE-owned spent fuel. The proposed transfer totals $26.4 million, with $21.2 million funded from the Other Defense Activities appropriation, and the remaining from the Energy Supply appropriation. These funds continue to remain separate from the Nuclear Waste Fund.

SAFEGUARDS AND SECURITY

Safeguarding and securing DOE's sites and facilities are among our highest priorities. The fiscal year 2005 budget includes $1.38 billion for all DOE safeguards and security programs to address additional requirements identified as a result of the revised DBT.

Within the total amount requested for safeguards and security activities, approximately $707 million will support activities to safeguard nuclear weapons facilities. About $265 million will support activities that protect the Cold War nuclear waste material being cleaned up at our environmental cleanup sites.

We are also requesting $255.0 million for the Office of Security to support the development of DOE-wide security policies as well as to provide physical security for DOE headquarters. The fiscal year 2005 budget request also includes $58.0 million to support safeguards and security activities at the new Idaho National Laboratory for nuclear energy R&D.

OTHER DEFENSE PROGRAMS

Nuclear Energy

The nuclear energy program remains a critical component of the Nation's energy portfolio and a significant part of America's energy future. The fiscal year 2005 budget request for the DOE's nuclear energy programs is $410.0 million, of which $112.8 million is for security and infrastructure activities at Idaho—a former DOD site—which falls under this committee's purview. These programs work to address essential requirements to develop advanced nuclear power technologies for deployment. The fiscal year 2005 nuclear energy budget request also reflects the establishment of the Idaho National Laboratory, which will serve as the Nation's primary center for strategic nuclear energy research, development, demonstration, and education. It will lead the DOE's investigation of a new type of nuclear power plant that is proliferation-resistant and melt-down proof—the next generation nuclear power plant. It is our objective that the Idaho National Laboratory will become the world's premier nuclear energy technology center within a decade.

Energy Security and Assurance

The widespread blackout of August 2003—affecting an area encompassing 50 million people, 8 States, and 1 Canadian province—was a strong reminder that our Nation's electricity grid has vulnerabilities and weaknesses which need to be addressed. Energy reliability is imperative. The budget request for Other Defense Activities includes $10.6 million for Energy Security and Assurance activities to help ensure a secure and reliable energy infrastructure in the new environment of heightened security and the increasing complexity of energy interdependencies. These activities will complement the efforts undertaken by the Department's Office of Electric Transmission and Distribution and the activities of the Department of Homeland Security (DHS).

Environment, Safety, and Health

The fiscal year 2005 budget includes $135.0 million for the Office of Environment, Safety, and Health, of which $104.5 million falls under the jurisdiction of this committee. Within the $104.5 million, there is a request of $43.0 million within the Environment, Safety and Health program to accelerate the processing of applications from contractor workers who may have become ill as a result of their work at DOE facilities. This is a matter of doing what's right and taking care of those whose labors helped secure our safety. With this budget request, we plan to implement a 3-year program to eliminate the backlog of applications by the end of 2006.

Security and Safety Performance Assurance

I recently brought the Office of Security and the Office of Independent Oversight and Performance Assurance under a single manager to create the Office of Security and Safety Performance Assurance. The intent of the establishment of the Office of Security and Safety Performance Assurance is to increase the effectiveness and efficiency of the Department's safeguards and security programs in light of the new environment we now live in. These two functions will maintain their distinctive roles and responsibilities within the Office of Security and Safety Performance Assurance. In fiscal year 2005, the budget request for the Office of Security and Safety Performance Assurance is $279.8 million, with $255.1 million for Office of Security to continue to develop and interpret safeguards and security policy for the entire Department, and $24.7 million for Office of Independent Oversight and Performance Assurance to continue to evaluate the implementation of policy, the effectiveness of secu-

rity training and technology implementation, and identify issues concerning the adequacy of policy.

Legacy Management

The budget includes $66.0 million for the Office of LM to manage post-environmental-cleanup activities. This organization demonstrates the DOE's long-term commitment to manage requirements relevant to closure sites beyond the completion of remediation.

Future Liabilities

The budget also includes a total of $8.0 million for a new Office of Future Liabilities, which is funded by the Energy Supply appropriation at $3.0 million and the Other Defense Appropriation at $5.0 million. This is a planning office to address various future cleanup activities at sites with continuing missions. The fiscal year 2005 budget provides funds to plan for environmental liabilities not currently assigned within the Department.

As in previous years, the fiscal year 2005 budget requests funding within the Other Defense Activities appropriation to offset funding within the departmental administration appropriation. This offset of $92.4 million for Defense-Related Administrative Support addresses the significant amount of administrative support activities performed within the departmental administration appropriation that are of direct benefit to the DOE's defense-related programs. The fiscal year 2004 Energy and Water Development conference report directed the Department to submit a budget request for fiscal year 2005 that reflects a proportional contribution from other defense activities for departmental administration costs. Fiscal year 2005 funding represents 32.7 percent of the departmental administration appropriation administrative costs.

CONCLUSION

The Department's fiscal year 2005 budget request reflects the accomplishments of the last 3 years, the successes and the many changes. This request charts a focused course of investment for the Nation's future, one guided by a cohesive mission and targeted performance metrics. Making all of this work are the extremely talented men and women of the DOE which includes the world's top engineers and scientists. It is a privilege to work alongside them on a common mission. It is an honor to serve a President who has provided this vision of what this Department can—and will—accomplish in fiscal year 2005 and beyond.

Thank you. This concludes my formal statement. I would be pleased to answer any questions you may have at this time.

Chairman WARNER. Thank you very much, Mr. Secretary, and I know that all members of this committee admire the work that you have done and the continuing public service that you and your family render. I guess to put it personally, we kind of miss you.

Secretary ABRAHAM. Thank you, Mr. Chairman.

Chairman WARNER. Now, you mentioned the important work that you do with the United States Navy in terms of nuclear reactors for our submarine fleet and carrier force. I've had 35 wonderful years of experience with that program, starting in 1969 when I entered the DOD and now these 25 years in the Senate. It has compiled a safety record second to none in the world. We have had really no major accidents that we know of attributed to any malfunctioning of the power plants aboard our naval vessels. We have achieved extraordinary milestones in the construction of the cutting edge of submarines to protect this nation.

Now, as you well know, the DOD years ago, when I had a hand in it, created the program that was once associated with Admiral Rickover, with whom I worked and enjoyed a very strong professional and friendly relationship. The individual that occupies that position currently, Admiral Bowman, I think has done a very admirable job. It is an 8-year tenure. It is my judgement that we should continue that 8-year tenure. Do you have any difference of opinion on that?

Secretary ABRAHAM. No. Admittedly, my time in the job has entirely coincided with Admiral Bowman's leadership. He has done an outstanding job, but it has been my sense that having a turnover of leadership on a periodic basis actually brings a certain amount of strength to the position, but I wouldn't want to in any sense suggest that the current occupant has not done an outstanding job.

Chairman WARNER. No, I was not raising it for that question because I think he recognizes that at the completion of his 8 years we would have a sequential successor to come along, and I am certain there are many outstanding individuals in the United States who can step up. But I believe that position is different than almost any other in our whole defense structure of service and DOE service, so I am for continuing that 8 years, and when the appropriate time comes, I am sure that the Secretary of Defense will nominate an individual for that office to continue for another sequence of 8 years.

I am going to look further into that with the DOD, because I want to continue that program. I really set in place years ago that 8-year tenure, and I think there is a measure of independence and originality and creative thinking that goes with that post that the 8 years enables the occupant to render.

Let us talk about the RNEP. I was looking at the out-years, and particularly 2006, looking at a fairly substantial increase, and I bring to your attention the fact, as I mentioned in my opening statement, that in 2004 we put in the legislation that the DOE may not proceed to the engineering development phase 6.3 or to subsequent phases without a specific authorization from Congress. Could you correlate that substantial 2006 bump-up with this statutory provision, which I hope will remain?

Secretary ABRAHAM. The statutory provision, Mr. Chairman, would of course govern any decision to move from a stage of research or preliminary inquiry to the engineering phase. We are required to provide 5-year budgets, however, so that people can look down the road and make a proper sort of assessment of what potential expenses will be. In this case, we have satisfied that by offering in the budget an outlook of what would be the kinds of costs involved if several preliminary and important steps were to take place. First, that we would complete the research work that we proposed to do. Second, that it would be a decision made by the executive branch that as it is considering ways to deal with the issue of hard, deeply-buried targets, that the preferred approach would be the hardening of an existing nuclear weapon, and that a recommendation would be made to proceed. After which, the congressional ratification and support for that would be required before we would move to that engineering——

Chairman WARNER. The short answer to it is that you have to do your budget programming——

Secretary ABRAHAM. Right, and we want to be very——

Chairman WARNER. In no way does that imply that the administration will come and try to revise the existing statutory framework.

Secretary ABRAHAM. No, not at all, and the alternative would be to not put those numbers out and have someone suggest that we

were somehow keeping that secret. We felt we have a responsibility——

Chairman WARNER. I think you have taken the prudent course of action on that, Mr. Secretary, and I am glad we have placed in today's record a clear explanation for it.

Last week, you were featured in a Washington Post article discussing the nuclear-related components for the United States to remove from Libya in the wake of Libya's decision to dismantle its nuclear and WMD programs. I think the administration deserves an enormous amount of credit for the initiatives taken with Libya on that together with other nations working with us.

What can you tell the committee about the nonproliferation activities that DOE has undertaken in Libya, and do you have any plans for additional nonproliferation activities in Libya?

Secretary ABRAHAM. Well, essentially in Libya we have engaged in several activities. The initial phase of the activity was to remove the nuclear material that had been secured for a uranium enrichment processing effort, as well as the key components of the machines that would be used for that effort so they would not be functional. That was the material that came to the United States in the first phase of the effort.

The second phase was to bring the remainder of the WMD materials that were discovered there, a much larger tranche of material. Just to put this in perspective, the first phase was about 55,000 pounds of equipment, material, and machinery. The second is about 5 percent of the total. The third component, which we are also very pleased about, was that working with the Libyan Government, and with the Russian Federation, and with the IAEA, we were able to secure and return to Russia the fresh fuel that was at the Tajura research reactor site in Libya, the kind of weapons-grade or near weapons-grade material or fuel that was under-secured and obviously a potential source of material for some type of proliferation usage. So that has been returned to Russia.

We now will continue the work to try to address the core of that reactor to turn it into a safe alternative.

Chairman WARNER. I think that is commendable, Mr. Secretary. Last month you announced a new program to provide employment opportunities for Iraqi scientists, technicians, and engineers. I commend you for that, too. The program seeks to support reconstruction efforts and prevent the proliferation of WMD expertise to terrorists or proliferating states. What can you tell the committee about this new program aimed at facilitating productive research activities for these scientists so that they will not travel elsewhere in the world?

Secretary ABRAHAM. Mr. Chairman, we have had some very positive success in the DOD's nonproliferation work over a long period of time, primarily with the Russian Federation, on finding alternative occupational opportunities for folks with the expertise, whether they are scientists or technicians in the area of nuclear work, and we intend to build on that approach with respect to this latest mission. It has just been launched, and we will keep the committee well-informed of the progress that we make.

Chairman WARNER. Thank you very much, Mr. Secretary. My time has expired.

Senator LEVIN. Thank you, Mr. Chairman. Presidents Bush and Clinton prepared an annual nuclear weapons stockpile memorandum that outlined, among other things, the number of nuclear weapons in the stockpile by weapons type and the number of weapons by type in each of the various states of readiness. Each document usually covered a 5-year period which allowed for planning decisions to be made, and President Bush has not submitted an annual document since the December 2001 Nuclear Posture Review (NPR).

We have been told that the memorandum is almost finished, but it has not been submitted. There also was a requirement in last year's appropriations law for something similar to that called the Stockpile Plan to be submitted with the budget. What is the status of that memorandum?

Secretary ABRAHAM. You are right, and I might say that the provisions in the appropriation bill related to programs in my department, even though we are not singularly responsible for this report, but the fencing was on our dollar so obviously we have an interest in doing this. We also have an interest in doing it thoroughly and well, so it is occupying a lot of attention, both at the DOE and the DOD. We believe it will be done soon, but it will be done comprehensively to try to give this committee and the other responsible committees a clear indication of what we think, what the administration is recommending in terms of the stockpile composition.

Senator LEVIN. Was the administration aware of the fact that that was supposed to be submitted with the budget?

Secretary ABRAHAM. I am sure that that is known by the administration. I assured the committee that we are working very hard to do this well and the delays are not because of a desire to avoid doing this, but because we want to do it effectively.

Senator LEVIN. The fiscal year 2004 budget request sought $6 million for work on advanced nuclear weapons concepts, and that amount was authorized and appropriated last year, but Congress prohibited the DOE from spending $4 million of the $6 million until 90 days after a revised Stockpile Plan was submitted to Congress. That Stockpile Plan has not been submitted to Congress. When is that plan going to be submitted?

Secretary ABRAHAM. Really, these are in the same basic process, and we hope it will be done soon. I would just note that actually the entire $6 million was predicated on the completion and submission of various documents to Congress. The first $2 million of the advanced concept money was actually held in reserve until NNSA submits a report on how that money will be spent, and then can not be spent for 30 days after that. That report was submitted on March 12, so we actually have not begun even the work on the first $2 million. We are doing our best to finish this project so that the remainder would be available.

Senator LEVIN. Is the preparation of the revised Stockpile Plan contingent on the President signing that nuclear weapons stockpile memo?

Secretary ABRAHAM. I am not sure what the exact sequence is. I would have to answer that for the record.

[The information referred to follows:]

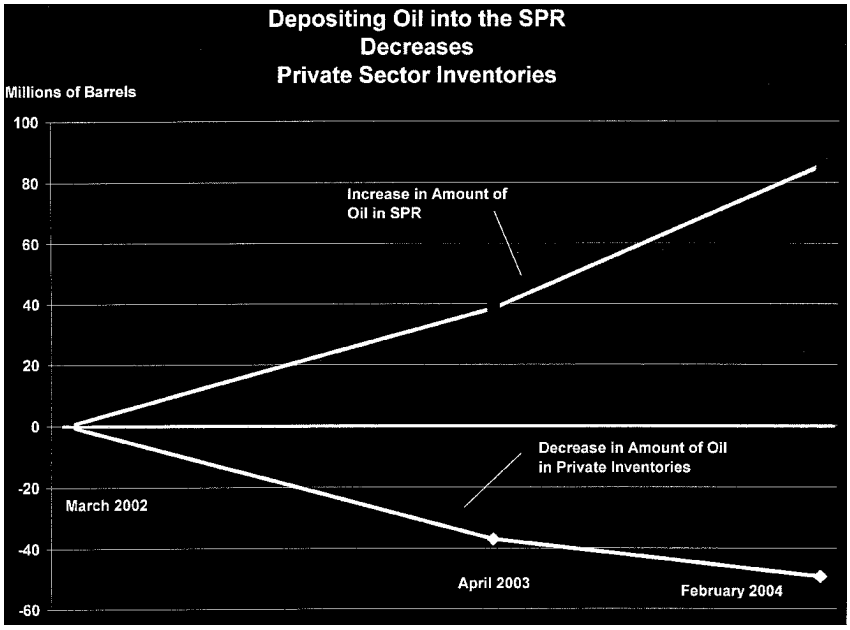
While transmittal of the Report to Congress on the Revised Nuclear Warhead Stockpile Plan is contingent on the President's approval of the fiscal year 2004–2012 Nuclear Weapons Stockpile Plan, preparation and coordination of the report to Congress is not. DOE and DOD are now coordinating a draft report to Congress. It is expected that once the President approves the fiscal year 2004–2012 Nuclear Weapons Stockpile Plan, transmission of the report to Congress will occur in an expedited fashion.

Senator LEVIN. You and I have talked about the Strategic Petroleum Reserve (SPR), Mr. Secretary, and I want to ask you a question about that and put a chart up there for us. Gas prices are at a record high, and what that chart shows is that over the last 2 years, the DOE has added about 85 million barrels to the SPR. That is the red line going up. At the same time, private sector inventories of crude oil have fallen by about 50 million barrels to their lowest level in 30 years, and that is the white line going down.

Goldman Sachs, which is the largest crude oil trader in the world, has said that the buildups in storage have lowered commercially available petroleum supplies, and John Shages, who is your director of finance and policy for the SPR, said in a briefing in the spring of 2002 the following: "Commercial petroleum inventories are low, retail product prices are high, and economic growth is slow." He concluded that "the Government should avoid acquiring oil for the Reserve under these circumstances."

Is that still his position?

[The information referred to follows:]



Secretary ABRAHAM. I do not know what his position personally is, but our administration's position is that the reason we are filling the Reserve is predicated on national security concerns. In the

wake of the events of September 11, a number of people have, I think, felt that having the Reserve filled to its entire 700 million barrel limit was a critical national security objective, and the President directed the DOE to move ahead to fill it, which is the underlying rationale for doing the things we are doing.

We recognize that there are obviously other issues in play, but the overriding concern we had was to have the Reserve at maximum strength in the event that there was a serious disruption in supply at some point.

Senator LEVIN. Now, the Reserve is currently 93 percent filled, is that correct?

Secretary ABRAHAM. About 645, 650 million.

Senator LEVIN. Out of 700 million barrels. Do you have any disagreement with those figures? Offhand, would you agree——

Secretary ABRAHAM. We started somewhere around 540 million, and we are about 100 million more than that now.

Senator LEVIN. But would you agree that the private sector's inventory has gone down to what is near a record low while yours has gone up?

Secretary ABRAHAM. The private sector is lower than it was when this started. I do not know exactly——

Senator LEVIN. Would you agree that there is a relationship between the price of gasoline and other petroleum products and the shortage of supply?

Secretary ABRAHAM. I think it may be the opposite way. I think the impact on price of supply is obvious. I do not think the price of gasoline is affecting supply.

Senator LEVIN. What I am saying is that when supply goes down in the private inventories the price is going to go up.

Secretary ABRAHAM. The Energy Information Administration, which is an independent arm of the DOE, has been asked by us to gauge the impact on price of our very slow increase in the size of the Reserve, and have reached the conclusion that the impact is nearly negligible.

Senator LEVIN. Dr. Phil Verleger, who is probably the foremost petroleum economist in the Petroleum Economics Monthly, reaches a very different conclusion than you do, which is that oil would have been perhaps $8 per barrel lower had in the last few years the administration followed what he calls a rational strategy, which is that you buy when oil prices are low and you do not add to the inventory when supplies are low in the private sector and when the price is high.

I would hope that the administration would take a look at these outside analysts, but also I would ask if you would be willing to ask the director of finance and policy for the SPR, a man who works for you, whether or not he continues to—and I am talking about his own view, not the administration view—whether or not it continues to be his view that when commercial petroleum products are low, retail product prices are high, and economic growth is slow, that the Federal Government should avoid acquiring oil for the Reserve under those circumstances. Would you be willing to ask for the record that he supply us with his view of that?

Secretary ABRAHAM. I will. I am sure he has that view, and I would be happy to have him submit his view on that basis.

[The information referred to follows:]

ACQUIRING OIL FOR THE STRATEGIC PETROLEUM RESERVE

The following are the personal views of John D. Shages, Acting Deputy Assistant Secretary, Petroleum Reserves, on acquiring oil for the Strategic Petroleum Reserve (SPR):

It is my opinion that there are a wide array of considerations that could and should be factored into when, and at what rate, to add inventory to the SPR. The weight I would put on each of the factors depends on circumstances and will change with time. The administration has put the preponderance of weight on the need for increased energy security. At this time, I also put more weight on the value of energy security than the three factors listed for consideration. The SPR is the only U.S. Government tool for assuring oil supplies to consumers during an interruption, especially if caused by war, or intentional export curtailment. The potential need for the protection the Reserve offers has been increasing due to increasing consumption, increasing imports, decreasing unutilized production capacity anywhere in the world, and a general decrease in political stability in producing countries. It is my opinion that the optimal inventory of the Reserve is substantially higher than the current inventory of about 655 million barrels, which equates to only 57 days of net U.S. imports as of May 10, 2004. Adding inventory to the Reserve is inherently good for energy security, and the additional inventory will prove to be a worthwhile investment for American taxpayers when the oil is ultimately sold.

Slow Economic Growth

With regard to SPR oil acquisition and economic cycles, it is my opinion that oil prices have a more powerful impact on the overall economy than is recognized by most economists. Consequently, oil acquisition for the Reserve, and the associated price effect, could be timed to slow an overheated economy or stimulate a slack economy if there was no urgency to add inventory, and if the Organization of Petroleum Exporting Countries (OPEC) were not attempting to control inventories and prices. Under current circumstances, the U.S. economy is enjoying robust economic growth. Gross domestic product grew 4.4 percent in the first quarter of 2004, after strong growth during 2003. The government has been stimulating the economy aggressively since 2001 using both monetary policy and fiscal policy. These stimuli have had the desired impact; the recession of 2001 has faded, business investment has picked up, and consumer confidence is high. The strength of the recovery is such that the preponderance of informed opinion is the Federal Reserve Board will begin to increase interest rates later this year. Therefore, from the perspective of economic policy, the economy does not need to be stimulated by reducing the Reserve fill rate. Current conditions are attractive for oil acquisition, especially relative to 2002 when the economy was coming out of recession, suffering the uncertainty of the events of September 11, 2001, and anticipating a war in Iraq. Based on the criterion of slow economic growth, I do not recommend avoiding oil acquisition for the SPR at this time.

Low Inventories

Regarding inventories, it is my opinion, other things being equal, it would generally be wise to adjust the fill rate of the Reserve whenever there is an immediate danger of disruption and/or shortage in world oil markets. That being said, at this time, I believe the short-term danger of disruption and/or shortage is about the same as the average long-term danger. World oil production is about 80 million barrels per day, domestic crude oil inventories are 9 million barrels above where they were this time last year, and as of May 10, 2004, are 29 million barrels above the 270 million barrel level widely recognized as the minimum operating level. The inventory of all oil products has increased by 33 million barrels since this time last year. On a worldwide basis, inventories of crude oil grew by approximately 2 million barrels per day during March and April. Although current U.S. inventories of gasoline are below the 5-year moving average, I believe price changes will balance supply and demand without shortages or the uncertainty associated with supply disruptions. Furthermore, it is my opinion that the OPEC cartel is paying close attention to world and U.S. inventories, and that our oil acquisitions for the Reserve are being accommodated. This is different from my opinion of 2 years ago—that OPEC was fixated on their export levels and indifferent to commercial inventories. Under the current circumstances, I believe any action by the U.S. to increase marginal inventories by adjusting Reserve fill rates would be offset by adjustments in OPEC crude oil exports, and would have no net consequence other than to slow the addition of

inventory to the SPR. Therefore, based on the criterion of low inventories, I do not recommend avoiding oil acquisition for the Reserve at this time.

High Prices

The question of whether oil prices are high enough to justify consideration of altering a government program designed to enhance essential energy security will always be complicated. The first issue is whether current prices that are high relative to historical prices will also be viewed as high in the future. It is my opinion that we have reached a new plateau for oil prices, and that any return to prices below $30 per barrel in the future will be considered an anomaly. World demand outside of North America and Europe is growing at a rate sufficient to absorb all anticipated growth in world oil production outside of the Persian Gulf. Further, despite rhetoric from various OPEC spokesmen, I believe that organization is intent on balancing supply with demand to yield prices significantly higher than the professed $22–$28 target range. Consequently, for the next few years, I anticipate a market price centering on $35 per barrel and fluctuating between $30 and $40 per barrel, after which I expect prices will increase. It is also my view, it is not feasible to manipulate world oil prices with the small amounts of oil being added to the SPR. In 2002, I was of the view that OPEC would be indifferent to the fill policy of the United States. I believe OPEC is now attempting to manage both the level of commercial inventories and prices. Consequently, any short-term success we might achieve at raising inventories and reducing prices would quickly be offset by countervailing OPEC production policies.

The second issue is whether it is wise to use the Reserve fill rate to attempt to influence market prices when there is no distinct event causing a shortage. The fact that prices for crude oil are high and gasoline prices are at record highs might in other circumstances lead me to advise against acquiring oil for the Reserve. In the current circumstances, the U.S. economy is growing at a strong pace, and gasoline consumption is rising despite the high prices. It is disturbing that U.S. gasoline demand in the first quarter was 4.4 percent higher than in 2003 regardless of a significant price increase. Despite much public discourse on the gasoline price level, consumers have not noticeably modified their consumption patterns, and they are continuing to buy vehicles with low fuel mileage ratings. As recently noted by Federal Reserve Board Chairman Alan Greenspan, high prices maintained over a long period will be perceived as permanent and lead to investments in efficient technologies. That observation should also apply to consumers, who will be willing to pay more for technology such as hybrid engines in cars. In his congressional testimony on the penetration of hybrid technology into the automotive marketplace, Ford Motor Company Chairman Bill Ford commented on the necessity for consistently high gasoline prices in order for manufacturers and consumers to make the investment in hybrid technology. Given current gasoline consumption trends, which I believe are unsustainable, it is my opinion, it would be counterproductive to use Reserve fill rates to artificially reduce oil prices, discourage investment in efficient technology, and encourage greater consumption. Based on the criterion of high prices, I do not recommend avoiding oil acquisition for the SPR at this time.

Secretary ABRAHAM. I just would make three points to you. First, all of the components you just mentioned are important ones, but none of them involve national security, and we have to weigh these countervailing considerations when we make these decisions. Second, the analysis that you referenced, the outside analysis, that suggests that there's a $6 to $8-a-barrel difference is strongly held by the economist you mentioned, but there are a number of other analysts, and I would be happy, Mr. Chairman, to submit for the record the analysis of a number of other outside analysts who contend, as does the Energy Information Administration, that the impact of this 120,000-barrel-a-day or so fill out of an 80 million-barrel-a-day worldwide consumption level is negligible.

The other point I would make, and this is one that I think is very important, is that we do not act in a vacuum when we do these things. This is a very transparent, very predictable long-term fill that we have undertaken. It is well known by those in the marketplace who study and monitor and react to such things. It is also noted by those who set their own levels of production based on

what they believe to be worldwide consumption targets and so on, including OPEC, and I believe it is entirely possible that if we were to dispense with fill or to defer fill, there would be a countervailing action on the part of producers to reduce production accordingly, which would have the effect of off-setting any changes we would make.

That is not just sort of speculation. In fact, recently the immediate past president of OPEC made exactly that statement, which I'd be happy to submit for the record. So I think there are a lot of factors that come into play. I just would reemphasize that we have placed the national security factor at the top of the list of our considerations.

[The information referred to follows:]

The OPEC statement referred to by Secretary Abraham is quoted in the following portion of a March 14, 2004, Dow Jones article titled "Qatar Oil Min: Extra SPR Oil Would Add To Q2 Concerns." The article reads "Qatar's Oil Minister Abdullah bin Hamed al-Attiyah said Sunday that any extra Strategic Petroleum Reserve oil on the market at this time would add to concerns of a crude oil stock build in the second quarter. Al-Attiyah was speaking on the sidelines of an industry event in Cairo. Al-Attiyah's comments followed a question on what impact he thinks a decision by the U.S. Senate to support lobbying by the transport industry to prevent the U.S. Government filling the SPR with 53 million barrels will have on the market. 'It will mean more oil on the market, very simply,' he said, adding 'This is our concern, how to manage this surplus.'"

Senator LEVIN. I will just conclude with the following comment. If there is a small amount of oil being added each day, it is a much bigger proportion of the private inventory than it is of our SPR. The private inventory is 280 million barrels. The SPR is now 650 million barrels, 2½ times the inventory in the private commercial world. So if this is a very minor part of the SPR, 150,000 or 120,000 barrels a day, it is a much bigger contribution to the private sector's inventory.

Number two, of course this is a security issue, but our economic security is an important issue too, and the price of gasoline, oil, and jet fuel now are at record highs. It is a drag on the economy, and our economic strength surely is a significant part of our overall security as well.

So I would hope that the administration would take a look at the vote in the Senate. When we did vote to not add the final 50 million or so barrels to the SPR, according to the analysts, the next day for just a short period of time the price of oil dropped because of our action. That does not mean it will be kept in conference, and it does not mean that the House will adopt it even though a large bipartisan group of House members has now supported the Senate action.

What it does mean is that until the chairman of the Energy Committee the next day said that he was not going to support this provision in conference, when the price went right back up again, the impact of just that Senate action caused the price of oil immediately to drop. I would hope that the administration would reconsider, given the importance of our economy being strong, the impact of high energy prices, and that the administration would take a look at the overall security, not just the question of whether or not 60 million more barrels would be added to a reserve that is 93

percent filled, but also the impact adding 120,000 barrels a day to the SPR has on our economic security.

My time is up, and I thank you, Mr. Chairman.

Chairman WARNER. Thank you, Mr. Levin.

Senator Kennedy.

Senator KENNEDY. Thank you very much. Welcome, Mr. Secretary, back to the Senate, old friend. Just quickly, to pick up on a theme that Senator Levin has mentioned here about the cost of gasoline, it is extremely difficult to try and convince my constituents in Massachusetts, where we have thousands of men and women in Iraq protecting the security of the countries in that region, while they refuse to respond to the economic challenges that consumers are facing and that our economy is facing by giving increased production. No one in my State can understand why the President of the United States is not jaw-boning OPEC to increase production, to make a difference at the very time that we are losing men and women over there in Iraq.

It is an intolerable position, Mr. Secretary. Maybe there is a rationale for that, but it is an intolerable position. No one can understand that. We have seen it other times when Presidents of the United States have jaw-boned the OPEC countries. We have seen where they have made an accommodation and adjustment. For them not to be responsive in terms of the types of issues that we have just talked about in enhancing our SPR, and not only doing that but also making a difference in terms of the restoration of our economy, which according to the President of the United States has been heavily damaged—we might differ in the extent of it—but because of September 11.

It just does not make sense. I do not know if you have talked to him about it or if you have a view on it. I want to give you a quick chance to comment, and then I want to just get to another issue.

Secretary ABRAHAM. Thank you. I would reiterate what I said earlier. One of the reasons we are filling the Reserve is because we are concerned about what happened after September 11, and we believe having a supply that is protected at full strength is an important priority. We also are concerned about prices. I have expressed this on a number of occasions recently. We have also made it clear that we are not going to beg for oil.

Senator KENNEDY. We are not begging. We are losing men and women over there all the time. This is the second time we have gone to the Middle East on this. We are protecting their oil supplies, their oil patch over there, and they are just tightening the grip on it and putting the costs of this up to record highs in times we are trying to get our economy going and get people back to work, and they are trying to strengthen the opportunity for these workers. Have you talked to the President about it?

Secretary ABRAHAM. Obviously, this is of concern to all of us, and how we proceed is an issue we talk about on a regular basis.

Senator KENNEDY. I hope you would at least raise this. I think it would be worthwhile to raise it with him as a reasonable action. I think there would be an enormously positive response here. Hopefully there would be an action from those countries. I think it is just absolutely intolerable.

Mr. Secretary, the NPR sets out a new policy that claims to make the U.S. less dependent than it has been in the past on a nuclear force that is to provide its offensive deterrent capability. That says that on the one hand, but on the other hand it is a case of what the administration does versus what it says. We see this in a number of different policy areas, but let us take it on this one.

You are moving ahead, you are rushing ahead with new nuclear weapons, including the mini-nukes and the nuclear bunker busters. I would like to give you a chance to explain how this program, which was $45 million 2 years ago, is now up to almost a half a billion dollars. The administration is rushing to test the nuclear weapons. You are spending $30 million, and you are increasing the spending on the nuclear test grounds as well. You are planning a factory for plutonium pits, and not securing the stockpiles that we already have. You are cutting back on the funds for Nunn-Lugar, and you are also cutting the training for security and nuclear weapons labs. People are going to wonder why in the world at the same time we are seeing terrorism in Madrid, let alone the threat of al Qaeda, we are cutting the funds on nuclear security. Why, when we have the opportunities to move ahead in the Former Soviet Union with a very successful program, when we have 59 percent of the weapons-useable material that remains unsecured, why are we going ahead and requesting a half a billion dollars for Congress on new nuclear weapons, the bunker buster?

Whatever you can tell us about the military applicability which you are going to have with a nuclear bunker buster, the most important thing is accurate intelligence. What we have seen in the recent Iraqi situation raises serious questions about that issue and is going to encourage other countries around the world to give consideration in resuming the nuclear arms race. How can we possibly go down this path?

Secretary ABRAHAM. Let me just walk through some of the questions you raised, and if there are ones I do not get to or forget, please remind me. First, we are not in the process of making any new nuclear weapons or proposing to build any new nuclear weapons, mini-nukes or otherwise, and we recognize fully that any decision ever that we might make along that line would be one that would require congressional approval.

In terms of the cost of the RNEP, the half a billion dollar proposal that you referenced, as I said in an earlier answer, we are required to put forth to Congress in our budget a 5-year budget based on possibilities of expenditures. If we were to make a decision to go to an engineering phase or the modification of an existing weapon to a more hardened weapon, Congress would have to approve it. If both of those actions happened, that decision was made and Congress approved it, we felt Congress needed to have a sense of what the potential costs would be so there would not be a later claim that these costs had been kept somehow secret.

With respect to cutting money for Russian programs, in the budget of the DOE, the nonproliferation budget that we had in place when I took this office was about $890 million. The submission which we have made this year is for $1.35 billion. The programs in Russia that we work on are ones which we have worked very hard to enhance and to accelerate. We have expanded the

work we do from primarily work with our counterpart agency, the Ministry of Atomic Energy, to now do work on the Strategic Rocket Forces programs in Russia to securitize those as well as the Russian Navy.

We are making excellent progress. By the end of 2005, I think we will have almost completed the work on the Russian Navy program and made major progress on the Strategic Rocket Forces. With respect to security within the DOE, the budget for that program just 3 years ago was under $1 billion a year. It is now $1.4 billion. We have just finished a new threat assessment, which calls for a $144 million increase as a response to that, in our budget for this year over and above what we had last year to address the new DBT. So we are actually increasing the support for security within our complex.

Senator KENNEDY. My time is up, Mr. Chairman, but I would like to, for the record, compare my figures with regard to last year, side by side with the Secretary's.

Secretary ABRAHAM. We'll be glad to, sir.

[The information referred to follows:]

Senator KENNEDY.

Directed Stockpile Work

Funding Schedule by Activity

(dollars in thousands)

	FY 2003	FY 2004[a]	FY 2005	$ Change	% Change
Directed Stockpile Work					
B61 Life Extension Program	71,927	86,113	117,927	+ 31,814	+ 36.9%
W76 Life Extension Program	100,237	146,363	213,111	+ 66,748	+ 45.6%
W80 Life Extension Program	116,774	144,702	146,400	+ 1,698	+ 1.2%
W87 Life Extension Program	116,665	66,305	0	- 66,305	- 100.0%
B61 Stockpile Systems	129,294	84,624	91,256	+ 6,632	+ 7.8%
W62 Stockpile Systems	24,139	18,062	18,401	+ 339	+ 1.9%
W76 Stockpile Systems	92,250	138,019	137,527	- 492	- 0.4%
W78 Stockpile Systems	71,209	53,110	44,313	- 8,797	- 16.6%
W80 Stockpile Systems	50,236	43,474	49,507	+ 6,033	+ 13.9%
B83 Stockpile Systems	59,943	57,703	44,995	- 12,708	- 22.0%
W84 Stockpile Systems	7,513	4,145	6,119	+ 1,974	+ 47.6%
W87 Stockpile Systems	76,392	88,902	94,884	+ 5,982	+ 6.7%
W88 Stockpile Systems	49,541	55,734	49,093	- 6,641	- 11.9%
Retired Warheads Stockpile Systems	40,518	58,640	65,258	+ 6,618	+ 11.3%
Stockpile Services Research & Development Certification and Safety	139,810	156,196	157,986	+ 1,790	+ 1.1%
Stockpile Services Management, Technology, and Production	98,111	111,129	133,101	+ 21,972	+ 19.8%
Stockpile Services Advanced Concepts	0	6,000	9,000	+ 3,000	+ 50.0%
Stockpile Services Robust Nuclear Earth Penetrator	14,577	7,435	27,557	+ 20,122	+ 270.6%
Total, Directed Stockpile Work	1,259,136	1,326,656	1,406,435	+ 79,779	+ 6.0%

[a] FY 2004 reflects a comparability adjustment of $5,795,000 moving MIE-Computer Numerical Controller Lathe and Glovebox to Readiness Campaign.

Performance Indicators	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Endpoint Target Date
Cumulative percentage of progress in completing Phases* of NWC-approved W76-1 LEP	Completed initial 50% of W76-1 Phase 6.3 activity.	Complete 75% of scheduled W76-1 Phase 6.3 activity. Complete initial 10% of W76-1 Phase 6.4 activity.	Complete 85% of scheduled W76-1 Phase 6.3 activity. Obtain W76-1 Phase 6.4 authorization. Complete 25% of W76-1 Phase 6.4 activity.	Complete 100% of scheduled W76-1 Phase 6.3 activity. Complete 65% of W76-1 Phase 6.4 activity.	Complete 100% of scheduled W76-1 Phase 6.4 activity. Deliver FPU. Obtain W76-1 Phase 6.6 authorization.	Complete 4% of scheduled W76-1 Phase 6.6 activity.	Complete 11% of scheduled W76-1 Phase 6.6 activity.	Complete W76-1 refurbishment FY 2013
Cumulative percentage of progress in completing Phases* of NWC-approved W80-3 LEP	Completed 55% of scheduled W80-3 Phase 6.3 activity. Rebaselined the W80-3 LEP.	Complete 70% of scheduled W80-3 Phase 6.3 activity. Complete initial 10% of scheduled W80 Phase 6.4 activity.	Obtain W80 Phase 6.3 authorization. Complete 100% of scheduled W80-3 Phase 6.3 activity. Complete 35% of scheduled W80-3 Phase 6.4 activity.	Complete 80% of W80-3 Phase 6.4 activity.	Complete 85% of scheduled W80-3 Phase 6.4 activity.	Deliver FPU. Complete 100% of scheduled W80-3 Phase 6.4 activity. Obtain W80 Phase 6.5 authorization.	Obtain W80 Phase 6.6 authorization. Complete 15% of scheduled W80-3 Phase 6.6 activity.	Complete W80-3 refurbishment FY 2016
Cumulative percentage of progress in completing Phases* of NWC-approved W87-1 LEP	Completed work activity in accordance with Directive Schedule.	Complete scheduled Alteration 342 to W87.						LEP pending decision and direction
Cumulative percentage progress in completing Phase 6.2/6.2A* activities of the Robust Nuclear Earth Penetrator (RNEP)	N/A	Complete 17% of scheduled RNEP Phase 6.2/6.2A activity.	Complete 56% of scheduled RNEP Phase 6.2/6.2A activity.	Complete 100% of scheduled RNEP Phase 6.2/6.2A activity.	Report results of RNEP Phase 6.2/6.2A to Nuclear Weapons Council. Obtain, if applicable, RNEP Phase 6.3 appropriate authorization. Complete initial 26% of scheduled RNEP Phase 6.3 activity (if	Complete 65% of scheduled RNEP Phase 6.3 activity (if appropriately authorized).	Complete 100% of scheduled RNEP Phase 6.3 activity (if authorized). Complete 15% of scheduled RNEP Phase 6.4 activity (if appropriately authorized).	Ongoing (if appropriately authorized)

Weapons Activities/ Directed Stockpile Work

FY 2005 Congressional Budget

Secretary ABRAHAM.

Safeguards and Security Funding by Site

	(dollars in thousands)		
	FY 2003	FY 2004	FY 2005
Field Security			
Science	66,877	62,328	73,315
National Nuclear Security Administration	558,161	574,470	698,991
Environmental Management	254,747	291,094	265,059
Nuclear Energy	52,560	56,343	58,103
Subtotal, Field Security	932,345	984,235	1,095,468
Information Management (CIO Cyber)	28,340	26,315	24,932
Physical Security (NNSA)	0	8,000	8,000
Headquarters Security			
Nuclear Safeguards and Security	144,512	150,668	143,197
Security Investigations	45,579	54,554	53,554
Program Direction	51,742	52,490	58,350
Subtotal, Headquarters Security	241,833	257,712	255,101
Subtotal, Safeguards and Security	1,202,518	1,276,262	1,383,501
Security charge against reimbursable work	-38,427	-38,419	-38,751
Total, Safeguards and Security	1,164,091	1,237,843	1,344,750

Senator KENNEDY. Are there any circumstances whatsoever in your research that you could foresee the possibility of any testing?

Secretary ABRAHAM. At this point there is absolutely none.

Senator KENNEDY. Is your understanding of the language that is now in Congress that it gives you any authority to move ahead with any kind of testing as part of the research program?

Secretary ABRAHAM. The work we are doing in terms of nuclear testing is to simply reduce——

Chairman WARNER. Excuse me, Senator. You mean live testing?

Senator KENNEDY. Live testing, excuse me. I thank the chair. I apologize to the Secretary, but you know what I am talking about. In terms of the research of these programs, do you see any possibility of having as part of the research a program live test?

Secretary ABRAHAM. We do subcritical work at the Nevada test site, but we do not engage in live testing of a critical level.

Senator KENNEDY. You do not foresee it with regard to these two weapons, the bunker buster and the low-threshold war——

Secretary ABRAHAM. I just want to clarify if I can, Mr. Chairman, the Precision Low Yield Weapon Design (PLYWD), as it was called, provision was not designed to launch an inquiry or the development of new nuclear weapons of any size, small or large. On the RNEP, this was a project in which we were asked to consider whether the modification of an existing weapon could serve as an effective agent in dealing with hard, deeply-buried targets. We are doing the research on that, nothing more, and would require congressional endorsement to move to an engineering level.

Chairman WARNER. Thank you, Senator Kennedy.

Senator Reed.

Senator REED. Thank you, Mr. Secretary, and welcome back. I want to follow up on some of these questions about the RNEP. As I understand it, you can not go into phase 6.3 without congressional authority.

Secretary ABRAHAM. Right.

Senator REED. So in a sense you have a budget that presumes that congressional authority, is that correct?

Secretary ABRAHAM. No, I would not characterize it that way. We decided we had a responsibility to provide Congress with an understanding of what the costs would be if we were to move to that phase.

Senator REED. You could do that through a letter, but when you put it in your budget every dollar you commit to the RNEP is a dollar less for nonproliferation programs, less for stockpile maintenance programs, less for other valuable programs. This is one area quite specifically which Congress says you can not go beyond the 6.2/6.2a phase unless you get specific approval from Congress.

Secretary ABRAHAM. Right. I agree with the sequence, and all I can say is that my experience in the way these things work is that failure to do this would result in some people arguing that we were being deceptive or that we had secret plans.

Senator REED. Let me ask, what other programs are you funding which are prohibited by Congress today in your budget?

Secretary ABRAHAM. Senator, we are not funding any program that is prohibited, and all we are offering Congress is a cost assessment of what the programs might be.

Senator REED. Mr. Secretary, with all due respect, you have a budget which is saying this is how you intend to spend the money, and the problem is in this case there is a specific prohibition against spending money as you would like to do in 2007/2008, and so I think rather than begin avoiding the characterization of being deceptive, you are quite transparent. The problem is, there is still a statute on the books that says you can not go into 6.3 without our approval.

Secretary ABRAHAM. I acknowledge that, and I would also emphasize to this committee that no decision has been made as to whether or not—first of all, let us put in perspective that the budget which we proposed for the RNEP program was significantly reduced in the appropriations process last year, thus causing the process, the whole inquiry that we have engaged in, to be slowed down substantially. It accounts for the fact that this year's budget requests a larger amount than would have otherwise been the case. Because of that, the design or thinking and research work that was to be conducted on two separate weapons had to be changed. Instead of doing an inquiry with regard to both weapons, we have only had the money to do an inquiry with regard to the first one.

So if we are successful in the appropriation process this time, then we would initiate the discussion and the inquiry on the second one. But we are far from the point of determining whether this approach will even be effective, let alone whether it is the preferred approach.

Senator REED. Mr. Secretary, I do think there is a danger of misleading us on what is essentially a budget and a program which goes beyond at this point congressional authority.

Let me ask another question. Is there a specific military requirement for the RNEP today?

Secretary ABRAHAM. It was the conclusion of the NPR that a threat that needed to be addressed in the 21st century and the immediate period ahead of us would be hard, deeply-buried targets. A number of approaches to dealing with that were then asked to be researched. This is just one of them. It is a threat that rose to the level of being included in that review.

Senator REED. There is no doubt about the threat, but it is your opinion that the position of the administration is there was a specific military requirement for the RNEP, not for a device to counter deeply-buried targets, but for the RNEP. Is that your position?

Secretary ABRAHAM. No. The position of the administration is that we should make inquiries and investigate a variety of approaches to dealing with the hard, deeply-buried target. Whether or not this approach is feasible is the first question, and the second is whether or not it is preferable to other approaches that would involve conventional weapons. We have not completed the first phase of that inquiry, let alone the second.

Senator REED. Let me turn to another issue about advanced concepts. On page 4 of your statement, you discuss work related to, "the feasibility of adapting an existing weapons carrier and existing nuclear warheads to achieve a delivery system with greater assurance that the intended nuclear mission could not be compromised by either component failure or adversary attack."

In the DOE's report identifying the advanced concepts work that we have done in fiscal year 2004, the only work that is discussed is work on, "an enhanced nuclear cruise missile employing post-launch command and control and enhanced use control." Are you talking about the same project in your testimony or other documents?

Secretary ABRAHAM. I would have to look at the testimony. What I can tell you Ambassador Brooks says yes.

Senator REED. Just to be clear about that.

Secretary ABRAHAM. But I would reiterate what I said earlier. At this point we have not begun any work in terms of advanced concepts because of the restrictions on the funding.

Senator REED. Could you explain, or perhaps Ambassador Brooks could explain, post-launch command and control issues that you are dealing with?

Secretary ABRAHAM. I would really like to do that in closed session, sir.

Senator REED. You want to go in closed session?

Secretary ABRAHAM. I guess we would.

Senator REED. All right, if it is not appropriate for this forum, that is fine, Mr. Secretary. I do not want to press this issue.

Let me just get back to another point. You and the President have recognized the importance that the Nunn-Lugar programs are playing, and there has been an increase of funding, but one of the sad commentaries of today's world is there seem to be so many ways to spend that money, and even with increases in money, there is not enough money.

But in your view, what are the most urgent opportunities or targets?

Secretary ABRAHAM. Let me talk about our programs specifically, because that is where my focus is. I think that we have placed an increasing priority on the global cleanout of research reactor fuel that is of a weapons-grade or a near-weapons-grade quality. We have had some excellent ad hoc success with respect to several joint ventures with Russia, with the IAEA, and places like Serbia, Libya most recently, Bulgaria, and Romania. I believe more will be coming.

We also have had success and are near the point of entering into a government-to-government agreement with the Russian Federation, which I think would formalize and help us to expedite that process so that we might be able to recover all of the spent fuel of Russian origin from the various reactor sites by the end of fiscal year 2005. That is our goal. We see that as a top priority.

Last year, in my testimony here I mentioned the issue of RDDs and the kinds of material which had historically not been the focus of international attention and scrutiny, medical isotopes and other radiological material, but that could become the basis for some type of RDD. At my suggestion, the IAEA, U.S., and Russian Federation hosted an international conference last March with 127 nations participating to begin an international effort to both better account for as well as frankly educate and assist countries in addressing these issues. We have a lot of countries who are part of the NPT who looked at other places and just said you all have the material. Now it turns out that almost everybody has some type of material, and we have a program that we are pleased with that has evolved since that conference and has begun to provide assistance in a variety of places for the protection of that type of radiological material.

We also believe that, as I mentioned earlier, the acceleration and expansion of our programs in Russia is timely and important. We are very pleased. We think the overall time frame that we began with a couple of years ago since September 11—we will be able to reduce by maybe as much as 2 years the work there. A lot of that

is a function not of money but of absorption. Those are priorities as well, so those are among the things that we are working on.

Senator REED. Thank you, Mr. Secretary, very much. Thank you.

Chairman WARNER. Thank you, Senator.

Senator Pryor.

Senator PRYOR. Thank you, Mr. Chairman, and thank you, Mr. Secretary, for being here today. This discussion has been very interesting. Let me back up just for a second. Is it fair to say that the DOE has the Nation's best and perhaps the world's best experts on nuclear technology? Is that fair to say?

Secretary ABRAHAM. Certainly there is a lot of tremendous technology expertise in the DOE at the laboratories.

Senator PRYOR. Part of your responsibility is the stewardship of the Nation's nuclear weapons and to maintain technical and analytical expertise in evaluating nuclear weapons, nuclear development, and nuclear weapons capability. Is that fair to say?

Secretary ABRAHAM. That is part of the role, yes it is.

Senator PRYOR. As part of that, I assume the DOE has a wide range of sub-specialities of expertise when it comes to nuclear weapons issues. Let me get to my question, because I just have a concern. It is a nagging question that I have had for some time, and I would like to get your thoughts on it. When you look at the October 2002 National Intelligence Estimate (NIE), it appears to me, in looking at it, when that document is discussing the aluminum tubes in Iraq, there were so many news stories about it, et cetera, and there was a lot of discussion in this committee about that, a lot of discussion behind closed doors about that.

It appears to me that basically the DOE's analysis, input, and thoughts on those were virtually relegated just to a footnote, and that you did not actually agree, the Department did not actually agree, with really the conclusions in the document. There was a footnote to the effect that maybe you all had a differing view of that. I would like to hear your comments and your thoughts about how the NIE came to be written that way and what input you had in that process. I do not mean you personally.

Secretary ABRAHAM. The DOE participated along with a number of other agencies in the assessment of Iraq's programs. That assessment was based on the intelligence that had been collected. One of the issues is exactly the aluminum tube issue that you have referenced. We had a different view, as has been noted in the report, from some of the other agencies. I do not think we were the only agency that had a different view, and how it was entered into the record should not be interpreted to mean that there was not a full discussion of that issue. As I understand it, we encouraged the experts from our shop who participated to be very candid and strong in the sort of statements they made in support of their position.

There were a lot of other issues though that were assessed, not just the aluminum tubes. The attempts of the Iraqi Government to acquire magnets, high-speed balancing machines, machine tools, and a variety of other pieces of information went into the overall assessment, which our Department's experts agreed with. That is the overall assessment of the state of play and the intent of the

Iraqi regime. We did not agree with the specific issue that related to the tubes.

Senator PRYOR. As I understand the difference with regard to the aluminum tubes, your experts felt like these tubes were Italian-made Mindusa 81 rockets or something very similar to that.

Secretary ABRAHAM. Too long and too thick I think is the——

Senator PRYOR. What was that?

Secretary ABRAHAM. I said, too long and too thick was the——

Senator PRYOR. But very close to that, as I understand it, whereas some of the other agencies' experts, they felt like the tubes may have actually been used in the centrifuge to enrich uranium. Am I understanding that correctly?

Secretary ABRAHAM. Yes. As I said, I think our interpretation of the length and thickness of the tubes was that they would not be compatible with the sort of enrichment process that would be involved.

Senator PRYOR. Knowing what we know today, your experts were right about that. Is that right?

Secretary ABRAHAM. It was their conclusion then and remains that conclusion that these tubes were not appropriate for casing for an enrichment centrifuge.

Senator PRYOR. Right. As I understand it, though, they hit the mark when they made the analysis that these tubes were more just for conventional rockets rather than——

Secretary ABRAHAM. I believe they were right.

Senator PRYOR. That is my impression as well. Again, not to get too much into the process of how the NIE comes to be, but it sounds like while you had some input, at the end of the process, at the end of the day, your views were the minority view, and it was just footnoted.

Secretary ABRAHAM. On the issue that related to the aluminum tubes, it was the minority view. These people are experts. I would not dream of trying to change or influence their assessment. They are very good at that. Their assessment of the tubes was that they were not consistent with what would be used for enrichment. Their assessment of the overall status of the Iraqi program of what they were doing was consistent with the NIE's overall conclusion reached in that review.

Senator PRYOR. I guess my next question is, in your view, given the fact that we do these intelligence estimates periodically, do you need help in some way in correcting the situation, or maybe—I guess what I am asking is, do you feel like you have enough input there during the process?

Secretary ABRAHAM. Yes, I do. Again, we are talking about a group of experts who often have differing opinions on information made available to them. It certainly was my impression at the time that our people made their case very strongly on all aspects, not just on the tubes but on their overall conclusion based on the intelligence available to them. We urged them to do that, to make their disagreements with other people clear and to advocate their positions strongly, as well as their agreements.

Senator PRYOR. That is all the time I have, Mr. Chairman. Thank you.

Chairman WARNER. Thank you very much, Senator.

Senator Clinton.

Senator CLINTON. Thank you, Mr. Chairman, and thank you, Mr. Secretary. I have a series of questions on a variety of issues, and I want to follow up on a line of questioning concerning our efforts on nonproliferation. As I understand it, the NNSA has a real expertise in nonproliferation verification research and is responsible for the development of remote and ground-based sensing and detection technologies that are capable of detecting nuclear weapons and materials at borders, airports, and elsewhere. In fact, I think it is fair to say that the technology work the NNSA does represents the bulk of the research in our Government on nuclear detection technology development.

That is why I was concerned to see that the budget for this work in fiscal year 2005 is $111.5 million, which represents an 11.6 percent reduction from fiscal year 2004. I cannot imagine any more important work than our efforts to understand how to detect weapons-grade materials, and to me this reduction seems short-sighted. In your opinion, is the NNSA doing everything possible to address this problem, and what are the unfunded requirements for detection technologies?

Secretary ABRAHAM. It is, first of all, fair to say that they do excellent work, and I think you are exactly right. It is my understanding that some of these program responsibilities were moved out of our Department, which is what accounts for the reduction in funding, as part of the Department of Homeland Security's (DHS) emergence. Some of that responsibility for the research has moved over there, which is what accounts for the change in funding.

Now, I have a lot of experts sitting here who probably know the numbers better than I do, but that is my understanding of the reason that that's changed.

Senator CLINTON. I would appreciate having some written response to this, because I am frankly concerned about moving high-level technology research into the DHS, and I do not know that they are up-to-speed or have the capacity, interaction, and synergy that goes on in DOE. I think we really need to take a hard look at this, Mr. Chairman, because there is not anything more important than having the very best that we can have doing this research and developing this technology.

So I would appreciate some written response and maybe a trail that can lead us to find out who we can ask at the DHS, because they are having trouble getting up and going on a range of issues that are under their umbrella, and this is one that I do not think belongs there, if indeed that is where it has been moved.

Secretary ABRAHAM. We will be happy to provide a response.

[The information referred to follows:]

Our budget request for the Nonproliferation and Verification Research & Development (R&D) Program is, in fact, $16 million higher than our request in fiscal year 2004. This reflects, in particular, the need to begin the development of new space-based nuclear explosion monitoring sensors to replace the capability on the Defense Support Program satellites which are due to be retired before the end of the decade.

In the appropriation for fiscal year 2004, Congress added $29.5 million to our request for the R&D program for critical research in nuclear and radiological national security and for particular projects important to the members. Our fiscal year 2005 budget request was formulated last fall, before we knew the details of the congressional action on our fiscal year 2004 request. Consequently, that result did not figure into the baseline level for the fiscal year 2005 funding request. While we appre-

ciate the confidence expressed by Congress in the importance of our R&D program, we have not presumed that the committee meant for this amount to be added to our base request in the President's budget.

With regard to the transfer of part of our R&D program to the Department of Homeland Security during fiscal year 2003, we understand that the challenges are enormous in the first year of startup, in maintaining the quality of the R&D programs that we were required to transfer to them. We have provided the capabilities of our National Laboratories and worked side-by-side with the Department of Homeland Security to ensure the best outcome to both our efforts.

In the Department of Energy, we will continue to work on advancing national capabilities to detect proliferation activity, and provide the underlying science and technology for nonproliferation and national security missions, which many agencies including the Department of Homeland Security will draw upon. I appreciate your comments recognizing that the combination of the understanding of nuclear technology from our nuclear weapon and nonproliferation program responsibilities gives the Department of Energy a unique perspective and programmatic synergy to address these nonproliferation research problems.

Senator CLINTON. Mr. Secretary, I am also impressed by the recently announced task force that you have compiled to work with the IAEA to locate, identify, and assess the risk of RDDs. I think you referred to it earlier in responding to a question. From our information, it is having considerable success. It is creating a kind of global commitment to this, and we are making some progress.

What is not being addressed is the highly enriched uranium (HEU) and weapons-grade plutonium that exists outside of Russia and the Former Soviet Union (FSU). Would you support an effort similar to the RDD Task Force to locate, identify, assess the risk, and secure as appropriate HEU and plutonium worldwide? I certainly congratulate you on what has been accomplished in Libya. I was a little bit concerned that we are sending some of the material back to Russia. That does not give me a lot of confidence at this moment, because I am not yet sure that we are doing everything we need to do there, but what about this idea of setting up a comparable task force?

Secretary ABRAHAM. I think a global cleanout of this kind of material is very wise and should be a very high priority. I referenced earlier this effort we have been making on an ad hoc basis, Mr. Chairman. There is U.S. origin fuel that is out in the world and needs to be returned. We now are going to be consolidating that effort, which had been under the EM division of the DOE. We are going to consolidate that and integrate that into this program that is ongoing in the nonproliferation division of the NNSA, because these should all be housed in one place. But there is a lot of U.S. source fuel.

The Russian source fuel I mention, it goes back, because it is the Russians' fuel. Obviously their ownership rights dictate their return, but there is also fuel that has an origin that is neither Russian or American. This past week I had an opportunity to talk at some length about this with Director General ElBaradei of the IAEA, because this is a priority that he, I think, likewise shares, and we in fact talked about how we might put together a multilateral effort to do this.

I think it is a serious threat, and whether it is a DOE task force or DOE-led task force, or it is an IAEA program, I would think that it would be very timely.

Senator CLINTON. Do you need legislative authority or any additional appropriated authority to do this?

Secretary ABRAHAM. I do not think we do. I am looking over at our folks here. I do not think we would need that to get it started, but I think it is a fair question for the record that we might want to get back to the committee on.

[The information referred to follows:]

In response to Senator Clinton's inquiry about whether DOE requires additional legislative authority to carry out global cleanout, the DOE has no need for additional legislative authority.

Senator CLINTON. It might very well be something we consider in the authorizing process, because I really applaud you for what you have done on RDDs. I think this is exactly the direction we need to be moving, and I would like to support you in this other area.

On a more provincial basis, but one that I think of as very important, last summer, Mr. Secretary, you wrote to Congress asking for support for legislation to reclassify certain high-level radioactive waste incidental to reprocessing. I opposed that legislation because I believed that it would result in more high-level waste being left at the West Valley site in New York. I think it would also have the similar impact in Washington, South Carolina, Idaho, and elsewhere.

The language was ultimately not included in any appropriations bill, but I understand that the DOE may be pressing for this legislation again. Is that correct?

Secretary ABRAHAM. Just to step back a moment, the issue that we have is this. Throughout our complex, of course, the results, the remainder of the work that was done during the Cold War and the weapons programs, and one of the issues that we have been wrestling with is the disposition of materials within tanks that are the result of reprocessing. That material is not of one composition. The material in these tanks is of multiple types of composition, some of it obviously of critical urgent need for remediation, high-level waste, and other waste whose radioactivity level does not meet the same standard.

We believe and have felt that the DOE had the authority to differentiate the classification of the composition of these tanks, but a district court ruling in Idaho has raised questions about whether that authority exists or the extent to which it exists. So in this year's budget, just to put it in perspective, we have fenced about $350 million of money that was going to be spent on the remediation of what is probably over time about a $50 billion program. The $350 million we were going to spend this year on that program is kind of on hold until we can resolve whether or not there is such authority. We need to clarify the legal authority.

We believe that the DOE does have the ability to safely and accurately differentiate between radioactivity levels, and therefore, the disposition of the materials in these tanks. We are talking with various States, and we hope that maybe we can come to a resolution, because the longer we put this off, if we do not spend that money, if we do not start down this road, the more the risk grows in these communities.

Senator CLINTON. Mr. Secretary, could I have your commitment that you would consult with New York State and also with my of-

fice as you proceed with this? Because it is my understanding that New York at least has not been brought into these conversations.

Secretary ABRAHAM. We will make sure that we keep New York informed. At this point, I am not sure whether there will be a legislative solution that works, but obviously for us to proceed there is going to need to be legislative action, and obviously all the members will be involved at some point, and we will keep you apprised of where the status is.

Senator CLINTON. And also the State, too.

Secretary ABRAHAM. Okay.

Senator CLINTON. Thank you. Thank you, Mr. Chairman.

Chairman WARNER. Thank you, Senator.

Senator Bill Nelson.

Senator BILL NELSON. Thank you, Mr. Chairman. You have the little bee-bee there right by you, so why don't you tell us, is DOE committed to support the NIF so that the goal of ignition can be once again no later than 2010?

Secretary ABRAHAM. Yes. We are committed to that goal. We recognize how important achieving it is to Congress, and it is important to us. Mr. Chairman, I did bring this today, I mentioned it to you yesterday, what will be the target of the NIF. Maybe someone could get it up to the head table if you all wanted to look, and let me try to explain quickly, and then I know you have other questions.

One of the challenges which this whole process presents to us, of course, like many of the things the DOE is forced to work on, is doing things that were unthinkable, never before attempted scientific achievements. What we will be doing when this NIF is completed and all the 192 lasers are functioning is to shoot effectively 192 laser beams at the small red bee-bee in the middle of that glass container and hit it simultaneously.

To give a sense of this, I was informed yesterday that the power that would be involved in that moment of contact would exceed all the power production at all United States electricity generation facilities at one time. We have to hit that bee-bee, and the challenge which caused us to have pause in terms of the time frame was that not only do we have to hit that tiny target, but we actually have to also inject inside of that target deuterium and tritium so that we can measure the impact of this process when this laser shot takes place.

Now, how to get those gases into that target has been a real challenge for us, and we had decided or believed that a diffusion approach, that is, to freeze the substances and to try to, effectively through diffusion, inject them into the bee-bee—was the preferred course. The problem is that would take a lot more time, and that is where the 2014 time frame emerged for discussion.

We have concluded, however, that the use of a fill tube approach will, although it is a little riskier, be an approach that can succeed, and so it is our belief that that approach can be successful. We have conducted other forms of experimentation that indicate we can do that without disrupting the physics that are involved, and so that allows us to move back to a time table that I think we and Congress have focused on and believe needs to be met.

Senator BILL NELSON. So that is the plan for bringing it back to 2010?

Secretary ABRAHAM. Right.

Senator BILL NELSON. Okay. In the NNSA, nonproliferation verification R&D account, the budget for this work in 2005 is $111 million, which represents an 11-percent reduction from 2004. Given the importance of this work and the technical challenges of detection, particularly the technical challenges of detection of weapons-grade materials, I want to question this reduction in funding.

We have some of this detection stuff in my State, so what I need to know is, is the NNSA going to do everything possible to address this problem, and what unfunded requirements are there for detection technologies?

Secretary ABRAHAM. As I indicated earlier, Senator, the reason that this reduction appears is because some of the programs which had been in our Department in terms of this R&D have been moved to the DHS, and that accounts for the difference. We would be happy to provide the committee, as I mentioned a little earlier, with some specific information that would allow the committee to monitor how those parts of the program are being handled, or where they are being handled, which office at DHS is responsible, for your consideration.

Senator SESSIONS [presiding]. Thank you, Senator Nelson.

Senator CLINTON. Mr. Chairman, would you yield for just a second?

Senator SESSIONS. Yes.

Senator CLINTON. Senator Nelson is concerned about the same issue I am concerned about; what has happened to the NNSA budget. It is our information, Mr. Secretary, that the chemical and biological weapons detectors were moved to DHS, but not the nuclear detectors, and that the money for the nuclear detection program has been cut. We really need to clarify this, because obviously this is a matter of some concern to a number of us, and I appreciate the courtesy, Mr. Chairman.

Senator SESSIONS. Thank you, Senator Clinton.

Secretary ABRAHAM. I will say for the record I do think we have a comment to add, but I think probably the details are beyond what I can give you right now.

Senator CLINTON. Thank you.

Secretary ABRAHAM. Thank you.

Senator SESSIONS. Mr. Secretary, it is a delight to have you back in the Senate, and you are a valued colleague and did a tremendous job here. I for one want to express my appreciation, first, that you have received the award for the most efficient and productive department in the Federal Government from OMB, is that correct?

Secretary ABRAHAM. Right.

Senator SESSIONS. I believe every Cabinet agency needs to focus intensely on efficiency and productivity. In the long run, that saves us tremendous sums of money. It builds on itself year after year when you are mismanaging or not utilizing the resources wisely, so I am glad to see that a Senator can be a manager. I think that is something you should be proud of, and I really do think all of our Cabinet agencies ought to do better, and this Senate should do better frankly with the way we manage money.

I understand from your strategic plan that three of the DOE's largest sites, the Hanford site in Washington, the Idaho National Laboratory, and the Savannah River site in South Carolina, are expected to be cleaned up as much as 35 years earlier than originally planned. Could you describe for the committee how this budget request that spikes the expenditure this year up to about $7.5 billion, how that is important, or if it is? Is that making a difference in your cleanup schedule?

Secretary ABRAHAM. Well, it is. Here is the state of play that we built on. When we took office, I was briefed by the EM program on the plans for cleaning up these sites. The time frame to me seemed remarkably long, 70, 80 years. Obviously if you are in those communities that is not a very desirable outcome.

Yet we had before us three examples of cleanup efforts that were going much faster, that had been initiated before our arrival by the previous administration. One was in Rocky Flats, one in Fernald, and the other in Mound—the latter two both in Ohio—were going quickly as well. Instead of this kind of slow-paced approach, we were moving to 10-year time frames for cleanup, and Rocky Flats is probably the best example. We are staying on that track. About $600 million of the $7.5 billion you referenced is to make sure we keep Rocky Flats on track to be finished by 2006. We are going to get there. It is a huge site, totally finished in 10 years.

When the cleanup program was expedited there, the plan had been an 80-year plan at $37 billion. It will be done in 10 years from that time frame at about $7 billion. The same philosophy that really underscored the Rocky Flats approach is how we are trying to approach Hanford and the other sites as well, so that in the lifetime of people alive today, these sites can be finished.

The way we are accomplishing it is to transition from an approach of essentially managing risk to an approach of reducing it, and in that sense what I am talking about really is making positive significant process in the cleanup, year to year to year. That means spending more money at the beginning of this process than was otherwise planned, but it means once you begin to reduce the footprint, the overall costs for security, maintenance, and so on start to be reduced, and we start reducing risk instead of just managing it over a long period of time. That is how we intend to approach the entire complex. Happily, in virtually every case, the States have agreed to and approved these accelerated cleanup programs.

Senator SESSIONS. That is good news that that can be done, and I hope the taxpayers in the end will find that efficient as well as, of course, improving the environment.

Mr. Secretary, I am not going to get into an argument over energy prices, but I, like a lot of Americans, am concerned about them. I know some have complained about what has happened, but I firmly believe that the administration and you are correct to believe we should produce more oil and gas in Alaska, that we could produce more in the United States, that we could produce more offshore, and that we could expand nuclear power. Frequently the very people who complain about high prices do not take responsibility for the fact that they have forced us to go overseas to get our energy sources, and as a result, have allowed us to be subject to the Organization of the Petroleum Exporting Countries (OPEC)

cartel and pricing. It is frustrating to me. I think if we get busy on it, we can make some progress, but I believe we are going to need to have, as you have supported, increased nuclear power—it is at 20 percent now—to create electricity. Increased natural gas, which is peaking utilization for electricity all over America, and I believe the Alaska Reserves, which are very substantial, ought to be brought online and could be brought online. We could produce gas safely there. Nobody seems to be worrying about the Venezuelans producing it in estuaries or in the Caspian Sea or other places. We buy it from them. Why don't we buy it from American producers? I think if we produce more, we will see some impact on our cost.

Proliferation is a matter of great concern. We have talked about that a lot. It has been talk, talk, talk for quite a number of years in Congress and by politicians, but is it not a fact that President Bush's action in leading the efforts on the war on terrorism made some real progress for us? In other words, we have Pakistan now, we have Iran perhaps, and Libya has come in. Would you just point out that since we have taken action against terrorism and challenged some countries to stand up and reject the pursuit of nuclear weaponry that we have made real progress in just the last few months?

Secretary ABRAHAM. We have, and I think the President's Proliferation Security Initiative (PSI) has played a major role as well. It was a major factor in the interdiction of shipments that were intended for Libya last fall. I think that probably was the pivotal moment in terms of the decisionmaking in Libya to relinquish their WMD program.

The President has also been successful in launching the Global Partnership Initiative, which has gotten other G–8 countries to agree to support these proliferation programs financially. It is not just the United States involved in this effort, but $10 billion over a 10-year period will be coming from the other members of the G–8. With those dollars we will be able to do a lot more of the security work that we talked about here today, so that it is not just a U.S. responsibility, but it helps us to meet the overall costs of these programs.

I think the actions that we have taken on a number of fronts have worked together very effectively, and there is a lot more to do.

Senator SESSIONS. Think of Abdul Kahn in Pakistan, who has confessed to proliferating to North Korea, Libya, and Iran. Iran is now negotiating to allow nuclear inspectors from the International Atomic Energy Agency to come in and evaluate their nuclear facilities. That could give us more confidence than we have today in how they are doing. Iraq, of course, has always wanted to have a nuclear power, and they now have been stopped in that.

I just think in the last few months more has been accomplished than we have given ourselves credit for, and I believe the actions and the courage of President Bush has been the key to that.

Thank you, Mr. Chairman.

Chairman WARNER [presiding]. Thank you very much. We will continue our hearing with a second round here. Let us talk about the Modern Pit Facility (MPF). I want the question in the record,

even though the answer is very obvious. We are the only nation with a nuclear capability, but we do not have a MPF capability. So if for any reason in the testing of our systems we found out that there was an aging defect in a whole class of weapons, what would you do today?

Secretary ABRAHAM. As the chairman knows, we have finally at Los Alamos been successful in the production of a certifiable pit. It is for the W–88. It is going to take a while to actually go through a certification process. The pit production facility is one which would be needed under any circumstance.

Chairman WARNER. I share that view.

Secretary ABRAHAM. Simply because the aging of the stockpile will require us at some point to have the capability of replacing primaries, and so that's—I would be happy to submit a chart to the committee that would compare——

Chairman WARNER. This record has adequate information in it, because I support this new facility.

Let us talk about the MOX program. It is designed to reprocess surplus weapons-grade plutonium from the United States and Russia into commercial nuclear fuel. There is a delay in U.S. construction to ensure that the United States and Russian programs proceed at a parallel pace. The MOX program is being delayed for 1 year and may face additional delays, because the United States and Russia have been unable to reach an agreement on liability issues for U.S. contractors associated with the project.

Is the U.S. making progress in reaching agreement with Russia? If not, what are you going to do?

Secretary ABRAHAM. We are optimistic that ultimately we can resolve this issue. The sequence of events is very simple. In the initial process of the development of this plutonium disposition program, we had an agreement which had been entered into to cover basically the phase of planning and design. We are now at a point when we have agreement on both sides as to the design, disposition pathway, and development, as you said, to convert the plutonium into a fuel called MOX.

We now have to have a new agreement that would cover the actual development of the construction phase of this process in the United States, but also to cover this program on the Russian side. We are of the view that the liability provisions that have governed the Cooperative Threat Reduction (CTR) agreement ought to apply to this program. The liability provisions there are ones that protect this government, its contractors, people we pay that will be involved in this process, and we have not been able to get an agreement to use the CTR language for the MOX program.

The Russian Federation is, of course, operating under the CTR. It is my understanding that they have certainly indicated to us that they plan to submit the CTR ultimately to the Duma for ratification, and we await how they proceed on that as a key step. There has been this belief, and we share it, that the programs should proceed on parallel tracks, not have the United States program move ahead without the Russian program. So we are optimistic still, but it is still taking a lot of time to come to agreement.

Chairman WARNER. Last year, the administration requested and received authority to use DOE defense nuclear nonproliferation

funds in countries outside the FSU. Do you expect to use this authority in 2004? If so, where and for what purpose?

Secretary ABRAHAM. Mr. Chairman, I think I might——

Chairman WARNER. Want that in closed session?

Secretary ABRAHAM. Well, or take it for the record if I could. Obviously we talked earlier about some of the work we are doing on the RDD front, the radiological materials there that might be used for a dirty bomb. I know that some of that work is conducted outside of both Russia and the FSU. I am not sure if that is the question you are asking, so let me, if I could, respond specifically for the record on it.

[The information referred to follows:]

The administration's support of addressing the global threat of proliferation of WMD both in states of the FSU and around the world is reflected in the President's fiscal year 2005 budget submission, which requests $1.35 billion for this work. For more than a decade, the DOE, and now through its NNSA, has played a central role in the United States' effort to improve the security of under-secured nuclear warheads and weapons-usable nuclear materials in the Russian Federation and other independent states of the FSU. But the security of the United States, including the war on terrorism, urgently requires reducing the proliferation risk of nuclear, chemical, biological, and radiological weapons and materials, warheads, technology, and expertise in countries beyond the borders of the FSU. NNSA's contribution to threat reduction activities include, for example, nuclear detection work at major transit/transportation hubs and ports in FSU states, Europe, Asia, and South America; traditional materials protection, control and accounting security upgrades in Eastern Europe, South Asia, and elsewhere where weapon-usable material is at risk to theft, diversion, or terrorists; and radiological security work, to counter the threat posed by smuggling of radioactive sources that can be used to make "dirty bombs."

Chairman WARNER. Senator Levin.

Senator LEVIN. Thank you, Mr. Chairman. On the question of the MPF, you received last year, I believe, $10 million to continue design work and to complete the environmental impact statement for that facility, and you are requesting about $30 million for this year to continue the design and the environmental impact statement. You have not made any decision, I understand, on the long-term size of the stockpile, which, of course, is——

Secretary ABRAHAM. A factor, yes.

Senator LEVIN.—pretty critical. You are looking at designing a facility to make up to 500 pits a year, which would rival the Cold War pit manufacturing capability. But in the conference report for energy and water appropriations, it said that until the Stockpile Plan was submitted, it was premature to pursue further decisions regarding the MPF.

So I guess the question is, what is the status? You need one, but what is the status?

Secretary ABRAHAM. We are still evaluating a couple of issues that need to be addressed. One is the stockpile size, which is a principal factor in this. Another major factor is the lifetime of the pit. We are trying to assess what that duration is. The range of assessments of the laboratories right now is a fairly wide range, and we are trying to become precise in that, because obviously the life cycle of the primary pit itself is a factor in how many one would ultimately require. So those are issues we are trying to resolve.

Senator LEVIN. Has the DOD given you direction relative to the size of the stockpile that is going to be needed?

Secretary ABRAHAM. That is really part of this analysis that I mentioned in response to your earlier questions. We are working very hard to finish, and that is obviously the largest question, but the pit lifetime, the start date for quantity production, are all also ingredients in terms of what the size would be.

Senator LEVIN. For the out-year budgets, what are you assuming in terms of the size of the stockpile that you are going to need to support?

Secretary ABRAHAM. Let me just check. It is the same size as in the last stockpile document from the President, so that would be the——

Senator LEVIN. What is the number? Do you have a number?

Secretary ABRAHAM. Let me submit it for the record. I think I can get that to you quickly.

[The information referred to follows:]

The DOE fiscal year 2005 budget submittal was written in light of the ongoing joint DOE and DOD study to define the nuclear weapons stockpile to support deployments and response options.

On April 21, 2004, Secretary Rumsfeld and I submitted the fiscal year 2004–2012 Nuclear Weapons Stockpile Memorandum to the President for his approval. The memorandum and proposed fiscal year 2004–2012 Nuclear Weapons Stockpile Plan support the President's proposed level of 1,700 to 2,200 operationally deployed strategic nuclear weapons by 2012. Once the President approves the fiscal year 2004–2012 Nuclear Weapons Stockpile Plan, revised nuclear weapons stockpile quantities and weapon projected active/inactive status will be available to report to Congress.

The President's approval of the fiscal year 2004–2012 Nuclear Weapons Stockpile Plan is critical to completion of a required congressional report requested in H.R. Report 108–357. This report will discuss stockpile projections through the year 2012.

Senator LEVIN. Okay. Because we now plan to reduce deployed strategic nuclear warheads to between 1,700 and 2,200 warheads by 2012, you are maintaining apparently something like 8,000 nuclear warheads in varying degrees of readiness, with the exception of the W–62, which is a separate issue. That is a lot. That is a big cost. So by the DOD not giving you that number, you are maintaining a much larger number of warheads than presumably you are going to need to maintain as soon as we get that number. I am making a presumption here, but it seems to me——

Secretary ABRAHAM. Part of it will depend on the disposition strategy for warheads that we might then move to a retirement phase, and then we would go through obviously a cost associated with the retirement and dismantlement and disposition.

Senator LEVIN. All right. If you could submit to us for the record then what assumption you are making relative to the inventory for the out years, it would be helpful.

[The information referred to follows:]

On April 21, 2004, Secretary Rumsfeld and I submitted the fiscal year 2004–2012 Nuclear Weapons Stockpile Memorandum to the President for his approval. The memorandum and proposed fiscal year 2004–2012 Nuclear Weapons Stockpile Plan support the President's proposed level of 1,700 to 2,200 operationally deployed strategic nuclear weapons by 2012. Once the President approves the fiscal year 2004–2012 Nuclear Weapons Stockpile Plan, revised nuclear weapons stockpile quantities and weapon projected active/inactive status will be available to report to Congress.

The President's approval of the fiscal year 2004–2012 Nuclear Weapons Stockpile Plan is critical to completion of a required congressional report requested in H.R. Report 108–357. This report will discuss stockpile projections through the year 2012.

In anticipation of lower stockpile levels to be approved by the President, DOE has already taken some actions such as reducing the size of the procurement of some components for the Life Extension Programs (LEPs) and other warhead alterations

or modifications. It is worthwhile to note that the proposed Nuclear Weapons Stockpile Plan revalidates the need for the LEPs, but proposes to reduce each of them in quantity; cost savings due to a smaller stockpile will be reflected primarily in out-year budgets starting in the next decade.

Currently, DOE has provided information to Congress that defines today's stockpile and currently-approved projections in documentation such as the Report to Congress: Strategic Force Structure Plan for Nuclear Weapons and Delivery Systems (November 2003); the fiscal year 2005 Budget Submittal (February 2004); and, the fiscal year 2005–2009 Stockpile Stewardship Plan (March 2004) that provides budgetary and quantitative information on the weapons being supported today in the stockpile. DOE also submitted classified Selected Acquisition Reports for the B61–7/11, W76, W80, and W87 LEPs to Congress in February 2004, with significant detail on scope, schedule, and cost. Updated budgetary information, based on the revised stockpile once approved by the President, will be prepared in support of the fiscal year 2006 Budget Submittal, the DOE preparation of the Future-Years Nuclear Security Program, and other reports requested by Congress.

Senator LEVIN. I guess there is just one other question I had, Mr. Chairman, and that goes back to the RNEP program. We had a lot of confusion and I think some misinformation about the effects of using a RNEP when we discussed this last year, not necessarily from you, by the way. Misinformation and confusion did not necessarily come from a DOE source on that, but in general there was a great debate. We did not get hard estimates on that issue, fallout and deaths from the effect of a use of an earth penetrator.

For instance, it is our understanding that if that penetrator were detonated several feet underground, perhaps the length of the missile itself, it actually could produce more, not less, fallout than the same weapon would produce if the detonation occurred in the air over a target. Now, I do not know whether that's true or not. Do you know whether that is true?

Secretary ABRAHAM. I do not know. I know that there was some speculation about whether it could be developed in a fashion as to eliminate fallout and collateral damage, and the administration has never, nor has this Department, ever indicted that that could be possible. As to whether it would be—I am not aware of any, but that does not mean that we could not—we may have some information. I will be happy to provide it if we do.

Senator LEVIN. If you could get for us that estimate as to if the detonation occurred a few feet, perhaps the length of the missile, underground, what the level of that fallout would be——

Secretary ABRAHAM. If we have that, I will——

[The information referred to follows:]

The fallout from the buried burst would be similar to the fallout from a surface burst of the same yield. However, the military objective is to hold underground targets at risk, and if necessary defeat them. In order to achieve either objective with a shallow-buried nuclear weapon, one with about 30 times lower yield could be used. That would mean that the fallout from the lower yield, shallow-buried burst would produce the same effect on target, but produce a 10 times smaller fallout area than the higher yield surface burst required to achieve the same military effect.

Senator LEVIN. It would be very helpful to us.

Mr. Chairman, Senator Akaka was hoping to be here but he cannot make it, and I would appreciate his statement being made part of the record.

Chairman WARNER. Without objection. For any members who are unable—we have a number of committee meetings today, Mr. Secretary—to attend today who desire to put questions into the record,

we will hold the record open to that purpose until close of business tomorrow night.

Senator LEVIN. Thank you.

[The prepared statement of Senator Akaka follows:]

PREPARED STATEMENT BY SENATOR DANIEL K. AKAKA

Thank you Mr. Chairman. It is always good to see our former colleague, Secretary Abraham. Aloha. I look forward to your testimony, Mr. Secretary, on the Department of Energy's (DOE) budget for nuclear weapons activities.

Unfortunately, today we live in a world where governments and terrorists are seeking to develop and acquire weapons of mass destruction (WMD). I am deeply concerned that we are not doing enough to stop the potential flow of weapons and weapons materials to terrorist organizations. We are devoting more resources to developing new nuclear weapons, instead of securing nuclear material already in existence.

The administration's plans to develop new weapons and modify old types of weapons will compromise U.S. security by undermining efforts to make worldwide cooperation on nonproliferation of nuclear and other WMD more effective.

The first Bush administration halted work on nuclear weapons then under development and halted nuclear testing except for safety and reliability, effectively bringing work on new weapons types to a close.

I believe this administration's nuclear initiatives are creating a new kind of arms race by expanding our weapons development programs.

The United States pledged in the Nuclear Nonproliferation Treaty (NPT) "to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament." This is still a worthy objective.

Last Friday, The New York Times reported that the U.S. is reviving efforts to increase our capability to analyze nuclear fallout if a bomb were exploded on our soil.

This effort would allow us to attribute the weapon to a specific country or terrorist group by matching the fallout signature with what we know about the characteristics of foreign weapons. The aim of the project is to deter terrorists by letting them know we will be able to trace any attack back to them, and thus we will be able to retaliate. The existence of this project is an indicator of the seriousness of this threat. But it also leads me to question why we are not doing more to stop proliferation rather than spending our limited resources developing new weapons.

Instead of beefing up nonproliferation efforts, the administration has requested $27.6 million for the Robust Nuclear Earth Penetrator (RNEP) for fiscal year 2005. The request would continue a study to modify an existing weapon to penetrate completely into the ground before detonating, increasing its ability to destroy buried targets. The RNEP study was initially projected to cost $45 million–$15 million a year for fiscal years 2003–2005. It is now projected to cost $71 million. This is too much money to research a weapon that in many ways duplicates what conventional weapons can already do.

Additionally, the budget request includes figures through fiscal year 2009 that total $484.7 million, and includes placeholders for both the development engineering and production engineering phases. This seems to indicate that the RNEP study is more than just a study, and is in fact being undertaken with the foregone conclusion that the weapon will go into development.

The administration claims they need these weapons programs to increase deterrence from a new kind of threat. I do not believe developing these weapons will deter other nations, or terrorists. If other nations see the U.S. developing new nuclear weapons, they will believe they need new weapons for their security as well.

We already know that terrorists are trying to acquire nuclear weapons. Director of Central Intelligence (DCI) George Tenet said so in his recent testimony before this committee: "Mr. Chairman, I have consistently warned this committee of al Qaeda's interest in chemical, biological, radiological, and nuclear (CBRN) weapons. Acquiring these remains a "religious obligation" in bin Ladin's eyes, and al Qaeda and more than two dozen other terrorist groups are pursuing CBRN materials. . . .

Over the last year, we have also seen an increase in the threat of more sophisticated CBRN. For this reason we take very seriously the threat of a CBRN attack. To further this point, over the weekend, the Associated Press reported that Osama Bin Ladin is already claiming to have nuclear weapons.

We should not be providing more funds for new nuclear weapons studies when we are asking other countries to stop their own weapons development programs and trying to prevent terrorists from obtaining loose nukes.

I hope Secretary Abraham can shed some light on how the administration plans to protect the American people by spending our limited resources developing new and unnecessary weapons instead of preventing terrorists from acquiring WMD of their own.

Chairman WARNER. May I say, Mr. Secretary, I think we have had an excellent hearing, and the enthusiasm with which you apply your talents to this challenging post come through very clearly with your views.

We understand, Senator Pryor, you just returned. Do you want another question?

Senator PRYOR. I do not. Thank you, Mr. Chairman. You covered them all. Thank you.

Chairman WARNER. Thank you very much.

Senator LEVIN. Mr. Chairman, there is just one final point that I want to make. What we have asked here for the record are not sort of your normal questions for the record. Some of the things that you are willing to supply we are going to need fairly promptly, so if you could make it really an effort, I know you run as efficient an agency as exists in this town.

Secretary ABRAHAM. After making the comments about our efficiency, we probably——

Senator LEVIN. That is right. Now you are put in a really tough box here in that you are expected to produce with greater speed than any other agency.

Secretary ABRAHAM. Happily, the President's Management Agenda criteria does not include responsiveness to questions in hearings, but I will nonetheless make an exception to assure you that we will do our very best to do this promptly.

Senator LEVIN. We will raise that with the Office of the President as to why that is not part of his criteria.

Chairman WARNER. You have been known to do that.

Senator LEVIN. I am glad that my reputation precedes me.

Chairman WARNER. Thank you very much.

[Questions for the record with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR JOHN WARNER

NATIONAL IGNITION FACILITY

1. Senator WARNER. Secretary Abraham, please provide an update on the progress of the National Ignition Facility (NIF).

Secretary ABRAHAM. The NIF Project is 80 percent complete, and is performing in accordance with its cost and schedule baselines. The NIF project has demonstrated excellent management and technical performance. The first four of NIF's 192-laser beams were activated and commissioned in fiscal year 2003. Meeting this milestone required the installation, activation, and operation of at least one of every NIF component and system. Last summer, NIF laser scientists used these first four NIF beam lines to set records for infrared and green single beam laser energies. The NIF lasers have also demonstrated performance in ultraviolet laser energy that indicate the performance of the 192 beam system will likely exceed design requirements when it is complete.

The fiscal year 2005 budget will allow the project to continue to add beam lines. Current plans call for experiments to achieve the specific goal of ignition on NIF to begin in fiscal year 2009 with a central goal of achieving fusion ignition in fiscal year 2010.

2. Senator WARNER. Secretary Abraham, what is the NIF's value to the Science-Based Stockpile Stewardship Program?

Secretary ABRAHAM. The NIF will be the only facility capable of experimental conditions approaching temperatures and pressures found in nuclear weapons. This ca-

pability is essential for scientists and engineers at the weapons labs conducting studies and experiments to generate the data needed to continue to certify the safety, security, and reliability of the nuclear deterrent in the absence of underground nuclear testing.

During September 2003, laser shots were completed supporting the first physics experiments on NIF. The Inertial Confinement Fusion Ignition and High Yield (ICF) Campaign will begin experiments for stockpile stewardship on the NIF this year, these experiments will directly support stockpile assessment and certification and will be used to validate Advanced Simulation and Computing (ASCI) simulation codes.

SAFEGUARDS AND SECURITY

3. Senator WARNER. Secretary Abraham, are you confident the facilities across the nuclear weapons complex will be able to meet the security requirements of the new Design Basis Threat (DBT) by the target date of 2006?

Secretary ABRAHAM. National Nuclear Security Agency (NNSA) sites have affirmed that they will be compliant with the new policy by the end of fiscal year 2006, assuming that there are no changes in the Adversary Capabilities List and subject to the availability of appropriated funding.

A fiscal year 2004 reprogramming request of $55 million to address DBT requirements was approved in late June, and an additional $89 million has been included in the President's fiscal year 2005 request to address DBT-related actions. Residual DBT funding issues will be considered as part of the fiscal year 2006 budget formulation which is ongoing.

4. Senator WARNER. Secretary Abraham, how would you respond to critics who claim that the new DBT is not necessary and that the Department of Energy (DOE) is requesting too much funding for safeguards and security?

Secretary ABRAHAM. Since September 11, the need to revise the DBT to better reflect newly-recognized realities has been apparent. The Department's DBT Policy is predicated on an interagency document titled "The Postulated Threat to U.S. Nuclear Weapons Facilities and Other Selected Strategic Facilities" (the Postulated Threat), developed jointly by the Department of Defense (DOD), DOE, the Nuclear Regulatory Commission (NRC), and the intelligence agencies. The Defense Intelligence Agency (DIA) published the new Postulated Threat document in January 2003, which reflects the post-September 11 increase of the potential terrorist threat. In turn, DOE used both the Postulated Threat, which provides a 10-year projection of the threat environment, and current intelligence estimates to develop our revised DBT Policy issued in May 2003.

The Department has and continues to make every effort to ensure funding requests are justified and cost effective. The DBT is used as a graded, performance-based design guide and performance metric—that is, it specifies a threat force based upon the Postulated Threat and upon considerations of the attractiveness of the asset, the ability of the adversary to accomplish a given objective with the asset, the resources required by the adversary to accomplish a given objective, and the potential consequence of adversary success. The effectiveness of the protection system against the DBT-derived threat is evaluated using a suite of computer simulations, performance tests, and expert analysis and is compared to the minimum performance criterion that is also contained in the DBT. Alternative system designs are subjected to this methodology to determine the most cost effective solutions. The costs for security systems that emerge from this rigorous process are those that are presented in DOE budget requests.

Furthermore, on September 8, 2003, I directed line managers and security professionals to emphasize finding or devising effective methods to make safeguards and security dollars go farther and to reduce the reliance on protective force manpower. To aid this effort, I directed the Office of Security and Safety Performance Assurance to assist the field in identifying and employing new security-related technologies that will allow our sites to improve their security postures while at the same time reducing their reliance on protective force manpower and their accompanying high funding requirements.

Understanding that the DBT Policy is due to undergo an annual review in May 2004, I have directed the Office of Security and Safety Performance Assurance to accelerate its review and present recommendations for action by June 30, 2004.

5. Senator WARNER. Secretary Abraham, what will be the impact to security at the NNSA and defense emergency management facilities if the amount in the Presi-

dent's budget request for safeguards and security in fiscal year 2005 above the fiscal year 2004 appropriated levels is neither authorized nor appropriated?

Secretary ABRAHAM. If the fiscal year 2005 President's budget request for safeguards and security funding request is not supported by Congress, NNSA facilities will not have the resources needed to meet the revised DBT Implementation requirements by the end of fiscal year 2006. Sites will continue to employ interim protection measures and compensatory measures, within available funding levels, to ensure that no special nuclear material or sensitive information is at risk.

PRICE-ANDERSON INDEMNIFICATION AUTHORITY

6. Senator WARNER. Secretary Abraham, Price-Anderson authority is the indemnification protection for the DOE contractors who work on nuclear matters, and it expires at the end of this calendar year. What would the impact be on the DOE if the Price-Anderson indemnification authority is not extended beyond its expiration at the end of this calendar year?

Secretary ABRAHAM. In the event that the authority for the DOE to include Price-Anderson protection in new DOE contracts expires at the end of this year, the DOE will be forced to use other mechanisms to indemnify its contractors or be unable to carry out many of its critical missions. In 2002, the authority for the DOE to extend Price-Anderson protection to new DOE contractors expired. Prior to the inclusion of interim authority in the National Defense Authorization Act for Fiscal Year 2003, the DOE used Public Law 85–804 to indemnify its contractors.

The existence of other indemnification mechanisms does not lessen the need to reauthorize the Price-Anderson Act in a comprehensive and long-term manner. The other indemnification mechanisms are less effective than Price-Anderson. Price-Anderson is the only source of indemnification that Congress designed specifically to assure prompt compensation to those who may be damaged by a nuclear incident without unnecessarily cumbersome litigation. The absence of Price-Anderson indemnification in a contract also denies the DOE the ability to exact civil or criminal penalties for a contractor's failure to comply with the DOE's nuclear safety regulations.

The Energy Bill contains a very good provision to authorize the continued use of the Price-Anderson Act. The administration has expressed its support for this provision. The Department will continue to work with Congress to ensure enactment of this provision this year.

7. Senator WARNER. Secretary Abraham, are there any contracts which you anticipate will be signed in fiscal year 2005 which would be impacted by the expiration of Price-Anderson authority?

Secretary ABRAHAM. Yes, Senator. Approximately 24 major contract awards (valued in excess of $10 million), and many others of lesser value, to be awarded from December 31, 2004 (the current expiration of Price Anderson) and the end of fiscal year 2005 would be affected by the unavailability of Price-Anderson.

Included in this group are contracts for the management and operation of: the Lawrence Berkeley National Laboratory; Los Alamos National Laboratory; and the Idaho National Engineering and Environmental Laboratory (INEEL). Each of these contracts will be competed during the subject time frame, and the competition may be affected by the unavailability of Price-Anderson.

SECURE TRANSPORTATION ASSETS

8. Senator WARNER. Secretary Abraham, are there enough secure transportation assets, including trucks and security force personnel and equipment, to meet the growing demand for such assets from both DOE's Defense Programs and Environmental Management (EM)?

Secretary ABRAHAM. We recognized that there are ever-increasing demands on the secure transportation assets managed by NNSA's Office of Secure Transportation (OST). We are increasing the funding for this important activity in fiscal year 2004 and 2005 to accommodate the heavy workload associated with the large number of weapons retirements as well as the shipments of waste from EM sites at Hanford and Idaho. To ensure that the resources of the OST are used to accomplish the highest priority missions of the DOE, a Secure Transportation Advisory Board (STAB) has been established. This group, headed up by a senior military officer, meets with representatives from the Office of EM regularly to allocate shipping resources.

The President's request for fiscal year 2005 will allow the NNSA to increase the agent workforce from its current posture of 230 to 290 by the end of the fiscal year.

Congress has also recently approved an NNSA request to reprogram $5 million to cover the early up front costs associated with the Hanford and Idaho campaigns.

QUESTIONS SUBMITTED BY SENATOR WAYNE ALLARD

WASTE INCIDENTAL TO REPROCESSING

9. Senator ALLARD. Secretary Abraham, on February 25, 2004, Assistant Secretary Roberson testified before the Strategic Forces Subcommittee and we had a good exchange on waste incidental to reprocessing (WIR). I would like to expand on this discussion with you. Please summarize the impacts of the Idaho District Court decision on the Department's cleanup plans at Savannah River, Hanford, and INEEL. If Congress does not resolve this issue, and if the court decision stands, what are the additional costs to the taxpayers for the cleanup at these sites?

Secretary ABRAHAM. There are cleanup actions at Savannah River, Hanford, and INEEL that the Department planned to conduct but can no longer conduct given the decision by the Idaho District Court. In general, these activities involve either closure of tanks at the three sites—which is predicated on classifying the residues as low-level waste—or activities to remove, stabilize and dispose of non-residue tank waste as low-level or transuranic (TRU) waste.

The Department's baseline cost for implementing its accelerated cleanup plans at Washington, Idaho and South Carolina is $52 billion, if some of the waste can be managed as either low-level waste or TRU waste. This baseline reflects fairly advanced and detailed planning by DOE, although it undoubtedly will continue to evolve in light of new information.

If the Department must treat all of the material as high-level waste, our very rough estimate, to get a sense of the order of magnitude of what would be involved, was that the cost would have increased to at least $138 billion. These figures, however, almost certainly dramatically underestimate what proceeding in this fashion would actually entail, because they do not include estimates for key aspects of what would be involved. These range from any kind of estimate for containers for the tanks themselves and associated hardware, to estimates of the direct transportation and disposal costs of this additional waste at the spent fuel repository, to estimates of the costs of delay that would ensue from the very complex logistics involved in transporting and disposing of this enormous additional amount of waste. Under this worst-case scenario:

- Retrieval of all tank reprocessing wastes and treatment for disposal in a geologic repository could require as much as $69 billion over the current Environmental Management program life-cycle cost baseline.
- As much as an additional $17 billion—and possibly more—would be required to exhume and dispose of tanks and associated components in a geologic repository.

It is difficult to estimate the additional costs the Department would incur in terms of Federal repository fees. Under existing cleanup baselines, the Department expects to produce approximately 20,000 canisters of high-level waste for disposal in a geologic repository; the fee associated with these canisters is estimated to be $10 billion. Under a scenario in which all tank reprocessing wastes currently anticipated to be removed and disposed of as low-level waste are instead prepared for disposal in a repository, the new baseline could approach 200,000 canisters. Thus, the fees could be significantly greater. This canister estimate does not include exhuming the tanks themselves nor associated piping, equipment, and concrete. At this time, the Department does not have estimates of the volumes for these additional materials that also might have needed to be placed in the repository.

10. Senator ALLARD. Secretary Abraham, are there additional risks associated with a delay in cleanup?

Secretary ABRAHAM. Accelerated cleanup of tank wastes at the Savannah River Site, Hanford, and the Idaho National Engineering and Environmental Laboratory represents the greatest risk reduction activity in the Department of Energy's (DOE) entire cleanup program. Given that DOE cannot proceed with cleanup plans that were based on its waste classification order without legal clarification, at a minimum DOE will leave wastes in the tanks longer while it is awaiting that clarification.

That wait quickly becomes decades longer if DOE has to make major changes to its disposal plans. For example, if all the tank waste has to go to a deep geologic repository, rough projections suggest that it would take four decades longer just to treat the waste for disposal—not taking into account the huge logistical effort that

would be involved in transporting it, let alone what would be involved in transporting the tanks themselves.

The longer the waste remains in the aging storage tanks, some of which are over 50 years old, the greater the risk of leaks.

In addition, there is no advantage to the public health and safety from disposing of this material in a deep geologic repository rather than as DOE has planned, and dangers to workers increase significantly from following the repository approach. Specifically, DOE's analyses performed to support evaluation of alternatives for closure of tanks under the National Environmental Policy Act (NEPA) process show:

- Risks to the general public arising from radiation doses resulting from the waste after disposal remain essentially unchanged if waste residues are grouted in-place in the tanks, versus if the tanks are exhumed and disposed of in the repository.
- Risks to the general public arising from accidents associated with disposal activities likewise are essentially unchanged.
- Worker risks increase sevenfold if the tanks are exhumed, largely because of increased radiological exposure and industrial accidents associated with chopping up the almost 250 large tanks and associated equipment.

11. Senator ALLARD. Secretary Abraham, do the States have any say on the Department's cleanup plans at these sites?

Secretary ABRAHAM. Yes, the States do have a say on the Department's cleanup plans at these sites. DOE's plans to be agreed to by the States that host our DOE facilities, meet the requirements of Federal Facility Agreements among DOE, the States, and the Environmental Protection Agency (EPA), and comply with environmental laws under which the States have an explicit regulatory role.

Closure of the Hanford and Idaho tanks will be considered in connection with the Resource Conservation and Recovery Act (RCRA). Closure of the Savannah River tanks will be considered in connection with the South Carolina-issued wastewater treatment operating permit to meet Clean Water Act limits. After closure of the tank structures, Hanford, Idaho, and Savannah River will then remediate tank farm soils under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), during final closure.

Under RCRA, States approve DOE closure and post-closure plans to verify compliance with RCRA. Closure plans detail DOE's steps to perform partial and/or final closure to meet closure performance standards. Post-closure plans describe the activities DOE is to perform and the frequency during the post-closure care period. These plans contain the information States need to determine whether the activities described in the plans comply with applicable requirements. In addition, the EPA and States concur on DOE CERCLA Records of Decision for remediation of tank farm soils as part of site closure activities. The EPA also has authority under CERCLA to require DOE to address and remediate, as appropriate, any future releases or threats of releases of radioactivity from the tank farms.

In addition to State authority over tank closure activities, DOE sites have performed or are performing analyses under the National Environmental Policy Act to engage States and the public in decisions about tank closures.

12. Senator ALLARD. Secretary Abraham, why did the Department in the fiscal year 2005 budget request propose to set aside $350 million for cleanup at these sites? Why didn't you just request the funds outright?

Secretary ABRAHAM. The Department's fiscal year 2005 budget request proposed to set aside $350 million for cleanup at these sites to inform Congress that legal uncertainty prevents the Department from executing certain cleanup activities at Hanford, Savannah River, and the Idaho National Engineering and Environmental Laboratory.

If the Department had requested funding to proceed with these activities outright, it would have been making $100-plus million investments in facilities and technologies—with no confidence that it had the authority to classify the waste as it had done, and hence with no assurance that the waste form it spent this money creating had a disposal pathway. The Department concluded that it should only proceed with this cleanup work if either the lower court decision were overturned or if legislation were enacted affirming the Department's authority to classify these materials as waste incidental to reprocessing.

SPECIAL EXPOSURE COHORT

13. Senator ALLARD. Secretary Abraham, many of the workers at Rocky Flats are concerned about the slow pace of the implementation of the Energy Employee Occupational Illness Compensation Program Act. Because of the delay, some of these workers have suggested that Rocky Flats be designated a Special Exposure Cohort facility. Given that the Department was unsuccessful in gaining congressional approval for reprogramming funding for accelerated implementation, how does the Department plan to address its backlog of claims?

Secretary ABRAHAM. We share your frustration with the pace of our implementation of the Part D program, caused in large part by our original underestimation of the number of applications we would receive. In 2001, DOE estimated that the Part D program would receive 7,500 applications over 10 years, when in fact we have already received over 23,000 in the first 3 years.

The $33.3 million fiscal year 2004 appropriations transfer request was part of the four-part comprehensive plan to eliminate the entire backlog. Of this request, $23.3 million has been approved. These funds will be used to ramp up operations to eliminate the backlog as soon as possible. However, the $10 million reduction will make it more difficult for the Department to meet its goal to eliminate the entire backlog of applications by the end of calendar year 2006.

WORKER BENEFITS

14. Senator ALLARD. Secretary Abraham, as you may know, cleanup at Rocky Flats has accelerated to the point that the facility may close a year early. While this is exciting news for the DOE and the contractor, many workers could find themselves out of a job much earlier than expected. In fact, some who would have qualified for a pension and medical benefits might not qualify if the site closes early. Will the DOE restore benefits to workers that would be lost if the site closes early?

Secretary ABRAHAM. The Department appreciates the committee's support of accelerated cleanup and is closely monitoring the situation at Rocky Flats. The Department is aware that early closure may impact pension and health benefits for some set of resident workers at our 2006 closure sites. The Department, working with our contractors, will evaluate the possible impacts of early closure and measures to mitigate any such impacts.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. AKAKA

RADIOLOGICAL SOURCES IN IRAQ

15. Senator AKAKA. Secretary Abraham, I have been concerned about what we have done to secure radiological sources in Iraq. It is an issue I have raised with both Secretary Rumsfeld and yourself in the past. This problem extends beyond yellow cake and includes radioactive sources used for medical and industrial purposes—the basic ingredients of a dirty bomb. I understand that DOE has insisted that it has the responsibility for controlling all radiological material in Iraq. This resulted in several months of delay before DOE contractors were able to collect and store this material. When is DOE going to have a final plan ready for disposing of this material, and how certain are you that you can account for all these radioactive sources now in Iraq?

Secretary ABRAHAM. Under Project Maximus, DOE cooperated with the Department of Defense for the removal of approximately 1,000 radiological sources from a former Iraqi nuclear research center. A total of 1,920 curies were evacuated to the United States. These sources are currently being processed at a secure DOE facility and are all expected to be disposed of by 2006.

429 low-level sources were left behind at the former Iraqi nuclear research center. These sources constituted a total of 6 curies and do not meet DOE's threat criteria for a dirty bomb. The Department of Energy is currently coordinating with the Department of State to assist the Iraqi Ministry of Science and Technology to conduct additional search and recovery operations for radiological sources. This plan should be completed in 2005.

U.S. NUCLEAR WEAPONS PROGRAM

16. Senator AKAKA. Secretary Abraham, I am concerned about the signal being sent to other nations by your proposal to develop new nuclear weapons. Why

shouldn't other States see our actions as giving them the green light to pursue their own nuclear weapons program?

Secretary ABRAHAM. First, I would like to clarify that the United States has not embarked on the development of any new nuclear weapons. Indeed, we have not developed and fielded a new warhead for nearly 20 years. At this stage, only concepts and feasibility studies are being considered. Any development of new types of nuclear weapons would require presidential approval and authorization and appropriation of funds by Congress.

In fact, the United States has a solid track record of reducing its nuclear forces and nuclear weapons stockpile through both unilateral and bilateral initiatives. Our record should go far to negate the complaints of those who would highlight, often in a misleading way, certain activities in U.S. nuclear weapons R&D in order to call into question the U.S. commitment to nuclear nonproliferation. For this reason, I would like to highlight some of our key accomplishments.

- The United States has not enriched uranium for nuclear weapons since 1964, nor produced plutonium for nuclear weapons since 1998. We have no plans to produce these materials for weapons in the future.
- Since 1992, the United States has maintained a unilateral moratorium on nuclear testing.
- The administration's 2001 Nuclear Posture Review articulated a reduced reliance on nuclear forces in achieving U.S. national security objectives in light of a growing ability to achieve these objectives with conventional capabilities.

When these achievements are viewed in light of the unparalleled U.S. commitment to nuclear nonproliferation efforts worldwide, it is clear that we have made remarkable progress toward reducing reliance on nuclear forces in our national security strategy and, overall, made the world a safer place.

ROBUST NUCLEAR EARTH PENETRATOR

17. Senator AKAKA. Secretary Abraham, since the Robust Nuclear Earth Penetrator (RNEP) is designed to destroy deeply buried targets, it must rely on the accuracy of intelligence to be successful. Yet U.S. intelligence failed to detect the location of weapons of mass destruction (WMD) programs in Libya, Iran, and North Korea, and detected chemical, biological, and nuclear weapons programs in Iraq that apparently did not exist. Given that record, I wonder if the RNEP will be successful in deterring attacks from other countries or terrorists if they know our intelligence is not capable of pinpointing their location. What are the criteria that will be used to judge whether the weapon should go into development? Will it be based on technical feasibility alone?

Secretary ABRAHAM. NNSA and the DOD are currently engaged in a 6.2/2A study for the RNEP program. The RNEP program is a three year study to examine whether or not the B61 and B83, both existing warheads, could be modified through case hardening and other engineering changes to provide the United States with the ability to hold at risk a set of targets in hard rock geologies. This study effort being conducted at the weapons laboratories considers the following factors: nuclear safety, system trade offs (design and cost), technical risk analysis, life expectancy issues, R&D requirements, qualification and certification requirements, life cycle maintenance/logistics, delivery system/platform issues. The weapons labs and plants will also develop the workload and process development plans.

The military services are responsible for preparing a draft concept of operations (CONOP) for RNEP, which would specify employment scenarios that discuss, among other things, minimum acceptable target location errors. The military services will use the CONOP as a basis to review and analyze the required military characteristics, stockpile to target sequence issues and develop the necessary plans for flight testing, maintenance, and logistics.

Moving beyond the a 6.2/2A study will require approval of the Nuclear Weapons Council, the President, and Congress consistent with the requirements of section 3143 of the National Defense Authorization Act for Fiscal Year 2003.

QUESTION SUBMITTED BY SENATOR HILARY RODHAM CLINTON

DEPARTMENT OF ENERGY'S BUDGET

18. Senator CLINTON. Secretary Abraham, the fiscal year 2004 budget for the DOE's Office of Electric Transmission and Distribution (OETD) has apparently been reduced by nearly 35 percent. This is especially ironic in light of the worst blackout

in history in August 2003, and the recognition on both sides of the aisle that the aging, capacity-constrained electric power delivery infrastructure in the United States must be renewed and upgraded at the earliest possible time. The congressional conferees made it very clear in the Energy and Water Appropriations Conference Report that they expected OETD to ". . . continue its high temperature superconductivity research and development at the requested level of $47,838,000." Despite this expectation, DOE has now cut the superconductivity budget to $32 million. Beyond my concern with the impact of the cuts on the power grid, as a member of the Armed Services Committee, I am especially concerned about the negative impact these cuts could have on the military. High temperature superconductors are a unique class of materials that have the potential for revolutionizing a variety of military propulsion and directed energy weapon applications where high power density, as well as reduced size and weight at reasonable cost is absolutely essential. What are your plans for restoring the superconductivity budget to the level requested by the President for fiscal year 2004?

Secretary ABRAHAM. Superconductivity is a priority in modernizing and expanding America's electricity infrastructure. The President's National Energy Policy specifically recommended that the DOE expand research and development on superconductivity, and this was reflected in our fiscal year 2004 request of approximately $47.8 million for the High Temperature Superconductivity (HTS) program. However, of the total $69.5 million enacted for research and development in the OETD in fiscal year 2004, $25.8 million was provided for congressionally-directed projects, leaving $43.7 million to be allocated to four program areas: HTS; Transmission Reliability; Electric Distribution Transformation; and Energy Storage. This funding covers the superconductivity research as well as the development of tools and products for grid reliability. Many of the tools and technologies being deployed are helping to mitigate the potential for another blackout similar to that which impacted New York in August 2003. In fiscal year 2004, the amount of non-earmarked funding available does not fully support the $47.8 million Departmental request level for HTS. The Department is working hard to minimize the impacts of Congress's fiscal year 2004 funding reduction while keeping critical programs operational.

[Whereupon, at 11:31 a.m., the committee adjourned.]

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2005

THURSDAY, MARCH 25, 2004

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

THE ROLE OF U.S. NORTHERN COMMAND AND U.S. SPECIAL OPERATIONS COMMAND IN DEFENDING THE HOMELAND AND IN THE GLOBAL WAR ON TERRORISM

The committee met, pursuant to notice, at 9:34 a.m. in room SH–216, Hart Senate Office Building, Senator James M. Inhofe, presiding.

Committee members present: Senators Warner [chairman], Inhofe, Roberts, Allard, Collins, Levin, Lieberman, Reed, Bill Nelson, E. Benjamin Nelson, Clinton, and Pryor.

Committee staff members present: Judith A. Ansley, staff director; and Leah Brewer, nominations and hearings clerk.

Majority staff members present: Charles W. Alsup, professional staff member; Regina A. Dubey, research assistant; Gregory T. Kiley, professional staff member; Elaine A. McCusker, professional staff member; Paula J. Philbin, professional staff member; and Scott W. Stucky, general counsel.

Minority staff members present: Richard D. DeBobes, Democratic staff director; Evelyn N. Farkas, professional staff member; and Michael J. McCord, professional staff member.

Staff assistants present: Sara R. Mareno, Nicholas W. West, and Pendred K. Wilson.

Committee members' assistants present: John A. Bonsell, assistant to Senator Inhofe; Darren Dick, assistant to Senator Roberts; Jayson Roehl, assistant to Senator Allard; Derek J. Maurer, assistant to Senator Collins; Christine O. Hill, assistant to Senator Dole; Russell J. Thomasson, assistant to Senator Cornyn; Frederick M. Downey, assistant to Senator Lieberman; Elizabeth King, assistant to Senator Reed; William K. Sutey, assistant to Senator Bill Nelson; Eric Pierce, assistant to Senator Ben Nelson; Andrew Shapiro, assistant to Senator Clinton; and Randy Massanelli, assistant to Senator Pryor.

OPENING STATEMENT OF SENATOR JAMES M. INHOFE

Senator INHOFE. Our hearing will come to order. We have a chairman who is going to be a little bit late and so we will start

without him. We are meeting today to receive testimony on the U.S. strategy and capabilities to combat terrorism and defend our homeland, in review of President Bush's defense budget request for fiscal year 2005 and the Future Years Defense Program (FYDP).

I welcome our distinguished witnesses: Assistant Secretary of Defense for Special Operations and Low Intensity Conflict (ASD–SOLIC), Tom O'Connell; Assistant Secretary of Defense for Homeland Defense (ASD–HD), our previous colleague and good friend Paul McHale; Commander of the Northern Command (NORTHCOM), General Ralph Eberhart; and Commander of U.S. Special Operations Command (SOCOM), General Bryan Brown.

I commend each of you for your leadership and the dedication that you have provided to our Nation. We appreciate you very much.

Clearly, the events of September 11 have forever changed our sense of security and the manner in which we must organize and equip the Armed Forces to defend our Nation from the threats of the 21st century. Three years ago we did not have a Department of Homeland Security (DHS). We did not have an ASD–HD. We did not have a combatant command responsible for defending the United States homeland. Three years ago, SOCOM was primarily focused on supporting regional combatant commanders with Special Operations Forces (SOF). Today SOCOM has much-expanded responsibilities and is a key player in the global war on terrorism.

Such complex organizational changes are not accomplished without hard work, trial and error, and dedicated leaders such as those before us today. A principal purpose of this hearing is to hear your reports on the progress you have made in establishing and reorienting your organizations to combat terrorism abroad and defend our Nation here at home.

The men and women of our Armed Forces, together with the coalition of nations, have performed brilliantly in the post-September 11 world. Our Nation and the world are safer as a result of the professionalism and dedication of our military forces. But much remains to be done to protect our citizens, our Nation, and our allies from the threats of the 21st century, and in particular the scourge of terrorism.

I have to say that I just returned from both Afghanistan and the northern part of Iraq and as far down as Djibouti. I have never been so impressed with the attitude and the commitment and the dedication of our troops. In light of some of the negative types of reporting around here, they are really holding up well, and you are all to be commended for your leadership.

As we meet this morning, hundreds of thousands of our service members are engaged in military operations at home and abroad in the ongoing global war on terrorism. These brave men and women and their families deserve our continued support and they will get it. This committee's responsibility will continue to be to ensure that these troops remain the best equipped, the best trained, the best led, and the most capable forces in the world.

In doing so, we must understand the challenges they face today and those they will face tomorrow. The insights of our witnesses today are an indispensable part of this process.

We have a number of important issues to discuss with our witnesses this morning. Secretary O'Connell and General Brown, SOF have been at the forefront of our military operations in the global war on terrorism. The operational demands on SOCOM have been very high. The ability of SOCOM to sustain this high operational tempo (OPTEMPO) is of great importance, of great concern. This committee wants to ensure you have the people, the capabilities, and the resources to accomplish your many missions and prepare for the future, and we look forward to your assessment, on which we will base our decisions.

While much attention is focused on operations in Iraq and Afghanistan, we must not lose sight of other challenges facing SOCOM. The Horn of Africa, where I just came back from, and other areas of sub-Saharan Africa, where I also have been in the last week, are unsettled and potential havens for terrorists. Narcotrafficking and terrorism in the Andean ridge and Central Asia is on the rise. The demand for U.S. SOF to help train coalition nations' Armed Forces has never been higher. The committee looks forward to your views on these issues.

Secretary McHale and General Eberhart, you have both stood up entirely new organizations over the past 2 years. The office of the Assistant Secretary for Homeland Defense was established in February 2003 and NORTHCOM was established in October 2002, but did not achieve full operational capability until September 11, 2003.

Both organizations are focused on the critical missions of defending the United States homeland from attack. Your testimony on the progress you have made and what remains to be done are vital to the work of this committee. When you testified before this committee on April 8 last year, the chairman emphasized that you were the first incumbents in your respective positions, critical new positions, and that you were an integral part of the continuing transformation of our military that is so much broader and deeper than merely purchasing new weapons systems or using more advanced technology. You are an integral part of redefining how we think about the entire concept of defending this great country.

The Department of Defense (DOD) has unique capabilities to contribute to the effort to secure our homeland, including providing assistance to State and local first responders in the event of future disasters, whether natural or manmade. You gentlemen represent the leadership that will bring those capabilities to bear when needed, working closely with the DHS and other Federal, State, and local authorities.

We look forward to hearing your testimony regarding the DOD's ability to assist in homeland security, any factors that may inhibit your ability to provide such assistance, and how your organization, working with other combatant commanders and other agencies as a team, can defeat those who threaten us.

Our witnesses today symbolize the unity of effort across the DOD to combat terrorism and defend our homeland from the threats of the 21st century. We thank you for your service and look forward to your testimony.

Senator Levin.

STATEMENT OF SENATOR CARL LEVIN

Senator LEVIN. Thank you, Mr. Chairman. Let me join you in welcoming our witnesses this morning. There is just no way to overstate the significance of the subject of today's hearing. Combatting terrorism in the United States and abroad is the imperative of national security. Two weeks ago, the Director of Central Intelligence (DCI) told this committee that the al Qaeda leadership structure that we charted after September 11 is seriously damaged, but that the group remains as committed as ever to attacking the U.S. homeland. Even catastrophic attacks on the scale of September 11 remain within al Qaeda's reach.

Then Director Tenet added the following: "What I want to say to you now may be the most important thing I tell you today. The steady stream of Osama bin Laden's anti-U.S. sentiment ensures that a serious threat will remain for the foreseeable future with or without al Qaeda in the picture." Those are the words which he emphasized, and I think rightly so: "with or without al Qaeda in the picture," there is a serious threat that remains to us.

Moreover, he said, "For the growing number of jihadists interested in attacking the United States, a spectacular attack on the United States homeland is the brass ring that many strive for."

The DOD and the U.S. military are on the front line of the war against terrorism abroad and play a critical supporting role defending our country against terrorists on U.S. territory. Since our witnesses last testified before this committee, we have captured increasing numbers of al Qaeda operatives and financiers in Afghanistan, Iraq, and elsewhere, due in large part to improved tactical intelligence efforts and the relentless hard work of our SOF.

In Iraq, special operators helped capture Saddam Hussein and they continue to corner militants. Meanwhile, SOF are providing counterterrorism and counterinsurgency training in countless places, from the Philippines, to Colombia, to Mali, to Mauritania. Indeed, last year the SOF reached the highest OPTEMPO in their entire history, dating back to 1942.

The initiative of this committee under Senator Warner's leadership—and Secretary Cohen and others were involved at that time—in establishing the SOCOM and its special funding arrangement and the work of the command training and equipping these forces primarily through the 1990s has paid off. Just last year the SOCOM was tasked with leading the military component of the global war on terrorism.

This committee has asked the DOD to report to us on the organizational and other changes that the command must make to execute this role and the operational, legal, and policy parameters, including the role of Congress, governing SOCOM's counterterrorism activities.

I look forward to hearing from Secretary O'Connell on the policy aspects of this issue, and from General Brown on how this new role is affecting OPTEMPO, training, procurement, and research and development (R&D).

I would also like to ask our witnesses the questions Secretary Rumsfeld reportedly raised in an internal memorandum last October: Are we winning or losing the global war on terrorism? Are the

changes we have made and are making too modest and incremental?

The domestic military component of the war on terrorism is the responsibility of the ASD–HD, together with the newly-created NORTHCOM. Combatting terrorism in the United States focuses more heavily on antiterrorism or force protection and consequence management efforts that rely for their success on the cooperation of Federal organizations as well as State, local, and private entities.

The critical component is intelligence sharing. I look forward to hearing from our witnesses about the state of intelligence-sharing efforts with law enforcement and intelligence agencies, Federal, State, and local.

Additionally, I have been long concerned that the establishment of the Terrorist Threat Integration Center (TTIC) appears to duplicate and overlap to some extent the function of the Central Intelligence Agency's (CIA) Counterterrorism Center (CTC). We cannot accept a situation where no single entity within our government is finally responsible for the analysis of foreign intelligence relating to the terrorist threat within the United States.

I have been promised, we have been promised—many of us who have raised this issue, including Senator Collins as the chairman of the other committee that has jurisdiction—we have been promised by Governor Ridge for over a year now that Congress would receive a written explanation of the roles of CTC and TTIC and where the final responsibility lies. It has not been forthcoming. So I also look forward to hearing from Secretary McHale and General Eberhart whether they share that concern about the lack of the single entity with responsibility for foreign intelligence analysis.

I join you, Mr. Chairman, in thanking all of our witnesses for their service and for the improvements that we have seen.

STATEMENT OF SENATOR JOHN WARNER, CHAIRMAN

Chairman WARNER [presiding]. Thank you, Senator Levin, and thank you, Senator Inhofe, for commencing the hearing.

We will lead off with Secretary O'Connell, followed by General Brown and Secretary McHale, followed by General Eberhart. We will have your entire statements placed into the record, so you may select those portions you wish to highlight.

STATEMENT OF HON. THOMAS W. O'CONNELL, ASSISTANT SECRETARY OF DEFENSE FOR SPECIAL OPERATIONS AND LOW INTENSITY CONFLICT

Secretary O'CONNELL. Thank you, Mr. Chairman. Chairman Warner, Senator Levin, distinguished members of this committee: I would like to thank you for giving me this opportunity to speak to you about special operations and the war on terrorism. I will keep my opening remarks brief and, as Senator Warner suggested, will submit my entire remarks for the record.

I believe today's challenges to our SOF, our entire military, and our Nation parallel those faced during World War II. Today, as then, these challenges will be met by forces remarkable in their quality, self-sacrifice, courage, integrity, and dedication. At the tip of the spear are the remarkable men and women of SOCOM. These

special operations warriors and their service to the Nation inspire my staff and the SOLIC element of the Pentagon to work diligently every day to support and assist in our mandated oversight role.

I can assure you that the relationship between my organization in the Pentagon and SOCOM have never been better. I have a close partnership and friendship with General Doug Brown. Together we work to ensure that SOF continue to be equipped, trained, and deployed to meet the most critical needs of our Nation.

I had the privilege of visiting many of our SOF personnel in Iraq during Christmas week. These quiet professionals are indeed inspirational. It is clear to me that the capabilities of our forces so evident in Afghanistan and Iraq were direct results of critical decisions made over a decade earlier to expand and improve our SOF.

In fact, about a month ago General Brown and I had the opportunity to spend some extended time with Senator Warner in Florida, and it was very interesting retracing our various perspectives of what went on back in those days. But much of that work came from this committee. Thank you. Well done. We have received outstanding support for our efforts by the Members and staff of Congress. We will need your continued support as we ask for additional resources to further enhance our forces.

We are making progress and are taking the fight to terrorist organizations wherever we can find them. SOF are in the vanguard of that effort by having proved their mettle and value to the Nation in both Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF).

That said, the pace and intensity of our operations cannot be diminished or relaxed in any way or at any time. It is indeed an honor for me to be here with General Brown. He represents truly the finest that our Nation has to offer.

Thank you for your interest in and continued support of the entire special operations community and I would be happy to take your questions later on, sir.

[The prepared statement of Secretary O'Connell follows:]

PREPARED STATEMENT BY HON. THOMAS W. O'CONNELL

Chairman Warner, Senator Levin, and distinguished members of this Committee, I appreciate your invitation to update you on the progress that Special Operations Forces (SOF) are making on the war on terrorism being fought today. I would also like to thank you for the vision and foresight shown by Congress in 1987 in establishing the United States Special Operations Command (SOCOM) and creating the Assistant Secretary of Defense for Special Operations and Low Intensity Conflict (ASD–SOLIC) within the Department of Defense (DOD). As a result of your actions, we were not faced on September 12 with the task of recreating a capacity to wage unconventional war against an unconventional adversary. We had in hand the basic building blocks for a global military campaign against terrorism, both relying upon the traditional regional combatant command structure and by establishing SOCOM as a supported command.

Prior to 1987 the United States had a general practice of only creating SOF after the advent of a crisis and typically disbanded the force once the crisis had passed. Units were created for specific tasks, and dissipated after the conflict had passed. But as was discovered during Operation Desert One, the aborted hostage rescue in Iran, humans and their skills are more important than hardware. SOF cannot be mass produced, they cannot be readily created "after the fact," and you need a standing policy voice at the senior level of the DOD which can explain effectively to other policy makers what these "silent warriors" can, and cannot, do.

I exercise civilian oversight of special operations and low-intensity conflict activities of the DOD. One of my responsibilities is to ensure that SOF are appropriately employed and senior policy makers understand their capabilities as well as their

limitations and also the risk that some missions might entail. Not only am I an advocate and a defender of SOCOM and SOF, but I am also charged with making sure that SOF continues to be the best trained, best equipped, most flexible and effective fighting force available to our country.

Representatives from my office spend a significant amount of time at SOCOM headquarters in a joint effort to develop the SOF program and budget. I actively participate in the SOCOM Board of Director's meetings, the Command's executive resource forum. This joint effort produces a SOF program and budget that emphasizes force readiness and sustainability, provides sufficient force structure to meet the demands of the geographic warfighting commanders and the Commander, SOCOM in his role as a supported commander.

My office provides executive program direction and DOD sponsorship of the Technical Support Working Group (TSWG) through ASD–SOLIC's Combating Terrorism Technology Support Office (CTTSO) which addresses the Nation's interagency combating terrorism requirements. The TSWG conducts the national interagency research and development (R&D) program for combating terrorism requirements. The TSWG is a unique forum with membership from more than 80 organizations across the Federal Government. The Assistant Secretary of Defense, Homeland Defense actively participates. Projects are selected following a coordination process with other U.S. Government agencies and with three countries—the United Kingdom, Canada, and Israel—with whom we conduct cooperative R&D programs. The TSWG has an impressive record of successful projects that have resulted in:

- Specific building design guidelines for protection against blast.
- Countermeasures to defeat improvised explosive and chemical/biological devices.
- Personal protection equipment.
- Equipment for military and civilian response teams for chemical incidents.

Numerous TSWG developed systems are deployed supporting our troops today. We continue to serve the technology needs of the warfighter in eliminating the threat itself. The Secretary of Defense has noted repeatedly that to address any of a myriad of threats we shall be facing, it is necessary to shorten the decision cycle for force definition, equipping, and deployment. Through its numerous requirements-driven successes and by continuing to reflect partnered cooperation across its subgroups and among Federal agencies, the Combating Terror Technology Support Program has shown it can meet that expectation.

I am responsible for the DOD's worldwide antiterrorism policy and oversight of our antiterrorism programs. My office works closely with that of the Assistant Secretary for Homeland Defense (ASD–HD) on domestic aspects. The SOLIC office establishes antiterrorism standards and monitors the DOD component antiterrorism programs to reduce vulnerability. My office co-chairs the Antiterrorism Coordination Committee—Senior Steering Group with the Joint Staff Director of Operations. This is the senior corporate body within the DOD charged with the responsibility to foster cooperation and coordination of antiterrorism activities. The most critical function of the forum is to act as a clearinghouse for policy recommendations to the Secretary of Defense concerning the protection of DOD personnel and their family members, facilities, critical infrastructure, and other material resources from terrorist acts.

Global War on Terrorism

When I appeared before you last year, I identified several priorities I would have as the ASD–SOLIC. These priorities were not comprehensive but did reflect general areas or issues that require special commitment and attention. The first and the most obvious and of immediate importance—continued execution of the global war on terrorism. I believe that the United States is at a critical moment in this war. We have realized initial successes and achieved a degree of momentum that together support a general assessment that we are making progress in winning this war. But sustaining that momentum and continuing the successes against terrorists and their supporters now and into the future is just as critical.

For the past 2-plus years we have examined how the attacks of September 11 have changed how we define "defense," and how, as a consequence, the war on terrorism is fundamentally a different type of war than those we have fought before. Prior to then we perceived and responded to the threat of global terrorism in terms of transnational criminal activity, albeit politically or religiously motivated. Today's international terrorist is far different than those of the past, as terrorists now have global reach, infrastructure, and significant resources. While SOF were always a part of the equation in addressing terrorism, the posture and role of SOF today in combating and defeating global terrorism has changed.

Indeed, that is true of the entire military and the entire concept of national defense. Previously, we were postured to defend against a state projecting force across great distances, and we built extensive capabilities to provide us early warning and tools to deter aggression. But the potential destructiveness of an attack of the type we suffered on September 11 means that we are no longer afforded an opportunity to determine an "appropriate response," nor make a clear determination of when decisive action is too little or too late. For reasons we all understand, SOF have become a critical military tool in taking the war to the terrorists before it can be fought on our own soil or that of our allies.

SOF are uniquely qualified for that mission. Because of those qualifications and the demands of the war on terrorism, the DOD has been structuring and shaping SOF in different ways. While SOF were originally conceived to be used as forces for supporting or leveraging larger conventional forces in battle, or for undertaking discrete, limited strategic missions, the new reality has given SOF a prominent, frontline, essential role in the defense of our Nation. The most important manifestation of this change is the designation of SOCOM to be the supported (or "lead") command in the war on terrorism. SOCOM will plan and execute key missions as a supported combatant command. SOCOM is expanding to directly plan combat missions against terrorist organizations and execute those missions as the supported command, while maintaining the role of force provider and supporter to the geographic combatant commanders.

This means SOF will continue to support regional commanders, while also at times being supported by other combatant commands. SOF are still the first in and last out in many contingency operations around the globe. SOF must be ready to act at any time, in all environments, overtly or clandestinely; alone or in concert with other U.S. personnel and coordinating foreign forces.

Before I discuss further what has changed and what our new national security imperatives require of SOF, I want to note explicitly that one of the most important factors and essential considerations for us has not changed: the importance of the special operator. In terms of missions performed and in the qualities of the individuals who undertake those missions, the special operations operator is truly unique and requires a different type of mindset on our end in terms of planning and support. These warriors must be capable of conducting strategic operations in all tactical environments with language proficiency, cultural awareness, political sensitivity and the ability to maximize information age technology. Recruiting, training, and retaining SOF will not be without challenges. The analysis to date indicates that we will have the right numbers to sustain the forces the Nation needs. Training instructors have been added to the staff of the John F. Kennedy Special Warfare Center and the Naval Special Warfare Center. The number of training slots has increased for Army SOF, civil affairs, and psychological operations. In addition, special pay and bonuses have helped retention in these highly specialized areas and units. We will continue to closely monitor our ability to have the right numbers not only in operational units today but also in the training pipeline that produces the forces we require in the future. In many respects force management is the most critical problem facing SOF. We must never lose sight of what we call the "SOF Truths:"

- Quality is better than quantity.
- SOF cannot be mass produced.
- Competent SOF cannot be created after a crisis occurs.
- Humans are more important than hardware.

These truths have been reaffirmed by the superb performance of our SOF in Afghanistan, Iraq, Colombia, the Philippines, and many other countries around the world. I am keenly aware of how very much the dedication and commitment of our special operations professionals are appreciated by every member of this committee.

One effect of the global war on terrorism has been a significant increase in operational tempo (OPTEMPO) for SOF. The DOD has added 3,700 additional personnel during the period fiscal year 2004–2009 for SOCOM. This additional strength growth supports the manning requirements to wage the global war on terrorism. The increases are focused on fixed and rotary-wing aviation, SEAL teams, civil affairs, psychological operations, and theater special operations commands.

Recently, I had the privilege to visit both SOF and conventional forces in Iraq. These forces make us proud—and should cause potential adversaries to pause before seeking to harm the United States. The commitment of SOF to pursuing terrorists to all corners of the globe is embedded in their mindset. The experience gained in defeating the Taliban and disrupting al Qaeda in Afghanistan, destroying the brutal regime in Iraq and aiding friends and partners in other corners of the globe, such

as Colombia and the Philippines, has matured our warfighters to a keen edge. Our challenge is to maintain that edge.

I also saw that the nature and importance of the new demands on SOF are apparent to the operators in the field, and they are clearly doing more with the additional manpower, funding and materiel we have given them to meet the new challenges to our national security. To meet that challenge, there are necessary increases in support and training. This level of support is required to meet the challenges of the war on terrorism. The change from a regional, reactive posture to a global, proactive posture could not be achieved nor sustained with the levels of funding, materiel, and forces that we had before September 11.

Transformation

A second area of emphasis is transformation of SOF. SOCOM is transforming SOF capabilities to meet the formidable challenges associated with waging war against terrorist cells scattered across the globe. The SOCOM is building the capability to maintain sustained operations in areas where terrorist networks are operating. It is investing in critical "low-density/high-demand" aviation assets that provide SOF with the mobility necessary to deploy quickly and to execute their missions quickly. Investments in key command, control, and communications enhance support to the war on terrorism. The SOCOM has added personnel to enhance the ability to sustain worldwide deployments and 24-hour-a-day operations. Any future SOF will be:

(1) Sized, trained, and equipped to engage in any threat environment against any adversary

(2) Culturally, linguistically, politically, and regionally focused

(3) Rapidly deployable

(4) Capable of conducting exceptionally—precise discriminate strikes against specific targets

(5) Able to achieve operational and tactical superiority

(6) Operationally and strategically agile joint forces that can develop and execute unconventional, audacious, and high pay-off courses of action.

The fiscal year 2005 President's budget submission for SOCOM is $6.546 billion. This funding request will continue the modernization and transformation effort started in fiscal year 2004. It will enable SOCOM to:

(1) Transform SOF capabilities to better locate and track individual terrorists across the globe and conduct small surgical operations with minimal risk to the employed force.

(2) Maintain sustained operations in areas where terrorist networks are operating.

(3) Continue to invest in critical "low-density/high-demand" aviation assets that provide SOF with the mobility necessary to deploy quickly and to execute their missions quickly.

(4) Continue to invest in key command, control, and communications to more effectively support the war on terrorism.

(5) Support the personnel SOCOM has added to better support worldwide deployments and 24-hour-a-day operations.

This funding is essential to sustaining the necessary operations in the war on terrorism and to ensuring we can meet essential transformation requirements. The hallmark of SOF is that they are adaptive to change and characterized by creativity. The success of change and transformation is the ability to maximize the ability of the human to think and problem solve while taking advantage of the rapid pace of technology. Transformation of SOF is a journey, not a destination and there is no mark on the wall that will indicate we are finished transforming. Transformation is a continuing process that not only anticipates the future, but also seeks to create that future.

DOD Counternarcotics Efforts/Counternarcoterrorism

Each year, my office expends a great deal of time, effort, and resources to keep drugs from crossing our borders. This is a complex process that requires coordination and funding from all levels of government agencies, local and state law enforcement, and the foreign countries in which we assist in the eradication of crops and disruption of their transportation to the United States. A large portion of the profits from drug sales indirectly support terrorist organizations—another reason we are working hard to reduce the supply of drugs.

Illegal drug use exacts a heavy toll on American society every year. Illegal drugs account for billions of dollars in direct and indirect costs including health care, lost revenue due to crime, social welfare costs and lost productivity. While cocaine con-

tinues to be the single most serious drug threat, heroin, synthetic drugs, methamphetamines, and marijuana are also serious, and in some cases, increasing problems. Additionally, there are clear linkages between international narcotics trafficking and international terrorism. Global and regional terrorists threatening United States interests can finance their activities with the proceeds from narcotics trafficking. Terrorist groups such as the Revolutionary Armed Forces of Colombia (FARC), al Qaeda in Afghanistan, and groups around the world partially finance key operations with drug money. The DOD, with our counterparts in the Department of State and other Government agencies, as well as allies such as the United Kingdom, seeks to systematically dismantle drug trafficking networks, both to halt the flow of drugs into the United States, and to bolster the broader war on terrorism effort.

In accordance with statutory authorities, we use counternarcotics resources as effectively and efficiently as possible to achieve national and DOD counternarcotics priorities. We focus on programs that fulfill statutory responsibilities and use military-unique resources and capabilities, and continue to advance the national priorities of the National Drug Control Strategy. Our counternarcotics authorities and funding are an effective combination that supports war on terrorism efforts and the implementation of the DOD's Security Cooperation Guidance. Furthermore, they contribute to our efforts to secure the Nation's borders and establish full maritime, ground, and air domain awareness of the approaches to our shores. We work closely with Assistant Secretary McHale's staff on these matters.

In the international arena, the DOD provides much of its counternarcotics support through deployments and programs to train and furnish intelligence and operational support for drug detection, monitoring, and provide equipment to partner counterdrug forces. These countertrafficking methods aim directly at disrupting the terrorist drug trade and finance networks that train partner-nation military forces.

This, of course, includes cooperative military-to-military programs in which countries grant access to our military operators and enable access to target areas. Our authorities permit us to: maintain, repair and upgrade equipment, transport personnel, establish bases of operations or training facilities, assist with detection, monitor and communicate trafficking activities, construct roads, fences, and lighting installations, establish command, control, communications, and computers (C^4) networks, provide intelligence analysis assistance and conduct aerial and ground reconnaissance.

Domestic CN Support

ASD–SOLIC works closely with U.S. Northern Command (NORTHCOM) and ASD–HD on counternarcotics support to domestic law enforcement. The focus of this support is managed through Joint Task Force-Six (JTF–6) in El Paso, Texas which provides active duty and Reserve missions in areas of engineering support, aerial and ground reconnaissance, transportation and logistics support and intelligence. These counternarcotics missions provide excellent training in real world situations and enhance domestic security. In order to alleviate stress on our Active-Duty Forces, the DOD first turns to the National Guard to provide support to domestic law enforcement. To effectively meet this objective, the DOD is transitioning the National Guard counterdrug effort out of missions that are not militarily unique (cargo-mail inspections, maintenance and logistics, marijuana eradication), to those that are militarily unique (air/ground reconnaissance, intelligence analysis, training for law enforcement agencies), and is enhancing National Guard support to law enforcement along the southwest border, and at linguist centers in California and Washington.

FOREIGN CONSEQUENCE MANAGEMENT (FCM)

I also oversee DOD policy on support to Foreign Consequence Management (FCM) operations. FCM operations focus on providing specialized assistance in response to use of chemical, biological, radiological, nuclear, chemical, explosives (CBRNE) against friends or allies, installations, vital interests, or U.S. military forces overseas.

An event overseas involving CBRNE would likely impact not only our friends and allies, but potentially U.S. civilian and military personnel stationed abroad. It is in our interest to be ready to help save lives and reduce suffering in the aftermath of such an event, just as many of our friends assisted us in the aftermath of the September 11 attack.

The primary responsibility for managing and mitigating the effects of a foreign CBRNE incident resides with the host-nation government. The Department of State is the lead Federal agency for all DOD support to FCM operations. When requested

by the lead agency, and approved by the Secretary of Defense, the DOD supports the State Department in FCM operations, as appropriate.

The DOD geographic combatant commanders command and control all DOD support to FCM operations within their respective areas of responsibility (AORs), in coordination with the appropriate U.S. Chief of Mission. We work closely with the Department of State to ensure that our contingency plans for support to an FCM operation are fully coordinated. Our geographic combatant commanders have been refining their contingency plans and exercising their capabilities for providing support to an FCM operation, should they be called upon to do so.

In closing, I would like to assure you that I will continue to work closely with my colleagues here with me today to make this Nation safe and ensure that U.S. SOF continue to be the best trained, best equipped, most flexible, and effective force available to our country.

Chairman WARNER. Thank you, Mr. Secretary. We particularly welcome you. The position you hold is one created by Congress. I participated in the legislation many years ago. You bring to this post—you are too modest to talk about it—your own exceptional career in the military in earlier years, and you are most ably qualified to take on the post and, to the extent that I have had the privilege of working with you, you approach it with tremendous zeal and enthusiasm.

Secretary O'CONNELL. Thank you, Senator.

Chairman WARNER. I can understand how serving with such a distinguished soldier as General Brown, whose career reaches back to Vietnam, would be so rewarding. General, I recall very well that picture in your office where you are a young first or second lieutenant flying those old helos.

General BROWN. Yes, sir.

Chairman WARNER. So why do you not go ahead now, General.

STATEMENT OF GEN BRYAN D. BROWN, USA, COMMANDER, UNITED STATES SPECIAL OPERATIONS COMMAND

General BROWN. Mr. Chairman, Senator Levin, distinguished members of the committee: It is an honor to appear before you today to report on the posture of SOCOM. With your permission, I would like to make a few remarks and then submit a longer statement for the record.

As the Commander of SOCOM, I have defined our priorities as the global war on terror, readiness of our force, and transformation. Focusing the command's efforts in these areas will ensure that our SOF are decisive as they defend America on the battlefield today, but are also postured for success in the future.

The men and women of SOCOM are deployed today around the world under the operational control of geographic combatant commanders. This is a force unlike any other. For the most part, they work in small numbers in remote locations. They often work with indigenous forces and in many areas are constantly ready to operate quickly, day or night, in response to perishable intelligence. They are attacking the enemy at every opportunity, far from our shores, to prevent hostile action here at home, and are prepared to assist NORTHCOM's homeland defense efforts if requested.

SOF's selection process, high levels of training and maturity are the keys to their success. They maintain America's security and help create stability and opportunity in countries like Afghanistan and Iraq. Quite frankly, they are a highly trained, combat ready force, and are doing an incredible job.

Mr. Chairman, SOF are in high demand and are employed in greater numbers, as you pointed out, than any time in our history. In certain skills, such as civil affairs and psychological operations, where most of the force is either in the Reserve or National Guard, we are stressed. However, our OPTEMPO is manageable. Today all requests for SOF are closely reviewed by my headquarters and require my personal approval prior to any deployment. This ensures the right forces are provided to the geographic commanders as they fight the battle. It allows our component commanders to closely monitor deployment and manage personnel tempo.

We cannot win the global war on terrorism without maintaining a superior warfighting excellence and that requires a commitment to readiness. Over the years we have built the most capable active, Reserve, and National Guard SOF the world has ever seen. To maintain this force and remain dominant on this new battlefield, we are continuously reviewing all our requirements, all our capabilities, to ensure the correct focus of our programs is on our global war on terrorism strategy.

Mr. Chairman, we are also transforming our force. We are researching new techniques, such as the feasibility of unmanned aerial vehicles (UAVs) to conduct psychological operations missions in denied areas, and reviewing proposals for the Next Generation Gunship in concert with the United States Air Force to replace our very effective but aging AC–130 gunship platforms.

We are anxious to employ the capabilities of a safe, reliable, and maintainable CV–22 Osprey. Additionally, we are looking across the DOD and industry to identify cutting edge technologies for our operators and we are rapidly acquiring those that provide immediate benefit.

Our transformation efforts will remain focused on the cornerstone of special operations capability, our people. They are specially selected and highly trained. Special operations warriors remain the key to our success and the budgetary authority provided by Congress makes all this possible.

In conclusion, Mr. Chairman, I want to thank you and the members of the Senate Armed Services Committee for your continued outstanding support to our soldiers, sailors, airmen, marines, and our DOD civilians. Additionally, thanks for your visits to our troops in the field around the world. These visits are important and they do not go unnoticed by our special operators. The support of this committee and the support of the Secretary of Defense, as well as our great relationship with the ASD–SOLIC, Tom O'Connell, helps make our success possible. SOF are more capable, more lethal, because of your efforts.

I look forward to answering your questions.

[The prepared statement of General Brown follows:]

PREPARED STATEMENT BY GEN BRYAN D. BROWN, USA

Mr. Chairman and distinguished members of the committee, it is an honor and privilege to report to you on the state of the United States Special Operations Command (SOCOM). Despite the many new and varied challenges we face, your men and women of SOCOM are performing magnificently. Today's Special Operations Forces (SOF) are the most capable in the world.

Secretary Rumsfeld expanded SOCOM's role to include leading the Department of Defense's (DOD) military global war on terrorism planning effort, and commanding select global war on terrorism operations. In addition, it is important that we

maintain our world-class ability to organize, train, and equip SOF as originally mandated by Congress. SOCOM's special operators, highly trained and armed with the best equipment possible, are defending our Nation far from America's shores around the world.

We are standing side-by-side with our interagency, conventional, and coalition partners fighting the global war on terrorism. SOF, in support of the geographic combatant commanders, have taken the offense to the enemy, to strike him where he lives, to bring the battle to him, and to bring him to justice. Maintaining America's security and way of life, through dedicated operations far forward, cooperation with our allies around the world, planning for sustained operations, and homeland defense is today's reality. We will engage the enemy far from America's shores, and provide requested support to U.S. Northern Command (NORTHCOM). As we move into the future, our priorities will remain the global war on terrorism, readiness of our forces, and continuous transformation to match our capabilities with tomorrow's battlefield requirements.

Our skilled SOF warriors continue to achieve successes far beyond their limited number. SOF on the ground in Afghanistan are central to the search for al Qaeda and Taliban leadership, organizing and assisting security and defense forces, reconstruction of infrastructure, and helping the Afghan people build a free independent country. During combat operations in Iraq, United States Central Command's (CENTCOM) tasked special operations to lead two of three major battle fronts, and we were closely integrated into the conventional force of the third. Today, SOF are integrated directly into the CENTCOM force structure, taking the fight to the enemy, and helping create stability and opportunity for the people of Afghanistan and Iraq.

GLOBAL WAR ON TERRORISM

Success in Global War on Terrorism

SOCOM's number one priority is the global war on terrorism. SOF, deployed in support of the geographic combatant commanders, have been involved in every phase of the war. SOF were the first forces on the ground in Afghanistan and Iraq, and were then integrated with conventional forces more closely than in any war in U.S. history. The synergy from the joint, combined, and interagency efforts produced dynamic results on the battlefield.

Iraq

From the onset of planning, SOF were assigned key roles in Operation Iraqi Freedom (OIF) to fix the Iraqi V Corps in the north to prevent it from reinforcing Baghdad; to conduct special reconnaissance and direct action missions in western Iraq; to locate and destroy Iraqi mobile missiles; to support Combined Forces Land Component Command movement from the south toward Baghdad; to conduct support and stability operations throughout the country; and to interdict borders and lines of communication. SOF were also assigned missions to seize key airfields which they accomplished on occasion by conducting airborne parachute assaults. SOF played a critical role in the capture of most of the "deck of cards" key personnel within the Iraqi regime, and they are still capturing high value targets today. SOF seized and protected sensitive areas and prevented Sadam Hussein from creating an ecological disaster by dumping massive quantities of oil into the Arabian gulf and lighting oil fields on fire as was done during Operation Desert Storm. Following the collapse of Saddam's regime, SOF have continued to play a major role in stability operations with the long term goal of assisting in the building of a free and democratic Iraqi nation.

In northeastern Iraq, the Combined Joint Special Operations Task Force-North (CJSOTF–N) conducted unconventional warfare, special reconnaissance, direct action, and call-for-fire missions against Iraqi forces arrayed along the "Green Line." This task force, designated Task Force (TF) Viking, was commanded by a special operations officer, and was under the operational control of SOCCENT.

TF Viking's first order of business was unconventional warfare. U.S. Army SOF infiltrated Iraq and linked up with Kurdish military and political leaders to assess their capabilities and begin the campaign. Beginning on March 22, special operations MC–130 Combat Talons flew through heavy Iraqi anti-aircraft fire and landed a contingent of SOF teams and U.S. Air Force Combat Controllers. Rapidly expanding, TF Viking grew to more than 50 individual Special Forces A-teams (ODA) in the northern area of operations.

After taking command of the U.S. Army's 173rd Airborne Brigade and the U.S. Marine Corps' 26th Marine Expeditionary Unit (MEU) TF Viking integrated them with the Kurdish Peshmerga. Their coordinated offensive effort crushed 700 en-

trenched Ansar aI Islam fighters. TF Viking used close air support to mount a successful offensive against Iraqi armor and artillery, and took the city of Kirkuk by force. This superb combined and joint force also negotiated the orderly capitulation and occupation of Mosul and secured the northern oilfields.

The CJSOTF-West (CJSOTF–W) was tasked with denying the Iraqi military their ability to launch missiles into neighboring countries or coalition formations. CJSOTF–W's area of responsibility (AOR) included the entire western desert area and all of the landmass from Baghdad south to the border of Kuwait. In the west, CJSOTF–W controlled a combined and joint force. In the south, SOF were integrated directly into the conventional force's operations.

The mission in the western desert area was to deny the Iraqi military their ability to launch missiles into neighboring countries or coalition formations. SOF were flown into west using MC–130 Combat Talons, MH–47Es, MH–60Ls, MH–60Ks, and were supported by MH–60 direct action penetraters and AC–130 gunships. The effect of conventional and SOF air and organic fire support to SOF teams on the ground, particularly in the early days of combat action, allowed the CJSOTF–W to overwhelm the Iraqi military and dominate the western desert.

SOF successfully captured and controlled key infrastructure to include a key dam, vital lines of communication and airfields in the west. Using Army SOF helicopters, conventional tanks and mobile rocket launchers, SOF were able to dominate the Iraqi military in the western desert and support conventional forces as they moved on Baghdad.

In the southern area between the Kuwaiti border and Baghdad, the primary missions of CJSOTF–W were strategic reconnaissance and unconventional warfare. SOF teams were inserted deep into Iraq by U.S. Air Force Special Operations helicopters and quickly conducted reconnaissance of key locations. This information, passed on to ground conventional maneuver commanders, was a significant contributing factor to the speed and audacity of the ground campaign. Other SOF teams dispersed throughout the area and began to work with Iraqi nationals sympathetic to the coalition cause. These teams identified and rooted out Fedayeen Saddam, Baath party members, regime death squads, and other terror cells.

The Naval Special Warfare Task Group (NSWTG) was given the task of securing strategic targets in the Iraqi littoral areas. This area was important because of oil terminals, the oil metering and manifold stations, and the two oil pipeline support valves. In addition, this was the initial avenue for providing seaborne humanitarian aide to Iraq.

Under cover of darkness, U.S. Navy Sea, Air, and Land (SEAL) swept down from helicopters and boats to secure five targets in unison. In less than 40 minutes the critical nodes were secured and the threat of an ecological disaster was eliminated.

Following these successful missions conducted on the first night of the war, NSWTG quickly moved into position to support the requirements of both land and maritime commanders. They assisted in safeguarding the waterway leading to the city of Basrah, and helped clear the waterway and port of Umm Qasr. NSTWG was also vital in securing the U.S. Marine Corps' Marine Expeditionary Force's (MEF) lines of communication and logistics, which allowed the Marines to conduct their offensive movement toward Baghdad.

Afghanistan

The CJSOTF—Afghanistan (CJSOTF–A) is the special operations component of Combined Joint Task Force–180. CJSOTF–A is working to rebuild infrastructure, and establish a positive rapport with the local populace. They are also directly involved in operations against anti-coalition forces within Afghanistan.

Deployed in small detachments throughout Afghanistan, SOF are working directly with the Afghan National Army, conventional U.S. forces, and local governments. This close working relationship allows SOF to identify problems and work solutions with local governments. This relationship also allows SOF to gather information about anti-coalition efforts invaluable to our long-term efforts.

One of the primary goals of CJSOTF–A is to capture or kill al Qaeda and Taliban forces. SOF, together with Afghan National Army units, other coalition partners, and conventional U.S. forces have conducted multiple operations throughout Afghanistan. These operations resulted in the capture of numerous anti-coalition forces and the destruction of hundreds of weapons and thousands of pounds of enemy explosives.

Psychological Operations

Dissemination of truthful information to foreign audiences in support of U.S. policy and national objectives is a vital part of SOF's effort to secure peace. Culturally oriented psychological operations (PSYOP) units with selected language skills are

supporting commanders and other U.S. Government agencies in operations ranging from humanitarian assistance to weapons collection. Additionally, our PSYOP forces have an aggressive program of providing handbills to children explaining the threat of unexploded ordinance and minefields. These forces, along with SOF civil affairs units, are force multipliers. They use nonviolent means in often violent environments to convince enemy, neutral, and friendly nations and forces to take action favorable for the U.S. and its allies.

Civil Affairs

Civil affairs forces are key to our long term success in the global war on terrorism. Civil affairs specialists can quickly and systematically identify critical requirements needed by local citizens in war. They can also locate civil resources to support military operations, help minimize civilian interference with operations, support national assistance activities, and establish and maintain liaison dialogue with civilian aid agencies and civilian commercial and private organizations. They help commanders in the field meet their moral obligations to the civilian population.

Civil affairs forces are currently working with local governments of Iraq and Afghanistan and international humanitarian organizations to rebuild infrastructure and restore stability. They are coordinating projects to repair wells, provide food to hungry children, bring medical care to families, and are hard at work getting school systems rebuilt to stem the tide of radical thought through education.

Lessons Learned

The SOCOM team continues to meet and exceed all expectations and achieve remarkable results on the battlefield. Because of our heavy engagement in both Operation Enduring Freedom (OEF) and OIF and other significant efforts in support of the global war on terrorism, SOF are learning many important lessons. We are incorporating these lessons into our future activities in order to ensure our joint team remains decisive. Some of these lessons learned include:

1. SOF training and doctrine were proven effective. There were many instances where our special operators on the ground, sea, and air identified previous training methodology and exercise programs as the key to their success. They were able to draw directly from skills developed through SOF training programs to accomplish missions. Specifically, they commented on the "out of the box" thinking and problem solving required in the training programs as well as SOF direct combat skills.

2. SOF/conventional force integration is critical. SOF apportioned to CENTCOM were directly integrated into all phases of the effort. The interoperability of SOF reached new levels of performance. SOF and conventional forces under the command of CENTCOM were integrated at the staff level and interoperable at the tactical unit level in both planning and execution. This made both SOF and the conventional forces much more effective.

3. Engage and deploy SOF early. The ability to quietly employ SOF early in any circumstance allows the elimination of key enemy strategic targets and preparation of the battlespace for follow-on forces. In Iraq SOF were inserted early to fix Iraqi units, prevent SCUD launches, and assist our conventional land force's advance.

4. Blue Force Tracking (BFT) is a critical capability. We were able to provide superb situational awareness of SOF internally and with our warfighting partners—on the ground, sea, and in the air due to proactive fielding of BFT beacons. This program will reduce the incidence of fratricide and greatly enhance our situational awareness on a fluid, dynamic, and often non-contiguous battlefield.

5. SOF logistical support needs improvement. SOF by nature have unique logistical requirements and a limited organic support structure. Support from the Services is critical to sustaining SOF on the battlefield. The solution is the creation of a SOF logistics doctrine and we are building it. .

6. Fratricide is still a problem. Although we have come a long way in protecting our forces with BFT, it alone IS not the answer. We need extensive training coupled with technology like BFT. SOCOM is engaging the Services and industry to identify technology to further prevent fratricide and protect our most precious asset—our warriors.

SOCOM focus and direction

When SOCOM was established by Congress in 1987, its primary role was to support the geographic combatant commanders by providing them with trained and equipped special operations personnel. While the command continues to function in a supporting capacity for the geographic combatant commanders, the Secretary's guidance on the global war on terrorism included an additional role as a supported command for planning DOD's military effort in the war on terrorism. In order to

effectively fulfill this new role as a supported command, we have reorganized our headquarters with the creation of the Center for Special Operations (CSO).

The CSO is a joint and interagency directorate with responsibility for war on terrorism-related operational issues. By transforming the headquarters, SOCOM ensures it is postured to perform "its new role as a "warfighting" command while maintaining its title 10 responsibilities for a world-class capability to train, man and equip our forces.

We are designing a scalable deployable Joint Special Operations Task Force Headquarters which will allow the capability for seamless planning and execution of operations spanning the spectrum of conflict. This new structure will provide SOCOM the flexibility to, when directed, command operations. Essentially, our newly created CSO serves as SOCOM's new "warfighting" hub. Free of administrative functions, the Center's sole responsibility is planning, supporting, and executing special operations in the war on terrorism.

Supported vs. supporting command

The mission of SOCOM changed to include planning direct combat missions against terrorist organizations around the world and executing those missions as the supported command when directed. This designation of SOCOM as the "supported command" does not relieve us from the responsibilities to provide specially selected, highly trained, equipped, and capable forces to the geographic combatant commanders,

The geographic combatant commanders will normally execute operations as the supported commander in their theater of operations. SOCOM's designation as supported commander allows for centralized planning, expands options for mission execution, and permits a more flexible command relationship structure. However, when directed by the Secretary of Defense, the Commander of SOCOM will serve as the supported commander for specified operations.

Establishment of the SOCOM Joint Operations Center (JOC) greatly increased the capability of the headquarters to monitor and, when directed, to command and control antiterrorism operations. Real-time BFT and unmanned aerial vehicle (UAV) feeds combined with web-based technologies provide detailed situational awareness. Use of the Defense Collaborative Tool Suite (DCTS) enables real-time simultaneous coordination with geographic commanders, agencies, the Joint Staff, and others globally. This greatly reduced planning and execution timelines.

The CSO is enabling us to meet new requirements associated with the global war on terrorism. Responsibilities in the CSO include reviewing global strategies, development of courses of action, and formulating recommendations for operational force employment by the Commander, SOCOM through the Chairman of the Joint Chiefs of Staff to the Secretary of Defense. The CSO can plan, direct, monitor and assess combat operations directed against selected targets anywhere on the globe.

Intelligence

Practical experience and our own exercises have demonstrated the counterterrorism problem set is, at its very core, an intelligence based problem set. In other words, we have to find out who the bad guys are, where they are, and have the right forces in the right place at the right time to capture them. Essential to the desired end state is immediately actionable and accurate intelligence predicated by expert intelligence analysis. Unlike the Cold War where it was easy to find the large mechanized force that was hard to kill, the terrorist is very hard to find and comparatively easy to capture or kill.

SOCOM, in coordination with the Under Secretary of Defense for Intelligence and the Intelligence Community, is developing an all encompassing intelligence, surveillance, and reconnaissance (ISR) strategy. This strategy will develop the kind of capabilities, like signals intelligence (SIGINT), imagery intelligence (IMINT) and unattended sensors that channel the proper intelligence information to our analysts and operators so we can capture terrorists regardless of where they are on the globe. This persistent ISR concept is a combination of tireless analysis, human intelligence (HUMINT), and SOF focused ISR systems that will dwell on a target for as long as the mission requires. We must be proficient to take the fight to the terrorist before he has the opportunity to strike.

One of the avenues for ensuring robust intelligence is to have a strong interagency relationship. At SOCOM we have over 100 interagency representatives tightly integrated into our counterterrorism efforts, significantly supporting our goal to find, fix, and finish the terrorist threat.

READINESS

Force readiness is a SOF priority and is crucial to mission success. People, training, and equipment are key factors that determine SOF readiness.

People

SOF are made up of some of America's most dedicated men and women from all of the Services. They are mature, high-caliber professionals with intelligence, stamina, problem-solving skills, mental toughness, flexibility, determination, integrity, and extraordinary strength of character and will.

To accomplish SOF missions, highly specialized skill sets are required, including mastery of technology, cultural and regional awareness and expertise, and skilled in both low-tech as well as high-tech solutions. To achieve the required level of proficiency and guarantee SOF relevance, recruitment, accession, development, and retention of the force must be closely managed.

A small number of people, carefully selected, well trained, and well led, is the key to our quality force. However, we must have the correct mix of active, Reserve, and National Guard personnel to meet the challenge. Our current operations tempo (OPTEMPO) is sustainable and programmed manpower increases will improve our capability to meet the demand on our force. Areas of concern include our U.S. Army PSYOP and civil affairs forces, where 96 percent of the force is in the Reserve component or National Guard and long-term mobilization is difficult. To improve these areas over the next 5 years we are adding four PSYOP companies (Reserve), two PSYOP companies (active), two civil affairs battalions (Reserve), and two civil affairs companies (active).

Another concern is combat power and our ability to move on the battlefield. We are addressing these areas by adding two U.S. Navy SEAL teams (active), and one U.S. Army MH–47 aviation battalion (active). We are also adding 4 additional U.S. Air Force AC–130 gunships, 10 MC–130 Combat Talon II aircraft and associated personnel to support forward deployed and rotational requirements while maintaining our training standard. We believe people are more important than hardware and closely monitor our deployment schedules to ensure we care for both our military force and their families are properly cared for. However, adding SOF is not a short term fix.

The projected force and equipment additions do not provide immediate relief because SOF cannot be mass-produced. The service members who volunteered to join SOF following the events of September 11, 2001, and successfully completed the arduous SOF selection and training regimen, entered SOF's deployable force over the past few months. Since competent SOF cannot be created immediately, we must plan ahead to create units sufficient in size, capability, and speed of response to meet our requirements. It is also critically important that we are able to retain these individuals who have vast expertise and experience, especially as they become retirement eligible at the peak of their value to the Armed Forces. Retention of these highly qualified personnel is critical and the competition with the civilian world has never been greater.

Budget

Our fiscal year 2005 budget request is $6,566 million or 1.6 percent of the DOD budget and some 48,000 personnel. Yet these limited SOF resources greatly enhance the effectiveness of conventional military forces by providing essential leveraging capabilities all the while ensuring that "must succeed" special operations are completed with the absolute certainty and professionalism the Nation demands. No where has the benefit of this powerful investment been clearer than during operations in Afghanistan, Iraq and elsewhere in the global war on terrorism. However, SOF have been remarkably effective no matter what the nature of the conflict.

Long term success in the global war on terrorism depends largely upon our ability to rapidly employ a sustainable mix of capabilities with little warning. Terrorist threats today are elusive, pervasive, asymmetric, and adaptive. Non-traditional approaches to planning and tactics are required. To meet this challenge, SOCOM refocused resources to address three vital challenges: planning and directing the global war on terrorism; preserving readiness of our SOF; and transforming SOF to more agile, adaptive, and responsive warriors.

SOF are comprised of specially selected, trained, and organized special operations soldiers, sailors, airmen, and marines from the Armed Forces. Their training, education, maturity, initiative, and experience set them apart from all others in the DOD. SOCOM's fiscal year 2005 President's budget emphasizes the SOF philosophy of funding the right training and equipment for the right people, so they can arrive at the right objective, and most importantly, producing mission success. Fundamental to mission success is the readiness of our SOF warriors and their unique skill

sets, including the Reserves and National Guard who fight side by side with our Active-Duty Forces. Our readiness efforts also extend to support programs for families of our SOF.

SOCOM faces a strategic environment characterized by rapid geopolitical change and technological advancement, evolving threats, and potential emerging new roles. These factors require innovative thinking and new ways to shape change to provide the widest array of options in protecting American's interests. To meet this challenge, SOCOM is pursuing a holistic approach to transformation through training, organizational structure, and technology. Key resourcing initiatives identified by SOCOM will support transformation of special operations in the realm of materiel, organization, training, and doctrine. These initiatives include, but are not limited to: Naval Special Warfare's 21st Century Realignment, Army Special Operations Aviation 21st Century Reorganization initiatives, improved Theater Special Operations Command capabilities, enhanced training curriculums, maintenance and sustainment of key SOF assets, and providing the optimum mix of gear for our SOF operators.

The SOCOM fiscal year 2005 President's budget requests the resources necessary to continue to provide full spectrum, multi-mission global SOF that provide a comprehensive set of unique capabilities for the Nation.

Acquisition

A real strength of SOCOM is the commander's acquisition authority, which is similar to that of the Services. Among the responsibilities assigned to SOCOM under title 10, section 167, is developing and acquiring "special operations-peculiar" equipment. SOF-peculiar equipment is based on technologies that enable our operators to become faster, stealthier, more precise, lethal, survivable, and sustainable. With exceptional support from Congress, the Secretary of Defense, Services, other government agencies (OGA), and our industry partners, these authorities have been instrumental in equipping today's world-class SOF team to perform a broad range of SOF missions.

Although our people are certainly SOF's most important asset, maintaining and improving materiel capabilities remains SOCOM's most difficult challenge. Our near term objective is to continue to realign our requirements and programs to better address the global war on terrorism mission. We will be eliminating those systems that do not support the global war on terrorism and using the saved resources to invest in future capabilities. Our programs must be transformational, not merely a reinvestment of what we are doing today. SOCOM must continue to invest in making our SOF more capable in all tactical environments. Our current Flagship Programs, the Advanced Seal Delivery System (ASDS) and the CV–22 Osprey continue to be a very important part of SOF's future. Additionally, our research and development (R&D) activities are refocusing on discovering and exploiting technologies in the following areas:

Individual As A Platform

We have always said the individual is the indispensable element of SOF. In order to ensure we "equip the man" not "man the equipment," we are making the SOF Warrior System a Flagship Program. This will create the appropriate focus on every consideration affecting our warfighter: budgeting, recruitment, training, doctrine, and equipment. We need to develop enhanced protection, armor, lightweight sustainment systems, night vision devices and better weaponry. The SOF operator must be able to manage his signature in all environments and see the enemy regardless of concealment. We need to do this without increasing weight and complexity.

Power

Power sources have been, and continue to be, both a major problem and critical need for SOF. A significant amount of the weight carried into combat is from batteries. SOF urgently needs power sources that are small, lightweight, and inexpensive while providing high power, long-endurance, interchangeability, and multiple recharging features. These batteries or fuel cells must give off little or no signature and offer the SOF user an extended operating capability without suffering degradation or requiring re-supply.

Sensors

We will pursue a family of unmanned, semi-autonomous or autonomous systems (air, sea, land, and in the future, space) ranging in size from tactical to micro and nano, accompanied by persistent intelligence and denied area access technologies to meet the needs of SOF operators. These systems must possess a reduced logistical footprint and withstand the rigors of various climates and operating environments.

CONCLUSION

SOF are deployed around the world engaged in the global war on terrorism fighting for our way of life. Your continued support of our soldiers, sailors, airmen, marines, and DOD civilians is the foundation of our success. Thank you. I look forward to answering your questions.

Chairman WARNER. Thank you, gentlemen.

I had the privilege, together with Senator Stevens and Senator Hollings, to visit your forces in Iraq last week and then thereafter your forces in Afghanistan. You can rightfully be very proud of them.

General BROWN. Sir, we are.

Chairman WARNER. It is extraordinary.

My first question—and it will come to you, gentlemen, and you might reflect on it, if you have not. Secretary Rumsfeld announced a rather widespread long-range program of changing base structures and deployment at forward bases. I think it has a significant and positive impact on your special charter in the defense plan.

Now, Secretary McHale, we are glad to welcome you. You likewise have a strong set of credentials to take on this position, most notably having been a Member of Congress here in years past. So you understand this branch quite well and I expect you will be able to deal with us a little better.

STATEMENT OF HON. PAUL McHALE, ASSISTANT SECRETARY OF DEFENSE FOR HOMELAND DEFENSE

Secretary MCHALE. Mr. Chairman, I will try not to disappoint you.

Chairman Warner, Senator Levin, distinguished members of the committee: It is a privilege to appear once again before this body. To be entrusted with national security responsibilities at any time, but especially at this point in our country's history, is a solemn and sacred duty. From past experience, I fully appreciate and respect your oversight obligations pursuant to article I, section 8, of the Constitution.

My goal today is to provide the committee with a candid, accurate assessment of our current homeland defense capabilities and to describe emerging DOD mission requirements. Because I have submitted my formal testimony for the record, I would like to provide only a brief introduction at this point and thereafter allow maximum time for member questions.

I appear before you today in my capacity as ASD–HD. My position was created by Public Law 107–314, the National Defense Authorization Act for Fiscal Year 2003. The statutory duty assigned to the ASD–HD is the overall supervision of the homeland defense activities of the DOD.

I was nominated by President Bush in January 2003 and confirmed by the Senate 1 month later. As a result, I have been serving in this office for just over a year. In the interim, much has happened.

Although my written testimony focuses in some detail upon the organizational changes within the DOD following the attack of September 11, 2001, I think the members of this committee are primarily interested in the recent steps that we have taken to ensure

the physical safety of our citizens, their property, and our constitutional freedoms.

The painful losses of September 11 produced not only grief, but resolute action. With regard to homeland defense, our Department's capabilities fall essentially into two categories: the warfighting defense of the United States; and military support to civilian authorities following an enemy attack. I would like to address these issues in that order.

Our primary responsibility within the DOD is not merely to respond to enemy attacks, but, more importantly, to deter and defeat them. Each day since September 11 the men and women of the North American Air Defense Command (NORAD), commanded by General Eberhart, have patrolled the air space over Canada and the United States. In a completely integrated effort of U.S. and Canadian capabilities, the United States Air Force, Air Force Reserve, and Air Force Air National Guard have protected the skies over major metropolitan areas, critical infrastructure, historic monuments, and government facilities.

These dedicated professionals have executed over 34,000 air defense sorties and responded to over 1,700 requests from the Federal Aviation Agency (FAA) to intercept potential air threats. The number of flights and their location changes daily and each day's flight data is shared in advance with the DHS. This level of air security is unprecedented in our Nation's history.

Nearly every homeland defense exercise which we now conduct includes a threat scenario involving a terrorist takeover of a commercial airliner. As a result, our air defense training is realistic, focused, and subject to well understood rules of engagement.

We have implemented similar improvements in our domestic land defense capabilities. While fully recognizing that domestic counterterrorism is a lead law enforcement mission, we now have active duty soldiers and marines on alert every hour of every day, prepared to deploy to any location within the United States where a land defense against a terrorist attack might be required.

Such quick reaction forces did not exist on September 11, 2001. They do now and they are both trained and ready.

Even more importantly, we are working closely with the National Guard Bureau to ensure that the Army Guard forces will be mission-ready to provide immediate land security within their own States. In my judgment, the protection of critical infrastructure will likely become a core National Guard mission during the next decade.

It is also important to note that the DOD has recently been assigned, with the signing of Homeland Security Presidential Directive 7, a lead responsibility for the protection of the defense industrial base. The achievement of this new mission will require a close coordination of private and public, military and civilian, security capabilities. The task is both enormous and essential.

We now recognize that a 21st century maritime defense requires a common operating picture of the maritime domain, real-time tracking of threat vessels, appropriate ships in resources to support maritime intercept operations on the high seas against terrorists potentially armed with weapons of mass destruction (WMD), and

a command and control structure that maximizes both Navy and Coast Guard capabilities.

Our goal is to defeat any maritime threats with an integrated, layered defense long before such threats are able to enter our ports. To that end, the Secretary of Defense recently signed an expanded maritime intercept operations execute order. Through realistic maritime exercises and unprecedented Navy-Coast Guard cooperation, we are making daily progress toward that goal.

Similar improvements have been made with regard to DOD's ability to support civilian authorities following a terrorist attack. Thirty-two National Guard WMD Civil Support Teams (CSTs) have been trained, equipped, and certified by the DOD. Twelve new teams will be created this year. We are planning to establish a total of 55 CSTs, sufficient to ensure that every State and territory will be served by a CST.

If a more substantial WMD response is required, we have established, equipped, and organized large Joint Task Forces (JTFs) at dispersed locations throughout the United States sufficient to ensure that we will be able to respond to multiple near-simultaneous terrorist attacks involving WMD. Although this capability is not fully developed, we are working hard and with a sense of urgency to get there.

In my view, multiple simultaneous attacks are not only possible; they are fully consistent with terrorist operational doctrine. Even in the absence of a large-scale enemy attack, the DOD civil support responsibility is substantial. Last year DOD acted on 75 separate civil support requests from more than 20 civilian agencies, including the January 2004 deployment of the Marine Corps' Chemical-Biological Incident Response Force to the Dirksen Building when ricin was detected in Senator Frist's office.

Finally, we at DOD recognize that an effective defense against terrorist activity requires a close daily partnership between our Department and the newly-created DHS. Our missions are complementary and mutually reinforcing. To make certain that partnership is a reality, employees from my office now work full-time in the Homeland Security Operations Center.

A Defense Coordination Office has been established by DOD personnel at DHS. A memorandum of agreement for mutual support has been negotiated between the two Departments, and I meet routinely and regularly with the senior DHS leadership. Our homeland security and homeland defense exercise programs have now been fully integrated. The scenarios are challenging and involve complete inter-agency participation.

This summary should make it clear that DOD, working with our partners in public and private sectors at the local, State, and national levels, is fully committed to the most capable homeland defense ever planned or executed in our country's history. Despite great progress, we are not comfortable. We are not satisfied. Rather, we are dedicated with a real sense of urgency to ever-improving homeland defense capabilities.

In that effort, our men and women in uniform stand in common cause with the members of this committee. Success in the global war on terrorism is a national imperative, our generation's greatest challenge.

I look forward to your questions.

[The prepared statement of Secretary McHale follows:]

PREPARED STATEMENT BY HON. PAUL MCHALE

INTRODUCTION

Chairman Warner, Senator Levin, distinguished members of this committee: Thank you for inviting me back to address the critical subject of our Nation's security. I appreciate the opportunity to return today to update you on our progress. When I appeared before this committee a year ago, new Department of Defense (DOD) organizational structures for homeland defense were still under development. With a continuing sense of urgency and focus, DOD has implemented substantial improvements in homeland defense capabilities over the past year, increasing the safety of the Nation. At the same time, there is no reason for complacency. We fully recognize that significant challenges lie ahead.

Through prosecution of the global war on terrorism, DOD focuses on combating terrorism as far from our borders as possible. Thus, our first line of defense is abroad—to confront the enemy where they live, train, plan, and recruit, as we are doing today in Afghanistan and Iraq. The second line of defense also lies beyond the borders of the Nation—the air and maritime avenues of approach—where we will engage terrorists before they reach our borders. Inside our borders, the domestic law enforcement community is responsible for countering terrorist threats; DOD stands ready to provide capabilities in support of civil authorities, consistent with U.S. law.

Within the Office of the Secretary of Defense (OSD), under the leadership of the Under Secretary of Defense for Policy, my office and that of my colleague, the Assistant Secretary of Defense for Special Operations and Low Intensity Conflict (ASD–SOLIC), work together to provide policy guidance and to supervise DOD's homeland defense and combating terrorism activities here in the United States and around the world. The combatant commanders of U.S. Northern Command (NORTHCOM) and U.S. Special Operations Command (SOCOM), also present today, lead our combating terrorism operations. Together, we combat terrorism at home and abroad, while diligently working to mitigate any potential policy and operational seams. My testimony today will address DOD homeland defense activities that have occurred since my last appearance, as well as the challenging work that lies ahead. Additionally, I will describe some of the key issues where homeland defense and combating terrorism intersect within our common fight against global terrorism.

DOD'S ROLE IN THE SECURITY OF OUR NATION: COMBATING TERRORISM

Within the DOD, our combating terrorism activities comprise four main areas:

- Antiterrorism—defensive measures taken to reduce vulnerabilities and protect our personnel, facilities, and resources against a terrorist incident;
- Counterterrorism—offensive response measures taken to deter, preempt, and resolve a terrorist act;
- Consequence Management—efforts to prepare for and respond to the aftermath of a terrorist event; and
- Intelligence—the collection, analysis, and dissemination of terrorism-related information.

Within the OSD, the responsibility for combating terrorism involves three main entities. First, the Bob Stump National Defense Authorization Act for Fiscal Year 2003 (Public Law 107–314) assigned responsibility for the overall direction and supervision for DOD's combating terrorism activities to the Under Secretary of Defense for Policy.

Second, in accordance with section 138(b)(4) of title 10, U.S. Code, my colleague, the ASD–SOLIC, is responsible for the overall supervision of DOD's special operations and low intensity conflict activities.

Third, as requested by the Secretary of Defense, Public Law 107–314 also established the Office of the Assistant Secretary of Defense for Homeland Defense (ASD–HD). I am honored to serve as the first ASD–HD. My office was established to assist the Secretary of Defense in improving policy and providing guidance to combatant commanders regarding the air, land, and maritime defense of U.S. territory and the provision of defense support to civilian authorities. As stated in the establishing statutory language, I provide overall supervision of the homeland defense activities of DOD.

DOD'S ROLE IN THE SECURITY OF OUR NATION: HOMELAND DEFENSE

Following the terrorist attacks on the United States of September 11, at the direction of the President and with congressional support, DOD moved quickly to establish new organizations focused on homeland defense and civil support: NORTHCOM and the Office of the ASD–HD noted above.

You will recall that on October 1, 2002, DOD activated NORTHCOM, headquartered in Colorado Springs, Colorado. NORTHCOM conducts operations within its assigned area of responsibility (AOR) to deter, prevent, and defeat threats and aggression aimed at the United States, its territories, and interests. Accordingly, as directed by the President or Secretary of Defense, the Commander, NORTHCOM, would direct military operations within its area of responsibility, including combat operations. In addition, when directed by the President or Secretary of Defense, the Commander, NORTHCOM, would also provide support to U.S. civil authorities, including military assistance to civil authorities, military support to civilian law enforcement agencies, military assistance for civil disturbances, and incident management operations in response to a weapon of mass destruction (WMD) attack.

NORTHCOM's AOR includes the continental United States, Alaska, Canada, Mexico, and the surrounding water out to approximately 500 nautical miles. The defense of Hawaii and U.S. territories and possessions in the Pacific remains the responsibility of U.S. Pacific Command (PACOM). The Commander of NORTHCOM is also the commander of the bi-national U.S.-Canada North American Aerospace Defense Command (NORAD). NORTHCOM achieved full operational capability on September 11, 2003, and is fully able to conduct missions assigned to the command by the President in the Unified Command Plan.

As the first combatant command with a primary mission to defend the land, sea, and air approaches to the United States, NORTHCOM operations extend to all three domains.

Air domain

NORAD guards, patrols, and monitors the airspace over Canada and the United States. Each and every day the men and women of the United States Air Force, United States Air Force Reserve, and the Air National Guard secure the skies over major metropolitan areas, our Nation's critical infrastructure, and historic monuments. Since September 11, 2001, these dedicated professionals have executed over 34,000 air defense sorties and responded to over 1,700 requests from the Federal Aviation Administration (FAA) to intercept potential air threats.

Maritime domain

Similarly, the U.S. Navy monitors the sea approaches to the United States and works with the U.S. Coast Guard to patrol international waters and our territorial seas. On a daily basis, U.S. Navy sailors vigilantly monitor the blue water approaches to our Nation's territorial seas, operating under new and expanded authority to interdict vessels potentially bearing terrorists or their weapons before they reach our shores. Further, under Operation Noble Eagle, naval maritime surveillance and engagement forces are designated for transfer to NORTHCOM command and control when directed by the Secretary of Defense.

Land domain

The Homeland Security Act of 2002 (Public Law 107–296) assigns the Secretary of Homeland Security the responsibility for the security of the Nation's borders. That responsibility includes preventing terrorists and instruments of terrorism from penetrating our borders, protecting our ports of entry, immigration enforcement, and ensuring the speedy, orderly, and efficient flow of lawful traffic and commerce. DOD's role in that border security mission is to provide support to civil authorities, principally the Department of Homeland Security (DHS), when appropriate. DOD has established and maintains Quick Reaction Forces and Rapid Reaction Forces, which, when deployed, will operate under NORTHCOM command and control. These highly trained U.S. Army and Marine Corps personnel are postured to respond to the full range of potential threats to the United States.

HOMELAND DEFENSE AND HOMELAND SECURITY EXERCISES

DOD is committed to maintaining the readiness of military forces to execute the full spectrum of homeland defense operations and to support civil authorities, when necessary and appropriate. To this end, DOD has hosted its own exercises and participated in exercises sponsored by other government entities. Over the last year, these included: Unified Defense (February 2003); TOPOFF 2 (May 2003); Determined Promise (August 2003); Livewire (October 2003); Unified Defense (February

2004); and Senior Official Exercise #3 (March 2004). These exercises addressed a range of potential threats to the United States, from cyber attacks to bioterror attacks, and from radiological attacks to a nuclear detonation. The exercises support the DHS National Homeland Security Exercise Program established by the December 2003 Homeland Security Presidential Directive-8 (HSPD–8) on National Preparedness. Homeland security and homeland defense exercises are critical in identifying gaps and potential weaknesses within each agency and across agencies in responding to terrorist attacks, including multiple, simultaneous challenges.

DOD SUPPORT OF CRITICAL INFRASTRUCTURE PROTECTION

The Homeland Security Act of 2002 (Public Law 107–296) assigned DHS the responsibility to develop a comprehensive national plan to protect our Nation's critical infrastructure and key assets. The National Strategy to Secure Cyberspace (February 2003) and the National Strategy for the Physical Protection of Critical Infrastructure and Key Assets (February 2003), as well as HSPD–7 on Critical Infrastructure Identification, Prioritization, and Protection (December 2003), designate DOD as the sector-specific agency for the Defense Industrial Base sector. This designation recognizes DOD's important role in the protection of critical defense installations and facilities. In this capacity, DOD must work closely with private sector owners of critical defense infrastructure to deter, mitigate, or neutralize terrorist attacks in order to sustain military operations.

In September 2003, the Secretary of Defense assigned me the responsibility for Defense Critical Infrastructure Protection. Since then, we have consolidated Critical Infrastructure Protection (CIP) funding within the OSD into a single program, managed by the newly established Defense Program Office for Mission Assurance. Under my oversight, this office conducts focused research and development using a systems approach for CIP activities supporting DOD missions. We have also taken steps to increase the preparedness of critical defense installations and facilities against chemical, biological, radiological, and nuclear threats. Pentagon efforts are helping to develop DOD-wide installation preparedness standards and requirements, which we will apply at 200 other key installations over the next few years.

DOD RELATIONSHIP WITH THE DHS

DOD focuses on and is responsible for homeland defense, which is the protection of United States territory, domestic population, and critical defense infrastructure against external threats and aggression. It also includes routine, steady-state activities designed to deter aggressors and to prepare U.S. military forces for action if deterrence fails. DHS, on the other hand, focuses on homeland security, which is defined in the 2002 National Strategy for Homeland Security as "a concerted national effort to prevent terrorist attacks within the United States, reduce the vulnerability of the United States to terrorism, and minimize the damage and assist in the recovery from terrorist attacks."

In simpler terms, the Defense Department provides the military defense of our Nation from all attacks that originate from abroad, while DHS protects the Nation against, and prepares for, acts of terrorism. DOD is organized and prepared, however, at the direction of the President and the Secretary of Defense, to play a vital role in support of the DHS mission.

As the Secretary of Defense's principal representative to the DHS, I have worked hard to build upon our excellent working relationships throughout the DHS. We have nearly completed a memorandum of agreement with DHS, under which DOD will continue to provide, some 64 detailed personnel to DHS to fill critical specialties, principally in the areas of communications and intelligence. We have also established a 24/7 DOD presence in the DHS Homeland Security Operations Center with direct connectivity back to DOD for rapid response. Additionally, we established planning teams to assist the DHS Interagency Incident Management Group—a group of senior interagency officials focused on incident response. This year, we are further enhancing our partnership with DHS by establishing a DOD advisory and liaison office—called the Homeland Defense Coordination Office—within DHS headquarters.

In accordance with section 1401 of Public Law 107–314, I also serve as the "senior official of the DOD to coordinate all DOD efforts to identify, evaluate, deploy, and transfer to Federal, State, and local first responders technology items and equipment in support of homeland security." In that capacity, I work closely with the DHS Under Secretary for Science and Technology (S&T). Recent examples of technology transfer initiatives include: information-sharing systems, such as the Disaster Management Interoperability Services; biometrics identification technologies; ground sensors and their application in border security; and unmanned aerial vehi-

cle experimentation. Additionally, new Advanced Concept Technology Demonstration (ACTD) efforts are underway that have the potential to deliver capabilities supporting both DOD missions abroad and DHS missions at home.

DOD RELATIONSHIP WITH THE HOMELAND SECURITY COUNCIL

The President established the Office of Homeland Security (OHS) and the Homeland Security Council (HSC) on October 8, 2001 to develop and implement a comprehensive national strategy to secure the United States from terrorist threats. In the Homeland Security Act of 2002, Congress created the DHS and codified the HSC. DOD coordinates with the Assistant to the President for Homeland Security and staff as appropriate. The Secretary of Defense is, along with the President, Vice President, Secretary of Homeland Security, and the Attorney General, a statutory member of the HSC. DOD worked closely with the OHS from October 2001 to March 2003, and continues to do so with its successor, the HSC staff.

As ASD–HD, I am DOD's principal representative to the HSC staff. My office represents DOD on the HSC's interagency policy coordination committees (PCCs) and subordinate working groups, with the participation of other DOD offices as appropriate. From personal experience, I can attest that the HSC has become an effective forum for interagency communication on homeland security and homeland defense matters, including evaluation of terrorist threats and the development of responses in a crisis environment. As one recent example, the HSC functioned effectively throughout the tense weeks of Code Orange alert during the December 2003 holiday season.

DEFENSE SUPPORT TO CIVIL AUTHORITIES

DOD has a long tradition of support to civil authorities as necessary and appropriate while maintaining its primary mission of fighting and winning the Nation's wars. Since my last testimony before this committee, DOD has continued to lend necessary assistance to civil authorities when they were overwhelmed or faced with challenges necessitating the Department's unique capabilities. Last year we acted on 75 requests for assistance from more than 20 civilian agencies, including DHS, the Department of Justice, the Department of Health and Human Services, the Department of Transportation, the Department of State, the National Air and Space Administration (NASA), the U.S. Marshals Service, and the National Interagency Fire Center. To provide several brief examples of civil support activities last year, DOD provided emergency support in natural disasters such as Hurricane Isabel in September 2003 and the October 2003 California wildfires. DOD also provided support in responding to incidents such as the Columbia space shuttle accident in February 2003 and the January 2004 ricin incident on Capitol Hill. For the latter, NORTHCOM's Joint Force Headquarters-National Capitol Region, in its first operational use, provided command and control of U.S. Marine Corps Chemical-Biological Incident Response Force assistance to the U.S. Capitol Police.

INTERNAL DOD COMBATING TERRORISM COLLABORATION

As described at the outset, combating terrorism includes a spectrum of activities that do not correspond neatly with geographic boundaries on a map or organizational boundaries within agencies. For example, the ongoing crisis in Haiti clearly requires the type of stability operations expertise resident in the office of the ASD–SOLIC. At the same time, in light of Haiti's proximity to the United States and potential homeland security dimensions of the situation, my office has been instrumental in facilitating coordination with DHS, the overall lead Federal agency on the migration aspects of this evolving issue. Similarly, terrorist use of manportable air defense systems (MANPADS) is a threat that does not respect borders. Thus, my office participates in an Interagency MANPADS Task Force to advance measures to reduce the vulnerability of aircraft to missile attacks domestically, while the ASD–SOLIC participates in interagency efforts to deny terrorists access to missiles throughout the world.

The witnesses testifying before you today work diligently to ensure that "seams" do not hinder our combating terrorism efforts as we work to deter, dissuade, defend, and defeat potential terrorist attacks against the United States and our interests around the world.

Antiterrorism

Within the United States, the military departments are responsible for force protection and taking appropriate defensive antiterrorism measures to protect their military facilities and personnel. Outside the United States, regional combatant commanders have these responsibilities. We are currently in the process of examin-

ing policy options for antiterrorism and force protection for DOD facilities and personnel within the United States to determine whether any changes are needed in the assignment of these responsibilities.

Counterterrorism

Offensive measures overseas to deter and preempt terrorist attacks, largely a mission for Special Operations Forces, are crucial to preventing terrorist activities against the United States. For overseas counterterrorism operations, we rely on ASD–SOLIC for policy oversight and the Commander, SOCOM, for their execution. Domestic counterterrorism is first and foremost a civilian law enforcement function. By design, DOD's counterterrorism role within the United States is constrained. DOD provides military support to civilian law enforcement agencies (MSCLEA) consistent with applicable law and under my supervision. Authorized support under title 10, U.S. Code includes information sharing, loan of equipment and facilities, expert advice and training, and maintenance and operation of equipment.

Consequence Management

The preparations for and response to terrorist events vary depending on the location of an incident. My office is responsible for DOD's support to civil authorities for domestic incident management, while ASD–SOLIC is responsible for DOD's support to the Department of State, which has the lead for foreign disaster assistance and foreign consequence management. There are multiple linkages between incident and consequence management, however. These include sharing information obtained in the course of incident and consequence management-related interagency deliberations and relevant exercises. Through formal bilateral exchanges and visits with our allies and friends, we also engage in information sharing and coordination regarding the preparedness and consequence management activities of other nations. These activities not only enhance preparedness and response capabilities across the board, but also strengthen our alliances in the global war on terrorism.

In the case of a domestic WMD attack, as necessary and appropriate, the Joint Task Force Civil Support headquartered in Norfolk, Virginia; the Joint Task Force Consequence Management East headquartered at Fort Gillem, Georgia; or the Joint Task Force Consequence Management West headquartered at Fort Sam Houston, Texas; under the command and control of the Commander, NORTHCOM, would be available to provide incident management support to civil authorities. Additionally, we are working to strengthen DOD and civilian capabilities and surge capacity to address multiple, simultaneous chemical, biological, radiological, or nuclear (CBRN) attacks in the United States.

Intelligence and Information Sharing

Throughout DOD we work closely with the constituent elements of the Intelligence Community to maintain maximum awareness of potential attacks against and emerging threats to the United States. My office and the office of the ASD–SOLIC both engage actively with the Under Secretary of Defense for Intelligence (USD–I), established in 2003 by Public Law 107–314, on all intelligence matters. USD–I is charged with ensuring that the senior DOD leadership receives the warning, actionable intelligence, and counterintelligence support needed to pursue all of the objectives of the updated defense strategy, including defense of the homeland. USD–I also provides a single point of contact for coordination of national and military intelligence activities with the Community Management Staff under the Director of Central Intelligence (DCI) and strengthens the relationship between the Secretary of Defense and the DCI.

Additionally, DOD is a full partner in the Terrorist Threat Integration Center (TTIC), a multi-agency joint venture announced by the President in the January 2003 State of the Union address and launched in May 2003. TTIC integrates terrorist-threat related information, minimizing any seams between analysis of terrorism intelligence collected overseas and inside the United States, to form a comprehensive threat picture. On a daily basis, TTIC coordinates terrorist threat assessments with partner agencies, including DOD, DHS, the Federal Bureau of Investigation (FBI), the Central Intelligence Agency (CIA), and the Department of State.

ADDITIONAL INTERNAL DOD AREAS OF COLLABORATION

In addition to collaboration across the range of combating terrorism activities, the ASD–HD, ASD–SOLIC, NORTHCOM, and SOCOM also work together on other issues where there is a nexus between combating terrorism and other functional activities.

Counternarcotics

Counternarcotics is an area in which DOD has longstanding relationships with civil authorities, including U.S. border and law enforcement officials. By statute, DOD is the lead Federal agency for the detection and monitoring of aerial and maritime movement of illegal drugs toward the United States. DOD works with civil authorities to transmit information to enable law enforcement authorities to interdict such trafficking. DOD also supports requests from the Department of Justice, DHS, and the High Intensity Drug Trafficking Area (HIDTA) Task Force Headquarters for unique military assistance, such as reconnaissance (ground-based, aviation-based, and maritime), logistics, transportation, engineer support along the southwest U.S. border, as well as intelligence programs and training.

Within the Office of the Secretary of Defense, ASD–SOLIC has the overall lead for DOD's counternarcotics activities, with assistance from the office of the ASD–HD, on issues with domestic implications. Since September 11, policy and operational changes in DOD have improved the alignment of resources and efforts where there is a link between terrorism and narcotics trafficking. Additionally, NORTHCOM is now charged with counternarcotics activities in its area of responsibility, including counternarcotics support to domestic law enforcement authorities and command of Joint Task Force-6 (JTF–6), headquartered in El Paso, Texas.

Further areas of cooperation related to counternarcotics include:

- ASD–HD support to ASD–SOLIC on drug interdiction and counternarcotics activities plans developed by U.S. states and territories in accordance with section 112 of title 32, United States Code;
- Collaboration to shape the future of JTF–6, originally established in November 1989 to provide DOD counternarcotics support to Federal, regional, State, and local law enforcement agencies and assigned since October 1, 2002 as a component of NORTHCOM; and
- DOD installation of secure internet systems in many of the HIDTA intelligence centers across the United States that facilitate sharing of counternarcotics-related information with national security and homeland security value.

Technology research and development

Research and development (R&D) represents a final area of combating terrorism collaboration. DOD invests nearly $100 million yearly in the Technical Support Working Group (TSWG), a U.S. national forum that brings together over 85 Federal agencies to identify, prioritize, and coordinate interagency and international research and development requirements for combating terrorism. Within DOD, the ASD–SOLIC is the executive director and proponent for TSWG. The TSWG rapidly develops technologies and equipment to meet the high-priority needs of the combating terrorism community. Many of these technologies are also applicable to first responders and other homeland security missions. In recognition of that synergy, DHS has joined as a partner in the TSWG, and TSWG staff are also members of the Homeland Defense Technology Working Group.

CONCLUSION

Throughout our history, U.S. military forces—Active Duty, National Guard, and Reserves—have defended our Nation against its enemies on land, at sea, and in the air, adapting continuously to engage threats to our Nation.

Today we face a challenge that is equal to or greater than any we have ever faced before. We must cope not only with the threats produced by the proliferation of WMD and missile technology among nation-states, but also with WMD threats posed by individual terrorists and terrorist organizations with global reach.

Throughout DOD we are transforming, increasing our capabilities for combating terrorism and homeland defense on a daily basis, while continuing a long tradition of support to civil authorities. Homeland defense and homeland security are featured on Secretary Rumsfeld's top priorities list for this year. To support his priorities, we intend to develop a comprehensive Homeland Defense Strategy for the 21st century. This strategy will support the National Security Strategy, the National Strategy for Homeland Security, and the updated Defense Strategy. It will also provide the framework for pursuing operational capabilities to prepare for tomorrow's challenges.

Mr. Chairman, I commend you and the members of this committee for your continued interest in and efforts in support of the Department's combating terrorism and homeland defense missions. The citizens of this Nation, its institutions, and our brave men and women in uniform have repeatedly demonstrated the patriotism, toughness, innovation, determination, and resiliency to defeat our enemies while re-

taining our freedoms. There is no doubt in my mind that those capabilities will be tested against this newest enemy threat—nor is there any doubt that we will prevail.

Chairman WARNER. Thank you very much, Mr. Secretary.

It is interesting. Those of us that had an opportunity to follow the hearing in this very room yesterday where there was so much controversy over what we are doing, what we are not doing—your statement this morning and I expect that of General Eberhart lays down very clearly the established factual path of what has been done.

I must remark on the CSTs. I worked with Secretary Cohen when he was on this committee and when he went to the DOD. He initiated them. We thought we only needed five, and then I am proud that this committee, under sequential leadership, has supported the increase of those teams to 55

Secretary MCHALE. Yes, sir.

Chairman WARNER. That is a commendable step.

General, we will hear from you. I enjoyed our visit yesterday and I hope in the course of the statement you are going to talk a little bit about some of that special work that you have been performing here in this great Nation's capital.

STATEMENT OF GEN. RALPH E. EBERHART, USAF, COMMANDER, UNITED STATES NORTHERN COMMAND, AND COMMANDER, NORTH AMERICAN AEROSPACE DEFENSE COMMAND

General EBERHART. Yes, sir. Mr. Chairman, once again it is an honor and a privilege to be with you representing the men and women of NORAD and NORTHCOM. I echo the statements of my colleagues in thanking the members of this distinguished committee under your leadership for your continued support of the men and women who serve this great Nation. They are motivated, they are dedicated, they are selfless in their service, and they appreciate your support and they deserve no less.

It is also an honor to testify this morning along with my distinguished colleagues and my good friends, our partners as we wage this global war on terrorism, especially Secretary McHale, as we work the homeland defense and the homeland security aspects.

What a difference a year makes, Mr. Chairman. We were with you a year ago. At that time we were in the process of re-engineering NORAD to look inward as opposed to outward, and Secretary McHale has given you the details, and we welcome your questions.

We also at that time were 43 percent manned in NORTHCOM. Today I am glad to report, with your support and the support of the Services, we are 85 percent manned, on our way to over 90 percent this summer. But more importantly, under our belt we have many events that we have participated in very successfully, and several of those, as you mentioned, Mr. Chairman, have been here in the national capital region, from support to the State of the Union Address to the ricin incident that Secretary McHale noted.

We have reorganized, where we have a joint force headquarters for the national capital region, so no longer is it a pickup game in terms of the operational employment of DOD forces. There is a single belly button, if you will, that we have here in the national cap-

ital region to provide for the safety and security of the citizens of this great Nation and to protect our infrastructure.

As we look ahead, as we talked about yesterday, there has been good news and bad news. The good news is we have come a remarkable distance. We have accomplished, in my view, remarkable things. I stand in awe of my colleagues who have been fighting what I call the "away game," taking the fight to the enemy. That is the right way to win this global war on terrorism, to ensure there is no sanctuary, to capture and kill terrorists wherever we find them in the world, and to execute that away game.

We also have to be prepared to fight the home game. Sadly and tragically, that was evidenced on September 11, and that is what we are all about in NORTHCOM and NORAD, and we are committed to do just that with your support. We must keep the pace, we must keep the momentum, we must remain alert, because I guarantee you that terrorists are waiting for us to let down our guard and when we do they will strike again.

I look forward to your questions, Mr. Chairman.

[The prepared statement of General Eberhart follows:]

PREPARED STATEMENT BY GEN. RALPH E. EBERHART, USAF

Chairman Warner, Senator Levin and members of the committee: Thank you for this opportunity to appear before you again and to represent the outstanding men and women of North American Aerospace Defense Command (NORAD) and United States Northern Command (NORTHCOM). The soldiers, sailors, airmen, marines, Coast Guardsmen, National Guardsmen, reservists, and civilians serving in our commands are the foundation for deterring and defending threats to the U.S. and Canadian homelands. Due to their efforts, North America enjoys freedom and security.

NORAD

NORAD is a bi-national U.S. and Canadian command that is responsible for the aerospace defense of North America. NORAD ensures U.S. and Canadian air sovereignty against an ever-expanding range of threats and provides surveillance and warning of ballistic missile attack. Securing the skies of North America is our top priority.

Operation Noble Eagle

NORAD maintains a robust defense against asymmetric air threats to the U.S and Canada with a series of alert fighters, tankers and airborne early warning aircraft cued by interagency warning and networked surveillance radars. NORAD also operates an Integrated Air Defense System consisting of ground-based air defense capabilities in the U.S. National Capital Region. In the past year, NORAD flew more than 6,000 sorties in support of Operation Noble Eagle, with Air National Guard and Reserve component aircraft flying 77 percent of them. Since the September 11 attacks, NORAD has flown more than 34,000 sorties and scrambled or diverted fighters more than 1,700 times in response to potential threats, all without a single mishap.

Exercises

In 2003, NORAD participated in 29 homeland defense exercises. The largest exercise, called Vigilant Overview, involved over 1,000 people.

Common Operational Picture

NORAD and NORTHCOM are working hand in hand to develop a common operational picture that incorporates data from air, land, sea, and space-based surveillance platforms, as well as information from intelligence, law enforcement and civil sources. As part of this effort, we are expanding data link capability across North America to make a common operational picture available for commanders at all levels to give them the situational awareness they need to make sound and timely decisions.

Bi-National Planning Group

In December 2002, the U.S. and Canadian governments established the Bi-National Planning Group to improve defenses against maritime and land-based threats to North America, as well as to coordinate our Nations' capabilities to respond to natural disasters. An early result of their efforts is that we now have bi-national awareness of maritime vessels of interest for the U.S. and Canada and are sharing information on assets available to deal with potential threats.

Federal Aviation Administration (FAA) Integration

We are grateful to the FAA for their cooperation and technical support as we work to improve NORAD's surveillance and command and control capabilities. We have partnered with the FAA to install approximately 300 radios in FAA facilities to provide NORAD controllers the means to communicate with fighter pilots throughout our country. We also established connectivity with 70 FAA long-range interior radars and have plans to integrate an additional 39 FAA terminal/approach control radars into our command and control network by the end of this year.

NORTHCOM

NORTHCOM stood up on October 1, 2002, to counter external threats and aggression to our Nation. We also command and control forces in emergency and domestic circumstances where the Secretary of Defense has approved military support. These are not new missions for the military. What is new is that these missions now have the full-time attention of a combatant command.

Full Operational Capability

NORTHCOM achieved full operational capability on September 11, 2003, 2 years after the September 11 terrorist attacks. This was based on an in-depth evaluation of our proven ability to execute missions in real-world circumstances, as well as during rigorous validation exercises.

Operations

During the past year, we conducted homeland defense and military assistance operations for pre-planned events and emergencies. A summary of our recent operations follows:

• Support to the U.S. Capitol Hill Police. In February 2004, in support of the U.S. Capitol Police, we activated Joint Task Force National Capital Region (JTF–NCR) to respond to ricin contamination within the U.S. Capitol complex. The JTF–NCR deployed a 145-person U.S. Marine Corps Chemical Biological Incident Response Force to assist in environmental assessment and decontamination of congressional office buildings.

• Support to the State of the Union Address. In January 2004, in support of the U.S. Secret Service, we provided command and control of all military support to the State of the Union Address, to include security, emergency medical, chemical and biological response forces.

• Response to Increased Threat Level. We were fully engaged with national leadership, the Intelligence Community and our interagency partners to ensure the security and safety of our Nation during the late 2003-early 2004 high threat advisory period. NORAD and NORTHCOM increased alert levels and the number of aircraft available to respond to flights of interest. We also heightened force protection levels and shortened the response timeline for Quick Reaction Forces.

• California Wildland Fire Fighting. In October 2003, at the request of the National Interagency Fire Center (NIFC), NORTHCOM responded to the Southern California fires. We deployed eight C–130 aircraft equipped with Modular Airborne Fire Fighting Systems (the entire Department of Defense (DOD) fleet), six Marine Corps helicopters, a liaison officer at NIFC Headquarters and a Defense Coordinating Officer with a Defense Coordinating Element. March Air Reserve Base served as a Federal Emergency Management Agency (FEMA) mobilization center.

• Support to 58th United Nations (U.N.) General Assembly. In September and October 2003, at the request of the U.S. Secret Service and the Department of State, we supported the 58th U.N. General Assembly with over 200 service members. We provided a command and control element and extensive explosive ordnance support.

• Support to Hurricane Isabel Operations. In September 2003, Hurricane Isabel, a Category Two hurricane, made landfall on the North Carolina coast with winds in excess of 100 miles per hour, causing millions of dollars of damage in its path. At the request of FEMA, NORTHCOM deployed Task Force-East (First Army at Forest Park, Georgia) and provided Defense Coordinating Officers to Maryland, Virginia, and North Carolina. We also used Fort Bragg, North Carolina; Pope Air Force

Base, North Carolina; Fort A.P. Hill, Virginia; and the Defense Supply Center Columbus, Ohio, as mobilization, flight operations and FEMA storage centers.

• Montana Wildland Fire Fighting. In August 2003, at the request of the NIFC, we established Task Force Steel Dragon to support fire fighting efforts in Montana. We deployed an Army Battalion of fire fighters (over 500 soldiers) and a medical evacuation helicopter, as well as a Defense Coordination Officer with a Defense Coordinating Element and a liaison officer to NIFC Headquarters.

• Support to Operation Iraqi Freedom (OIF). NORTHCOM has protected critical defense infrastructure and air and seaports of interest for units deploying and redeploying in support of OIF.

Organizational Refinements

We are reorganizing our forces to improve our ability to defend and protect American citizens. This spring we will stand down the Joint Force Headquarters Homeland Security (a provisional unit) and establish a Standing Joint Force Headquarters North (SJFHQ–North). SJFHQ–North will be a full-time, trained and equipped, joint command and control element collocated with NORTHCOM. It will operate as an integrated part of NORTHCOM's planning and operations, but will focus on potential near-term trouble spots. SJFHQ–North is projected to achieve full operational capability by October 1, 2004.

We are working with the interagency to transform JTF–6 in El Paso, Texas into Joint Interagency Task Force North (JITF–North) to engage transnational threats against our Nation. In doing this, we are leveraging 14 years of expertise of providing support to Federal, State, tribal, and local counterdrug law enforcement agencies.

Efforts to Share Intelligence with Federal, State and Local Officials

To perform our mission, we rely on the sharing of actionable intelligence among Federal, State, and local agencies. Our Combined Intelligence and Fusion Center coordinates the acquisition, analysis and fusion of intelligence, counterintelligence, and law enforcement information for the NORTHCOM area of responsibility (AOR) and shares that information with organizations at the national, State, and local levels.

We have made significant progress in improving the exchange of threat information. During the 2003–2004 holiday season, the entire homeland security and defense community pulled together, with time-sensitive information moving quickly from intelligence and law enforcement agencies to the decisionmakers who were challenged with mitigating various threats.

Maritime Interception Operations

NORTHCOM supports the Department of Homeland Security (DHS) in maritime homeland security, as needed. The U.S. Coast Guard has primary responsibility for maritime security in the approaches to the United States. NORTHCOM is tasked with identifying and intercepting maritime threats as far from our shores as practical. In coordination with interagency partners, we conduct maritime interception operations to degrade and disrupt terrorist acts, collect intelligence and prevent attacks against the U.S.and its allies.

Exercises

NORTHCOM sponsors two large-scale exercises annually: Determined Promise and Unified Defense. Our exercise scenarios have involved air, maritime and port threats; consequence management operations; protection of critical infrastructure; maritime interception operations; bioterrorist attacks; weapons of mass destruction and natural disasters. To date, over 57 State and Federal agencies have participated in our exercises. We continue efforts to increase international participation with Canada and Mexico. In February 2004, Canadian representatives observed Exercise Unified Defense at Headquarters NORAD–NORTHCOM; representatives from Mexico observed the exercise at Headquarters, Fifth Army, Fort Sam Houston, Texas.

National Exercise Program

We have worked with the DHS to synchronize our exercise program with the national homeland security exercise program, which will exercise the National Response Plan and the National Incident Management System. When fully implemented, the national homeland security exercise program will consist of one large-scale exercise per year, alternating between top officials in odd years and Unified Defense in even years. NORAD–NORTHCOM will continue to conduct the Determined Promise exercise series each year.

Theater Security Cooperation with Canada

NORTHCOM has developed objectives, tasks, and milestones to expand defense cooperation with Canada in the maritime, land, and civil support domains. We look forward to having a series of shared contingency plans and cooperative procedures for bi-national defense and support to civil authorities with Canada.

Theater Security Cooperation with Mexico

We are leveraging existing relationships with the Mexican military and are pursuing efforts to expand assistance to Mexico using counterterrorism and counterdrug funding. In addition, we are working with the National Guard to develop new training opportunities with the Mexican military in a variety of areas, such as biohazard and weapons of mass destruction incident management.

Bioterrorism Preparedness and Response

NORTHCOM has the capability to assist local, State, and Federal authorities with planning and exercising to improve response to a bioterrorism attack. We provide trained experts in the areas of chemical, biological, and radiological incidents at the request of a lead Federal agency to help prevent or contain an epidemic and respond to an actual attack.

NORTHCOM'S RELATIONSHIPS

Interagency

We have increased our level of commitment and involvement with interagency partners over the past year. Our Joint Interagency Coordination Group (JIACG) continues to be a force multiplier for the NORTHCOM across the board. The JIACG is comprised of 46 DOD and non-DOD agency representatives that include the Department of State, Department of Transportation, Central Intelligence Agency (CIA), FEMA, National Geospatial-Intelligence Agency, U.S. Coast Guard, FAA, Federal Bureau of Investigation (FBI), Immigration and Customs Enforcement, U.S. Army Corp of Engineers, U.S. Geological Survey, and Sandia National Laboratories.

Other Combatant Commands

We have established the framework for a layered defense of the homeland in coordination with U.S. Joint Forces Command, U.S. Pacific Command (PACOM), U.S. Southern Command (SOUTHCOM), U.S. Special Operations Command (SOCOM), U.S. Strategic Command (STRATCOM), and U.S. Transportation Command (TRANSCOM). We are also working with the other regional combatant commands to eliminate threats to our homeland from outside our AOR. Our focus is to address and resolve gaps in coverage, as well as any overlapping responsibilities. In addition, strengthening these relationships further facilitates time-sensitive information exchanges to ensure emerging threats are visible to intelligence and law enforcement officials.

National Guard Bureau

We have a strong relationship with the National Guard Bureau to execute homeland defense and homeland security missions, and we continue to seek ways to make it better. For instance, in order to improve awareness of our state of readiness and response, we are working on a robust information sharing network.

POTENTIAL FUTURE MISSIONS AND CAPABILITIES FOR NORAD AND NORTHCOM

Integrated Missile Defense

As the combatant command tasked with defense of our homeland, NORTHCOM will be responsible for execution of the Ground-based Midcourse Defense (GMD). In coordination with the Joint Staff, PACOM, STRATCOM, and the Missile Defense Agency, we are refining operational concepts, command and control structures and establishing command relationships to ensure the effective employment of the GMD system when it becomes operational.

High Altitude Airship Advanced Concept Technology Demonstration

The Office of the Secretary of Defense (OSD), NORAD, the U.S. Army, and the Missile Defense Agency are teamed to demonstrate the technical feasibility and military utility of an unmanned, untethered, long-duration High Altitude Airship (HAA). The HAA will allow NORAD to look over-the-horizon throughout North America and out from our coastal waters for air, ground and maritime-based threats.

Full Spectrum Wide Area Surveillance

The current homeland air surveillance system consists of multiple independent ground-based radar systems that are approaching or have exceeded their life expectancy and require modifications for continued operations. We are working to address sustainment issues to maintain the current capability until advanced technologies are available to improve our ability to detect, identify and track threats.

Our ultimate objective is to field a wide area surveillance capability in the air and maritime domain that seamlessly connects all NORAD and NORTHCOM command elements with DOD, Canada, and other agencies. This objective system will reduce gaps in coverage and allow the sharing of surveillance data among pertinent U.S. and Canadian authorities.

Homeland Security/Homeland Defense Command and Control Advanced Concept Technology Demonstration (HLS/HLD C2 ACTD)

NORTHCOM is sponsoring the HLS/HLD C2 ACTD. We are working with the Assistant Secretary of Defense for Homeland Defense to identify DOD and non-DOD participants who can benefit from demonstrated information sharing technologies. Solutions showcased during this venue will provide the homeland security and defense communities with cutting-edge technologies that improve information sharing, collaboration and decision making in a trusted information exchange environment.

CONCLUSION

The defense of our homeland depends on the dedication, professionalism, and sacrifice of the men and women in our commands. We appreciate what the members of this committee have done to improve the quality of life for our service members. The National Defense Authorization Act for Fiscal Year 2004 reflects your concern for the members of our Armed Forces. We are grateful for your support. With your help, we will continue to strengthen our ability to protect our Nation's citizens where they live and work.

Chairman WARNER. Well, thank you, General, and I share in your observation about the threat. But I think in our prayers we must express our thankfulness that we have not had a major incident since September 11. I do not care how you want to argue all of this, who did what, when, why, and who did not. I think it is largely owing to what we have done, and we have done a lot.

In this testimony this morning, you laid down the case of how much has been done and I was struck by the 1,700 missions you have had to fly where there was some question about a civilian aircraft operating in this country. You had to bring one of your own aircraft to close in and surveil that aircraft to make certain there was no aberration or otherwise that necessitated stronger action. Well, a lot has changed.

Let us go to the first round of questions for our witnesses. Perhaps you have not had a full opportunity to study Secretary Rumsfeld's commendable and very well thought out plan by which he is going to diminish significant forward elements in size, leaving of course what he deems necessary. But that seems to me to put more emphasis on your particular area of responsibility (AOR) to have quick reaction forces to move in with these reduced units and supply such additional support as they may need.

Which of you gentlemen would like to lead off on that? Secretary O'Connell or General Brown?

Secretary O'CONNELL. I would be happy to, sir. I have had a chance just to glance at it. More importantly, in terms of the testimony you referred to, I have been present occasionally when some of these concepts have been developed. I have looked at issues as I see them developing in possible changes in the global footprint that may have an impact on SOCOM, and I will leave the operational details to General Brown.

Are we going to be able to continue to support the combatant commanders with SOF that are working for them? The second thing we look at is, in terms of how the world is changing, who are our new friends and who are our new enemies, who are our old enemies, and where should we be positioned near them?

We look carefully across the entire range of special operations, and of course we are talking about the maritime assets, the SEALs and their delivery systems, the special aircraft that SOCOM, Air Force Special Operations Command brings to the battle, the special requirements for gunships, the type of terrain that our MC–130 Talons and other aircraft might be required to negotiate. Certainly weather is a factor; relationship to other U.S. forces, the ability to integrate with marines, etcetera; how those locations might support a rotational concept that General Brown may want to look at in terms of repositioning his forces in the future.

I think all those are extremely important issues. I had the opportunity, sir, about a month ago, General Brown and I both, to talk extensively to Admiral Fargo in the Pacific and with his theater SOCOM commander, Air Force Brigadier General Greg Trebone, about the unique requirements that we are facing in the South Pacific. As, sir, you are well aware of, perhaps new alliances or locations that we have not looked at before, such as Australia, could benefit us.

There are ungoverned territories that we are very concerned about, where we know that terrorists will breed and retreat to. To the extent that the U.S. SOF can play an important role in assisting governments in bringing their territory under control and helping us monitor what is going on there, those locations will become more and more important.

If that is satisfactory, sir, I would like to switch to General Brown.

Chairman WARNER. General Brown.

General BROWN. Sir, I think you hit the nail on the head. For us it is about being responsive. Our forces just by their very nature are agile, flexible, and very responsive small forces capable of moving very quickly. It is about where we are positioned around the world so that we can have maximum ability to respond, to influence an area where we want to influence it through our coalition relations. We do coalition training very well. Of course, there is also a quality of life piece for our soldiers, sailors, and airmen.

We are working with the geographic commanders to see what their plans look like and where they think that we should be moving. Quite frankly, they are very supportive of their SOF in their AORs to accommodate where we think we ought to be so that we can be at the right place at the right time.

Part of this will be done through a rotational basis, as Secretary O'Connell mentioned, but additionally through our exercise program, which is a pretty robust exercise program to get small groups of SOF, both civil affairs, psychological operations (PSYOPs), but mostly our Green Berets and our SEALs, out on the ground with our coalition partners to keep a presence in an AOR or a region just through training with our coalition allies.

Chairman WARNER. Formerly you were more or less in a supporting role to the forward-deployed commanders. When they needed

the special expertise, they sent for it. But now you have the authority from the Secretary of Defense of a fully operational combatant command. In other words, you can sit down and plan an operation yourself.

General BROWN. Yes, sir.

Chairman WARNER. Within your ranks you can establish the forces to carry out that plan. So that is a very major and new large dimension to your responsibility.

General BROWN. Sir, I think you are exactly right. I think there are two pieces to that. One is that as part of this authority, where we were totally responsive in the past to what the geographic combatant commanders would want us to do in their AORs or their theater security cooperation plan, today those requests come to us and we prioritize where we need to go so that we are in the right locations around the world. That is a nuance, but it is a very important nuance in that now we are in charge of where we are deploying, as opposed to just responding. Quite frankly, we still are responsive to the combatant commanders if they have specific instances. But we do have the authority to be in charge of where we put our SOF.

So that is one piece of it. The other piece is that as SOCOM we do not own bases and we do not own infrastructure. We simply own forces. So wherever we want to position our forces, we will work with the geographic combatant commanders to build the infrastructure there to support our forces.

Chairman WARNER. But I am wondering if while they do the drawdown in these forward-deployed areas, does that require you to have a larger force structure within your command? Now, I know that is a sensitive subject. You do not want to get out ahead of the Secretary of Defense, but I think it is an issue that Congress is going to have to focus on.

General BROWN. Yes, sir, I think you are right. We need to watch that very carefully.

Chairman WARNER. Thank you.

Now, with regard to your Department and your responsibility, you are largely dependent on intelligence and real-time intelligence. People immediately think of the CIA, but it is not the primary agency here. It is really the Federal Bureau of Investigations (FBI), I presume, that you have to rely on for the domestic side of the intelligence picture. Share with the committee how you operate both with the CIA and the FBI in getting that real-time intelligence that enables you to carry out your responsibilities.

Why do you not start off, Mr. Secretary?

Secretary MCHALE. Senator Warner, I anticipate that General Eberhart will speak in some detail about the close daily cooperation that he has in his combatant command with the intelligence services that you have just made reference to. But from a civilian perspective, it is essential that we see intelligence as a whole and that we not distinguish, other than in those areas where the law requires it, between essential information that might be drawn from overseas sources versus those that might be collected in a lawful manner domestically.

TTIC was really intended to address that kind of fusion of all-source collection, and in my experience, and it has been daily for

the past year, that process has improved remarkably. Each morning I begin with a Defense Intelligence Agency (DIA) briefing, a JTF Counterterrorism briefing, where the backbone of that briefing is drawn from the TTIC matrix. That matrix reflects sources that are domestic international. It reflects both civilian and military collection capabilities.

We have brought together into a single source of reference all of the collection capabilities that are available to our government worldwide. We synthesize that information. We present it in a comprehensive and readily digestible way each day. So senior policymakers have available to them a single source overview of the threat environment.

That initial briefing guides what I do for the rest of the day. In a crisis environment, in my experience—and we have gone through a half dozen such periods in the past year—TTIC steps to the forefront. John Brennan, who runs TTIC, assumes a lead responsibility, along with George Tenet, in providing a briefing to very senior policymakers, typically at the Cabinet level, so that they have a common picture of the threat environment.

So over the last year I have, on many occasions, become aware of domestic vulnerabilities from sources that on some occasions are international, on some occasions are domestic, in some cases are military, and in other cases civilian in character. The important lesson learned since September 11 is that we need to bring all of that together into a common operating picture, and that is TTIC's mission.

Chairman WARNER. Thank you.

General.

General EBERHART. Sir, such is the same case at NORTHCOM. Every morning our Intelligence Community is on a video teleconference with TTIC, the Joint Terrorism Task Force (JTTF), and the FBI folks. They make sure they have all the relevant information that might affect our area of operations (AO).

So when you receive the briefing shortly thereafter, it is a compilation of all these various sources from DIA, from TTIC, from the JTTF, from all these different organizations, from CIA, FBI, and military intelligence around the world.

Our command is just a little bit different, as Secretary McHale has suggested, in that we are interested in what is going on around the world that might affect our homeland security. So in fact, we ask questions. When we receive this information, we ask ourselves some very basic questions. The first question is, what else do we need to know about this incident, this information? Who else needs to know this? That is very important to us, because when I receive this briefing there will be a senior FBI representative in the room who is on our staff. There is a senior CIA representative on our staff. The National Security Agency (NSA) is involved as well, and the alphabet soup goes on and on, with all of the relevant players.

So we make sure in that forum that everybody who needs to know this information knows. In fact, then we cross back and forth between law enforcement, homeland defense, and homeland security, which I think is very important and markedly different than before September 11, markedly different before NORTHCOM and the Assistant Secretary for Homeland Defense.

Chairman WARNER. Thank you. That is a very reassuring report.

Senator Ben Nelson.

Senator BEN NELSON. Thank you, Mr. Chairman.

I thank you all for your service and what you are doing to make our national security and homeland security stronger for the American people.

General Eberhart and Secretary McHale, retired Air Force Major General Larry Arnold was in command of all the NORAD fighters on September 11 and was quoted not that long ago as saying, "We had so few airplanes on alert anywhere, if we got a resource airborne and it went in the wrong direction we did not have anything else to back it up."

Now, I understand that a lot has been done to improve the capability that we might have to intercept, interdict those unusual situations, 1,700 of them as you have indicated. Have you implemented any new policies with regard to firing on commercial aircraft during terrorist attacks, and do you believe that you have adequate assets now to do the job that might be required in that event?

Perhaps we should start with you, Secretary McHale, then General Eberhart.

Secretary MCHALE. Senator, if I may I will address the policy issue. The operational question, as to the adequacy of assets, I will defer to General Eberhart if I may.

Senator BEN NELSON. That will be fine.

Secretary MCHALE. Policy was made on September 11 because of immediate events. We were faced on that day, the Vice President in particular as I understand it was faced that day, with an unprecedented challenge. It is my understanding that the Vice President provided guidance as to how to respond to emerging threats that might involve additional commercial aircraft used as weapons platforms.

In the wake of September 11, we in the DOD initiated a thorough review of all the policy and legal considerations related to the sobering yet foreseeable responsibility to shoot down a civilian aircraft. As a result, we have developed very detailed procedures, many of which would be inappropriate to discuss in this setting——

Senator BEN NELSON. I think that is fine.

Secretary MCHALE.—very detailed procedures regarding the level of our response, how we escalate from one level to the next, the way in which we confer in a secure telephone call to consider and ultimately implement any decisions that might be necessary.

Senator BEN NELSON. Can that be done in a very timely manner?

Secretary MCHALE. It can. Also, in the event that the senior person delegated with authority to make that decision is unavailable, we have, again in very detailed procedures, delegated that authority down to subordinate levels, but keeping that authority at senior general officer rank. It begins with an initial decision by an available civilian, but if that civilian is not available, if General Eberhart thereafter is not available, we have look-to contingency plans, nonetheless keeping that authority, as you might expect, at a very high level.

Finally, we routinely train to that requirement. We conduct exercises on a periodic and frequent basis where that decision is faced

and made in a training environment so that we are not exploring these very difficult choices in the middle of a real world crisis.

Senator BEN NELSON. Which we may have been doing at the time of September 11, perhaps.

Secretary MCHALE. We have certainly moved into a new chapter of detailed training, planning, and procedures so that the rules of engagement and the decisionmaking process now is quite clear.

Senator BEN NELSON. General Eberhart?

General EBERHART. Sir, first of all, as we look at the force structure we have today, we have manyfold the number of fighters on alert today as opposed to the morning of September 11.

Senator BEN NELSON. I understand that of those fighters that were available for interception, the closest were at Cape Cod.

General EBERHART. That is correct, sir.

Second, we have placed these fighters in different locations to ensure that, as we have done our analysis, we can respond to our major population centers and key infrastructure—nuclear power plants, chemical facilities, et cetera.

Then there is an analysis at different force levels that, based on the threat we see, we can vary all the way from force level 5 to force level 1, where we again increase the number of fighters on alert based on the risk or threat we perceive.

Senator BEN NELSON. In the case of multiple attacks, we are also capable of responding to multiple locations?

General EBERHART. Exactly, sir.

Then, second, we do fly regular air patrols, as Secretary McHale said in his opening statement. So we often have aircraft airborne that are readily available to respond, and I would say serve as a deterrent to those who might want to use an aircraft the way they used it on September 11.

We do have clear responsibility and authority in terms of where these rules of engagement, this responsibility, and this authority are vested. Not only is it clearly stated on paper, we exercise this at the tactical level all the way to the strategic level from daily to weekly to monthly in these air defense exercises that Secretary McHale mentioned in his statement.

Senator BEN NELSON. For those of us in the civilian world, would that be like fire drills?

General EBERHART. It would be like fire drills, yes, sir, but we do not fire. It is very important.

Finally, I think it is very important to note that I believe this does serve as a deterrence and that we have no other option. We must have these aircraft on alert. We must fly these irregular air patrols. But it is not the right way to work this problem, because if we have to use an aircraft that way, to shoot down another aircraft, the tragic thing is everyone on board will die.

So the right way to work this problem again is to capture and kill terrorists in Afghanistan and Iraq and wherever we find them; second, to make sure that we have the right security at our airports and onboard our aircraft so terrorists cannot take over an aircraft again. That is the right way to work this problem.

Senator BEN NELSON. Have we not resolved a great deal of that in terms of turning an aircraft into a flying missile by securing the cockpit door so that it does not open under any set of cir-

cumstances, therefore not enabling the terrorists to use the plane in that capacity?

General EBERHART. Sir, I think that is a very important step and one that we have done. But, obviously there are people out there right now trying to figure out how to breach that door we say cannot be breached.

Senator BEN NELSON. I understand.

My time has expired. I would like to know—perhaps we can follow up with a letter to find out—if there is any coordination between what we do domestically, let us say with the North Atlantic Treaty Organization (NATO), because of the number of incidents recently where commercial aircraft have been grounded and asked not to fly into the U.S. Is there any coordination with NATO because of international travel?

General EBERHART. Sir, there is. There is at the diplomatic level, at the Federal level from FAA to their counterparts, and then finally at the military level, military to military. That coordination exists.

Senator BEN NELSON. So we are aware of what is happening there when it is happening, in real time?

Secretary MCHALE. Senator, there is no question about that. We had a real world experience in that regard, over the holiday threat season, and I can tell you that we conducted conference calls every 6 hours during that period of time throughout the entire holiday season. We had direct input from our European allies through diplomatic channels during each and every one of those calls.

So in a crisis environment, when we believe that there is an emerging threat coming, let us say, from Western Europe, the coordination is constant. Once the lines of communication are opened, they remain open throughout the entire crisis period until it is determined that the threat has passed.

Senator BEN NELSON. Thank you, gentlemen.

Thank you, Mr. Chairman.

Chairman WARNER. Senator Inhofe.

Senator INHOFE. Thank you, Mr. Chairman.

A couple days before the chairman and Senator Stevens were in Iraq and in Afghanistan, Senator Akaka and Senator Allard and I were there. I want to say to you, General Brown, I took a particular interest and have for some time in getting into this Future Combat System (FCS), and I recall going to Fort Lewis, Washington, when the big debate on whether to continue with the M–113 or get into this thing which has evolved into the Stryker Brigade. At that time it was a Canadian vessel. I came back and said: We do not need competition. I just had the competition and it is over.

Up in Mosul, being able to see the first of the Stryker brigades on the ground, I cannot tell you how revolutionary I believe that is and what a great benefit that is going to be to our guys on the ground. I just commend everyone who has had a participation in that.

When I was serving with Secretary McHale in the other body—I came over here 10 years ago; that was 1994—I was on the Intelligence Committee, and one of my rude awakenings was when I would go to the NSA, the FBI, CIA, DIA, and all the rest of them,

to find that this was one huge turf battle, and I could not believe what I was observing at that time.

I know that Senator Warner has pursued this, but I want to carry it one last step. You have all these agencies. You have all of your unified commands. They have their intelligence-gathering systems. Are you totally satisfied—and I would ask the question to Secretary McHale as well as General Eberhart—that you are getting everything you need in terms of using all the resources? Are the turf battles over, and is that problem now resolved?

Secretary MCHALE. I think the institutional competition, the culture that you described, Senator, has now passed. I think we are all sobered by the magnitude of the tragedy on September 11 and that prompted a lot of folks to grow up real quickly and break down those stovepipes, particularly the intelligence stovepipes, between institutions that previously had seen themselves in competition rather than cooperation.

When I came before this body on my confirmation hearing, I said that if you catch me using the word "satisfied" you can ask for my resignation. I am not satisfied, and I can think of a number of areas, particularly in the maritime domain, where we need to make progress in making maximum use of existing surveillance capabilities as well as those that are under current R&D.

But in terms of the culture that prevented the sharing of information——

Senator INHOFE. I am talking about the culture, not the technology.

Secretary MCHALE. I can tell you, sir, that I have been involved in most of the senior-level deliberations during real world crisis periods during the past year and I have sensed no remnant of that culture. The challenges are operational and technical. They are not institutional in terms of a false perception of agency competition.

Senator INHOFE. General Eberhart, you would generally agree with what the Secretary said?

General EBERHART. Yes, sir.

Senator INHOFE. One of the other things we did when we went over there was go to Bilad Air Base and watch the Predators. I have been very interested over the years in the capabilities that we have, not just with the Predators, but also the U–2 and so forth. We now have this new airship, the High Altitude Airship, that apparently has some great capabilities. General Eberhart, I would like to ask you, when you look at the manned aircraft and the UAVs and the U–2 and then this new one, are we getting to the point now where you are satisfied that we are able to get the coverage that we need and gather the information that we need, insofar as doing it from up above?

General EBERHART. Sir, I am not yet satisfied. Obviously, we are headed in the right direction because of the types of equipment that you just referenced. Between the Predator and the Global Hawk and other tactical UAVs, we have a capability and a capacity today that we did not have 5 or 10 years ago. But it still does not represent in my view the capability and capacity we need to have, the maritime domain awareness that Secretary McHale just referenced, to be able to use these types of platforms—which are still in my view high demand, low density platforms—to aid in home-

land security when other Federal agencies might need or want them.

So I believe this will continue to be a combination of space assets and air-breathing assets, both manned and unmanned. This High Altitude Airship demonstration that you reference, which actually will not be demonstrated until 2006, holds great promise. We need to stay the course, and if that in fact pans out then we need those to help secure the borders of this great Nation.

Senator INHOFE. If that pans out. Now, I understand that they have a radius of 700 or so miles that they would be able to cover. My question would be, if this is something you would be using, how many of these vehicles would it take to cover North America and what is in there right now to get us to that point?

General EBERHART. Sir, we can provide you that analysis. Obviously, the only thing that is in the budget right now is the concept demonstration to see if in fact it is worthy to invest in, and we will not know that until 2006.

I would not advocate putting these all around North America. I would advocate using these on the threat axes that we anticipate being used by terrorists and others. So we can provide you the analysis that we have done along these lines, but I think it would be premature to invest in that High Altitude Airship until we see the concept demonstration.

[The information referred to follows:]

Analysis from the 2000 National Cruise Missile Defense Study indicated it would require 10 airships on station, with appropriate sensors, to cover the perimeter of the continental United States.

The advanced concept technology demonstration budget for fiscal year 2005 is $29 million. The Missile Defense Agency provides $22 million; $4 million comes from the Deputy Under Secretary of Defense for Advanced Systems and Concepts, with the remaining $3 million coming from the United States Army as the lead service.

Senator INHOFE. General, my time has expired, but I am interested in the exercise 2004—what was that called, your exercise?

General EBERHART. Yes, sir. Most recently we did the Determined Promise 2003, and then we just completed another exercise here in February.

Senator INHOFE. Then how many to go?

General EBERHART. Sir, we do two major exercises a year. What is really very promising about this is now we have linked these exercises into a national exercise program, including DHS and other Federal departments.

Senator INHOFE. Including reaching first responders?

General EBERHART. Sir, right down to first responders. In fact, the one that we will do, Determined Promise 2004, this August will take place—one of the States will be Virginia, and we will have a series of exercises there in the Chesapeake region and in Richmond.

I believe that when you talk to the States who have participated in the past, most recently Alaska and Texas, they sing the merits of these types of exercises.

Senator INHOFE. Thank you, General.

Thank you, Mr. Chairman.

Chairman WARNER. Thank you very much, Senator Inhofe.

Senator Levin.

Senator LEVIN. Thank you, Mr. Chairman.

General Eberhart, we talked a bit about this in the office, but I would be interested in your expanding on it publicly. You just reached your full operating capability last October and you have been referred to as an evolving command. Can you tell us what percentage of your staff is Reserve or civilian, and do these percentages present you with any problems? Do you expect those percentages to level off or to grow?

General EBERHART. Sir, right now we are slightly different than the other unified commands, because obviously we are in the continental United States and our AOR is here in North America. So our target is 60 percent military, 40 percent civilian, which is a high civilian contribution to a command of this sort.

When you look inside the military, I do not have the numbers and I will have to provide those for the record, but we have a higher percentage of National Guard, Army and Air, and a higher percentage of Reserves from all of the Services, than other commands. The homeland defense, homeland security mission lends itself to that type of civilian-soldier, civilian-airman participation and contribution.

We are committed to leveraging their talents. If you look at our general officer and our senior leadership in terms of Guard and Reserve, we have, as we discussed yesterday, several Guard and Reserve full colonels, captain reservists and guardsmen. I think this, in fact, is the right way to go for our command, and we will continue to have more reservists and more guardsmen in our command.

[The information referred to follows:]

Seven percent of our staff is from the Reserve component; 31 percent is civilian. In the future, we anticipate the Guard and Reserve presence will hold steady, and our civilian workforce will increase to approximately 40 percent. We are creating a balanced, total force team of active duty service members, reservists, guardsmen, civilians, and contractors capable of addressing all aspects of our missing, and foresee no issues at this time.

Senator LEVIN. I know you have testified this morning about the relationship between the TTIC and CTC on the intelligence-sharing issue, but I want to press that a bit further. Secretary McHale, perhaps you can address this issue. I understand that there are joint briefings and that there are people from all of the various components that are collocated at the intelligence analysis facilities. But what I am interested in—and again, Senator Collins as the chair of Governmental Affairs is equally interested in—is the question of where is the final responsibility for analyzing the foreign intelligence and domestic information relative to foreign terrorism in North America?

Is it TTIC? Is it CTC? Who has that final responsibility to say, that is a major threat over there, and someone else is saying, well, I am not so sure about it. We get a massive amount of information, and I know we have these joint briefings and a lot of jointness in here. But you have to focus responsibility for making the ultimate call that then will go up to a decisionmaker. Is that CTC or is that TTIC?

Secretary MCHALE. I believe it is TTIC. I can tell you, Senator, that based on my experience, in terms of the consumption of available intelligence, that is not a hard call. My contact with TTIC is

daily. The contact my office has with TTIC in a crisis environment is almost continuous.

When my office was created in the National Defense Authorization Act, that same legislation also created the position of the Under Secretary of Defense for Intelligence (USDI), and Dr. Cambone and I have discussed this issue in some detail and I have readily supported the lead of USDI in terms of the institutional relationship between DOD and TTIC.

But we in the office of the ASD–HD are avid consumers of intelligence in both a peacetime and crisis environment.

Senator LEVIN. Are you represented at the CTC?

Secretary MCHALE. My office is not.

Senator LEVIN. Where are the DOD representatives over there? Who is representing the DOD over at CTC? Is it DIA?

Secretary MCHALE. DIA, subject to the supervision of the USDI. But by conscious choice the role that we play in ASD–HD is as a consumer of the information they collect, and USDI takes the lead in terms of the institutional relationships. As a practical matter, when there is a crisis I usually attend the senior level briefings provided by John Brennan. Clearly TTIC, working closely with the FBI and CIA, takes the overarching lead for the fusion of all intel sources overseas and domestic.

Senator LEVIN. I am not talking about a crisis. I am talking about analysis to prevent a crisis. If you think TTIC is the place where the final responsibility lies, that is fine with me. I do not have any particular opinion as to where it ought to lie, providing it lies somewhere that is clear. If you could just do this for the record. If you could get us anything in writing which clarifies that ultimate responsibility, you will go a long way, I hope, in addressing the concern that many people have had about any confusion or overlap in this area.

[The information referred to follows:]

TTIC has the primary responsibility in the U.S. Government for terrorism analysis (except information relating solely to purely domestic terrorism) and is responsible for the day-to-day terrorism analysis provided to the President and other senior policymakers. It is presumed that all terrorism information has a link to international terrorism unless determined otherwise. When information has been determined to have no such link to international terrorism, the FBI has primary responsibility with regard to the analysis of such information. This FBI responsibility, like TTIC's, is independent of where the information was collected.

Secretary MCHALE. Yes, sir.

Senator LEVIN. We cannot afford to have any cracks or uncertainty here between the intelligence analysis folks.

Secretary MCHALE. Senator, I will go back to Dr. Cambone and I will ask him for his guidance and assistance in the preparation of the answer to that question. But I can tell you as a practical matter, each and every day in a peacetime environment as well as a crisis environment the interface that we have with the Intelligence Community is through TTIC.

Senator LEVIN. There are currently 32 operational WMD–CSTs. I believe that our last authorization bill directed the establishment of an additional 12 teams and the DOD has included funding for 5 of the 12. I am just wondering why all of the additional 12 were not put into the budget request this year.

Secretary MCHALE. Senator, your numbers are very nearly accurate, but I would note a slight discrepancy, if I may.

Senator LEVIN. Sure.

Secretary MCHALE. In I think it was the National Defense Authorization Act of Fiscal Year 2003, though I am not 100 percent certain in my reference, by statute Congress authorized and directed the DOD to create 55 CSTs, so that there would be a CST in each and every State. California has 2 CSTs, so we are talking about basically 54 different jurisdictions with 55 CSTs.

As I noted in my opening statement, we have already created, certified, trained, and funded 32 CSTs. So we have a remaining and outstanding obligation to go from 32 up to 55. In the most recent appropriations bill, funding was provided, and I believe it was $88 million, for 12 more. So we are going from 32 up to 44.

There are 11 remaining CSTs and in the President's budget we decided that in the next fiscal year 4 of the remaining 11 would be funded, 4 in the year after that, and 3 in the final year. We believe that this can be done without degrading in any way the operational capabilities or the protection provided to citizens in those States and territories. A significant number of the remaining 11 consist of territories.

We obviously will follow the law. Congress directed the creation of 55. Congress this year funded 12 more. We will create 12 more. My advocacy is in support of the President's budget submission and we will obey the law as you pass it.

Senator LEVIN. Thank you.

Thank you, Mr. Chairman.

Chairman WARNER. Thank you.

Senator Collins.

Senator COLLINS. Secretary McHale, I want to follow up on Senator Levin's questions to you about the TTIC. Last year the Governmental Affairs Committee held 3 days of hearings on how the new center would work. In addition, Senator Levin and I followed up with two letters last fall, both of which remain to be answered in a satisfactory manner, to ask the question of who is ultimately responsible for the analysis of information affecting our country, and were the lines of authority clear.

I am told that the reason we have not received an answer to our letters is that the DHS, DOD, and CIA cannot agree on an answer, which implies to me that the lines of authority are not clear and that the answer is still being devised. I am heartened today to hear you say that the new center has worked very well, and that you are playing a very active role. But do you believe that if we had the DHS and the CIA sitting here this morning they too would agree with you that the TTIC, not the CTC, is the lead entity?

Secretary MCHALE. Senator, my answer earlier was really one as a consumer of intelligence. Frankly, I am not qualified as I sit here, and it is probably not appropriate for me in the billet that I hold, to make a judgment of legal responsibility and an analysis on that policy plate.

However, from an operational standpoint and the dissemination of critically important information in an effective and timely manner during both peacetime and most especially in a crisis environment, my experience over the last year has been that John Bren-

nan from TTIC has been the single source of fused information drawn from all sources, civilian and military, domestic and international. The information that I receive, which guides our activity, most especially in a crisis environment, has come to us through TTIC, and often that information includes information that has been provided to TTIC by both the FBI and the CIA.

I have a fairly limited—important, but limited—viewpoint, and that is as an avid consumer of this information. Although the meetings that I attend often involve a senior briefing from the CIA, the briefing that follows that, which pulls it all together, is the TTIC briefing.

So I am not prepared to make a legal judgment, but I can tell you from operational experience at the policy level John Brennan and TTIC have been the highest level of integrated intelligence to which I have been exposed.

Senator COLLINS. General Eberhart, the Chief of Naval Operations (CNO) has spoken of the need for a maritime NORAD. This concept would allow the monitoring and tracking of cargo and passenger vessels in and around North America. I understand that you are also an advocate for that approach. Could you tell me if this remains in the theoretical stage or if you are already building a maritime NORAD based on existing military and law enforcement infrastructure?

My concern is that I believe we have not paid enough attention to port security. There are a lot of interesting and worthwhile initiatives under way, but it strikes me as one of our greatest vulnerabilities. When you think that in our country we have some 6 million containers coming into our seaports every year, each of which could contain terrorists, the makings of a dirty bomb, or other dangerous weapons, we really need to have a better system for protecting our coastlines and our seaports.

What is the status of the maritime NORAD?

General EBERHART. Senator, I am in agreement with and a proponent of, at least figuratively, a maritime NORAD. Obviously, whether it is under a NORAD-type arrangement with Canada is one of the things that we are actively looking at right now with our bi-national planning group, with representatives from Canada and the United States, to see if we should change the complexion, the terms of reference, of NORAD as we know it today from air and space to include maritime, to include land, to include civil support.

So that has been actively ongoing for about 6 months, and they will report out in the late summer, early fall in terms of their findings. Those will then be factored into the next NORAD agreement, which will be struck in the year 2006.

Meanwhile, we are not just waiting for that study. We are taking active steps, steps that have been supported and promoted by the Congress of the United States in terms of the Transportation Act and other such pieces of legislation that allow us to make sure that people give us 96 hours notice, those kinds of things which are very important. Now, we do not expect a terrorist to give us 96 hours notice, but it helps us sort through the traffic that is coming to our ports.

The Coast Guard enforces this. If you do not give them 96 hours notice, you will wait out there or maybe you are in fact boarded to be checked out.

I think we have made great progress since September 11 in terms of maritime security. But once again, we have a long way to go, and I think one of the approaches could be, again figuratively, a maritime NORAD, where people out there are transponding their position and identification, and that we have better security at the ports of embarkation so we know what in fact went on that ship as it left the port, the foreign port, where it stopped en route.

So I am a big proponent of a maritime NORAD, coupled with what the Coast Guard is doing, as you are well aware, with the maritime domain awareness, which we think holds great promise. We are working this very hard. We have a long way to go, but I think it is important to note for the American people that we have come a long way since September 11.

Senator COLLINS. Thank you.

General Brown, I would like you to address an article that I read in a recent issue of Stars and Stripes, which talked about a potential exodus of highly experienced special operators to go to private security firms which can pay higher salaries and give greater benefits. It also quotes Secretary O'Connell as saying that the CIA and some of our other intelligence agencies are offering compensation packages and that there is some intergovernmental poaching going on that can be a significant problem for the military.

Could you address what is being done to retain those special operators?

General BROWN. Yes, ma'am, I will be glad to. The retention of our SOF is a big issue. As a matter of fact, we had a meeting up here yesterday with all my component commanders to discuss exactly that issue. One of the problems that you brought up specifically is that in this new security environment we are in, the kind of people that we are training today in special operations are culturally aware, able to work overseas, experts with handguns and long rifles, physically fit, hand-selected guys that also speak a foreign language—every Green Beret cannot graduate from school until he can speak a foreign language. These kind of people are very attractive to those kind of civilian private industries that provide security services, both at home and abroad.

So it is a very lucrative opportunity right now for special operations folks to get out and take very high-paying jobs. Those that are at the 20-year point—and a good example of this is the one Mr. O'Connell mentioned—is that an E–9 at 20 years of service today will retire with about a $23,000 retirement pay per year. He can go out and immediately make five times that much with a security firm and keep his retirement.

For us in special operations, oftentimes we do not get our people until they are a little more mature, because we traditionally, specifically in the Green Beret skill set, do not recruit them until they have already been in the service for a certain period of time. We are getting them later in their military career, and then we put them through this training, which lasts up to 18 months.

So by the time we actually get this operator out in the field he has been in the Army for quite a while. So we are only going to

get this 12 years of time to use him after very expensive training, unless we can keep him after the 20-year point. So while other skill sets can retire at 20, we really need to keep our guys after that if we can because of their skills.

Real quickly, what we have done is during the first week of December at SOCOM headquarters in Tampa, I brought in about 20 families. I brought the wife and the husband in. We conducted a workshop for about a week to come up with any possible initiatives that we can to get people past the 20-year hump and make them more readily available to stay in for a lot longer period of time.

They came up with a lot of initiatives. We are culling through those right now. We have a tiger team. They made their first outbrief yesterday morning to my commanders and we are working through those issues.

Senator COLLINS. Thank you.

Chairman WARNER. Thank you, Senator Collins.

Senator Reed, would you indulge the chair for just one observation? Senator Collins, your comment about the maritime NORAD is one that interests me. I was not clear as I listened very intently to the replies of our witnesses.

The concept is now being worked in your organization, am I not correct?

General EBERHART. That is correct, sir.

Chairman WARNER. We are not going to go out and set up something separate from you just as it relates to the seas, correct? It is going to be expanded within your existing structure and kept there?

General EBERHART. Exactly, yes, sir.

Chairman WARNER. Is that the Senator's understanding?

Senator COLLINS. Yes.

Secretary MCHALE. If I might briefly address that, the Secretary of Defense has directed that we in our office prepare a comprehensive homeland defense strategy by June 2004. General Eberhart has responsibility in a number of domains, the most obvious being the air domain with NORAD. In the land domain, where the mission is constrained by virtue of land missions within the United States, we normally play a supporting role for a lead Federal civilian agency.

But the maritime domain in my judgment is comparable to, quite similar to, the defensive responsibilities that are traditional in the air domain. As we expand those capabilities and push out the maritime defense, that responsibility will be integrated under the affected combatant commander. It will be General Eberhart's responsibility, and that of his successors.

Chairman WARNER. Understood.

I thank the Senator from Rhode Island.

Senator REED. Thank you, Mr. Chairman.

General Brown and Secretary O'Connell, I understand that SOCOM is now authorized to operate in areas which were previously exclusively reserved for CIA. Their operations were governed by certain legal requirements for notifications to Congress, findings by the President. Does SOCOM operate under those same rules?

General BROWN. Sir, we do not have any new authorities to operate in any areas that the CIA previously operated in. All the rules remain the same. I think the difference is that now, as the chairman mentioned earlier, we have the requirement to be able to operate as a supported commander as well as a supporting commander. But we have no unique authorities to operate in those specific areas such as the CIA would operate in.

That process for military in support of the CIA still exists and we still have to go through all those same channels.

Senator REED. But there seems to be an impression that you have been given heightened responsibilities in the war on terror that are more than simply complementary. Is that just an erroneous public impression?

General BROWN. No, sir. We have been given some additional authorities, but they are not operating in the area that the CIA would traditionally operate in. We have been given more authorities. We have been given some more force structure. We have stood up a bunch of initiatives down at our headquarters to help us take on this global war on terror mission.

Senator REED. Thank you very much, General.

Secretary O'Connell, you are responsible in your office for DOD counterdrug policy, also.

Secretary O'CONNELL. Counternarcotics, yes, sir.

Senator REED. That is a growing problem in places like Colombia and Afghanistan. Afghanistan has sort of leaped to the top as one of the number one producers of heroin. I understand that the position of Deputy Assistant Secretary for Counternarcotics Policy is not filled yet.

Secretary O'CONNELL. That is correct, sir.

Senator REED. Do you have any plans, Mr. Secretary, to fill that?

Secretary O'CONNELL. Yes, sir. I screened I believe seven candidates and put the leading candidate forward. It is in the process of getting a yea or nay someplace, sir.

Senator REED. Good. But that is a priority with you and with the DOD?

Secretary O'CONNELL. Absolutely, sir.

Senator REED. Thank you very much.

Secretary McHale, you have already commented on the WMD–CSTs. Could you give a sense of the timing of what States will get their teams in some sort of order and the location of these teams within States? Is that location based upon population centers or mutual support to other teams, or is it simply kind of an ad hoc, first come first served, or other ways to allocate?

Secretary MCHALE. It is the former, sir, and not the latter. When the first 32 CSTs were selected, and they were selected before I came on board, the dominant characteristic in the selection of those teams was population. Although that was not the universal characteristic, clearly those teams were chosen overwhelmingly because of the number of people who could be protected by the teams as they were proposed.

When Congress directed us, as I described earlier, to create 55 CSTs, I began receiving questions from Members of Congress on both sides of the Capitol in terms of what the selection criteria would be, and I decided at that point that we needed to develop

clearcut criteria to guide us in the process. I met with members of this committee individually to discuss that.

Population remained extremely important, but in addition to population, for instance, I told Senator Nelson when I met with him, infrastructure would also be considered, particularly DOD infrastructure. You might have a rural State with extensive DOD infrastructure. We also look toward historic monuments, government centers, and other characteristics that could legitimately be brought into plan. I sent letters to many Members of Congress spelling out those criteria.

Finally, the Defense Threat Reduction Agency (DTRA), one of our WMD capabilities, did a threat analysis with regard to various States, and DTRA came back with a recommendation. So I took the recommendations from DTRA and, with only one exception, applied those criteria in choosing the next 12. It is my intent, based on whatever level of funding is provided—and I advocate the President's proposal, but on whatever level of funding is provided—we will apply those same criteria in the selection of the next 11.

Now, if they are all done at once it is not a choice. But if we phase them in as the President has proposed, we would have to choose four, four, and three, and I would once again use the same criteria.

Senator REED. As I understand it, the roles of these teams are simply to go on the ground and then to begin to diagnose the extent of the situation. But in terms of dealing with consequences, they do not have the resources or the strength to do that. Consequence management, not just diagnosis of the problem, is a key element.

Secretary MCHALE. Yes, sir, that is correct. The CSTs have 22 people, men and women, and they are drawn from the active duty, National Guard, Air and Army Guard, and they have an assessment capability. They are, as I said, on active duty. They can deploy quickly to a site where we believe there is a WMD contaminant. Properly protected with their individual gear, they go into the hot zone and, using remote sensor capabilities, they assess the nature of the contaminant so they can provide that information to follow-on forces.

They also have a communications package, which is a very helpful tool to have at that stage in the process. But you are correct, Senator. They essentially perform reconnaissance. It is an assessment capability.

But, recognizing that we need a high end capability, General Eberhart has trained and equipped JTF–CSTs and some other JTFs to provide a very robust response. What we have recognized is there is an unmet mission requirement between the 22 people on a CST and the thousands of personnel associated with a JTF. We are trying to close that, not only with organizations such as the Marine Corps' Chemical-Biological Incident Response Force (CBIRF), but, as Lieutenant General Blum, the Chief of the Guard Bureau, has proposed, the creation of 12 CBIRF-like capabilities within the National Guard built around existing CSTs, so we could go from the small CST to a larger CBIRF-like capability and then ultimately a response from a JTF if the magnitude of the attack required that.

Senator REED. I would ask General Eberhart to comment on both the criteria and allocation of these teams from his perspective as the unified commander.

General EBERHART. Sir, first of all, I am a big fan of the CSTs. They are diagnostic in nature, but in many cases that early read on what we have is very important so we know how to react.

Second, as Secretary McHale said, their communication package is very valuable, so that everybody can talk to each other, so it translates, it provides the communication capability that did not otherwise exist.

Finally, a spinoff here, and not universally the case, but usually the States that have a CST do a lot more exercising for these types of events, all the way from the local responders in many cases to the Federal representatives in that State.

So I think that CSTs are something we need to continue to pursue. We need to over time upgrade their equipment and, as Secretary McHale said, I am a strong believer that at least in each Federal Emergency Management Agency (FEMA) region or each set of States we need an enhanced CST, more like the capability we have in the CBIRF.

Now, how we allocate those teams is a very difficult issue. Obviously, we take into account population, key infrastructure, and then the issue of distance. Therefore in some cases, especially when you look at our territories out there, it takes us a long time to get that type of capability to a territory. So I believe over time we have the right site picture in having 55 of these, 1 in each State and territory, 2 that already exist in the State of California.

Senator REED. Thank you very much, General.

Thank you, Mr. Chairman.

Chairman WARNER. Thank you very much.

Senator Allard.

Senator ALLARD. Thank you, Mr. Chairman. I just want to congratulate you on this hearing because I think this is an important and very timely hearing. As I look at this panel, 20 years ago we never had these positions, and certainly from my point of view all these positions have become extremely vital to our Nation's security.

General Eberhart, I want to extend a special welcome to you. We are glad to have NORTHCOM in Colorado. My understanding is that you are requiring a lot of technical training to the civil authorities and that you have reached out to academia to help you provide some of this technical training. I wonder if you might make a comment or two about it, and not take up my full time in the process, and tell me a little bit about how that is going and the problems you might be encountering?

General EBERHART. Our overall vision, our strategy here, is much like you and I experienced during the Cold War, when in academia and in think tanks and industry we had all these people who were dedicated to the strategic mission, clearly understood the strategic mission, and therefore we had this intellectual resource which we could draw upon.

I believe that we need to do the same thing today in terms of homeland defense and homeland security. We need to plant those seeds out there, grow people who clearly understand homeland de-

fense and homeland security, not just in uniform, not just in the government, but in our academic institutions, in our think tanks and industry. That is the way we will clearly win this global war on terrorism. That is the way we will win this home game.

So as you have stated, we have a consortium of universities out there that have committed themselves, and these universities are all the way from State universities to private universities to professional military education institutions. They have all come together, and they have sponsored programs, degrees, and courses. They send us interns, we send them people.

I think this is exactly the right way to proceed so we can truly have this capability in our Nation to win this war.

Senator ALLARD. I thank you for your answer.

I am in the process of drafting some legislation that would allow us to reach out to our closest allies on our national missile defense system and work with them with compatible systems. If you have any thoughts about that, I hope that you would share those with us in the process.

So this brings to mind our relationship with Canada. My understanding is that you might be negotiating with them. They are one of the partners I would have in mind for drafting this legislation because they have always been such close allies of ours. How are your discussions going with Canada as far as whether they would be a partner or not in our missile defense efforts?

General EBERHART. Sir, this is at best right now a policy issue, but it is proceeding. Obviously, we have exchanged notes. We have agreed to discuss the issue. There is no specific timetable for a decision here and no decision has yet been taken. I believe it is the right way to go, but obviously the leaders of the two nations have to make that decision.

Senator ALLARD. Now, as the commander responsible for ground-based midcourse defense, can you perform this mission effectively without Canadian support?

General EBERHART. Sir, my belief is that we can. We can do this mission without Canadian support. It will complicate the missile warning portion, but we can do it.

Senator ALLARD. Many potential adversaries continue to develop increasingly more advanced cruise missiles. As we saw in the recent conflict in Iraq, cruise missiles were a problem. Do they create a serious threat and a problem here to the mainland in the northern continent, and if so, are there some things that you can share with us on that particular threat?

General EBERHART. Sir, I am on record as being concerned about the proliferation of cruise missiles and the possibility of a cruise missile threat. We know that threat is a combination of capability and intent. We know that the capability is out there. What we have not yet seen is the intent.

Obviously, we had the same situation prior to September 11. So we are very concerned, and the Secretary of Defense is also on record. That is one of the reasons that we have promoted this High Altitude Airship, so that we have this wide-area surveillance to detect the carrier of a cruise missile, whether it be a maritime carrier or an airborne carrier, because we have to detect it before we will be able to kill it, neutralize it.

So we believe that we are proceeding apace with the High Altitude Airship, but we must have a way for wide-area surveillance because that is the only way we will be able to defeat the cruise missile threat to North America.

Senator ALLARD. Now, in your prepared testimony you noted that elements of the current homeland air surveillance system are approaching or have exceeded their life expectancy and require modifications for continued operations. What is your strategy for either recapitalizing or upgrading these assets?

General EBERHART. Sir, over the years, as their lifetime came to an end, the FAA decision was to go ahead and not replace these radars, because the belief was that airplanes they wanted to keep track of would be transponding and would be on a flight plan. So it was a conscious decision made in the 1980s and the early 1990s.

But after September 11, it became apparent that we needed this capability, that threats might emanate from within, and we had to have a better air picture than we would have otherwise had if we let these radars' lifetime just expire on us. So, with Congress' help, over the last 3 years we have added money each year to continue to fund these FAA radars, and my belief is that we need to continue to do that until such time as we have an alternate technology to provide this situational awareness, this air picture to us, so that we can protect the skies of North America.

Senator ALLARD. Now, you plan on fielding a wide-area surveillance capability that can seamlessly connect all NORAD and NORTHCOM with the DOD and Canada. When do you plan to have that in place?

General EBERHART. Sir, for all practical purposes we have that in place today. We have netted scores of radar that were not previously linked together. We see that in our NORAD command centers. We have established radio contact and put radios in all of the air traffic control centers out there, so we have good connectivity in terms of communications. We have liaison officers in the air traffic control centers and the FAA has liaison in our command centers.

So, we have in fact netted that together today. Obviously, the challenge will be to keep that netted together as these radars age out.

Senator ALLARD. Thank you, Mr. Chairman. My time has expired.

Chairman WARNER. Thank you, Senator.

Senator Lieberman.

Senator LIEBERMAN. Thank you, Mr. Chairman.

Thank you to all our witnesses for being here today. The chairman mentioned earlier the hearings that took place in this room over the last couple of days of the so-called 9/11 Commission, and there was a lot of discussion about what was not done before September 11. I must say it is reassuring as I hear your testimony to see how much we have done, in your case through the DOD, obviously alongside the new DHS and a lot of other agencies, and I appreciate it.

I am sure all of us would agree that we are not where we would like to be yet, but we are a lot further along than we were before September 11, and I think we all ought to take some satisfaction

from that and we ought to express our gratitude to all of you for what you have done to make that happen.

I did think in all the controversy and sound and fury of the last couple of days that one of the new pieces of information, at least at a harder level, was in the staff report by the commission yesterday. It stated that the FBI had identified two al Qaeda operatives associated with the attack on the U.S.S. *Cole* that were in the country, in our country, in August 2001, and apparently the White House and the Counterterrorism Security Group (CSG), which Mr. Clarke I guess headed, never knew about that.

I take comfort in all the discussions that we have had—I take some confidence that that would not happen today, that there is enough interaction every day. I have been impatient about the coordination of the terrorism watch list, but there is enough going on that that would not happen. I worry, as my colleagues have, that there may be a proliferation of intelligence-gathering and fusion operations so that it may come to a point where there is not a clear sense of accountability.

I note, General Eberhart, in your testimony that you have stood up a combined intelligence and fusion center in NORTHCOM. I would appeal to all of you to do what I am sure you will do anyway, which is to make sure that this profusion of such centers to fill the gaps that did not exist before do not become so diffuse that there is not a clear line of accountability when somebody is making decisions about what happens.

But with that invocation and expression of appreciation, General Brown, I wanted to ask you a couple of questions. What is the number of active duty personnel that you have working under your command? In other words, how much SOF do we have?

General BROWN. Sir, today we have about 49,800 total soldiers, sailors, airmen, marines, and DOD civilians in SOCOM. Of that, about 14,900 are Reserve. So we have 49,000 on hand today, and about 14,000 of those are Reserve components.

We will grow in 2005 to about 51,000 total people in SOCOM. About 14,000 will stay Reserve components.

Senator LIEBERMAN. Okay. So we are obviously calling on you. You are really are on the front lines in so many different ways.

General BROWN. Yes, sir.

Senator LIEBERMAN. If I caught your opening statement, you said that your forces in some sense were stressed, but that the OPTEMPO was manageable. The question really for us as the authorizers, knowing that everybody would always like more, is to urge you to be very direct with us in telling us if you are not getting the kind of personnel and support you need to carry out the missions that we all desperately and deeply want you to be able to carry out.

General BROWN. Yes, sir, I will.

Chairman WARNER. Could I make an observation?

Senator LIEBERMAN. Yes.

Chairman WARNER. You have raised a very important point.

Of that 14,000 Reserves, how many are there by virtue of volunteering, as opposed to being called up?

General BROWN. We have 14,000 total assigned to our force.

Chairman WARNER. Yes.

Well, maybe you can provide that answer for the record.

General BROWN. I really have to provide that for the record.

[The information referred to follows:]

SOCOM has approximately 14,900 authorized Reserve positions from all Services. All of those reservists have volunteered for Reserve assignment within SOCOM. Following the events of September 11, 2001, and in response to the presidential call up to active duty, many of our Reserve Forces were needed to support OEF, then OIF. In compliance with guidance of the Services, prior to mobilization, all of the subsequently-mobilized reservists signed a mobilization volunteer statement. Mobilization extensions for a second year also required those volunteers to sign a mobilization volunteer statement. As of March 2004, approximately 62 percent (9,238) of SOCOM Reserve Forces have been mobilized.

Chairman WARNER. I think a lot of them are persons who really want to be a part of your force and, even though they are in the Reserve Army, they are there because they really want to be there.

General BROWN. We have a great history of using our Reserve component.

Senator LIEBERMAN. Would I subtract them and say that you have about 35,000 on active duty?

General BROWN. Yes, sir.

Senator LIEBERMAN. That is a relatively small percentage of our overall active duty personnel, in an area where you are really being asked to do a lot. There are high demands on you. So I hope you will come forward and let us know how we can be of support to you.

Let me focus on Iraq for a moment, because clearly I know we face many threats, and we have talked about them here, to homeland security, but our ability to secure Iraq in the near and midterm so that the transfer of sovereignty can occur, so that the elections can occur—I do not know in all the responsibilities we have that there is anything more important that we are going to have to try to do in the next 6 to 8 months.

What lessons have you learned from what is going on there now in a broad sense? There is such good news happening there, in terms of the interim constitution, the oil industry picking up and producing more, and the polling showing the number of Iraqis who are optimistic about their future. But in the mean time, of course, these terrorists are killing a lot of Americans and a lot of Iraqis, and until that security is restored all the other good things that are happening are going to hit a wall.

Can we stop this insurgency?

General BROWN. Sir, I think we are doing a great job over there doing it. All the SOF over there today are in support of General Abizaid. We are out on the ground and we are developing the situation, developing intelligence, taking bad guys off the street, and we are doing it at a very rapid rate. We are working very hard on that.

Additionally, we are, from a special operations perspective, adding that stability and security to the country. We in special operations play a big role because we also have the civil affairs forces, of which we have over 1,200 deployed over there, about 800 or so in Iraq and the other 400 in Afghanistan. Additionally, we play a big role in the security and stability of Iraq because we also own the psychological operations forces, which are the experts in providing information.

We play a big role in all those and I think the progress is very good in every one of those areas.

Senator LIEBERMAN. Let me ask you this final question. In a country that I guess is about as large as California, with a lot of vulnerable targets obviously, and an enemy that wants to frustrate the progress, stop it, turn it around, and create chaos, how do we stop them?

General BROWN. Sir, I think we just keep hacking away at it. For them it is a target-rich environment.

Senator LIEBERMAN. Right.

General BROWN. The inert explosive devices (IEDs) are a big problem for us over there. It is very difficult to defeat the IEDs. We have a great program going on to try and work to stop those, but it is just one of the things that creates this perception of chaos over there.

But I think we just keep working on it. We try and take the bad guys off the street and defeat them. We continue to build the infrastructure and stabilize the country, and we get the information out of exactly all the good news and good things that are going on.

Senator LIEBERMAN. Is our intelligence on the enemy there improving? It is not an enemy in a conventional sense, obviously. They are disparate, they are operating in cells; they are connected, they are not connected. Are we breaking through?

General BROWN. Sir, we have a great intelligence lashup over there. Our SOF, specifically, that are operating out in the villages and towns, are able to work intelligence very rapidly. That is one of the great success stories that we are learning over there. A lot of that is based on our ability to have interrogators and interpreters and have a language capability and some cultural awareness, so that when they go in and hit these targets, the intelligence gets instantly processed, so that if the target has a data point where you can go and immediately take out another target, that will just continue to build success upon success.

At the operational and tactical level on the ground, the intelligence processing between SOF and the other folks that do that is very good.

Senator LIEBERMAN. Thanks, General. I thank you all.

I have so many more questions, but Senator Roberts is next. He is a very important and busy man and I do not want to keep him waiting, so I will yield.

Senator ROBERTS [presiding]. Thank you, Senator. Three years ago, the Subcommittee on Emerging Threats and Capabilities, which is the subcommittee that was initiated through the far-sighted commitment by Senator Lieberman and Senator Coats of Indiana, and then the chairman who led the effort, we became concerned that there was no single accountable official in the DOD specifically responsible for combatting terrorism. That obviously led to the ASD–SOLIC being designated as that number one official.

This question is for Secretary O'Connell—and Paul, it is good to see you. Thank you for your service and thank you for your service in the House.

Secretary MCHALE. Thank you, sir.

Senator ROBERTS. Who now is the single accountable official in the Department that is responsible for combatting terrorism policy?

Secretary O'CONNELL. Sir, I am.

Senator ROBERTS. You are? You are the one?

Secretary O'CONNELL. Yes, sir.

Senator ROBERTS. So 3 years ago, when we asked the four witnesses to come in and sit down in order of their accountability and in regards to who was in charge, and they really could not figure out where to sit—so we have made some progress without question in that regard.

I was going to ask General Eberhart about his experience in exercising the Nation's response plans with regard to the DHS and the lessons learned from the exercises that you have described, but Senator Inhofe has asked that question and you have responded very well. I just encourage you to keep those exercises coming and I think they are very valuable.

I do have another question for Secretary McHale. A recent Defense Science Board (DSB) study concluded that if the homeland were attacked, DOD could be called on or it probably would be called on without question to assist with a response to the various incidents. This study stated, and I am quoting here, "The execution of this mission could require capabilities in areas where the Department is deficient," and listed the following three:

One was in regards to mitigation; two, the ability to surge medical capabilities. Within that statement was the figure that if you go nationwide and take a look at the hospital beds that are available in our Nation's hospitals, obviously it will vary from place to place, but we get down to about an average of six beds per hospital. That is a rather critical concern. Then the third one was in regards to the communication operability.

The report went on to call for increased emphasis and priority obviously in funding for these areas. Could you tell me just briefly what the DOD is doing to address this very critical shortfall in each of these areas?

Secretary MCHALE. Senator, my office worked very closely with the DSB in preparation of that study. A member of my staff was the secretary for the DSB study and our coordination could not have been closer. So there was nothing in the study that surprised me, and I am in general agreement with really the superb effort that they completed.

Ordinarily when we would have a domestic attack, the President would declare a major disaster under the Stafford Act. The DHS would take the lead. FEMA would be the subordinate element of the DHS that operationally would take the lead, and FEMA would then have the authority by law to come to the DOD with a request for assistance so that we might provide various capabilities, up to and including for instance JTF–CSTs, a very large task organization specifically trained for WMD response.

Long-term mitigation would not ordinarily be seen as a DOD mission. Depending upon the nature of the contaminant, it might well be an Environmental Protection Agency (EPA) mission. But certainly in the immediate aftermath of an attack we would have a response capability that could be vitally important. We now have that capability in JTF–CSTs, and under General Eberhart's leadership we are developing similar capabilities in other JTFs of similar size, so that within hours after such an attack very large DOD

forces are trained and equipped to deploy in support of the FEMA-led civilian mission.

Senator ROBERTS. That was my next question, in terms of time. You are saying that is within several hours in regards to the presidential declaration and then you go through those various chains of events that you've described.

Secretary MCHALE. Yes, sir.

Senator ROBERTS. So you could respond within several hours to a chemical, biological, radiological, or nuclear (CBRN) attack or a mass casualty event?

Secretary MCHALE. Yes, sir. The actual time frame is I believe classified, but it is measured in hours. The capability is one of echeloning forces into the theater. That is, the lead elements—and General Eberhart is more expert in this area, but the lead elements of JTF–CSTs would be able to deploy very quickly, and the follow-on elements similarly would deploy within hours, hours being measured in slightly more than days.

But we are talking about a rapid, almost immediate response in terms of initial capabilities, with very robust capabilities following shortly thereafter. These units involve a range of capabilities, everything from assessment, decontamination, medical capabilities, everything up to and including mortuary affairs, which is a very challenging mission requirement in a contaminated environment.

Senator ROBERTS. I remember the hearing that we had here about, oh, 2½ to 3 years ago, and we actually had members of the Intelligence Committee, the Armed Services Committee, and even the Appropriations Committee here. We asked 46 agencies at that particular time, in regards to homeland security: Number one, who is in charge; number two, what is your mission; number three, what do you really do; and number four, what do you need in terms of priority funding?

Of course, the answer to all four was: yes, I am in charge, and here is our mission and here is what we want to do.

Then we had the sheriff from Arapaho County, Colorado, who was the very last witness, and he said: Senators, I will tell you what. It is going to take you feds about 72 hours to come out to where I am and I have news for you. Until you get there, I am in charge; and I have not seen one damn thing yet.

Now, that was 3 years ago. We have come a long ways from that and I credit all of you in regards to that effort.

My time has expired. I would like to ask General Brown how well you think we are doing in transferring technology from the research labs to the warfighter on emerging threats. We have that jurisdiction, and we just had the Defense Advanced Research Projects Agency (DARPA) gizmo show—those are my words, not theirs—in regards to the technology to get something off-the-shelf, to get it into the warfighters' hands, to respond to the immediate concern, i.e., the protective armor in regards to the high-mobility multipurpose wheeled vehicles (HMMWVs), all of that.

Do we have the process now down to where you can get what you need?

General BROWN. Sir, we have a great process. Under our acquisition authority I have a group of people that are out looking for high tech solutions. We work very closely with DARPA. We routinely

run exchange days to make sure that our operators have a chance to see everything that DARPA's working on.

But quite frankly, it is not only that. We are reaching out to industry. I have a group of people that work very closely, that go to all the trade shows and are out there searching for what our requirements are. Many of those people came out of the field and are operators, so they know what they are looking for.

Senator ROBERTS. I appreciate that.

Thank you, Mr. Chairman.

Secretary O'CONNELL. Excuse me, Mr. Chairman. Senator Roberts, if I could be permitted to respond or to expand the response to Senator Roberts' question when he was addressing Secretary McHale and myself. The single DOD point for counterterrorism within the office of the Under Secretary for Policy, who is my boss, he of course is responsible to the Secretary of Defense. But in the chain of command for counterterrorism activities, that would flow of course not through me or through Under Secretary Feith. It would flow directly from the Secretary to a combatant commander such as General Brown. Counterterrorism is in his portfolio and in my portfolio on the policy side. But I do report to Under Secretary Feith and I just wanted to clear that up, sir. I thought you were referring between Secretary McHale and myself.

Chairman WARNER. I think it is important that clarification is in there.

Senator ROBERTS. That is fine. Thank you.

Chairman WARNER. I would like to note that Senator Roberts hosted a SOF event last night in this building, and I was privileged to join. I was very impressed. I hope you were too, Senator, by the ability of those young troops to interpret the most complicated and technical operating equipment.

Senator ROBERTS. I stood at parade rest, Mr. Chairman, and that is pretty good for a marine who very grudgingly admits that SOCOM is second to none in regards to their capability, in part because they have marines on board. [Laughter.]

General BROWN. Thank you very much for hosting us the other night.

Senator ROBERTS. Does the Secretary agree?

Secretary MCHALE. I would certainly support the Senator.

Senator ROBERTS. Semper fi.

Chairman WARNER. Let us get back to business here.

Senator Pryor, restore order, please.

Senator PRYOR. General Brown, I would like to ask you about something you said a few minutes ago, or maybe I should say a few Senators ago, when you were talking about retirement. I assume you are talking about SOF?

General BROWN. I am.

Senator PRYOR. Tell me again? At 20 years a lot of SOF get out of the military? Tell me about the 12 year, 20 year?

General BROWN. We have many skill sets in the special operations community. Every one is different and has unique challenges to retention and recruitment. But the one I am specifically discussing is our Green Berets, and that is the core of the Army special operations component.

We traditionally recruit those guys out of the force at large. So these individuals may already be in the Service for 6 or 7 years or less, but they are usually at about the 6-year point. We then bring them in and put them through about an 18-month course to make them a Green Beret. Once they graduate from that, then we will get 12 to 14 years of service out of them before they hit the 20-year point.

If we can keep those guys past the 20-year point, out to the 26-year point or the 28-year point, that saves us somebody we obviously do not have to recruit, retain, and train. While we want to retain all those guys below the 20-year point also—and we do have some of them getting out to take these lucrative jobs—one of the key points in the article I was referencing talked about the folks that retire at the 20-year point.

Senator PRYOR. So give me your ideas on how that should work, then? Should we have special incentives for them to stay in? How do you think that should work?

General BROWN. I think that there are a lot of options and we are mulling over a bunch of those from this focus group. We brought in the wives and the special operators. By the way, those were not just Green Berets that we brought in. We also brought in our SEALs, Air Commandos, and others, so that we got a good view from all of our special skill sets.

An incentive package may be one of those issues. Education opportunities may be another. The number one retention issue in any Armed Force is job satisfaction. Our folks on the battlefield today have great job satisfaction, but they also have a concern to take care of their future and their families, and at the 20-year point if you can get out and go right back and do much of what you are trained to do and make five, six, or even eight times the money that you are making, it is a very lucrative opportunity for them.

Senator PRYOR. Right. In Secretary O'Connell's statement on page 8, it said: "In many respects, force management is the most critical problem facing SOF." This kind of begs the question about recruiting and retention. Should we, in your view, General, differentiate with special operations, even to the extent of making them into some sort of specialized branch of the service? I am not quite sure how but should we differentiate, given the fact that we do have quite an investment in these soldiers and they are extremely good at what they do? Should we differentiate in some way?

General BROWN. We already do to a certain extent. There are provisions for special duty assignment pay, which our A-Teams, our Green Berets, and our SEAL teams get. So we already do differentiate between them and other skill sets in the military, but it is not a great deal. Those are the kind of things that we need to address in how we are going to work this retention problem.

I will say quickly on the recruiting issue you mentioned that today our recruiting is very good for SOF. Every seat in every special operations school we have is filled. Now, that does not mean that you will immediately run a couple classes and fill up the force, because today only about 23 percent of the people that sign up to be a Green Beret or a SEAL actually make it all the way through the course.

Senator PRYOR. Really? I did not realize that.

Secretary O'Connell, what about your thoughts on—I do not mean this in a bad way—special treatment for special operations? What is your view of how much we should differentiate or incentivize them?

Secretary O'CONNELL. Sir, it is a very good question. We could literally spend weeks addressing it and I know we do not have weeks. I was privileged to spend yesterday with General Brown and his combatant commanders and his senior enlisted advisers and other specialists that have looked specifically at this program. I think there is a range of options that can be taken.

We have to remember first of all that these special operators come from the Services and we need to coordinate with the Services. Sometimes they go back to their own Services. It is a continuous problem. I will say that I think we need to understand that as technology moves forward the unbelievable capability of many of the special operators, particularly on the Green Beret side, the Ranger side, the SEAL side, Air Force Special Tactics personnel, and others, as they are able to integrate themselves more effectively on the battlefield with technology and using our other Services, they can impose a tremendously lethal blow on the battlefield working in small units, as we have seen.

Therefore, their ability to equate to the combat power that used to be handled by 8, 10, 12, maybe 100 people is something we should take into account as we look forward down the line in transformation.

But your question is a good one. We could give you many responses across the board, but it is something we are very conscious of. We do not want to get an "us versus them" capability, but the reality is that the "us" is pretty darn good.

Senator PRYOR. Thank you.

General BROWN. Sir, could I readdress that one last time?

Senator PRYOR. Yes.

General BROWN. I do not believe it is about special things for SOF. I think as you look across all of the Services there are other areas where we have had shortages and that we have had to make special considerations to keep those kind of skills. Aviators are a great example, all the initiatives that we started to keep aviators and doctors. There are special considerations already being made. I think that is more what we are talking about. We are not talking about singling them out for special consideration for special people.

Senator PRYOR. Thank you.

Chairman WARNER. Thank you very much, Senator. That was an interesting line of questioning.

Senator CLINTON. Thank you, Mr. Chairman.

Thank you, gentlemen.

Secretary McHale, during your confirmation hearing last year I raised concerns about the numbers of firefighters, police officers, and emergency personnel who were being called up, and of course we have seen an increased OPTEMPO even since your confirmation hearing. In February of last year I wrote to Secretary Rumsfeld about this issue, and I appreciated your pledge and that of the Secretary to find answers as to what the impact of the call-up of these first responders are, because it connects with what you are doing

on homeland security with these new CSTs. It is a very critical question to much of what we are discussing today.

Now, I have been trying on my own to gather some of this information. For example, the latest information I could get is that in 2002 the New York Police Department spent more than $200,000 a week to cover their reservists and firefighters. Well, they covered their reservists who were in the police department. The fire department spent more than $100,000 a week. We have $300,000 a week coming out of the New York City budget.

We also have problems in smaller communities, like Niagara Falls. The Niagara Falls Police Department spent more than $350,000 last year to cover their officers away on military leave. They expect to spend the same now. I have gotten information from a variety of other States, from Utah to North Carolina to Texas to Georgia.

We are still concerned about this because it is a deployment of personnel and resources and, just as the SOF take a lot of time to learn their job, to get ready to carry it out, we found tragically on September 11 that a lot of our firefighters and police officers also take a while to understand exactly what they need to do, and we are losing a lot of those people to their Reserve and Guard duty.

Have you been able to conduct the study that I requested last year and do you plan to publicly release the results of that? Are there any policy changes that you might consider because of the impact?

Secretary MCHALE. Senator, the issue that you raise is very challenging, not only in the public sector, but for private sector employers as well. When you had asked me the question during the confirmation hearing, I did not have the information. The issue that you raise is one that falls within the jurisdiction of the ASD for Reserve Affairs. We in ASD–HD operationally, we provide the policy guidance; General Eberhart operationally commands those Reserve Forces that are actually dedicated to the homeland defense mission. But issues of mobilization, recruitment and retention fall under the authority of the ASD for Reserve Affairs.

In response to your inquiry I went back to Mr. Hall and he told me at that point that we did not have in our database of information the ability to identify which of our reservists were simultaneously deployed as first responders. It was challenging, not so much in the case of professionally employed first responders, but because so many of our communities, particularly in your State, in the rural areas, are served by volunteers.

We knew that an individual reservist was employed working for, let us say, a manufacturing company. What we did not know was that in his or her part-time hours he or she might have been a volunteer for a paramedic unit.

You and I had met on the subject and I had given you at that point the latest information that I had. I also brought to your attention that there is what I will call a delayed entry program. That is, if a first responder is notified that he or she is being brought to active duty, the community in which that first responder works can request and will be granted by the DOD a brief delay to bridge the gap so that we do not have an abrupt departure of that first responder.

Lastly, I will now get back to Secretary Hall and find out what progress has been made in the database, to see if we can identify how many professionally employed and volunteer first responders are also reservists, so that we can quantify not just for the public sector but for the private sector as well the dual obligation.

Senator CLINTON. I appreciate that very much, Mr. Secretary.

I am also concerned about the continuing coordination between the DOD and the DHS, and I would like to ask you, Mr. Secretary, and you, General, as well that—last year we were told that the DOD did not coordinate their heightened threat levels with the DHS's color code. Now, can you tell me whether there have been any changes to code orange or code red with respect to DOD and NORTHCOM? In the event of a decision to increase the threat level, who makes the call on whether we increase defensive measures for New York? I am very focused on our continuing vulnerability and the fact that we remain such a high target.

Suppose the DHS initiated a higher code level of alert, but the DOD and NORTHCOM decided not to. Where are we supposed to end up there in New York, particularly New York City? The police and firefighters and the mayor's office, they have their own intelligence because we are so big and we feel the threat so intimately. But obviously the coordination with all of you is equally critical.

Can you explain where we are in all of that thinking now and what the sequence would be?

Secretary MCHALE. Senator, I would be happy to and I think General Eberhart would probably want to comment then perhaps on the air threat levels and some of the operational matters that fall within his purview.

At the highest level, I can give you a complete assurance that we have made dramatic progress in the last year, in terms of coordinating DHS and DOD activity. I mentioned briefly a little bit earlier that members of my staff now work full time in the Homeland Security Operations Center out on Nebraska Avenue, completely engaged 24–7, 365——

Senator CLINTON. Mr. Secretary, if I could just stop you a second. Does that mean that if we see Secretary Ridge on television raising the threat level that there has been an agreement and a signoff in the DOD on that increased threat level?

Secretary MCHALE. There is certainly a coordination. There is not a signoff in that the statute that sets the level, as I recall, the system level, is the Homeland Security Act of 2002, and the Secretary of Defense does not have a veto, he does not have to sign off.

But I can tell you from my own experience and participation, there is robust communication and coordination. Before the Secretary of DHS, in consultation with the Attorney General, raises it, let us say, from yellow to orange, the Secretary of Defense has full situational awareness of what is going on, and ordinarily he or a designated representative—at times it has been me in the past—can participate in that discussion as Secretary Ridge makes his statutorily assigned decision.

Now, the Secretary of Defense, within the NORTHCOM AOR, decides our force protection condition. He confers directly with his combatant commander. He discusses that issue ordinarily with

General Eberhart. General Eberhart may make a recommendation. But the actual decision for force protection of DOD facilities is made personally and directly by the Secretary of Defense within the United States.

Senator CLINTON. Of course, I am concerned about DOD facilities, but I am also concerned about civilian facilities and obviously the assets to provide whatever additional support, overflights, whatever kind of resources are needed more likely to come from DOD than from DHS. At what point, General, do you get into that conversation, and do you then make the decision or is that not yours to make?

General EBERHART. I think what is important to note here is why we are going to change the color code or the threat level. What is the threat? What have we perceived that would make us change? To give you an example, maybe it is a threat to a subway system. That may not be a reason to increase the air patrols. So that is what Secretary McHale is referring to. We talk about what the threat is and why we are changing the color code or why we are changing the force protection or the anti-terrorism measures that we are taking.

If it is a threat we think we can deter, defeat, and prevent by using a combination of things, then you will see those two things running side by side, just like we saw over the holiday season. When we changed the color code, we also changed our force protection measures—our air patrols, the number of aircraft we had on alert, et cetera.

What is important to note is why we are changing it and what the relevance is to what the DOD could provide or the DHS and other law enforcement agencies can provide. But now we are talking. Frankly, at the beginning we were not. So we might read about a change in a color code, we might read about a change in the force protection. Now it is very well linked. We know why. We can take the appropriate measures.

Senator CLINTON. Thank you.

Chairman WARNER. Thank you, Senator. That was very interesting.

Senator Bill Nelson.

Senator BILL NELSON. Thank you, Mr. Chairman.

General Eberhart, this afternoon in a subcommittee of this committee we have to start making some decisions about keeping a second line open for expendable launch vehicles. That is not your AOR, but perhaps in a side bar conversation, because of the former hat that you wore at Space Command, I would be appreciative of your thoughts on this. It is going to be a pretty critical decision and we cannot afford to mess it up.

Let me ask you, on the subject of this hearing, rumors continue to abound that Secretary Rumsfeld wants to combine NORTHCOM with Southern Command (SOUTHCOM). In your professional opinion do you think NORTHCOM is prepared to accept a significant increase in duties and an expanded AOR that would include all of SOUTHCOM?

General EBERHART. Sir, despite the rumors, the ground truth is that the Secretary of Defense, as he has done for the past 3 years, has requested a review of the Unified Command Plan (UCP), some-

thing that we do every year as a matter of course. Part and parcel to that, is there a way to organize better in terms of perceived or real seams between commands and commanders' responsibilities and authorities? Is there a way to organize better for this global war on terrorism and what we see in the 21st century versus what we saw in the Cold War?

I think the steps the DOD, under the Secretary's leadership, has taken over the last 3 years show he is very objective. So the Secretary has not decided that he is going to combine them. He has not said he wants to combine them or establish a new command. "Combine" is probably not the right verb. But he wants a good, objective look at what the pros and cons would be of combining them. That is what SOUTHCOM, NORTHCOM, the Joint Staff, and offices in the Office of the Secretary of Defense (OSD) are doing as we speak.

Would it work? Sure, we can make anything work. Is it the right thing to do? I am not sure, because I have not seen the analysis yet, and the only thing I would give you would just be my intuition.

So I believe it is something that warrants a look, and probably will warrant a look every year for many successive years, as we have looked at it since the early 1990s.

Senator BILL NELSON. Well, at some point I would like your professional opinion. So if you do not want to offer that now, at some point in the future I would like to have it.

I will give you my professional opinion. With the excellence of the four-stars that we have had there, like General Hill now and General Pace before him, that is an area of enormous responsibility. They not only have to be a military commander, they have to be a diplomat as well, dealing with the heads of government of all of those scores of countries.

The other thing is there is a distinct military challenge for the future, because as terrorism moves from Asia and the Middle East into Africa and then into Latin America, we have a significant military threat.

Let me move on. General Brown, you have the SOF that are getting busier and busier, especially as we reorganize the forces. There is an article on the front page of the paper today about reorganization, which I have discussed with General Jones at length. The thrust of the article is about how we are going to reorganize the troops over in Europe.

But wherever we are, your troops are really going to be a major component. My question is, how are you going to manage this ever-increasing OPTEMPO when you have a limited size of special operations units?

General BROWN. Sir, right now we are involved in the biggest deployment in the history of special operations. 73 percent of all our deployments are in the Central Command (CENTCOM) AOR right now in Iraq and Afghanistan. This is the highest OPTEMPO special operations has ever had, to include our civil affairs and psychological operations forces.

For example, traditionally, we take a SOF group and they are oriented on a region of the world. The way we are accomplishing it today, and to sustain our Green Berets over there, is we are using other special group forces, including our two great 19th and

20th SOF and National Guard units, and we are putting them into the fray in Afghanistan and Iraq so that we can get a manageable OPTEMPO for our SOF.

We just increased the amount of SOF over in Iraq over the last 4 or 5 months significantly and it is still manageable. We are working very aggressively to try and fill up our units. We traditionally stay about 85 percent full in a regular SOF or SEAL unit not because we cannot get the people, because we have to get them through the training.

So what we are doing is enhancing our schools so that we can increase the throughput without changing any of the standards of what it takes to be a special operator.

So in those forces I think all that is manageable. As I mentioned earlier, the place we are getting stressed right now is in our civil affairs forces, because out of our 28 battalions, 27 of them are in the National Guard or in the Army Reserve, and we are coming up to a mobilization problem with them. We are taking that on right now for the AOR that has taken all those forces a couple ways.

One is that we think the requirement for them will reduce as the infrastructure continues to build over there. It is already starting to reduce the requirement for our civil affairs forces. Additionally, in our fiscal year 2005 budget we will grow additional civil affairs forces, both active and Reserve, so that will help us with some of those problems.

We will grow from fiscal year 2004 to fiscal year 2009; about 2,700 total people will be added to SOF. Some of our most stressed areas are going to grow. We are going to grow a brand-new MH–47 Echo battalion. That is very important. We are going to grow for a brand-new C–130 Combat Talons. That is already happening. We have just added four AC–130 gunships.

There is a combination of all of these things going on that will help us manage our OPTEMPO in the future. Additionally, as I mentioned, we are prioritizing the deployments now and we are in charge of where they are going, and that helps us a good deal in managing OPTEMPO. Additionally, as we go into the theater geographic combatant commanders' AORs, some of our presence will be done through our exercise programs and our joint combined exercise training and joint exercise programs, that will allow us to maintain that presence, but it will be on a rotational basis.

This is a big one. We work force management every single day to make sure we are doing the best possible job we can to sustain our force.

Senator BILL NELSON. I think your command is the place to be for the future.

General BROWN. So do I, sir.

Senator BILL NELSON. So good luck.

Mr. Chairman, I have a couple more questions.

Chairman WARNER. Go ahead.

Senator BILL NELSON. Secretary McHale, obviously we are using the National Guard a lot more than we have in the past, and so the question is homeland security. If you have the National Guard over there—and we are well aware of that in Florida, by the way, because at one point, because the 124th is so good, you had them in there first and it was right in the middle of hurricane season.

If we had had another monster hurricane we would have had difficulty, and the head of the National Guard can tell you that.

My question to you is about homeland security. If we are relying on the National Guard and Reserve so much in the force protection over there, what do we do to keep ourselves protected here?

Secretary MCHALE. Senator, when I served back in the House there was a lot of discussion back in those days—the late 1990s—about excess force structure and end strength in the National Guard. We had eight Guard divisions at that point that were not written into the war plans and there were frequent discussions. I was the co-chair of the Guard and Reserve Caucus and I am very familiar with the Florida Guard. General Harrison is a very close friend of mine.

There were significant debates that took place as to whether or not we had too many folks within the National Guard at that time. I do not hear that discussion taking place these days. As I indicated earlier, by the spring of this year I think 37 percent of our force in Iraq will be drawn from the Reserve components and a large piece of that from the National Guard.

Lieutenant General Blum, who is the Chief of the Guard Bureau, has looked very carefully at the specific issue that you have raised. What we are looking at is a continuation of Guard warfighting responsibilities overseas, with more than sufficient assets remaining at home for the anticipated homeland defense missions. Those missions typically would involve things we talked about earlier, such as the CSTs and perhaps integration into our consequence management capabilities.

Also, Lieutenant General Blum is now forming joint forces headquarters for all of the Services, title 10 as well as the National Guard, at the State level under the immediate leadership of a National Guard staff, National Guard in the sense that the leadership at the senior levels would be coordinated by the National Guard.

The most manpower-intensive mission that we see emerging for the National Guard is critical infrastructure protection. So if in Florida there is a credible threat, let us say, to a nuclear power plant and that threat is so detailed that we believe that civilian law enforcement cannot adequately protect that facility, it is anticipated that the National Guard may well be deployed by the governor in State status or perhaps in the future in Title 32 status for the physical defense of that facility.

At the end of the day, a very careful analysis conducted by Lieutenant General Blum in reviewing existing force structure and end strength has led him to believe that we do have sufficient forces for the Guard to continue participating both in overseas warfighting requirements as well as the foreseeable homeland defense missions. We have enough folks to do it.

Senator BILL NELSON. I would like to also ask you and perhaps General Eberhart a question. There was a new criteria that was added for the Base Realignment and Closure (BRAC) Commission to consider, which was the measurement of an installation's value to homeland security. So are you going to be personally, the two of you, are you going to be personally involved in that BRAC analysis and decisionmaking process?

Second, what are the elements that you use to measure the value of a base to homeland security?

Secretary MCHALE. The BRAC process obviously involves the close consultation with and insights provided by the military commanders. I would certainly expect that General Eberhart's opinion would be solicited because it is an important opinion. He has insight operationally into many of these matters.

But the BRAC process itself is being led primarily by civilians, with the input of military commanders who help to shape their judgment. Ray DuBois has that lead for the DOD. He and I met yesterday on this very issue. The criterion that you cited I think is the number two criterion that was listed among the points to be considered when determining whether or not a given installation will be BRAC'ed.

Points one and three also have relevance to homeland security implications, and I will be directly and personally engaged with Mr. DuBois as he makes these determinations during the BRAC process as to whether or not a given installation is so crucial to homeland defense that it ought to be spared from consideration of closure.

Having said that, because of the nature of homeland defense missions, there are very few installations that have unique infrastructure that would require their continuing operation to support the more general homeland defense requirements—infantry requirements, for instance, for site security. Some exceptions might be unique port facilities or perhaps facilities that have been constructed to support training with regard to WMD.

But fortunately, for the most part we can train and deploy homeland defense forces in a wide variety of circumstances at a wide variety of locations.

Senator BILL NELSON. I am not concerned about the process as long as I know that the uniformed military is involved in it and making decisions.

Secretary MCHALE. Yes, sir.

Senator BILL NELSON. General Eberhart, are you going to be involved in making these decisions?

General EBERHART. Sir, I have not been told that I will specifically be involved, but I have every reason to believe I will be involved, and I will certainly ask to be involved. In fact, the criterion you cite is one that we promoted from NORTHCOM and NORAD, because we believed that criterion was not there before, and understandably so, in previous BRAC processes. But, when you look at the global war on terrorism, when you look at proximity to our population centers and key infrastructure, we think it is a criterion that should be included this time, and we applaud its inclusion.

Chairman WARNER. Thank you, Senator, very much.

Senator BILL NELSON. Thank you.

Chairman WARNER. I think those were very relevant questions. I started out this morning talking about Secretary Rumsfeld's plan for relocating, and that will have an impact on the current BRAC process, I am sure, if he brings a lot of those troops home.

Senator BILL NELSON. Mr. Chairman, as long as the uniformed military is directly involved in the decisionmaking, then I have a

lot less worry. It is when they are excluded that the suspicion-caution flags come up.

Chairman WARNER. In the BRAC process they give specific recommendations to the Secretary. I think that would constitute active participation.

I want to wrap up the hearing. We have really had a very good hearing today and I am exceedingly pleased with the information that you have imparted to the committee.

In my trip to Afghanistan, Secretary O'Connell and General Brown, I was troubled to learn of the large increase in cultivation and trafficking in opium in these countries. The National Defense Authorization Act for Fiscal Year 2004 gives the DOD new authority to use DOD counterdrug funding in those countries. Are either of you involved in the decisionmaking about the Department's plan for combatting drug cultivation and trafficking in the region, and what efforts have been undertaken to fully synchronize these plans with the Department of State efforts?

I have talked with General Jones about this, because there are plans for enlargement of NATO's role. Now, I realize that is out of your sphere of activities, but I stressed to General Jones my great concern that NATO should not be responsible for trying to curtail this drug trafficking. Yet, the amount of money being generated is enormous, and that is spreading into the communities, to the warlords and so forth, and of course it seems to me that complicates the work being done by our task forces over there as we try and bring about a greater degree of democracy.

To what extent are either of you involved in this?

Secretary O'CONNELL. Yes, sir. First, thank you for the question. As you may be aware, sir, the House has recently held several hearings on this and we have been able to testify. First, we do realize, the DOD does realize, that there is a nexus between the sins of narcoterrorism and the connections to terrorism itself.

Within Afghanistan, sir, we asked for a supplemental, which was provided by Congress, of $73 million. Within this context, we recognize under several international agreements that the United Kingdom has the lead for counternarcotics activities within Afghanistan. However, the U.S. plays a significant supporting role. With the Department of State as the lead Federal agency, we coordinate very closely with International Narcotics and Law (INL) in the State Department.

What we have come up with is a very good strategy. It is not a "go out and hit the little guys"——

Chairman WARNER. Let me ask, who is the "we?" What "we" have come up with?

Secretary O'CONNELL. We within SOLIC, sir, as the lead within Mr. Feith's office.

We work very closely with international law enforcement, with the State Department, with Assistant Secretary Charles. In fact, we have testified I think three times together. We have also worked very closely with Drug Enforcement Administration (DEA) Administrator Karen Tandy to come up with a comprehensive program that dovetails with the stability operations that are being put in place by not only U.S. forces, but the U.S. Ambassador and the Afghan government.

We do not believe that we can do anything by going out and whacking the little guy, the farmer. There has to be an alternative. Any country that has 60 percent of its gross national product (GNP) coming directly from the cultivation of drugs obviously has to contribute to terrorism. Additionally, we have the problem in Iran, in the United Kingdom, certainly in Russia, where a great amount of the drug product goes directly to those countries.

With that $73 million this year, sir, we have worked with the CENTCOM, General Abizaid and his J–3, to come up with a comprehensive series of strategies that allows us to focus that money on the following items: One, to be able to strengthen the border check points against known smuggling routes.

Two, we are using additional funds to tap the intelligence agencies, particularly the National Geospatial Agency, to be able to identify those—we know the areas of cultivation, but the areas that we are most concerned about at this point in time, sir, are the labs. We want to additionally increase the capability that the Afghan police and army have to target drug labs and to develop intelligence and use communications successfully.

Additionally, we have provided a joint fusion cell which will include the DEA and United Kingdom activities to better coordinate our activities in country.

Lastly, CENTCOM has developed specific targeting activities to better integrate, not only within their normal military operations, to better integrate the fight against narcoterrorism. But it must be done in conjunction with what the Afghan government can tolerate and what they can enforce, sir.

But I am very pleased with what progress the DOD has been able to make.

Chairman WARNER. Senators Stevens and Hollings and myself took it up directly with President Karzai. He was rather bold on it. He said: You know, we all make mistakes and the British made a mistake, because they started a program where they paid farmers to get out of the business. So the farmer down the road who was not growing poppy said: I am going to get into the business so I get some of the pay. All of a sudden this thing began to grow exponentially. That, coupled with I think a weather pattern that has enhanced the overall crop productivity, has worsened this situation to enormous proportions.

I do not want our troops, whether they are American troops or coalition forces over there, subjected to the evils that drug profits can render.

Well, look. You gave me a good long bureaucratic answer.

Secretary O'CONNELL. Sir, that answer was hammered out with lots of hours with the Secretary, the Deputy Secretary, and the State Department. We believe that we have a reasonable approach.

Chairman WARNER. Are the Brits still in charge?

Secretary O'CONNELL. Yes, sir. The Brits by agreement——

Chairman WARNER. By agreement with whom?

Secretary O'CONNELL. With the U.S., sir. We signed an agreement I believe in 2001 between the DOD and various elements in the United Kingdom with respect to who took certain responsibilities in Afghan reconstruction and the United Kingdom has the lead. We have a very substantial part of that operation.

Chairman WARNER. We gave you $73 million to implement some of your initiatives.

Secretary O'CONNELL. Yes, sir.

Chairman WARNER. What sort of money are they putting into it?

Secretary O'CONNELL. Sir, I do not have the exact money. It is very significant.

Chairman WARNER. Very significant.

Secretary O'CONNELL. Absolutely, as is the German——

Chairman WARNER. They are going to stop this paying off the farmer bit?

Secretary O'CONNELL. Sir, I do not believe that that is currently part of the strategy. As a matter of fact, in looking for alternatives, one of the things that seems to have been useful, instead of growing wheat, they are looking at flocks. Increasing flocks of livestock seems to be helpful. But there has to be punishment and there has to be a shutdown of the drug labs and there has to be some risk associated with this activity, and right now in many places there is no risk.

Chairman WARNER. I personally am going to just follow this. I would like to see you perhaps in another 90 days and let's you and I sit down and check on it.

Secretary O'CONNELL. I would be happy to, sir.

Chairman WARNER. I thank you very much for that.

Unmanned systems. This committee, and I had a role in it through the years, has really put a lot of emphasis on these unmanned systems. I only wish Americans could have seen that array of unmanned systems that you had down there at that exhibit last night. It was remarkable.

Secretary O'CONNELL. Yes, sir.

Chairman WARNER. To be a little prosaic, it reminded me of when I was a youngster many, many, many years ago and I built a lot of model airplanes. Those unmanned planes are just like model airplanes. Some of them had an 8-inch wingspan, some of them had an 8-foot wingspan. They have very simple engines, but they worked better than the old clunkers that we used to have.

But this is just wonderful, because they are force multipliers, they are lifesavers. I hope that you feel you have adequate resources and incentive just to turn loose your young people to put their minds on how to build all of these things.

Secretary O'CONNELL. Sir, we think that is a great area that we are putting a lot of time, energy, and money into, because if you put a SOF team of 12 men out by themselves hours from any other friendlies, having a hand-held UAV to provide them their own reconnaissance around or force protection, it is just a very valuable piece of gear to them. So we are working hard to field those as fast as we can.

Chairman WARNER. Good.

Well, we wrote into our National Defense Authorization Act for Fiscal Year 2004 the requirement to make a study. The study is due on April 1, which is only a few days away. I would be astonished if it makes deadline. It would be the first in a long time. But did you have a role in that study being prepared?

Secretary O'CONNELL. Sir, I do not believe we did. I am not sure. I will have to go back and take a look. But I am not sure.

Chairman WARNER. You would be eminently qualified to have had a role in it. I will find out.

Now, closing down the hearing today, I bring back something that I have been hung up on for a long time, and that is posse comitatus, which those following the hearing might not remember. Way back in 1876 there was an election that was allegedly jiggered by use of Federal troops and, I think wisely, Congress and others tried to limit the role of our Federal forces as it relates to State activities.

But now it has to be reviewed in the context of the ever-growing complexity of terrorism. General Eberhart, you very strongly said yesterday you are able to live under the existing law. I just want the record to reflect a little bit about your own professional views on that issue.

General EBERHART. Yes, sir. As you said, you and I have discussed this on several occasions, at the confirmation hearing and last year's homeland defense hearing. In every one of these real world events, every one of these exercises, all these scenarios we run, we always take a very close look at whether or not posse comitatus or any other laws, procedures, or instructions tie our hands and keep us from doing what we need to do, and that is protect the American people and our key infrastructure.

I am happy to report as of this date we have not found the situation. But I assure you, as I have in the past, just as posse comitatus has been modified many times since 1870 or whenever, if we find a situation where we think it should be modified in the interest of the citizens of this great Nation, we will not be reluctant to take that information to the Secretary of Defense and in turn to you and propose those changes.

So I cannot sit here and say it never needs to be changed. I can just sit here and say as of now I do not know a change that needs to be made.

Chairman WARNER. That is a very clear answer.

Do you have anything further, Secretary McHale?

Secretary MCHALE. Sir, the only thing I would add to it is, as the General noted, there are numerous exceptions to posse comitatus. Posse comitatus only limits the use of Title 10 forces for law enforcement purposes. If within the United States we use Title 10 forces for a military purpose, it falls under what is called the military purpose doctrine. Particularly if that involves foreign terrorists or a foreign policy consideration, then that activity is not covered by posse comitatus.

So for instance, our quick reaction forces can deploy within the United States under the military purpose doctrine. They are not deploying for law enforcement purposes. They are deploying to defeat al Qaeda. That activity is not covered by posse comitatus.

Then finally, sir, it is important to emphasize that the National Guard, both in State status and Title 32 status is similarly exempt from posse comitatus. So we have a combination of Guard capabilities and military capabilities when used for a military purpose, and that is a pretty big range of discretion in terms of the use of military force.

Chairman WARNER. On that issue I close out with a story from Senator Roberts, and I was listening in the hearing room when the

old sheriff got up and said: It is going to take a long time for you folks to get here and I am going to be in charge, and I will do damn well as I please to straighten this situation out. So apply a little of that old guts to it and it will work out.

Lastly, the force protection of our military bases and facilities here in the continental limits of the United States, which we now recognize is a potential area for problems. Overseas, the combatant commanders have the right to establish a uniform set of force protection measures throughout their AORs. Here, however, it falls to the individual Service chiefs—the Chief of Staff of the Air Force, the Chief of Staff of the Army, and so forth. I am concerned that we do not have someone looking at the uniformity of this situation.

Now, what should we do here? Does this lend itself to some legislation on this subject? You may not be able to answer this today, but I would like to have you provide information in the next week or 2, Mr. Secretary, the views of you and perhaps the DOD on whether or not any legislation is needed to ensure that there is some uniformity among our bases and installations here in this country.

[The information referred to follows:]

The Secretary of Defense has made a decision on the force protection of our military bases and facilities here in the continental limits of the United States. Effective not later than October 1, 2004, the Commander, U.S. NORTHCOM (CDRUSNORTHCOM), will exercise responsibility for antiterrorism and force protection within the continental United States. This responsibility is subject to the following conditions: First, CDRUSNORTHCOM cannot move DOD personnel unless faced with a time-critical event involving potential lost of life, or personnel movement is required to prevent significant damage to mission critical infrastructure. CDRUSNORTHCOM will notify the Secretary of Defense immediately of such time-critical personnel movements. Second, CDRUSNORTHCOM will seek Secretary of Defense approval of pending changes to the force protection condition no later than 24 hours prior to implementation or as soon as practicable if faced with a critical event.

Based on the decision by the Secretary of Defense, I do not believe legislation on this topic is necessary.

Secretary MCHALE. Sir, this issue is right now before the Secretary of Defense and he has not yet made a decision. I think there is a consensus that the status quo is not acceptable in that the status quo does not provide for the uniformity of antiterrorism force protection conditions that you have described. As a matter of fact, at least three of us seated at this table have been deeply involved in that discussion.

I anticipate that it will go to the Secretary of Defense within the next 2 weeks, and my expectation is that his decision will render unnecessary any legislation on the subject. He is going to decide what kind of command authority a combatant commander should have within his own AOR to achieve uniformity of antiterrorism force protection and what the relationship in terms of command authority should be between the combatant commander and the forces that are now within the individual services.

So although there is spirited discussion on the issue, I think the Secretary is going to settle it within the next couple of weeks.

Chairman WARNER. General Eberhart, do you have some views on this?

General EBERHART. Sir, I will echo what Secretary McHale said. Obviously, we have looked at several different ways to do this. The

Secretary is concerned by what you said. He does not like the fact that in the past one Service might be at force protection condition alpha and another Service at bravo here in this AOR. In fact, now he is the person who synchronizes the force protection level for this AOR.

So I think the question will remain whether or not he continues to do that or whether or not he has me do that in consultation with him. But, I make a recommendation.

Chairman WARNER. I think it would be very wise to repose in your command that authority. We would like to have a point of accountability and that would be a good idea.

General EBERHART. Sir, that is one of the options he is considering.

Chairman WARNER. Well, indicate that I endorse that option.

Thank you very much, gentlemen and those ladies that are in attendance and support, and all others. We have had an excellent hearing, with some very reassuring testimony.

[Questions for the record with answers supplied follow:]

QUESTION SUBMITTED BY SENATOR LINDSEY GRAHAM

ARROW TECHNOLOGY VENTURES

1. Senator GRAHAM. General Brown, the Central Intelligence Agency (CIA) has a venture capital program called "In-Q-Tel" that identifies and invests in companies engaged in cutting-edge technologies for the Intelligence Community. Similarly, the Army has a venture capital effort, mandated by Congress, focusing on new battery and power technologies. I understand that Special Operations Command (SOCOM) wants to establish a program akin to "In-Q-Tel" called, "Arrowhead Technology Ventures," that would leverage innovative technologies for Special Operations Forces (SOF). Could you expand on Arrowhead's mission, how and when you would plan to execute it, and the benefits that your warfighters would gain from it?

General BROWN. During the past year, SOCOM has evaluated the potential for venture capital type initiatives in support of SOF and our global war on terrorism mission. Seeking the advice and mentorship of the CIA and "In-Q-Tel," we have found two aspects of their success with the venture capital process which appear applicable to SOCOM requirements. The first is the opportunity to gain an early familiarity with start-up technologies that could prove beneficial for transforming SOF capabilities. Second, the venture capital process itself provides an excellent venue for working with emerging companies who have limited government development and/or acquisition experience but who have created cutting edge technologies. Should we receive such funding, I would envision a competitive environment wherein Arrowhead Technology Ventures as well as a number of other promising venture capital companies could be of assistance.

QUESTIONS SUBMITTED BY SENATOR JOSEPH I. LIEBERMAN

INFORMATION SHARING AND COMMUNICATIONS

2. Senator LIEBERMAN. General Eberhart, in your written testimony you noted briefly that we "have made significant progress in improving the exchange of threat information." You cited the example of the recent orange alert during the holiday season, when "time-sensitive" information moved quickly from intelligence and law enforcement agencies to those decisionmakers who were challenged with mitigating various threats. I have no doubt that, when the threat alert is heightened, officials at all levels of government redouble their efforts to communicate. But, what has been done to change the day-to-day communication processes that many believe still do not result in adequately sharing information across all levels of government?

General EBERHART. We are promoting information sharing among homeland defense and homeland security partners. To date we've outlined how to communicate with over 800 potential mission partners and share our Common Operational Picture with 35 different organizations, including 17 non-Department of Defense (DOD) agencies. In addition, we have established linkages with the Department of Homeland Security's (DHS) Information Analysis and Infrastructure Protection Direc-

torate, the Federal Bureau of Investigation's National Joint Terrorism Task Force, the Terrorist Threat Integration Center (TTIC) and the CIA's Counterterrorist Center (CCTC).

3. Senator LIEBERMAN. General Eberhart, what is Northern Command's (NORTHCOM) role in effectively creating new processes and paradigms, where critical information is shared routinely, and not just during heightened alerts?

General EBERHART. Homeland defense requires that we take an active role in eliminating impediments to information sharing. In June 2004, we will host the Chairman of the Joint Chiefs of Staff Joint Warrior Interoperability Demonstration to assess the military utility of potential homeland defense information sharing capabilities. This demonstration will involve 32 trials at 5 locations across the United States and include participation from the DOD and DHS. We will nominate successful results as joint standards and, if approved, provide these capabilities to our mission partners.

4. Senator LIEBERMAN. General Eberhart, what do you believe are the major obstacles that must be overcome before critical homeland security information is shared routinely, across all levels of government and with the private sector?

General EBERHART. We believe the primary obstacle is cultural vice technical and more limited by policy and procedures than system incompatibilities. In real-world operations and exercises, we are promoting a "need to share" approach and are committed to improving situational awareness at the local, State, and Federal levels.

5. Senator LIEBERMAN. Secretary McHale, just as in combat operations, robust communication capabilities are essential to the successful execution of crisis response operations. The horrific attacks on September 11, 2001, exposed not only that our Nation is vulnerable to hostile acts, it also showed that the communication infrastructure relied upon by our first responders and regional and national leaders needs improvement. On that fateful morning, firefighters and police forces were not able to communicate with each other, and in some cases with local command posts, to attain better situational awareness. It is argued that many lives were lost due to the failures of our communication systems. This problem must be dealt with. Our Nation requires reliable communication capabilities linking state command posts, National Crisis Management Centers (such as NORTHCOM and the Department of Homeland Security Operations Center), first responders and our national leadership. What projects are the DOD and DHS undertaking to improve the Nation's crisis response communications infrastructure?

Secretary MCHALE. In order to improve the Nation's communication infrastructure, the administration created the SAFECOM program, an initiative managed within the Department of Homeland Security, with the mission to help local, tribal, State, and Federal public safety agencies improve public safety response through more effective and efficient interoperable wireless communications. The program was designed specifically to coordinate the efforts of all Federal agencies in order to ensure that all levels of government will become interoperable. SAFECOM, at the invitation of my office, is working actively with major elements of the Department of Defense, including NORTHCOM, the National Guard Bureau, the Army Land Mobile Radio System, the Joint Tactical Radio System, and others. SAFECOM has also included my office in briefings and planning sessions and we have included SAFECOM personnel in appropriate strategic planning sessions.

6. Senator LIEBERMAN. Secretary McHale, are National Guard Bureau requirements being considered in any of these projects?

Secretary MCHALE. The Director of the SAFECOM Program Office, in coordination with my Office, has met with the Chief of the National Guard Bureau and many of the State Adjutants General to develop coordinated interoperability strategies. My office further arranged for the SAFECOM Program Office to brief the Defense Science Board on two different occasions and has included SAFECOM in our Strategic Planning Guidance Study to ensure that opportunities for coordination are identified and undertaken.

INTELLIGENCE ANALYSIS

7. Senator LIEBERMAN. General Eberhart, in your written testimony, you point out that NORTHCOM has established a Combined Intelligence and Fusion Center, which "coordinates the acquisition, analysis and fusion of intelligence, counterintelligence and law enforcement information . . . and shares that information with or-

ganizations at the national, State, and local levels." As you describe it, the Fusion Center appears to overlap with other intelligence analysis units focused on homeland security. What is the relationship between the Combined Intelligence and Fusion Center at NORTHCOM with other intelligence analysis centers, specifically the Information Analysis and Infrastructure Protection Directorate at the DHS; the TTIC; the CTC at the CIA; and the intelligence analysis unit at the Federal Bureau of Investigation (FBI)?

General EBERHART. The Combined Intelligence and Fusion Center collaborates with the analytic centers in Washington, DC, to develop and exchange products and to ensure threat intelligence and information is shared among the watch centers.

8. Senator LIEBERMAN. General Eberhart, what issues have you identified that relate to how these centers might complement, rather than compete with, one other, and how are they being addressed by the agencies involved?

General EBERHART. We do not believe there is a problem with "competing" analysis from various centers. While they share intelligence and information, each agency has its own audience, views the threat based on its mission and reports the threat to its consumers.

9. Senator LIEBERMAN. General Eberhart, what is your center's relationship with State and local governments and local law enforcement and how are you cooperating with DHS in establishing these relationships?

General EBERHART. We work with the DHS and the FBI to share information with State and local governments. We pass threat warning information to the FBI's National Joint Terrorism Task Force for subsequent relay to the Joint Terrorism Task Force in each State, as appropriate. In concert with the lead Federal agency, we coordinate directly with State-level Joint Terrorism Task Forces for special events that may involve DOD assets.

10. Senator LIEBERMAN. General Eberhart, does NORTHCOM maintain a list of suspected terrorists who might be operating inside or outside the U.S. and, if so, how is what you are doing related to the watch lists being consolidated by the Terrorist Screening Center?

General EBERHART. NORTHCOM does not maintain lists of suspected terrorists who might be operating inside the United States. We do follow the movements and activities of known and suspected terrorists outside the United States via intelligence and law enforcement sources and methods to help ascertain if they have contacts or operatives in the continental United States, Canada, or Mexico.

We are aware of the DHS's Terrorist Screening Center watch list; however, we do not participate in this law enforcement activity.

11. Senator LIEBERMAN. General Eberhart, does your intelligence center produce intelligence products that analyze the threat to our homeland? If so, how often are these products produced and with whom are they routinely shared?

General EBERHART. Yes, we share intelligence products daily with the DHS, the FBI and the TTIC, as well as other agencies within the Intelligence Community.

WEAPONS OF MASS DESTRUCTION CIVIL SUPPORT TEAMS

12. Senator LIEBERMAN. Secretary McHale, the DOD is in the process of expanding the number of Weapons of Mass Destruction-Civil Support Teams (WMD–CSTs), comprised of Army and Air National Guard members. The CSTs are "federally resourced, trained, and evaluated, but fall under the command and control of the State governors." On March 9, 2004, the DOD announced that 12 new CSTs would be funded, including one in my State of Connecticut—bringing to 44 the total that have been announced. However, the goal is to ensure that every State and territory has at least one of these teams in place. I also understand that some States, because of their size, may need more than one. When will the full complement of WMD–CSTs be in place?

Secretary MCHALE. Congress appropriated funds for the establishment of 12 teams in fiscal year 2004. In August 2004, the President signed the Fiscal Year 2005 Defense Appropriations Act, which provided funds for 11 additional WMD–CSTs, thus meeting the requirement of Section 1403 of Public Law 107–314 (Section 12310 of Title 10 United States Code (U.S.C.), which required WMD–CSTs in all 55 States and U.S. territories.

13. Senator LIEBERMAN. Secretary McHale, since the CSTs are under the command of governors, how will they be integrated into NORTHCOM's planning for response to WMD events?

Secretary MCHALE. CSTs normally operate in Title 32 U.S.C. status (State control, Federal funding) under the command of the State Governor; NORTHCOM has no command and control relationship with the CSTs. In this status, NORTHCOM has no command and control relationship with the CSTs. However, given the possibility that CSTs under State command and control and Title 10 forces under NORTHCOM command and control will find themselves responding to a WMD event in the same area, there is a need for command relationships that enable unity of effort. Unity of effort, as defined by Joint Publication 3–0 "Doctrine for Joint Operations," "requires coordination and cooperation among all forces toward a commonly recognized objective, although they are not necessarily part of the same command structure." Unity of effort is paramount to best serving the needs of the Nation.

Command relationship protocols are necessary to allow for the seamless unity of effort essential to successfully complete the task at hand. These relationships are also an inherent element of the NORTHCOM and Pacific Command (PACOM) exercise programs and a common focus of the Commanders, NORTHCOM and PACOM, the National Guard Bureau, and the State Adjutants General. For example, the Federal response to the tragic end of the Shuttle Columbia saw many Reserve component forces and resources operating under the integrating command and control of NORTHCOM.

Alternatively, in the case of a catastrophic WMD event where the DOD support has been requested by civil authorities and approved by the Secretary of Defense, some CSTs could be Federalized and integrated into the overall response efforts of NORTHCOM in the continental United States, Alaska, Puerto Rico, and the U.S. Virgin Islands or PACOM in Hawaii or Guam.

14. Senator LIEBERMAN. Secretary McHale, what initiatives are underway to expand NORTHCOM's WMD response capabilities, and how do these capabilities relate to other national WMD response capabilities, such as the U.S. Department of Energy's (DOE) Nuclear Emergency Search Team (NEST)?

Secretary MCHALE. When authorized by the Secretary of Defense, Joint Task Force Civil Support, headquartered in Norfolk, Virginia, Joint Task Force Consequence Management East, headquartered at Fort Gillem, Georgia, or Joint Task Force Consequence Management West, headquartered at Fort Sam Houston, Texas, under the command and control of NORTHCOM, would provide consequence management support to civil authorities.

When needed, other existing assets such as the Marine Corps' Chemical, Biological Incident Response Force, the Army's Tech Escort Units, Chemical, Biological Rapid Response Teams, Domestic Response Causality Decontamination Units, or, when federalized, the National Guard WMD–CSTs can be also assigned to NORTHCOM to provide consequence management support to civil authorities.

Additionally, the following initiatives contribute to improved DOD WMD consequence management capabilities that can be employed by NORTHCOM:

- Headquarters, Army Chemical, Biological, Radiological, Nuclear and High Yield Explosive (CBRNE) Command. The Department of the Army recently approved the creation of Headquarters, CBRNE Command. With an initial operational capability of fiscal year 2004, this headquarters will provide worldwide command and control of Army CBRNE response assets, to include the Army's Explosive Ordnance Disposal units and the Army's Technical Escort Units. Currently, the Army plans to place this organization under the command and control of U.S. Army Forces Command, with a strong supporting relationship to NORTHCOM.
- National Guard CBRNE Enhanced Response Force Package (NG CERFP): The National Guard Bureau is currently developing regional CBRNE response force packages. Their mission: on order, respond to a CBRNE incident and assist local, State, and Federal agencies in conducting consequence management by providing capabilities to conduct personnel decontamination, emergency medical services, casualty search and extraction and perimeter security. During a CBRNE event, the CERFP will work in coordination with Federal military forces under the command and control of NORTHCOM as part of the overall national response. If federalized for a mission in the NORTHCOM area of responsibility, the CERFP will likely be under the operational control of NORTHCOM.
- Project Guardian: To ensure DOD installation emergency preparedness for WMD events, Project Guardian will enhance the capabilities of 200

DOD installations (185 in CONUS, 15 overseas). This program includes enhancements in CBRN detection, identification, and warning; protection; decontamination; CBRN information management; medical protection, surveillance and response; and emergency first responders; while simultaneously leveraging existing installation physical security, logistics, sustainment, maintenance, and command and control. As with other DOD resources employed in support of civil authorities after a CBRNE event, NORTHCOM would have operational control of the resources in their area of responsibility.

SPECIAL OPERATIONS

15. Senator LIEBERMAN. Secretary O'Connell, under existing budget authority, SOCOM has the ability to procure off-the-shelf equipment and manage/fund modification efforts to enhance current military hardware to meet the unique requirements of special operations troops. Is it your opinion that SOCOM currently has sufficient input into the requirements definition, planning, and acquisition of major defense programs?

Secretary O'CONNELL. Yes, through close cooperation and collaboration with the military departments, SOCOM is able to provide significant input throughout the research, development, and acquisition process for major defense programs. Examples of Major Defense Acquisition Programs with significant SOCOM involvement include the following:

- Blackhawk Upgrade (UH–60M)—Utility Helicopter Upgrade Program
- CH–47F—Cargo Helicopter Upgrade Program
- ATIRCM/CMWS—Advanced Threat Infrared Countermeasures/ Common Missile Warning System
- V–22 Osprey—Joint Advanced Vertical Lift Aircraft
- SSGN—*Ohio* Class Conversion
- SSN 774—*Virginia* Class Submarine
- ASDS—Advanced SEAL Delivery System
- C–130J—Hercules Cargo Aircraft
- C–130 AMP—C–130 Aircraft Avionics Modernization Program

16. Senator LIEBERMAN. Secretary O'Connell, on page 8 of your testimony, you cite that one effect of the global war on terrorism has been a significant increase in operational tempo for SOF. The DOD has added 3,700 additional personnel during the period fiscal years 2004–2009 for SOCOM. You stated that the increases are focused on fixed and rotary-wing aviation specialists, SEAL teams, civil affairs (CA), psychological operations (PSYOP), and Theater Special Operations Commands. Is there also a requirement for additional training of SOCOM linguists?

Secretary O'CONNELL. Yes. SOCOM has both linguists and language-capable operators built into these 3,700 additional billets. SOCOM will gain 60 active component military intelligence linguists, 147 language capable CA specialists, and 154 language capable PSYOP specialists. Naval Special Warfare Command will gain 254 language capable SEALs and Special Warfare Combat Crewman (SWCC). All of these carry additional language training costs for SOCOM with the exception of the intelligence linguists which are provided by the Army. All of these 615 billets have been validated at proficiency level 2/2/2.

Overall, SOCOM's language program requires less than 10 percent of the Defense Foreign Language Program budget and trains 12,100 special operations personnel. The SOF proficiency level, currently 0+/0+, is being re-looked and will likely be validated at level 2/2/2 for four soldiers on each Special Forces Operational Detachment-A and level 1/1/1 for all other soldiers.

17. Senator LIEBERMAN. Secretary O'Connell, based in the expected future operational workload for SOCOM, do you foresee the need for even larger increases in your personnel?

Secretary O'CONNELL. Yes. SOCOM will add 1,594 SOF personnel in fiscal year 2005. Additional growth is required over the next 5 years to increase capabilities in critical areas such as CA, PSYOP, U.S. Navy SEALs, SOF, and special operations aviation. These additions will enhance the Command's ability to prosecute the war on terrorism. As the war progresses we will continue to monitor the situation as special operations forces cannot be mass produced and our Reserve and active component mix requires careful balancing. With SOF personnel in high demand in the civilian sector, we are experiencing some loss of personnel that must also be care-

fully monitored. SOCOM will remain focused on personnel end strengths and will request additional growth when necessary to support the war on terrorism.

18. Senator LIEBERMAN. General Brown, what resources do you feel SOCOM forces require in the future to further improve their effectiveness as they continue world-wide operations in support of the global war on terrorism?

General BROWN. SOCOM continues to focus resources to address three critical challenges: planning and directing the global war on terrorism; preserving readiness of our SOF; and transforming SOF to more agile, adaptive, and responsive warriors. In terms of force structure, we will continually need to recruit, assess, train and develop more SOF. Congressional support of our fiscal year 2005 budget request at current levels is critical to sustaining our fiscal year 2004 and fiscal year 2005 force structure increases. As indicated during the hearing, if we find any requirements for additional resources we will let you know.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. AKAKA

HAWAIIAN SECURITY

19. Senator AKAKA. General Eberhart, I understand you are responsible for all policies and programs involving the Air Force and Navy strategic nuclear forces in support of national security objectives. In your written statement, you say that NORTHCOM is working with other regional combatant commands to eliminate threats to our homeland from outside your area of responsibility. Could you provide information on what you are doing regarding the coordination between NORTHCOM and PACOM regarding national homeland security for Hawaii and the Pacific Island Territories?

General EBERHART. NORTHCOM and PACOM have exchanged liaison officers who coordinate on issues impacting the commands—this arrangement is working well. In addition, planners from both commands regularly discuss our common mission. For operational issues, officers in our Domestic Warning Center contact PACOM's Joint Operations Center for events affecting Hawaii and the PACOM area of responsibility.

As a point of clarification, please note NORTHCOM does not have responsibility for strategic nuclear forces; United States Strategic Command has that mission.

20. Senator AKAKA. Secretary McHale, your office has stated that good working relationships have been established with all homeland security players to include NORTHCOM, the DHS, and law enforcement agencies to help make the United States more secure. Hawaii is a unique State out in the Pacific as you are well aware. Since your confirmation last year, could you tell me what special needs of Hawaii were considered by your office when developing homeland security policy?

Secretary MCHALE. Since my confirmation, I have ensured that we consider our homeland defense responsibilities in their fullest context. The PACOM and its responsibilities in Hawaii, as well as the Pacific territories of Guam, American Samoa, and the Commonwealth of the Northern Marianas Islands have been given equal consideration as the NORTHCOM and its responsibilities within the continental United States.

I made a point of traveling to Hawaii early in my tenure, in May 2003, to meet with our military commanders and officials of the state of Hawaii to gain a first hand impression of their views. One of my deputy assistant secretaries was a speaker at the Governor's Inaugural Asia-Pacific Homeland Security Summit last December and joined in the Emergency Response panel hosted by Hawaii state officials and the Hawaii National Guard.

We have recognized the vital role that the Hawaii National Guard plays in both the defense of Hawaii and its emergency response capabilities to deal with natural and manmade disasters. Let me give you an example:

Military mission success depends upon the readiness, reliability, and sustainability of our military forces. The successful training, equipping, deploying, and supporting of these forces is dependent upon critical supporting infrastructures, e.g., power, water, communications, transportation, etc. My office, in concert with Admiral Fargo's staff, recognized the interdependencies that exist between PACOM and its forces and the State of Hawaii. Towards that end, PACOM and our Defense Program Office for Mission Assurance undertook a comprehensive study and analysis of Hawaii's critical infrastructure, in order to determine its vulnerabilities and potential single points of failure. This information is now the basis of planning between the command, the Hawaii National Guard, and the State's Emergency Man-

agement staff and directly contributes to our homeland defense and security preparedness as well as enhancing Hawaii's ability to deal with natural and man-made disasters. Furthermore, my Director of Critical Infrastructure visited Hawaii's Emergency Management Operations Center to ensure our efforts were synergized to meet the State's needs and was assured of their complete satisfaction.

[Whereupon, at 12:26 p.m., the committee adjourned.]

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2005

THURSDAY, APRIL 1, 2004

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

UNIFIED AND REGIONAL COMMANDERS ON THEIR MILITARY STRATEGY AND OPERATIONAL REQUIREMENTS

The committee met, pursuant to notice, at 9:36 a.m. in room SD–106, Dirksen Senate Office Building, Senator John Warner (chairman) presiding.

Committee members present: Senators Warner, Allard, Sessions, Ensign, Levin, Reed, Akaka, Bill Nelson, E. Benjamin Nelson, and Pryor.

Committee staff member present: Judith A. Ansley, staff director.

Majority staff members present: Charles W. Alsup, professional staff member; Gregory T. Kiley, professional staff member; Thomas L. MacKenzie, professional staff member; Paula J. Philbin, professional staff member; Lynn F. Rusten, professional staff member; and Diana G. Tabler, professional staff member.

Minority staff members present: Richard D. DeBobes, Democratic staff director; and Evelyn N. Farkas, professional staff member.

Staff assistants present: Michael N. Berger, Sara R. Mareno, and Bridget E. Ward.

Committee members' assistants present: Christopher J. Paul, assistant to Senator McCain; Arch Galloway II, assistant to Senator Sessions; D'Arcy Grisier, assistant to Senator Ensign; William K. Sutey, assistant to Senator Bill Nelson; and William Todd Houchins, assistant to Senator Dayton.

OPENING STATEMENT OF SENATOR JOHN WARNER, CHAIRMAN

Chairman WARNER. Good morning, all. Thank you for weathering a rather difficult day to get here.

We meet today to receive testimony from: Admiral Fargo, Commander of the Pacific Command (USPACOM); General Hill, Commander of the Southern Command (USSOUTHCOM); and General LaPorte, Commander, United States Forces in Korea (USFK). We welcome all of you this morning and thank you for finding the time to visit with some members of the committee prior to the hearing.

This is the last in a series of hearings by this committee this year, conducted over the past few weeks, to receive testimony from our Nation's combatant commanders. Gentlemen, you are our warfighters. We welcome your insight on developments in your area of responsibility (AOR) as well as your assessment of the 2005 defense budget request.

Each of you has a long and distinguished record of service to our Nation. I want to thank you, on behalf of the committee and indeed Congress, for your leadership, dedication, and service. We ask you to convey to the very fine men and women and their families under your commands the gratitude of this committee and indeed the Congress. The entire Nation, I think, is at an all-time high in supporting and recognizing their sacrifices, their professionalism, their dedication to the cause of freedom.

I continue to view with great concern developments in the Korean Peninsula, particularly the developments relating to North Korea's ongoing nuclear program. Over the past year, North Korea has withdrawn from the Nuclear Nonproliferation Treaty and appears to have resumed reprocessing activities. Resumption of North Korea's nuclear weapons program poses a grave threat to the region and indeed to international stability.

The United States, in conjunction with its allies and friends in that region, is working responsibly to try to resolve this situation through diplomatic means. Hopefully, this diplomatic approach will be successful.

I look forward to hearing Admiral Fargo's and General LaPorte's assessments of the situation on the peninsula. I am particularly interested in any changes you have seen over the past year in North Korea's military posture as well as your assessment of North Korea's nuclear program, ballistic missile and proliferation activities—underline the "proliferation activities," and the readiness of our forces to deter and, if necessary, to respond to any developments on the peninsula both now and in the future.

Developments in China are always of concern to this committee. The recent election period in Taiwan was a period of increased tensions across the Taiwan Strait. We are interested in Admiral Fargo's views on the current China-Taiwan relationship and how concerned we should be about the potential for miscalculation in that situation. I would also appreciate an update on the U.S.-China military-to-military relationship and I commend you, Admiral, for taking a leadership position in this area.

In the Asia-Pacific region, the global war on terrorism is being waged in Singapore, Malaysia, Thailand, the Philippines, Indonesia, and other nations. Through Operation Enduring Freedom (OEF)-Philippines, the U.S. military continues to provide training, advice, and assistance to the armed forces of the Philippines to improve their capability to deal with terrorist threats. I look forward to hearing your update on your efforts to counter numerous terrorist and transitional threats in your critical AOR, Admiral.

As elsewhere in the world, it has been a busy year in USSOUTHCOM. Detainee operations at Guantanamo—my distinguished colleague Mr. Levin was down visiting a short time ago—political unrest in Haiti, and continuing efforts to assist the government of Colombia in its struggle with narcoterrorists are but a few

of the many issues that General Hill has confronted over the past year.

Recently the President of Colombia came up to visit with the leadership in the Senate and I was privileged to join in that important meeting. Of particular interest to the committee is the current situation, again, in Colombia. There are indications that the president of Colombia has made considerable progress in defeating the drug-funded terrorist insurgency in his country and that a modest increase in support from the U.S. could be decisive.

We look forward to General Hill's assessment of this situation as well as the update on operations in Haiti and an overview of the challenges and priorities in this important region.

The committee is very interested in the plans of the Department to restructure the basing of U.S. military forces worldwide. I ask all of you to comment on the global footprint and its impact on your respective AORs.

Yesterday, Admiral, we had a particularly interesting discussion—Senator Levin joined us for a while—on the subject of how, understandably, so much of our attention is focused on the situation in Iraq and Afghanistan, but at the same time the threats primarily in your AOR cover the entire spectrum of types of challenges to the military. For example, fortunately there are no submarines involved in the conflicts that I have just enumerated, whereas there are some 250, you said, different types of submarines operated by different nations in your AOR. That is very significant.

So we look forward to your testimony and I hope that you will touch on how, as we address these situations in Iraq and Afghanistan with tremendous efforts, we have to be mindful of the entire spectrum of threats worldwide.

Senator Levin.

STATEMENT OF SENATOR CARL LEVIN

Senator LEVIN. Thank you, Mr. Chairman. Let me first join you in welcoming our three distinguished witnesses here this morning. We have asked each of these commanders to share with us a threat assessment in their AOR, a report on current military operations under their command, an assessment of how adequately the budget request for fiscal year 2005 and beyond meets their operational readiness and quality of life requirements.

In Asia, we face on the Korean Peninsula the most serious nuclear crisis since 1994. In South and Southeast Asia, another breeding ground and AOR in the war on terrorism. In the Taiwan Straits, political-military tensions. On the South Asian continent, two nuclear rivals, India and Pakistan, in an uneasy truce.

Last October, the North Koreans declared that they had reprocessed all 8,000 plutonium fuel rods that had been canned and frozen for 7 years under the Agreed Framework from 1994 to 2003. This came after North Korea had expelled the International Atomic Energy Agency inspectors, withdrawn from the Nonproliferation Treaty, and stated that it had restarted its 5-megawatt nuclear reactor. In January the North Koreans demonstrated to a U.S. delegation that they have removed the plutonium fuel rods from storage and that they have restarted their reactor.

On March 2, Assistant Secretary of State for East Asian and Pacific Affairs James Kelly testified that it was, in his words, "quite possible" that North Korea had reprocessed all of the fuel. He subsequently told the media that the intelligence estimate had not changed and that, "the operative phrase I use is 'we do not know for sure.'"

According to a report released in January by the International Institute for Strategic Studies, if they processed all the fuel, the North Koreans could have as many as seven nuclear weapons. Meanwhile, the report adds, the 5-megawatt reactor could provide enough plutonium for about another bomb this year. By the end of 2004, we could be confronted with a situation where North Korea, in just the last year, has added six new nuclear weapons to its arsenal. If the North Koreans completed construction on two larger reactors, 50- and 200-megawatts respectively, the picture could be exponentially worse.

Meanwhile, the third round of talks in the last year concluded with only an agreement to establish working groups for technical discussions and a commitment to meet again before the end of June. The administration insists that the North Koreans must agree to a complete and verifiable and irreversible dismantlement of their nuclear weapons before we negotiate with them.

The administration should also be putting forward a package that addresses North Korea's core demands. That does not mean meet all their demands. It means address their core demands, respond to them. The North Koreans appear to have used the last year and a half to further their nuclear ambitions. Serious negotiations are the only hope of ending their nuclear programs and potential nuclear proliferation.

I hope that Admiral Fargo and General LaPorte can tell us more about their assessment of North Korea's nuclear, missile, and conventional capabilities, their drug-related activities, and the quality of our intelligence regarding North Korea.

The North Korean threat derives some of its potentially deadliest features from the specter of proliferation to terrorists. The war on terrorism in Asia, the Western Hemisphere, and elsewhere is a race to neutralize the terrorist leaders and to prevent their replacement and new recruits to these networks of death.

Secretary Rumsfeld reportedly asked, in an internal memo last October, the following: "Are we capturing, killing, or deterring and dissuading more terrorists every day than the madrassas and the radical clerics are recruiting, training, and deploying against us?" I hope that Admiral Fargo and General Hill will answer that question with respect to their respective AORs.

In the Western Hemisphere, the threat comes primarily from narcoterrorists and from failing states. The work of our military in supporting the Colombian government's fight against narcoterrorists is bearing fruit as the government increases its control over its territory, captures or kills the top terrorist leaders, eradicates increase hectares of coca, and moves towards negotiations with the paramilitaries. Much remains to be done and most of it is hard political, economic work.

I hope General Hill will also update us on the U.S. military involvement in Haiti, the prospects for restoring stability in that un-

fortunate country, and any plans for U.S. participation in the multinational force.

Finally, I would note that the military operations in Iraq, Afghanistan, Haiti, the Horn of Africa, and elsewhere have put enormous strains on our military forces, both active and Reserve. As the chairman also requested, I would ask each of our witnesses to assess the impact of this high operational tempo (OPTEMPO) on the forces assigned to or earmarked for their area and the challenges that would result if conflict broke out in their AOR.

Thank you, Mr. Chairman.

Chairman WARNER. Thank you, Senator Levin.

Senator Reed, do you have a remark or two?

Senator REED. Just to welcome General LaPorte, Admiral Fargo, and General Hill and thank them for their service to the country. Thank you.

Chairman WARNER. Thank you.

Admiral Fargo, please proceed. We will place into today's record your statements in their entirety.

STATEMENT OF ADM THOMAS B. FARGO, USN, COMMANDER, UNITED STATES PACIFIC COMMAND

Admiral FARGO. Thank you. Mr. Chairman, Senator Levin, and distinguished members of the committee: Thank you for this opportunity to testify on the posture of the USPACOM. I have the honor to represent thousands of men and women, Active, Guard, Reserve, and civilians, and of course their family members, who are providing superior service to the Nation in the Asia-Pacific region and indeed around the world. Their high readiness and effectiveness can be directly attributed to the generous support of this esteemed body and of the American people as a whole.

Today I would like to survey our primary security concerns in the region and then I look forward to answering your questions, and I appreciate your placing my statement into the record, Mr. Chairman.

Dramatic events in Southwest Asia, for which the USPACOM continues to be a primary force provider, have not eclipsed the importance of the Asia-Pacific threats to global security, nor our attention to them. First and foremost, we are keenly focused on the Korean Peninsula. General LaPorte and I carefully monitor any indications of North Korean military readiness and, frankly, I do not think that war is any more likely today than it was 18 months or 24 months ago, but clearly the stakes would be very high if war occurred on the peninsula. Millions of South Koreans live within range of North Korea's artillery, and the stakes of course would be even higher if North Korea continues to pursue a nuclear capability.

But North Korea's ability to threaten peace is not limited to the peninsula. The world's largest proliferator of ballistic missiles already has demonstrated the ability to deliver missile payloads beyond even Japan, and the reach of its illicit activities, such as narcotics, extends as far as Australia, as was demonstrated just last summer.

Now, of course, North Korea's highly-enriched uranium program, along with its plutonium reprocessing program, raise the specter of

nuclear weapons either in armed conflict or proliferated into the hands of terrorist groups—perhaps our biggest fear and one that clearly would threaten all nations. President Bush repeatedly has stated our commitment to a peaceful resolution of the North Korean nuclear issue. The diplomatic initiative is moving forward through the six-party talks and our role at USPACOM has been to ensure that diplomacy is backed by a viable military capability. We continue to do just that, posturing our forces not to provoke but to deter conflict.

Next, we worry about miscalculation resulting in conflict between India and Pakistan or in the Taiwan Strait. Recent constructive dialogue between India and Pakistan and the relaxation in tensions are positive signs. The Taiwan Strait is another place where a miscalculation could result in terrible destruction and poses the possibility of expanding into a wider regional conflict.

The Taiwan issue remains the largest friction point in the relationship between China and the United States. President Bush has stated our support for the one-China policy in the three communiques. It should be equally clear that our national leadership and USPACOM are prepared and committed to meet our obligations under the Taiwan Relations Act. We continue to watch closely the developments associated with the recent Taiwan election. To date we have seen no indication of imminent military crisis.

Asia-Pacific nations face a number of transnational threats to regional stability, the most significant of which is terrorism. The war on terrorism is our highest priority at USPACOM. Regional and local terror groups with ties to al Qaeda continue to pose serious threats to U.S. and friendly interests, especially in Southeast Asia. This region is a crucial front on the war on terrorism. Destabilization of the governments of this region, which are moderate, secular, and legitimately elected, and with large Muslim populations, would result in decades of danger and chaos.

The Jemaah Islamiyah (JI) directly targets the region for instability through terrorism, supporting its goal of a pan-Islamic state in Southeast Asia. The JI followed up its October 2002 Bali bombing with a deadly attack on the J.W. Marriott Hotel in Jakarta just last August.

I am pleased to report that the nations of the region are cooperating well against these threats. Singapore, Malaysia, Thailand, and the Philippines have thwarted a number of attacks and have detained or arrested almost 200 members of the JI. Indonesia, too, has been particularly effective in the arrest and prosecution of some 34 JI members who participated in the Bali bombing, most of whom have now been sentenced for their crimes. Australia, of course, plays an active role, facilitating bilateral counterterrorist efforts throughout the Pacific.

But the JI is resilient and pervasive. Other key leaders remain at large and new terrorist generations are being trained. We are learning more about the degree of JI involvement in terror operations in southern Thailand and in the southern Philippines.

It is against this backdrop of challenges that we reach my final priority, and that is transformation. Specifically, we call it operationalizing the Asia-Pacific defense strategy. We are examining new ways of commanding, supporting, and employing our

forces. First we are updating our operational plans to incorporate not only our improvements in speed and precision and lethality and knowledge, but also the lessons learned from operations in Iraq and Afghanistan.

Second, we are strengthening our command and control constructs to execute those plans responsively, leveraging joint and interagency arrangements. We are also working hard to develop expeditionary capabilities for immediate employment both in the Pacific and anywhere else they might be needed and to integrate those capabilities into new operating patterns and concepts.

You have already provided us major improvements, like the Stryker armored vehicle and the C–17 aircraft, and you are well aware of two transformational efforts designed to improve our global force posture and footprint. Our global posture review aims to arrange our forces most effectively to assure friends and allies while deterring, and if necessary, defeating our adversaries. The Base Realignment and Closure (BRAC) Commission, scheduled for 2005, supports posture improvements by eliminating unneeded facilities and infrastructure that absorb dollars needed elsewhere.

In sum, we are looking for ways to effectively array combat power as appropriate for uncertain threats of the future while reducing the burden we place on friends and allies in the region. Our goal is an enduring posture and footprint that demonstrates our commitment and is sustained for the long term. Finally, we are looking for access and logistic prepositioning opportunities throughout the theater that minimize lift requirements and increase responsiveness whenever and wherever we are threatened.

You should all know, and I am sure you do, Mr. Chairman and members of the committee, that I am proud to represent the men and women of USPACOM. I sincerely thank you for the opportunity to testify today and I look forward to your questions.

[The prepared statement of Admiral Fargo follows:]

PREPARED STATEMENT BY ADM THOMAS B. FARGO, USN

INTRODUCTION

Mr. Chairman and members of the committee:

On behalf of the men and women of USPACOM, I thank you for this opportunity to testify on the posture of our command, including an assessment of security in the Asia-Pacific region.

Dramatic events of the past year in Southwest Asia, for which USPACOM has been a primary force provider, have not eclipsed the importance of Asia-Pacific threats to global security.

First and foremost, we remain keenly focused on the Korean peninsula, where although I believe the likelihood of war is low, the stakes would be very high if war occurred—and even higher if North Korea continues to pursue nuclear weapons capabilities. Our role at PACOM has been to ensure diplomacy is backed by viable military capabilities. We continue to do so.

Next, we are actively working to prevent miscalculation resulting in conflict between India and Pakistan or in the Taiwan Strait. Recent dialogue between India and Pakistan and the resulting relaxation in tensions are very positive signs. Our modest but constructive military-to-military relationship with China features high level exchanges like Defense Minister Cao's visit to Washington and Hawaii last year, and events that demonstrate the high quality of our forces, such as the recent port call of U.S.S. *Blue Ridge* in Shanghai. Meanwhile, Taiwan clearly remains the largest source of friction in our relationship with China. We remain prepared and committed to meet our obligations under the Taiwan Relations Act.

Transnational threats are a continuing concern in the Pacific region. Despite recent and notable successes in the global war on terrorism, we remain deeply con-

cerned about transnational terror organizations including al Qaeda and JI, and by more localized groups like the Abu Sayyaf Group (ASG) in the southern Philippines. We also sense increasing synergy between transnational threats like terrorism, illicit drugs, trafficking in humans, piracy, and especially the proliferation of Weapons of Mass Destruction (WMD). We have a number of creative initiatives ongoing to address these transnational concerns.

It is against this backdrop of security challenges and opportunities that we reach my final primary concern—transformation. Responding to the new threat context, recent strategic guidance directs the global transformation effort. Our initiatives at USPACOM reflect that guidance and support the global effort, starting with updated plans and extending to resulting improvements in command and control, immediately available capabilities, and force posture. We are coordinating with our friends and allies in the region to effect enduring improvements while strengthening our ability to respond to emerging threats.

Our relationships in the region, including five treaty allies and numerous friendships, are as strong as ever. I am gratified to report nations within our region are making smart and generous contributions to regional and global security, including support of OEF and Operation Iraqi Freedom (OIF). Since September 11, the region has demonstrated a heightened awareness of our interdependent vulnerabilities and the resulting necessity of cooperation for security. This mutually supportive environment facilitates both our forward presence in theater and the security programs necessary to promote a peaceful, stable, and prosperous Asia-Pacific region.

This security context is reflected in our five top priorities at USPACOM. The following update on our defense posture is organized within those five priorities.

SUSTAINING AND SUPPORTING THE GLOBAL WAR ON TERRORISM

Sustaining and supporting the global war on terrorism is our highest priority at USPACOM. In addition to addressing terror threats in the Pacific AOR, we are also a primary force provider to OEF and OIF.

Nations of the region continue excellent cooperation against terror threats. Singapore, Malaysia, Thailand, Indonesia, and the Philippines have detained and arrested almost 200 members of the JI terror group. Thailand has both publicly articulated its terrorism concerns and taken aggressive steps to eliminate them. Despite significant domestic complications, Indonesia, too, has been particularly effective in the arrest and prosecution of 34 JI members who committed the October 2002 bombing in Bali, 27 of whom have now been sentenced for their crimes.

But regional and local terrorist groups with ties to the al Qaeda network continue to pose dangerous threats to U.S. and our friends, especially in Southeast Asia. Southeast Asia is a crucial front in the global war on terrorism. The destabilization of the governments of this region—moderate, secular, legitimately elected, with large Muslim populations—would sentence the region to decades of danger and chaos.

The JI—an al Qaeda network affiliate—directly targets the region for instability, through terrorism, supporting its ultimate goal of a pan-Islamic state in Southeast Asia. The JI followed up its October 2002 bombing in Bali with a deadly attack on the JW Marriott hotel in the heart of the Indonesian capital just last August.

Several of the JI's key leaders are now in custody, including spiritual leader Abu Bakar Bashir and interim leader Abu Rusdan, who was recently convicted for his role in the Bali bombing. Most notable was the 2003 capture by Thai officials of terrorist Hambali, the JI's operational head and direct link to al Qaeda.

But the JI is resilient and pervasive. Other key leaders remain at large, and new terrorist generations are being trained. We are learning more about the degree of JI involvement in terrorist operations in southern Thailand and the southern Philippines.

The Philippines is a strong partner both globally and regionally in the global war on terrorism. President Gloria Macapagal-Arroyo recently identified the JI as her government's top terrorism priority.

Of course the Philippines is coping with other terror threats as well, including the New People's Army and the ASG. Primarily a hostage-for-ransom enterprise, the ASG was responsible for the death of a U.S. Special Operations soldier in 2002, conducted several bombings in 2003, and most recently claimed responsibility for the bombing of an interisland ferry in late February. The Philippine Armed Forces (AFP) have improved their effectiveness against the ASG, highlighted by December's arrest of terrorist Galib Andang, aka "Commander Robot", on Jolo Island.

We are concerned about JI influence in the activities of some of these indigenous terror groups, including sponsorship of bombings in Davao City last spring that left 38 people dead. We continue OEF—Philippines to provide training, advice, and as-

sistance to the AFP to improve their capability and capacity to deal with terror threats.

Philosophically, our approach to the terror threat has both near-term and long-term components. In the near term, we have to stop immediate threats against our citizens, our friends, property, and vital infrastructure—in short, we have to stop the violence. So this near-term effort includes defeating actual attacks, disrupting the enemy's plans, and proactive defensive measures. Clearly, we don't see military action as the sole or even primary instrument of national power in this fight—intelligence sharing and law enforcement lead much of this effort.

These near-term efforts are an essential but incomplete solution because the global war on terrorism, like the fight against other transnational threats, cannot be won by attrition alone. Terrorists can multiply faster than they can be captured or killed.

So our long-term effort is focused on strengthening the region's democratic institutions that provide security at the economic, social, and physical (i.e., education, law enforcement, basic services) levels. Many of our efforts, including the Theater Security Cooperation Program (TSCP) (discussed below) directly support this long-term goal. We believe we'll reach a tipping point in the global war on terrorism when sound governance prevails, and citizens value their institutions more than they fear the terrorists.

Meanwhile, near term efforts include both proactive defenses and direct efforts to go on the offensive, if necessary, to capture or kill terrorists in the Pacific theater.

Homeland Defense and Civil Support

The USPACOM Homeland Defense AOR includes the State of Hawaii, the territories of Guam and American Samoa, and the Commonwealth of the Northern Mariana Islands, Federated States of Micronesia, Republic of the Marshall Islands, Republic of Palau, referred to as Compact States; and the following possessions: Wake Island, Midway Islands, Johnston Island, Baker Island, Howland Island, Palmyra Atoll, Kingman Reef, and associated territorial waters. We are leveraging our TSCP to build support and capabilities throughout the USPACOM AOR to support overarching homeland defense efforts. We are coordinating with U.S. Northern Command (USNORTHCOM) to ensure the same seamless strategy for defense in depth of the U.S. mainland.

Our Strategic Concept Plan for Homeland Defense is in the final stages of coordination, but many aspects of the plan are already operational. All USPACOM service components contribute to the mission. Programs such as the Joint Rear Area Coordinators (JRAC), Critical Infrastructure Protection (CIP), Homeland Air Security, Consequence Management for Chemical, Biological, Radiological, Nuclear, and High-yield explosives (CBRNE), and Domestic Support Operations are just a few of the activities coordinated under the Homeland Defense Plan. We appreciate your continued support to ensure we have the resources necessary to continue these essential missions.

USPACOM's Biological Warfare Countermeasures Initiative was established last year, leading Department of Defense (DOD) efforts to incorporate biological warfare mitigating measures into deliberate plans, coalition needs, and domestic interagency efforts. We are partnered with the Defense Threat Reduction Agency and Department of Homeland Security in this initiative.

Civil Support (CS) is another key part of the overall Homeland Security effort. CS operations enhance our existing Domestic Support Operations to civil authorities. We have well-established relationships and mutual cooperation plans with these authorities and provide support as directed by the Secretary of Defense (SECDEF). Our Homeland Defense Plan addresses the full spectrum of CS responses from terrorist acts to natural disasters like recent typhoons in Guam. I support a standardized security clearance system that facilitates the immediate sharing of appropriate time-sensitive intelligence with local law enforcement and civil authorities.

JRACs in Guam, Hawaii, Japan, and Korea (and Joint Task Force—Alaska) provide the command and control construct to synchronize our DOD antiterrorism/force protection (AT/FP) efforts for military installations and property with Federal, State, and local agencies and with host nations in the cases of Japan and Korea. Once again, we are coordinating our efforts and procedures with USNORTHCOM.

USPACOM has an aggressive vulnerability assessment program for our DOD bases, ports, airfields, and training areas throughout the AOR. We use assessment teams from the Defense Threat Reduction Agency, the Services, and our components to ensure our facilities have updated assessments and proactive AT/FP plans. We also work closely with the State Department to ensure host-nation support is adequate to help protect our deployed forces using the latest AT/FP procedures.

Theater and country specific Force Protection Conditions are continually reviewed and updated as necessary. Random Antiterrorism Measures are employed to complicate terrorist planning. USPACOM also employs a travel restriction program, providing a tool to declare entire countries or portions thereof "off-limits" to DOD members as necessary. In addition, FP plans are required for all travel in our AOR, from major unit deployments to individuals on leave. The resource commitment for increased FPCONs, however, presents a formidable challenge, both in terms of manpower and essential technologies. Your continued support to PACOM's FP objectives is necessary to sustain the progress we are making in this area.

Our CIP Program assesses infrastructure upon which USPACOM depends for missions ranging from offensive combat operations to homeland defense. This broad-based program includes personnel, health operations, financial services, logistics, transportation, space, defense information, command, control, communications, intelligence, and public works sectors. We recently published the first CIP Appendix to one of our primary theater operational plans and fielded a CIP database that identifies relationships between mission-critical supporting assets, associated vulnerabilities, and protection requirements. Another building block is the development of our Theater Infrastructure Assurance Plan, which describes how we fundamentally conduct CIP throughout the AOR. Additionally, our bilateral CIP activities with friends and allies in the region have laid the groundwork to protect infrastructure outside the U.S. upon which we depend to fulfill our regional security obligations.

The Combating Terrorism Readiness Initiatives Fund (CbT RIF) provides commanders additional resources to defend against emergent terrorist threats. USPACOM has received $9 million in CbT RIF funds in fiscal year 2004 and hopes to receive additional funds after completion of the second round of CbT RIF. The first submission of fiscal year 2004 CbT RIF included 58 new and 20 revalidated projects from fiscal year 2003 totaling $26 million. Our fiscal year 2004 requests include a barrier wall for the Asia Pacific Center for Security Studies, hydraulic gates for the USPACOM headquarters, a Mobile Observation Post for Yokota airbase, and closed circuit TV and intrusion detection systems in Japan, Korea, and Camp Pendleton. Thank you for supporting this fund.

Coordination with law enforcement

We have established a model for theater counterintelligence operations by fusing DOD, law enforcement, and other government agency information, and incorporating allied contributions. DOD intelligence analysts embedded in the Federal Bureau of Investigation's (FBI) Joint Terrorism Task Force (JTTF)—Hawaii markedly enhance our ability to identify threats and gain insights into terrorist organization planning and operations. JTTF members participate in USPACOM planning for counterterrorist operations in the region while simultaneously supporting Homeland Defense efforts. The Patriot Act, which facilitates such interagency coordination, has enhanced our ability to share information on terrorist threats.

Our Joint Interagency Coordination Group for Counterterrorism (JIACG–CT) is the USPACOM staff entity responsible for coordinating DOD and other government agency counterterrorism (CT) activities within the USPACOM AOR. Last year, the JIACG combined intelligence, operations, and training goals with interagency representation to produce our first theater CT Campaign Plan. This plan, aligned with Department of State goals embedded in embassy Mission Performance Plans, focuses on both near-term and long-term global war on terrorism efforts. These efforts include CT resource creation, terrorist identification and destruction, and the long-term effort to strengthen democratic institutions of governance. As the lead staff element in USPACOM's fight against transnational threats, the mission of JIACG–CT is being broadened to include coordination of our counterdrug and counterproliferation efforts.

The Joint Interagency Task Force-West (JIATF–W) has long been USPACOM's premier operational counterdrug entity. Formerly based in California, JIATF–W is relocating to Hawaii to better confront the narcotic threat in the western Pacific. Its experience, assets, and interagency relationships will also be relevant against related transnational threats like narcoterrorism, piracy, human trafficking, and especially weapons proliferation. JIATF–W's interagency approach facilitates contributions of law enforcement, host nations, and Special Operations Forces.

Regional Maritime Security Initiative (RMSI)

The ungoverned littoral regions of Southeast Asia are fertile ground for exploitation by transnational threats like proliferation, terrorism, trafficking in humans or drugs, and piracy. The President's Proliferation Security Initiative (PSI) and

State Department's Malacca Strait Initiative are designed to improve international cooperation against these threats.

RMSI is USPACOM's effort to operationalize these initiatives. Fundamentally, we need to gain an awareness of the maritime domain to match the picture we have of our international airspace. Working first with other navies of the region, our approach is to assess and then provide detailed plans to build and synchronize interagency and international capacity to fight threats that use the maritime space to facilitate their illicit activity. Of course, there are other government agencies that play a key role here, too. We have found this concept well received by our friends and allies in the region.

This is a large undertaking that requires us to harness available and emerging technologies to develop that maritime situational awareness. It also requires responsive decisionmaking architectures and the right kinds of immediately available, expeditionary forces to take action when the decision has been made to do so.

Our long-term effort in the global war on terrorism focuses on strengthening democratic institutions to enhance governance and address the underlying problems that give rise to terrorist movements in the first place. This element includes civil-military education programs and especially our TSCP.

Regional Defense Counterterrorism Fellowship (RDCTF) funds are a valuable tool in our efforts to combat terrorism in the Pacific. Through this flexible and responsive program, we've trained over 130 students from 7 partner nations (Bangladesh, Indonesia, Malaysia, Nepal, Philippines, Sri Lanka, and Thailand) and are building a community of counterterrorism experts and practitioners who share a common perspective on the proper response to terror threats.

International Military Education And Training (IMET) exposes future leaders to U.S. values, including commitment to the rule of law, the role of a professional military in a democratic society, and overall military professionalism. Grant funding has removed financial barriers to U.S. military education and training for friends and allies located in regions subject to untoward influences, and has contributed to the readiness of troops providing post-hostility engineering and peacekeeping support in Afghanistan and Iraq. Combined with training offered through the Foreign Military Sales process, IMET promotes U.S. military education and training as the recognized standard worldwide. Consequently, demand has surpassed supply as it relates to school capacity. Innovation has addressed this issue in the near-term but real capacity increases are necessary to build upon our success. I appreciate your support of this valuable program.

Our TSCP is the vehicle through which we extend U.S. influence, develop access, and promote competence among potential coalition partners. These activities directly support the global war on terrorism and enhance readiness for contingency actions against emerging threats. We also coordinate the TSCP with the country teams in our embassies to ensure our efforts complement their Mission Performance Plans. TSCP activities clearly help strengthen institutions of governance, directly contributing to our long-term counterterrorism effort.

IMPROVING READINESS AND JOINT WARFIGHTING CAPABILITY OF PACIFIC COMMAND FORCES

Improving the readiness and joint warfighting capability of USPACOM forces is critical to assuring our friends and allies, dissuading military competition, deterring threats against U.S. interests, and defeating an adversary if deterrence fails. This priority includes providing the spare parts, operating dollars, and training needed to maintain ready forces. It also means innovating, transforming, and improving those capabilities and technologies needed to keep our forces ready for a wide range of alternative futures.

Past investments in readiness paid off in 2003. Approximately 51,000 USPACOM active duty personnel have or are scheduled to deploy in support of operations in Afghanistan and Iraq. Pacific Fleet (USPACFLT) units deploying to OEF and OIF last year included the U.S.S. *Abraham Lincoln, Carl Vinson, Constellation, Nimitz,* and *Kitty Hawk* Carrier Strike Groups; independently deploying submarines; maritime patrol aircraft; Naval Mobile Construction and Explosive Ordnance Disposal Units, and a significant portion of our Reserve Force including Harbor Defense, Coastal Warfare, Mobile Inshore Undersea Warfare, and Inshore Boat Units. The *Tarawa* and *Essex* Amphibious Ready Groups deployed with the 15th and 31st Marine Expeditionary Units embarked. The seven-ship Amphibious Task Force West, built around amphibious assault ships *Boxer* and *Bonhomme Richard* deployed with the First Marine Division, and the year closed out with the initial deployment of Expeditionary Strike Group ONE with flagship U.S.S. *Peleliu* and the 13th MEU (Special Operations Capable) embarked.

About 2,000 Pacific Air Forces personnel already have deployed to Southwest Asia supporting Aerospace Expeditionary Forces for OEF and OIF. Our Army Forces in the Pacific (USARPAC)—active, Reserve, and Guard—are also making important contributions in the U.S. Central Command (CENTCOM) AOR. An airborne task force from Alaska and an aviation maintenance unit from the Hawaii Army National Guard have been in Afghanistan for the past 6 months.

More USARPAC contributions are in progress. The 25th Infantry Division (ID) headquarters and one Brigade Combat Team (BCT) are deploying to Afghanistan now, and another 25th ID BCT is currently serving in Northern Iraq. CH–47 aircraft of the Hawaii Army National Guard and the 411th Engineer Battalion (U.S. Army Reserve) are also en route to Iraq. The 1st Brigade of the 25th ID at Fort Lewis, Washington, now a Stryker BCT, will deploy to Iraq later this year, replacing the 3d Brigade of the 2d ID, also stationed at Fort Lewis. At the peak, approximately 16,500 USARPAC forces will be assigned to CENTCOM.

In light of our impressive combat performance in Southwest Asia, it would be easy to conclude that our current programs are more than adequate to meet every conceivable threat. But even as we incorporate the lessons learned from those conflicts, and with great appreciation for the exceptional quality of our people and equipment, we also recognize that many of USPACOM's most demanding current and future warfighting challenges were simply not stressed in Southwest Asia. These missions include missile defense, undersea warfare, and air superiority.

Missile Defense

Cruise and ballistic missile threats are rapidly increasing in the USPACOM AOR. Our ability to defend against them is fundamental to homeland defense, regional peace and stability, and to successful execution of our contingency plans. We need an integrated, tiered missile defense system.

Our Forward Deployed Naval Forces, Command and Control elements, and interceptor assets will be ready to support Missile Defense Initial Defensive Operations on or before October 1. We still need to increase the numbers of Patriot GEM and PAC–3 missiles ashore and develop a sea-based terminal missile defense capability. Sea-based systems reduce our overall footprint ashore while providing flexible, more secure options. I applaud your efforts to date, supporting development and fielding of our missile defense systems.

Undersea Superiority

USPACOM faces the greatest undersea warfare challenge in the world. Two hundred fifty submarines call the Pacific home—but only 30 percent of these submarines belong to allied nations. A robust and integrated Anti-Submarine Warfare (ASW) architecture, more capable force structure, and a committed investment in future technologies are essential to counter the growing submarine threat.

Submarines remain the premier ASW asset. Our new *Virginia* class boats will meet our ASW needs well into the future, particularly in the challenging littoral environment. Congressional efforts last year also provided funding to refuel two additional 688 class submarines. To ensure sufficient submarines are available to counter future threats and defeat anti-access strategies, we must seriously consider funding the remaining refuelings of 688 class submarines and sustain an adequate *Virginia* class submarine build rate.

Maritime Patrol Aircraft provide quick responding long range ASW and high demand intelligence, surveillance, and reconnaissance (ISR) capabilities. The P–3 Maritime Patrol Aircraft sustainment program and follow on multi-mission aircraft are critical to respond to emergent submarine threats. I also strongly support the acquisition of Automatic Periscope Detection technology for both surface ships and Maritime Patrol Aircraft employed in littoral regions.

Air Superiority

The F/A–22 Raptor will deliver quantum air power improvements with great relevance in the Pacific theater. Combining stealth, high speed, and precision weaponry, Raptor will buy back battlespace and increase warfighting options for the joint force commander. We need your support to fund and field this aircraft.

INTELLIGENCE, SURVEILLANCE, RECONNAISSANCE

Signals Intelligence (SIGINT)

The global war on terrorism and traditional military threats demand ever-increasing agility and innovation in intelligence. SIGINT remains critical to our requirements for timely threat information. Access to signals is challenging and requires a concentrated effort to expand collections capacity and increase technical capabili-

ties to ensure we can adapt to changes in adversary Command and Control (C2) systems and processes.

The National Security Agency and Service SIGINT capabilities are crucial to our counterterrorism efforts. The ability to integrate both national and tactical SIGINT is key to daily operations and the execution of deliberate and contingency plans. However, rapid advances in telecommunications technologies, and their use by our adversaries, are outpacing intelligence-gathering capabilities.

I strongly support the NSA's transformation efforts to meet the challenges of the digital technology revolution. They must have the resources necessary to remain technically strong and provide capabilities to meet our requirements. NSA's capabilities against modernized militaries and transnational entities such as terrorists and weapon proliferators remain key to USPACOM objectives.

Regarding tactical systems, I continue to advocate the accelerated development and fielding of joint, interoperable, modular, rapidly reconfigurable land, sea, and air SIGINT platforms. These improvements should be integrated into collaborative intelligence processing systems to make the best use of the increased data gathered.

Without concurrent improvements in NSA's capabilities and in Service tactical cryptologic systems, it will be increasingly difficult to predict, find and target the most serious threats to U.S. national security interests.

Human Intelligence (HUMINT)

Improving our HUMINT collection capability against key USPACOM challenges, especially as it relates to hard and deeply buried C2, WMD facilities, proliferation, and terrorist activities is critical. Sustained resources for both CIA and DOD (Defense HUMINT Services) will yield the progress we need. Our military commanders must have insight into the plans and intentions of our potential adversaries—something that HUMINT is uniquely capable of providing.

Cryptologic Linguists

To be successful in counterterrorism we require linguists with a high degree of proficiency in many different languages and dialects. The minimum requirement is for 3/3 language capability; many targets require 4/4 (native) speakers. Maintaining a permanent cadre of cryptologic linguists with that degree of proficiency across a wide range of low-density languages and dialects is prohibitively expensive. So in addition to expanding training and recruiting initiatives, we must ensure the Defense Manpower Data Center's Automated Language Finder database tracks those personnel who are native speakers or who have acquired the requisite skills, and that the Defense Language Institute can test for those language skills.

Imagery Intelligence (IMINT)

The requirement for electro-optical, radar and infrared imagery remains crucial. IMINT converted into geospatial data and integrated with other source material is critical to the commanders in the field and provides much-needed context to decisionmakers.

Unmanned Aerial Vehicles (UAV)

The broad expanse of the USPACOM AOR and lack of access into denied areas make surveillance a significant challenge. We need a dynamic mix of national and airborne assets capable of maintaining access for IMINT and SIGINT coverage over target areas for extended periods. Persistent ISR assets greatly enhance our ability to perform counterproliferation and counternarcotics missions, combat piracy, and combat terrorism. Scientific and technical advancements like multispectral imaging aboard high altitude, high endurance assets such as the U–2 and Global Hawk UAV are ideally suited to support our requirements. Early fielding of Global Hawk in the USPACOM AOR is essential.

Tactical level systems like the Predator UAV are also of great value in this theater. However, limited airframes, sensors, and dissemination systems prevent us from taking full advantage of these capabilities. This complementary arrangement of persistent surveillance using both theater and national systems is critical to ensuring sufficient warning and situational awareness.

Tasking, Planning, Exploitation, and Dissemination (TPED)

USPACOM requires a complete, joint TPED architecture to support future plans and contingencies. This architecture must accept inputs from a multitude of ISR assets and share this data freely among service Deployable Common Ground System (DCGS) nodes as well as intelligence users worldwide. Effective TPED of geospatial intelligence is crucial to providing the combatant commander, operational, and tactical forces with an incontrovertible view of the battlespace. Limited resources, cou-

pled with great distances make interoperability among service DCGS nodes a critical element to accomplishing TPED and ISR missions within the theater.

COMMAND, CONTROL, COMPUTER, COMMUNICATION (C^4) IMPROVEMENTS

C^4 Modernization

We have made significant improvements in bandwidth availability through leases with commercial providers. We are on track with Satellite Communications Programs to replace failing satellites. Defense Information Systems Agency (DISA) assures bandwidth will be available whenever and wherever needed, at least to an installation's "front door."

But we cannot deliver sufficient bandwidth from the front door of the installation to the warrior. The dated wires, cables, and switches installed on our bases have insufficient capacity to support applications and services that are based on the steady improvements in telecommunications technology. There is also a digital gap between strategic and tactical environments. Most tactical users rely on Radio Frequency (RF) links, but RF links can only deliver a fraction of same bandwidth available from landlines. As we greatly expand landline capacity through the Global Information Grid-Bandwidth Expansion, we must tailor applications for the bandwidth capacity that tactical users have available to perform their missions.

Joint Information Capabilities Enhancement Environment (JICEE)

True transformation involves changing the way we implement information systems from industrial-age, single-purpose systems, to information-age methods, wherein we define the framework of the entire information infrastructure then align programs-of-record to capability-areas within the framework.

To move this transformation along, we need to develop a JICEE. This requires decomposition of existing programs, reassembling associated systems into a common networked environment. We've defined a framework, and with the support of the Command Information Superiority Architecture program, have partnered with U.S. Joint Forces Command (USJFCOM) to develop and test a model to capture existing programs and costs to illustrate their contribution to end-to-end capability for gap and duplication analysis. We intend to use JICEE to define the objective information and knowledge services network with the roadmap that shows how to integrate, interface, leverage and decompose when necessary, projects, initiatives and programs-of-record to get there.

Combined Enterprise Regional Information Exchange System (CENTRIXS)

CENTRIXS is the effort to establish permanent, classified coalition networks between U.S. and coalition partners. Today, CENTRIXS networks support maritime forces and shore planning staffs for escort and maritime interdiction missions for OEF and OIF. The communities of interest for CENTRIXS now include Australia, Canada, United Kingdom, United States, Japan, Thailand, the Republic of Korea, Singapore, and New Zealand. CENTRIXS provides e-mail, web access, chat and common operational picture capabilities with our coalition partners. With CENTRIXS we've made significant strides working with our allies to support the global war on terrorism and have planned extensive expansion of these networks for the near future. USPACOM is working in concert with other regional combatant commanders, USJFCOM, and the CENTRIXS Program Management Office toward a common network architecture that continues to support global joint operations.

Agile Coalition Environment (ACE)

Our ability to connect networks to, and share information with, our allies and security cooperation partners is a major challenge. The ACE effort is developing crypto devices agile enough to create virtual private networks to support bilateral and tailored multi-lateral relationships without having to build or lock-down unique networks for each community-of-interest security enclave. ACE enables CENTRIXS to converge from a set of independent networks to a single network that supports multiple security enclaves on an on-demand basis.

Computer Network Defense (CND) is a major part of our comprehensive Information Assurance strategy. Our adversaries are constantly developing new ways to use computer vulnerabilities to deny access to or exploit our information resources. We need constant training on the latest tools, techniques, and vulnerabilities to sustain a highly trained team of CND professionals. This team maintains a strong relationship with the Joint Task Force for Computer Network Operations, the DISA Pacific Computer Emergency Response Team (CERT) and the DOD CERT to stay abreast on the latest information assurance advisories to maintain the tightest perimeter security possible.

Deployable Joint Command and Control is critical to the success of future joint task force (JTF) operations across the operational spectrum from Non-Combatant Evacuation to high intensity warfare. This communications-enabling package has significant potential to strengthen command and control for the joint task force (JTF) by providing a rapid deployment capability, standardized C2 processes across the components, and standardized C^4 systems from the strategic to operational levels. I am concerned, however, that DJC2 lacks organic mobility and the ability to interface anticipated C^4 systems with our coalition partners. Both USJFCOM and the Office of the SECDEF (OSD) are working to resolve these issues, but these capabilities may require additional resources to ensure they are delivered on schedule in March 2005.

Exercises

Exercise events provide essential opportunities to hone a spectrum of security skills in multilateral settings, and are a key component of both our Joint Training Plan and TSCP.

Exercises such as Cooperative Cope Thunder provide an opportunity for engagement in the Pacific Alaska Range Complex (PARC), a facility more than five times the size of the Red Flag range in Nevada. This year's Cope Thunder participants included: Australia, Bangladesh, Canada, Germany, India, Japan, Malaysia, Mongolia, the Philippines, Singapore, Sri Lanka, and the United Kingdom.

Our Balikatan series in the Philippines is a critical element of our continuing effort to build an enduring CT capacity and capability in the armed forces of the Philippines. It also provides excellent training opportunities for U.S. forces, and does so in a manner that both exercises contingency access and relieves training pressures due to encroachment elsewhere in theater.

Our premier multilateral exercise in the Pacific is Cobra Gold, an annual event hosted by Thailand. This exercise is specifically designed to promote capabilities and cooperation to deal with foreign consequence management, humanitarian assistance, peacekeeping/enforcement operations, noncombatant evacuation operations, and transnational threats like terrorism and illicit narcotics.

Our Advanced Concept Technology Demonstration (ACTD) Program allows us to influence and leverage our Nation's investment in science and technology, expediting advanced technologies to our warfighters.

Today USPACOM is sponsoring 18 ACTD projects—more than any other regional combatant command. We have distributed the workload across the whole theater—almost all service component and subunified commanders and most of my staff directors have responsibility for at least one ACTD. A number of our ACTDs have accelerated state-of-the-art technologies into OEF and OIF. For example, the Thermobaric Weapon ACTD accelerated its tunnel-penetrating-munition development for combat use in Afghanistan. The Language and Speech Exploitation Resources ACTD currently provides language translation support for intelligence collection and ongoing operations in both Afghanistan and Iraq. The Joint Explosive Ordnance Disposal ACTD has provided networked reachback support for hundreds of explosive ordnance events in Iraq and Afghanistan. In all, eight USPACOM ACTD projects are directly contributing to the global war on terrorism.

We have been awarded three new ACTD Projects starting in fiscal year 2004. These include the Theater Effects Based Operations ACTD, which is a partnership with USFK and USJFCOM and has direct application in the work of our Standing Joint Force Headquarters.

TRAINING FACILITIES AND RANGES

Transformation of the PARC into a 21st century joint training complex and joint national training capability venue is important. Integrating virtual capabilities with existing training ranges is the next step in providing our warfighters the optimum combat training environment.

USPACOM forces are performing an increasing number of missions ranging from major combat in OIF to humanitarian assistance. Mission success requires realistic training—something inert ordnance cannot completely provide. The first exposure to live fire faced by our forces must not come in a hostile combat environment, but rather in a controlled but authentic training environment where they can learn from their experiences and condition themselves to face the "real thing." We are integrating virtual training technologies with live facilities and exercises to maximize training value within existing physical restrictions.

However, we are increasingly limited in our ability to conduct this training, because of restrictions on space, hours, ordnance, and radio frequencies. PACAF and U.S. Army Alaska work closely with State and Federal agencies to minimize range encroachment and to mitigate the environmental impacts associated with the PARC.

Our primary live-fire range in the western Pacific, Farallon de Medinilla (FDM) is heavily used now only because we received legislative relief associated with the Migratory Bird Treaty Act.

Training at Makua Range on Oahu is limited in the number and type of training cycles we can conduct, so more of our annual small unit training is achieved via deployment to the Pohakuloa range which also supports battalion level and higher combined arms live-fire exercises on the Island of Hawaii. We have also established a Joint Training Requirements Group to ensure effective use of available training areas in support of all service components and allies training in Hawaii and the Pacific AOR. This initiative will be fully integrated with the Joint National Training Capability through our new Pacific Warfighting Center. Finally, we are leveraging our TSCP to supplement our training locations as encroachment continues to restrict our training opportunities.

Many military facilities are also becoming foci for biodiversity, with development and expansion encroaching on our facilities. Where once our bases and training areas were remote sites, urban expansion now surrounds them, forcing some species, including some endangered species, into relatively safer environments of military facilities.

We are very good stewards of the environment. We have set aside space for protected species, altered or deferred some units' training to avoid interference in nesting areas, and developed specific programs to increase the populations of protected or endangered species.

For the most part, the military's answer to encroachment challenges has been to work around the immediate problems while attempting to minimize the impact on the quality and quantity of training. For example, environmental concerns now impose noise restrictions that force important low altitude maneuvers to use unrealistically high altitudes and limit the use of ranges. Maneuver space is reduced, training lanes become narrow, and our individual maneuvers become too predictable or repetitive. The central question is how all these important interests can be advanced in a balanced and cooperative way.

As part of our efforts to seek this balance, we sought and received narrowly focused clarifications to the Marine Mammal Protection Act and the Endangered Species Act that provide us the needed flexibility to train our forces for combat while continuing our commitment to environmental stewardship through necessary protection of marine mammals and endangered species.

You also clarified the Endangered Species Act by specifying that Integrated Natural Resource Management Plans (INRMP) be used in lieu of designating critical habitat. DOD is already obligated under the Sikes Act to develop INRMPs for lands under military control. INRMPs are prepared in cooperation with the Fish and Wildlife Service and State agencies, which recommend ways for DOD to better provide for species conservation and recovery. While we understand there are attempts to roll back these new provisions, it is critical that we be given an opportunity to implement them on our military ranges and operating areas. We will use the increased flexibility to ensure that we have access to ranges and operating areas vital to training our forces for future conflicts. We appreciate your efforts to help us maintain our readiness while protecting the environment.

LOGISTICS AND MOBILITY

We continue to improve our ability to adapt plans and rapidly flow forces and equipment. At the same time, we must efficiently sustain these forces as they move forward. Working in partnership with U.S. Transportation Command (USTRANSCOM), we have made steady progress identifying and prioritizing existing strategic air and sealift infrastructure improvement projects to support the global war on terrorism, or if required, a major theater war in the Pacific. Our Pacific Command En Route Infrastructure Steering Committee (PERISC) commissioned the study of several strategically located airfields in the theater, gathering appropriate infrastructure data and applying this information to model personnel and cargo throughput capability.

Our current enroute airlift system includes Elmendorf Air Force Base (AFB) Alaska, Hickam AFB Hawaii, Andersen AFB Guam, and Japan's Iwakuni Marine Corp Air Station, Kadena Air Base (AB), Misawa AB, and Yokota AB. The PERISC has validated and championed over $100 million in fuel hydrant, ramp and runway projects at these locations to support the National Military Strategy and Mobility Requirements Study 2005. We also identified seven projects at Elemendorf AFB, Alaska and Hickam AFB, Hawaii in fiscal year 2005 to support the assignment of C–17 aircraft at both locations. These and other investments throughout the AOR will ensure we have the required infrastructure readiness.

Theater In-Transit Visibility is required to allow the Joint Force Commander to see force closure for deployments and avoid unnecessary costs and inefficiencies for sustainment and distribution. In the past, intransit visibility was typically provided to Joint Force Commanders from Ports of Embarkation (POE) to Ports of Debarkation (POD) (i.e. the USTRANSCOM air and sea channels). End-to-end visibility for either deployment or sustainment distribution prior to the POE, or in-theater from the POD to the ultimate destination did not exist.

In October 2003, OSD published the first Department-wide Radio Frequency Identification (RFID) policy. Recently updated in February 2004, this policy mandates the implementation and expansion of Active RFID. The immediate implementation of this policy will provide USPACOM with enablers for both In-Transit Visibility and Total Asset Visibility (TAV).

USPACOM's current RFID infrastructure is limited and Army-centric, primarily supporting Army deployments to the Korean theater. To meet OSD's mandate and USPACOM's requirement for TAV, extensive RFID instrumentation must be obtained and installed in USPACOM. Instrumentation locations encompass our strategic and multi-nodal ports, including transload locations, and extend to supply activities and originating bases of deploying forces, ultimately including final destinations. To mirror CENTCOM's current capability for TAV in our theater, every effort should be made to fund and train personnel needed to activate this capability.

Preferred munitions

Emergent requirements in support of OEF and OIF resulted in reduced availability of preferred munitions and have forced us to rely on older stocks for a period of time. A robust near term inventory of global positioning system-aided and laser-guided bombs such as the Joint Direct Attack Munition, Wind Correct Munitions Dispensers and GBU–10/12 pre-staged ashore, supplemented by more weapons available from afloat or deployable stockpiles would provide USPACOM with a more accurate, reliable capability. In the future, we'll also need significant quantities of emerging weaponry, such as Small Diameter Bomb and Joint Air to Surface Standoff Munition. Positioning these weapons forward in theater will reduce lift requirements in the early stages of a conflict when those assets are most critical.

C–17 aircraft

USPACOM strongly supports U.S. Air Force and USTRANSCOM efforts to procure at least 222 C–17 aircraft as the minimum baseline to ensure responsive global mobility and provide the flexibility and capacity to support DOD warfighting transformation. Our number one strategic lift shortfall is airlift due to retirement of aging C–141 aircraft, poor C–5 reliability. The C–17 is one of only two strategic airlift platforms in the Air Mobility Command inventory capable of providing over- and outsized cargo lift capacity. The only other aircraft is the less reliable C–5. The current Air Force Program Objective Memorandum funds 180 C–17 aircraft, however, in light of increasing global war on terrorism demands, additional C–17 aircraft should be procured.

USPACOM anticipates basing eight C–17s each at Hickam AFB, Hawaii in December 2005 and Elmendorf AFB, Alaska starting in 2007. Active duty Air Force and Air Reserve component forces—Hawaii Air National Guard and Alaskan Air Force reservists—will operate these strategic mobility aircraft. These aircraft will bring vastly increased reliability, versatility and large capacity to and through the Pacific theater.

High Speed Vessels (HSV) provide a flexible alternative for intratheater movement in USPACOM, including its use to augment airlift. Since October 2001, III Marine Expeditionary Force (MEF) has been testing a leased HSV with great success and cost savings for exercise deployments and redeployments, as well as operational employment. Joint Venture HSV X1, the Joint Army/Navy HSV that participated in Millennium Challenge 2002 and other exercises, was scheduled to support U.S. Army training in the USPACOM Theater from March to April 2003, but was diverted to support CENTCOM for OEF and OIF. Without a doubt, HSV capabilities were critical to the early success of OIF. The speed and range of the HSV–X1 allowed it to rapidly deploy to CENTCOM. There, it was successfully employed as an afloat staging base for Naval Special Warfare combatant craft operations. In October 2003, a new HSV–X2 Swift, replaced the HSV–X1, and is serving as a Mine Warfare Command and Support ship. In the USPACOM AOR, USARPAC will use HSV–X1 to conduct exercises and training under our ACTD program. We fully support continued leasing of tailorable High Speed Vessels as force projection and lift platforms.

Tanker Aircraft

Our National Security Strategy cannot be executed without air-refueling tankers, yet many of ours are nearly 50 years old. The average age of the fleet is 43 years, and the cost of keeping these aging aircraft mission capable is increasingly prohibitive. In the USPACOM, air-refueling tankers are critical to execution of theater war plans as early deployers in support of the Pacific Tanker Air Bridge. Meanwhile, OEF, OIF, and Operation Noble Eagle have demonstrated the operational impact air refueling capability has in support of the global war on terrorism. The KC–135 aircraft comprises 90 percent of the tanker fleet, and their usage has increased 45 percent over employment programmed before 11 Sept 01. The fiscal year 2002 DOD Appropriation Bill authorized the Air Force to negotiate the lease/purchase of 100 commercial B–767 aircraft for air refueling use—an issue currently under DODIG investigation. Regardless of the tanker lease resolution, we still need a viable option to replace the aging tanker fleet.

Aircraft Mission Capable (MC) Rates

We continue to be concerned about low USPACOM aircraft MC rates. Aging aircraft inventory and parts shortages continue to drive reduced MC rates, reduced fill rates for our "go to war" Readiness Spares Packages, and high cannibalization rates. Although funding for spare parts has 31 improved over the past several years, shortages still exist. As an example, only one of six PACAF A–10, F–15, and F–16 wings maintained minimum MC standards during fiscal year 2003. The F–15Cs at Kadena AB are, on average, 26 years old—11 years beyond the Air Force's maximum desirable age for fighter aircraft. We must recapitalize our fighter force structure.

IMPROVING QUALITY OF SERVICE FOR OUR MEN AND WOMEN

Improved quality of service (QoS) for our men and women is our third priority. Inseparable from combat readiness, it is certainly more than just good quality of life. It also means providing the high quality operating facilities, the tools, and the information technology necessary for our personnel to achieve their goals and execute their missions with efficiency and a minimum of frustration. The QoS initiatives included in the National Defense Authorization Act for Fiscal Year 2004 demonstrate the commitment of military and congressional leadership to meet the needs of our deserving servicemembers and their families.

Quality of life in USPACOM is good and improving. In the near term, we're focused on retention, operating tempo, and housing and school improvements.

Competing for and retaining the best people

We must not take current high retention rates for granted. High operating tempo associated with OEF and OIF, coupled with a recovering economy, could challenge our ability to retain quality personnel at required levels. A proactive approach featuring competitive compensation and thoughtful force management is required.

On behalf of the men and women of USPACOM, thank you for your support of recent initiatives including: an average 4 percent pay raise, increases in allowances for family separation, housing, and cost of living, and pay premiums that recognize special sacrifices like Assignment Incentive Pay in Korea and Hostile Fire/Imminent Danger Pay. Deployed personnel in harm's way will also be more at ease knowing that additional family assistance has been provided in the form of child care, education, and youth services for their loved ones back home. These initiatives will help us recruit and retain our highly skilled troops and their families.

Operating Tempo

Our forces have performed magnificently during OEF and OIF. In 2003, USPACOM's forwardbased forces largely remained in place during these conflicts to help maintain our deterrent posture. Air and naval forces that did participate were quickly returned to their home bases for rest, repair, and readiness for further assignment. As we enter 2004, marines from the III MEF and soldiers from the 25th Infantry Division are beginning rotations to Afghanistan and Iraq. We will work to mitigate resulting impacts on these troops and their families while compensating with additional forces to maintain our readiness posture forward.

Reserve Mobilization

We continue to rely on our Reserve and Guard members to help us accomplish our missions in the Pacific. These outstanding citizen-servicemembers contribute hard work and unique talents. As a matter of policy, USPACOM relies heavily on volunteers. Since September 11, we have mobilized approximately 5,000 servicemembers who have served tours up to 2 years in length.

Today there are about 40 mobilized reservists working at our headquarters and about 1,700 mobilized reservists throughout the USPACOM AOR, serving within the ranks of our service components. All of these members are making important contributions in key roles such as force protection, planning, logistics flow, and myriad other critical areas.

We will continue to promote judicious use of our Reserve Forces. We actively support Secretary Rumsfeld's initiatives to relieve the pressure on the Guard and Reserve and to rebalance the force for the future. America can be proud of the way our Reserve Forces have responded to our Nation's needs.

Force Health Protection

We are working with OSD to ensure Smallpox and Anthrax Vaccines are authorized and will be available for those who need it. Last year, the emergence of Severe Acute Respiratory Syndrome (SARS) posed a new global threat. Although we didn't have a single case among our troops, we remain vigilant, and will take steps to limit our forces' exposure whenever possible. Another continuing threat in the Pacific is HIV/AIDS. We've partnered with select countries for HIV/AIDS Prevention Programs in their militaries—a significant step in fostering both healthy peacekeepers and economic stability.

I also want to emphasize the need for integrated and standardized medical information systems across DOD. Unified Commands, among others, are responsible for reporting and tracking disease surveillance and vaccination data. However, no military wide automated systems exist to support these tasks. To this end, I support a USPACOM-led demonstration project to test and evaluate DOD's Theater Medical Information Program, currently under development, to integrate a joint medical information system, both in garrison and deployment.

Military Housing

Quality housing provides peace of mind for our forces and underscores our commitment to quality of life. Recent increases in basic allowance for housing support the DOD goal of zero out-of-pocket housing expenses by fiscal year 2005 for personnel living on the economy.

Meanwhile, our service components remain committed to replace or renovate substandard military family housing, relying on housing privatization initiatives (such as Public Private Venture and Residential Communities Initiative) and Military Construction (MILCON). These initiatives are a "win-win" for the community and serve to provide high quality, welldesigned military housing developments. Pacific service components and USFK are in the process of adding or replacing over 1,200 family housing units in fiscal year 2004 alone. Your continued support of military housing privatization initiatives is appreciated. Still, MILCON is required to meet Defense Planning Guidance goals, especially overseas. In our fiscal year 2005 program, we have nearly $300 million in MILCON family housing projects.

Continued funding is also essential to improve bachelor housing. For fiscal year 2005, $291 million is required to keep all components on plan. Navy, Air Force, and Marine components are on track to eliminate open bay and central latrine barracks. Army will meet this goal in Hawaii and South Korea by fiscal year 2008 and fiscal year 2009, respectively.

Schools

Competitive schools are a top quality of life concern, especially in Guam and Hawaii. DOD Education Activity school projects in Guam will provide a new high school (fiscal year 2005 at $28 million) and a new elementary/middle school in the future.

In Hawaii, we are leveraging our Joint Venture Education Forum (JVEF) to improve school quality, strengthen our partnership with the State and its citizens, and increase attractiveness of Hawaii as a duty station. The JVEF is a collaborative effort between the Hawaii Department of Education and USPACOM to improve education and facilities in the military impacted public schools. Over the past 4 years, the Forum has focused on repair and maintenance, and on upgrading textbooks and technology. More recently the JVEF has focused on the transition issues of military dependent children by helping schools develop transition assistance programs and offering a military culture course to school staffs. Subsequent USPACOM school surveys reveal significantly improved perceptions of Hawaii schools by military families.

Transformation

Improved QOS is an intended and essential product of our transformation initiatives. As we posture forces to ensure security in the new threat context, we also seek to place forces such that they can be efficiently employed against unpredictable

threats—minimizing optempo while posing a minimal burden on friends and allies in the region. In short, we want to be relevant, welcomed, and immediately employable.

Base facilities and infrastructure

Sustainment, Restoration, and Modernization (SRM) of facilities and infrastructure throughout USPACOM remains an important concern. Current funding levels limit our ability to achieve the 67-year recapitalization rate directed by DOD. We have equally important infrastructure requirements above SRM needs, including environmental requirements and new mission bed-downs for transformational capabilities like C–17 aircraft and Stryker BCTs. We are working to ensure transformation-related changes are integrated into our MILCON plans to prevent wasted expenditures.

Military Construction (MILCON) in Korea

As Commander, U.S. Forces Korea is testifying, our facilities in Korea remain among the worst in USPACOM. MILCON is essential to rectify these shortcomings and to advance our transformation initiatives. We plan on consolidating USFK into two hubs of enduring installations—an air-oriented hub focused on Osan AB, and a sea-oriented hub in the southeast near Pusan. These consolidations will improve unit readiness, force protection, and quality of life while reducing adverse impact on our host nation. This long term but essential program requires stable MILCON funding.

We appreciate your support for fiscal year 2004 projects in South Korea to upgrade hardened aircraft shelters and to construct family housing, barracks complexes and dormitories. We also understand your reservations about reprogramming MILCON projects before achieving the precondition of obtaining necessary land on which to construct them. We are working closely with the Republic of Korea (ROK) government to pursue the land purchases necessary to make these projects viable, and we will abide by the provisions of the 2004 Military Construction Appropriations Act regarding their planning and construction.

We request your support for the fiscal year 2005 MILCON projects submitted by the services for South Korea, including U.S. Air Force family housing and dormitory projects and the sewer system upgrade at Camp Humphreys.

Guam MILCON

Guam's geostrategic importance cannot be overstated. Both Navy and Air Force facilities will continue to figure prominently in Guam's increasing role as a power projection hub. But Guam's environment can be harsh, and major infrastructure improvements are needed to support its further utility. USPACFLT plans to upgrade the KILO Wharf near Orote Point in fiscal year 2005 ($13 million) to better support weapons handling, and has further plans to develop the Orote peninsula into a fully capable munitions hub in the out years. Three future projects are also essential to improve wharves at Apra Harbor. In fiscal year 2005, USPACAF plans to construct a $20 million war reserve material storage facility at Andersen AFB, and has out year projects to repair the south runway and construct munitions storage igloos.

Joint POW/MIA Accounting Command (JPAC)

The JPAC stood up on 1 October 2003, combining assets of JTF—Full Accounting and Central Identification Lab-Hawaii (CILHI), with a global mission. The command will eventually be housed in a new combined facility at Hickam AFB that will improve efficiency while reducing overall footprint.

In 2003, joint field activities in Vietnam, Laos, Burma, North Korea, and Cambodia recovered 26 possible human remains believed to be those of unaccounted-for Americans. Meanwhile, the CILHI identified a total of 64 Americans previously unaccounted for: 37 from the Vietnam War, 5 from the Korean War, and 22 from World War II. We remain fully committed to this mission.

Pacific Warfighting Center (PWC)

USPACOM's exercise simulation and support infrastructure is obsolete. This shortfall significantly reduces the ability to train USPACOM and JTF commanders in crisis action readiness procedures, limits their ability to rehearse key operational orders, and degrades the ability to improve combined interoperability with friends in the region. The current exercise simulation facility also does not support future technologies or meet force protection requirements. A planned, state-of-the-art operations and simulation center will improve total force readiness by exploiting emerging technologies to create a networked, live, virtual, and constructive training and mission rehearsal environment for joint and combined force commanders and their staffs.

The PWC will be a key node on DOD's global grid of warfighting centers that create the Joint National Training Capability. PWC will be fully integrated with, and extend the capability of, USJFCOM's Joint Training Analysis and Simulation Center and U.S. European Command's Warrior Preparation Center. It will also be home to our most important new joint command and control development—the Standing Joint Force Headquarters, discussed below.

PWC promises to save exercise funds and enhance regional security cooperation using Internet-based information exchange opportunities via the Asia-Pacific Area Network (APAN). We estimate a $30 million need in fiscal year 2006 for this facility.

Nimitz-MacArthur Pacific Command Center (NMPCC)

The NMPCC is complete and will be dedicated on April 14. This modern facility and its robust information technology will fundamentally change the way we command and control forces in the Pacific theater. We are working hard on information and knowledge management processes to maximize efficiency while minimizing frustrations. Thank you for making this important headquarters a reality.

REINFORCING THE CONSTANTS IN ASIA-PACIFIC SECURITY

Our longstanding bilateral alliances in the Asia-Pacific region, our friendships both old and new, and the presence of our forward-deployed combat forces continue to be the foundation of the region's peace and stability. Based upon my extensive travels throughout Asia and the Pacific, it is clear that more and more nations appreciate the constructive role forward-based American forces play in regional peace and stability. We are capitalizing on these sentiments to build bilateral relationships while nurturing multinational efforts that support regional security needs.

The USPACOM TSCP enhances U.S. influence, expands U.S. operational access to train (and deploy) forwarddeployed and forward-based combat forces, and increases competence of our coalition partners. Every TSCP activity is designed to enhance our joint/combined capabilities and communicate assurance to our friends while dissuading or deterring our enemies. Seminars and multilateral exercises continue to be inexpensive but powerful ways to develop the capabilities to work effectively as partners against all manner of transnational threats.

TSCP is an engine of change that, along with our Joint Training and Experimentation plans, solidifies the link between national strategy and focused, enduring regional security.

The dividends of a relevant, adaptive TSCP are clear—our treaty allies and friends have provided incomparable support to OEF, the global war on terrorism, and now OIF as well. We have new security partners. Mongolia, for example, has made historic contributions in the war on terrorism and in the reconstruction of Iraq. Many other countries within the Asia-Pacific region also share our security interests, and it is due in part to their efforts to combat terrorism that the analytical depth and breadth of shared actionable intelligence on the terror threat has improved so significantly. Their demonstrations of support are positive signs that meaningful regional cooperation on these threats will continue.

Japan

The U.S.-Japan alliance remains the most important pact in the Pacific and is as strong as it has ever been. Nearly 54,000 U.S. Armed Forces personnel are stationed in Japan, including units of the 5th Air Force, III MEF, and 7th Fleet. Without these forces, it would be very difficult to meet our commitments both to Japan and to the rest of Asia-Pacific region. Last year, Japan contributed about $4 billion just to host our forces—the most generous of any U.S. ally.

Since becoming Prime Minister nearly 3 years ago, Prime Minister Koizumi has stressed the importance of the alliance and has exerted exceptional leadership in support of both regional and global security efforts. Japan acted swiftly and historically after September 11 to provide airlift services and over 89 million gallons of fuel to coalition ships in the Arabian Sea in support of OEF. Last year, the Government of Japan (GOJ) approved an extension to the basic plan to continue these valuable contributions to the global war on terrorism. Japan's Coast Guard also participated in the first PSI exercise last September.

But arguably the most significant symbol of Japan's commitment to regional and global security was its December 2003 decision to contribute up to 1,000 Japan Self-Defense Force personnel for Iraq—a plan they are now implementing. Additionally, they've pledged $5 billion in loans and grants for Iraqi reconstruction, second only to the United States. We take every opportunity to express our appreciation to the GOJ for Japan's incredible support.

We continue to strengthen this vibrant alliance through open dialogue and a continuing infusion of creativity. We benefit from robust relationships with the Japan Self Defense Forces, all of which have greatly matured in the last two decades. Although our deepest ties lie with the Maritime and Air Self Defense forces—mainly due to the day-to-day presence of the 7th Fleet and 5th Air Force—we are also looking for ways to increase interactions with the Ground Self Defense Force.

The Defense Policy Review Initiative (DPRI) provides an important forum for deliberating alliance improvements. Working closely with OSD, the State Department, and our country team, we are consulting with the GOJ on ways to improve our command structures, assist the Self Defense Forces in their own transformation efforts, and make modest adjustments to address noise and safety concerns in places like the Kanto plain and Okinawa.

Efforts continue to implement the Special Action Committee Okinawa (SACO) final report. While 15 of 27 SACO initiatives have been completed, 12 are still being worked. Two of 5 noise reduction initiatives and 10 of 11 SACO land release initiatives have yet to be completed. Considerable progress on the 12 outstanding initiatives has been made, and the initiatives are continually being pursued.

The cornerstone of the SACO final report is the Futenma Replacement Facility (FRF). GOJ approval of a basic plan for the offshore portion of the FRF highlights the progress made in the SACO process last summer. However, we continue to emphasize to the GOJ that a complete replacement facility as identified in the SACO final report—not just the offshore portion—is required before Futenma can be fully returned.

We continue our frank and open dialogue with Japan to nurture this robust alliance. We will also continue to improve U.S.-Japan coordination with other countries in the region to address cooperation on regional security issues.

Republic of Korea

Our solid partnership with South Korea has contributed to peace and security on the peninsula for 50 years. Today, units of the 8th U.S. Army and 7th Air Force comprise the majority of our 38,000-troop strength in South Korea. We have also witnessed continued growth in the capability and capacity of ROK forces. They are modern, professional, and growing rapidly in tactical sophistication.

Of course our partnership is focused on the most immediate security threat to the South Korean people—North Korea, or the Democratic People's Republic of Korea (DPRK). Although the likelihood of war on the peninsula remains low, the stakes posed by the North Korean conventional threat remain high, and are even higher if North Korea continues its pursuit of nuclear programs. The DPRK maintains more than 70 percent of its forces within 100 kilometers of the Demilitarized Zone (DMZ), and the Kim regime persists in its "military first" policy, keeping its large force fed, equipped, and trained while average citizens face deprivation and starvation.

North Korean missile and missile technology exports pose a grave proliferation concern. Its missile inventory includes over 500 short-range SCUD missiles and medium range No Dong missiles capable of delivering conventional or chemical payloads well beyond the peninsula. Ongoing research on a multiple-stage variant of the Taepo Dong missile may provide North Korea the means to target the continental United States. Its other illicit activities, including probable State-run narcotics and currency counterfeiting enterprises, also pose a broad threat to regional security.

After trilateral talks in April 2002 and two rounds of Six Party Talks to date, it is clear diplomacy must continue to be backed by a strong ROK–US defense partnership to eliminate North Korea's nuclear programs and reduce the North Korean conventional threat.

We recognize the importance of reconciliation efforts to the Korean people and support those efforts by maintaining a position of mutual strength. Nations of the region are aligned on the goal of achieving complete, verifiable and irreversible dismantlement of the North Korean nuclear program.

Meanwhile, the ROK has steadily increased its regional security role. USPACOM is working with the ROK Joint Staff to ensure our regional security cooperation efforts are in consonance with one another and integrated where appropriate. The return of Korean troops from United Nations (U.N.) peacekeeping duty in Timor-Leste in October 2003 underscored Korea's commitment to regional peace and stability. The ROK continues to support USPACOM's Multinational Planning Augmentation Team (MPAT) program. South Korea's growing security role provides regional contributions while meeting its peninsular defense responsibilities.

The ROK continues to support our global security efforts as well. In September 2003, we released the last of four ROK amphibious ships after their 18 months of

logistical support and aircraft recovery operations related to OEF. In December 2003, the ROK Air Force completed 2 years of airlift support, having logged almost 3,000 flight hours and moved over 300 tons of cargo and passengers throughout the AOR. The ROK Army has deployed a Construction Engineer unit and medics to Bagram, Afghanistan since February 2003. By May 2003, over 600 ROK engineers and medical service personnel were working in Iraq along side the U.S. military.

Most significantly, we anticipate the ROK government will dispatch up to 3,000 more troops to Iraq later this year, making it the third largest coalition troop contributor to OIF. These contributions have been, and will continue to be, important to global security, and we thank the Korean people for their support.

Occasional anti-American sentiment reminds us that South Korea is a vibrant, democratic society, with a profusion of free and diverse voices. Nevertheless, we clearly have reached an important juncture in ROK-U.S. relations. While the majority of South Koreans support the alliance, we know we must strengthen the alliance to meet the challenges of the new international security environment.

ROK Minister of Defense Lee Jun and U.S. SECDEF Donald Rumsfeld established the future of the ROK-U.S. Alliance Policy Initiative at the 34th Security Consultative Meeting in Washington D.C. on December 5, 2002. Its charter is to develop options and make recommendations to adapt the alliance to reflect the changing regional and global security circumstances. The ultimate objective is to build a balanced and enduring alliance that will be more effective but less intrusive in the lives of the Korean people.

Despite this challenging political environment, future of the alliance meetings have produced considerable progress. Most notable are the agreement to relocate U.S. forces from the Seoul metropolitan area, a more regional role for USFK, greater information sharing to coordinate force improvement plans, terms of reference for a command relations study, and the transfer of appropriate military missions to ROK forces. Final details to relocate U.S. forces from Seoul and consolidate U.S. forces into two hubs south of the Han River remain for ongoing ROK-U.S. discussions.

Australia is a strong ally and special partner in the Pacific. Australia's support for a new joint antiterrorism center in Indonesia and its Regional Assistance Mission to the Solomon Islands are just two recent examples of Australia's solid leadership throughout Oceania. The Australian people have demonstrated a steadfast commitment to winning the global war on terrorism, and they continue to make valuable contributions to OEF and OIF.

Improving the already high level of interoperability between U.S. forces and the Australian Defense Force remains a top priority. A comprehensive 2-year study on Strategic and Operational Level Interoperability has just concluded. The implementation of its recommendations will ensure interoperability continues to advance.

Australia has the most robust set of range and training facilities for air, land and sea operations in the Pacific Rim. The facilities range from well-developed, instrumented training ranges to austere sites with little existing infrastructure. We have embarked on a comprehensive plan to study expanded use of these training areas to support the Talisman Saber exercise series and other future training initiatives. Future Australia/U.S. combined training events will exercise Combined Task Force-level air, land, and sea operations to a level rarely found outside the United States.

Republic of the Philippines (RP)

Designated a Major Non-North Atlantic Treaty Organization (NATO) Ally in October 2003, the RP is a strong partner in the global war on terrorism. Our bilateral relationship promotes mutually beneficial training, Philippine military reform, and increased counterterrorism capacity and capability. Despite significant domestic security concerns, the RP generously supported OEF with access to facilities and airspace, and recently deployed approximately 100 medical, engineering, and security personnel for Iraqi reconstruction.

OEF-Philippines (OEF–P) continues. Last year, we executed a focused security assistance plan to support our CT objectives in the Philippines. Five security assistance modules enhanced near-term needs like light infantry training, night vision skills, and intelligence fusion. We also executed the region's most robust Foreign Military Financing (FMF) Maintenance Assistance Plan to improve the AFP tactical mobility on both land and sea. In February, a refurbished 180 patrol craft (ex-U.S.S. *Cyclone*) was provided to the RP under the Excess Defense Articles program. This vessel is now the most capable maritime interdiction platform in the Philippine Navy.

The AFP have improved their effectiveness against the ASG, highlighted by December's arrest of ASG terrorist Galib Andang, aka "Commander Robot", on Jolo Is-

land. We continue OEF–P to provide training, advice, and assistance to the AFP to improve their capability and capacity to deal with terror threats.

Incremental progress toward our mutual defense goals has prompted a complete review of the pace and direction of the AFP as an institution. The resulting Joint Defense Assessment is both a template for long-term AFP reform and a mechanism by which we are managing near-term CT improvements.

Philippine Defense Reform (PDR) is the engine by which these improvements will proceed. The PDR is a broad-based, multi-year cooperative effort between the Philippine and U.S. Governments. PDR recommendations, implemented in a coordinated and deliberate fashion, are designed to address systemic organizational deficiencies, correct root causes of strategic and operational shortcomings and achieve long term, sustainable institutional improvements in management, leadership and employment of the AFP. While we will assist the Philippines through normal security assistance processes and through routine military-to-military exchanges and exercises, the reforms are principally the responsibility of the Philippine Government. The Philippines' most senior military and civilian leaders are completely supportive of the PDR process. We appreciate your continued support of the Philippines through Security Assistance funding.

Thailand also was granted Major Non-NATO Allied Status in December 2003. Thailand's valuable contributions to regional security stem in large part from the capacity building we have mutually pursued.

Since the October 2002 Bali bombings in Indonesia, Thailand has been particularly open and cooperative in the global war on terrorism, highlighted by the arrest on Thai soil of JI leader Hambali and other JI operatives. Thailand currently has about 450 engineers and medical personnel supporting Iraqi reconstruction, completed a significant engineering deployment to OEF in Afghanistan, and led military peace observers in Aceh, Indonesia, building on the Thai military's previous sustained peacekeeping effort in East Timor.

Thailand routinely supports our access and training requirements and plays generous host to USPACOM's premier multilateral exercise, Cobra Gold. Cobra Gold 2004 will be our 23rd combined/joint bilateral exercise with the Royal Thai Armed Forces. Cobra Gold is our flagship vehicle for building regional competencies to respond to an expanding range of transnational security situations. By adding this multinational exercise dimension in an environment that trains for peacekeeping in addition to responding to transnational threats, Thailand assumes an active role in promoting South East Asia security and demonstrates capability as a regional leader.

Singapore is emerging as a regional leader and eager contributor to Asia-Pacific security. Its aggressive approach to important issues ranging from SARS to counterterrorism to maritime security, coupled with its outspoken support for a strong U.S. presence in Southeast Asia, make this relationship among the most important in the Pacific theater.

Our friendship with Singapore—more than just a friendship—has matured beyond expectations. Soon we will conclude a Strategic Framework Agreement, providing structure and organization to our bilateral efforts with sufficient flexibility to continue to mature along with our relationship. Together, we are exploring opportunities for expanded access to Singaporean facilities while increasing information and technology exchange.

Malaysia

Our relations with the Malaysian Armed Forces continue to weather periodic hurdles, most often characterized by opposition to U.S. policies in general and military operations in the global war on terrorism in particular. Despite the rhetoric, our military ties are cordial and cooperative, sharing information and best practices in maritime security and counterterrorism.

Malaysia's influence extends beyond Southeast Asia. It currently holds the chairmanship of the Organization of Islamic Conference and the Non-Aligned Movement. Regionally, Malaysia is an influential leader, focused on the terror threat from JI. The recently inaugurated Regional Counterterrorism Training Center in Kuala Lumpur and combined Celebes Sea patrols with the Philippine Navy are but two examples of its willingness to contribute to regional security.

India

Our military-to-military program with India leads the larger bilateral relationship and is already providing security benefits in South and Southeast Asia. In the past year, mutual understanding has improved, exercise complexity has increased, and interest in foreign military sales has risen dramatically.

All USPACOM components have conducted a number of successful training events with the Indian military, including the first-ever exercise between U.S. front line fighter jets and Su–30K Flankers. These events contribute to the combat effectiveness of U.S. forces.

We have developed a long-range plan outlining mutually beneficial activities that build upon this momentum. These programs are designed to increase our proficiency and interoperability with Indian forces while addressing shared interests like maritime security. Our military cooperation directly contributes to the expansion of our strategic partnership with India.

Indonesia is the world's most populous Muslim nation and third largest democracy. Sitting astride vital trade routes and targeted for destabilization by terrorists, Indonesia's success is crucial to peace in the Pacific. Its democratic development requires both effective CT efforts and Tentara Nasional Indonesia (TNI) professional reform.

The government has effectively responded to the bombings in Bali and Jakarta, arresting and convicting many key participants and sharing information with its neighbors. We continue to assess opportunities to increase Indonesia's capacity and cooperation against the JI.

The TNI is the most coherent government institution and will play a central role in shaping the future of the democracy. It is also an organization tainted by past human rights abuses, a lack of accountability, and corruption—conditions that led to restrictions on our military-to-military relationship. Indonesia now acquires non-western military hardware and training that is incompatible with our own. These conditions move Indonesia further away from the U.S. sphere of influence.

The TNI appears committed to reform, and there is evidence of positive change in the military. To positively shape that reform, and working with our embassy country team in Jakarta, we have developed a plan of activities that meets all legal constraints. We will leverage electronic IMET, Regional Defense Counterterrorism Fellowships, and other authorized multilateral venues to expose Indonesian officials, including appropriate TNI officers, to non-lethal U.S. professional military standards.

East Timor is hard at work developing the governing institutions and the political culture for enduring democracy. Though progress is being made, this is a long-term and daunting challenge. The country faces a weak economy, high youth unemployment, and low literacy levels.

Our security goals for Timor-Leste are to support the development of a civil-military defense establishment that is fully subordinate to civilian authority and the rule of law, and to assist in the development of the 1,500-man Falantil-Force Defense Timor-Leste (F–FDTL) as a credible self-defense force. Our program is coordinated with Australia. IMET and FMF programs are being used to fund English language training, and Mobile Training Teams are being planned to provide education and training to support the development of civil/military defense capabilities. We are also conducting small unit exercises that enable USPACOM forces to train with the F–FDTL. This allows our forces to take advantage of the F–FDTL's jungle warfare experience in challenging mountainous terrain.

China

Our modest but constructive military-to-military relationship with China continues. Guided by Public Law 106–65 (National Defense Authorization Act of 2000), it is limited to non-warfighting venues such as high-level exchanges and Humanitarian Assistance/Disaster Relief cooperation.

The last year has featured U.S. warship visits to Zhanjiang and Shanghai. The Chinese reciprocated with a two-ship visit to Guam in October. Late last year, USPACOM also hosted the Nanjing Military Region Commander, Lieutenant General Zhu Wenquan, and Defense Minister, General Cao. These exchanges communicate our values and demonstrate the high quality of our people.

Taiwan

Our relationship with Taiwan is guided by the Taiwan Relations Act of 1979. Taiwan's ability to defend itself remains the focus of our efforts, given added emphasis by the Chinese military buildup across the Strait. Our relationship supports development of a modern and joint military institution that promotes stability, democracy, and prosperity for Taiwan.

Vietnam

Our military-to-military relationship with Vietnam is progressing on a modest but positive vector. The Vietnamese Defense Minister's historic visit to Washington last year was followed in November by our first port call to Ho Chi Minh City since

1975. These events, combined with my visit to Vietnam in February 2004, represent straightforward but symbolic steps in our relationship.

We share a number of security concerns with Vietnam. Of course, our most robust military-to-military program focuses on POW/MIA recovery. But there may also be room to cooperate in counternarcotics, counterterrorism, and peacekeeping. We hope the next year will benefit from Vietnam's new openness to build a relationship that looks to the future while respecting the past.

Asia-Pacific Center For Security Studies (APCSS) continues to bring together current and future military and civilian leaders to discuss nonwarfighting security concerns in programs that promote our regional security cooperation objectives. Through its Executive Courses and Conference program, the APCSS provides Asia-Pacific leaders a premier venue to address security challenges from a multinational perspective. We are careful to include countries like Pakistan and Russia which, though not within USPACOM's AOR, clearly have security stakes in the Pacific. The Center is attracting the right people to reinforce U.S. policy, address relevant regional issues, and assure access to nations in the region. Congressionally appropriated RDCTF Program funding will be used to develop and conduct a semiannual course designed to facilitate comprehensive regional solutions in the fight against terrorism.

Center of Excellence (COE), a USPACOM Direct Reporting Unit established by Congress in 1994, manages capacity building programs in peacekeeping, stability operations, HIV/AIDS mitigation for military forces, and disaster response and consequence management planning. These activities, typically conducted on a multilateral basis with current and potential coalition partners, reinforce relationships and develop confidence across the AOR. They also expand regional capabilities to support multinational coalition and peacekeeping operations around the world.

Through its tailored education programs for U.S. force components, COE improves understanding of and relations with civilians active in complex contingencies, crisis transition, and peace support operations. For example, COE supports USARPAC's coordination of responses to CBRNE incidents at U.S. installations in Hawaii, Alaska, and across the AOR. I ask for your continued support of this important institution.

Chiefs of Defense (CHOD) Conference

One of our premier senior level theater security cooperation activities, USPACOM annually hosts this regional conference that brings together Asia-Pacific CHOD Chairmen of the Joint Chiefs of Staff (CJCS), equivalents for a series of discussions on regional defense issues of mutual interest. The October 2003 conference was held in Honolulu, with senior military leaders from 23 nations, including our CJCS, General Myers, in attendance. The conference theme, "Security Transformation in the Asia-Pacific Region," provided an open forum for candid dialogue among the largest group of CHODs to participate since the conference's inception in 1998. The "Transformation" theme focused on three areas; Emerging Concepts for Maritime Security, Responding to Terrorism and Insurgencies, and Multilateral and Intra-governmental Operations. The CHOD's Conference continues to provide an excellent forum to foster understanding, build confidence, strengthen relationships, and promote stability. Next year, the conference will be co-hosted by the Japan Self Defense Force in Tokyo.

Foreign Military Financing provides vital support to developing countries involved in combating terrorism and other transnational threats. Funds provided in the Foreign Operations, Export Financing and Related Appropriations Act, 2003 and the emergency FMF Supplemental directly supported security cooperation priorities throughout the AOR. FMF and Sales contributed directly to the successful prosecution of al Qaeda network-linked terrorists in the Philippines and met basic needs to improve the security environment in several other countries.

USPACOM typically receives approximately 7 percent of the discretionary FMF funds. Legislative proposals to improve the security assistance process and add flexibility in the use of O&M funding have been submitted by my staff for your consideration.

IMET continues to be an effective, low-cost component of the Security Assistance effort. The program provides U.S. access to and disproportionate influence with foreign governments. Furthermore, it exposes future leaders to U.S. values and commitment to the rule of law, the role of a professional military in a democratic society and promotes military professionalism. Grant funding has removed financial barriers to U.S. military education and training for friends and allies located in regions subject to untoward influences and contributed to the readiness of troops providing post-hostility engineering and peacekeeping support in Afghanistan and Iraq. Combined with training offered through the Foreign Military Sales process, IMET has

supported the promotion of U.S. military education and training as the recognized standard worldwide. Consequently, demand has surpassed supply as it relates to school capacity. Innovation has addressed this issue in the near-term but real capacity increases are necessary to build upon our success. I appreciate your support of this valuable program.

Acquisition Cross-Servicing Agreements (ACSA) or Mutual Logistic Support Agreement have enhanced interoperability, readiness, and provided a cost-effective mechanism for mutual logistics support for U.S. and allied forces supporting the war on terror. USPACOM forces that participated in fiscal year 2003 Bilateral/Multinational Exercises (Cobra Gold and Balikatan) were able to greatly reduce their logistics footprint by using ACSAs. Countries that deployed outside the AOR (Mongolia, the Philippines, South Korea and Thailand) in support of OEF and OIF have benefited significantly from these ACSAs as well.

PACOM currently has 11 ACSAs in place (Australia, Philippines, South Korea, Japan, Singapore, Malaysia, Mongolia, Thailand, New Zealand, Fuji, and Tonga). Nine other countries are ACSA—eligible (India, Indonesia, Bangladesh, Nepal, Brunei, Maldives, Madagascar, Mauritius and Sri Lanka), and we anticipate completing three agreements in the very near future. Additionally, we are renegotiating Malaysia's ACSA (expires in March 2004) and just signed a revision to Japan's ACSA to make it more inclusive for support to the war on terror. Last year we finalized Mongolia's ACSA in May and renegotiated Thailand's in September.

PROMOTING CHANGE AND IMPROVING OUR ASIA-PACIFIC DEFENSE POSTURE FOR THE FUTURE

Our top security concerns in the Pacific include the possibility of conflict on the Korean peninsula, miscalculation in places like Kashmir or the Taiwan Strait, and transnational threats like terrorism. These concerns—some longstanding and others just emerging—form only a subset of the global security challenges to which we and our partners must respond. This new threat context demands profound and enduring improvements in the way we command, equip, and employ our forces. Guidelines for these improvements have been clearly articulated by DOD.

At Pacific Command, like all regional combatant commands, our job is to transform that guidance into action. Several principles direct our work.

First and foremost, it is clear that our longstanding alliances, our strong friendships, and the forward presence of our combat forces will continue to form the foundation for our security posture in the Asia-Pacific region. This fact is reflected in the "reinforcing the constants" priority outlined earlier. Posture improvements and capability improvements, discussed below, are being developed in full consultation with our allies. Several mechanisms facilitate our dialogue, including the DPRI (Japan), Future of the Alliance Initiative (South Korea), Australia Ministerial/Military Representatives, Mutual Defense Board (Philippines) and the pending Strategic Framework Agreement with Singapore.

Second, our posture improvements must meet both current and future threats. Each change we make is intended to enhance our capability to meet security commitments not just in the Pacific, but also around the world.

While studying and incorporating the lessons learned from OEF and OIF, we also recognize that many of our warfighting challenges in the Pacific were not stressed in those conflicts. Missions like missile defense, anti-submarine warfare, and air combat figure prominently in many potential conflicts and must continue to be improved.

Of course, clearly we recognize that just as our own capabilities have improved, so too have the military forces of our friends and allies. By incorporating these advances into our planning, we will improve the effectiveness of combined operations and reduce our reliance on forward based support functions.

Finally, we intend these adjustments to be enduring—improvements that not only meet our mutual security needs over the long term but in doing so, ease the burden we pose on friends and allies in the region.

With those principles in mind, USPACOM has developed a sixelement construct within which to organize our initiatives. We call it, "Operationalizing the Asia-Pacific Defense Strategy."

OPERATIONALIZING THE ASIA PACIFIC DEFENSE STRATEGY

Updating Plans

Our plans and our planning process are being updated to reflect the new threat context. Essentially every plan is being revised to support the 4–2–1 force planning construct while addressing both state- and non-state threats. This construct calls for regionally tailored forces, forward stationed and deployed in four primary areas of

the globe to assure our allies and friends and deter potential aggressors. If deterrence fails, our forces must be able to swiftly defeat the efforts of two aggressors and, if the President so directs, decisively defeat one of those two enemies. In the process, we are incorporating improvements in our capabilities—speed, precision, and lethality—while taking into account advancements in the capabilities of friends and allies. Lessons learned from OEF and OIF also inform the process.

The revision process is being accelerated, and resulting plans feature inherent flexibility. In short, we recognize that success against emerging threats requires us to sense, decide, and act inside the enemy's timelines.

We're also integrating the resources of relevant government agencies into our day-to-day planning and operations. Our inclusion of diplomatic, economic, and public diplomacy efforts reflects the fact that there simply aren't any strictly military solutions to today's security challenges.

Strengthening Command And Control

Benefiting from habitual command relationships, and using common tactics, techniques, and procedures, the synergy offered by joint command arrangements provides the speed of command necessary to successfully meet future threats.

Our evolving command and control constructs benefit from interagency relationships. The JIACG–CT and JRAC mentioned earlier are two examples of joint staff elements that support combatant command and joint task force efforts. The expanding mission of the JIATF–W demonstrates the great facility of interagency integration.

Standing Joint Force Headquarters

Last year, PACOM stood up and exercised its first Standing Joint Force Headquarters (SJFHQ). In its current configuration, the SJFHQ rapidly augments a Joint Task Force command element to accelerate its readiness for action. When not specifically tasked, core SJFHQ staff plan and train to prepare for a variety of contingencies.

My vision for the SJFHQ is to have a habitually trained organization that reduces long lead times routinely experienced in standing up Joint Task Forces. This organization will be trained on cutting edge planning and communication processes, tools and equipment in order to rapidly deploy and immediately facilitate command and control. The SJFHQ needs to be supported with adequate manning. Our SJFHQ is currently manned with 22 permanent and 36 augmented personnel. As we go forward in developing the SJFHQ (and its processes) for the Pacific, we are working closely with USJFCOM, which has been assigned overall responsibility for SJFHQ operating procedures.

We have also developed several concepts and tools to facilitate coalition contributions to regional security efforts. Our MPAT program is one such initiative that has enjoyed great success. MPAT is designed to facilitate the rapid and effective establishment and/or augmentation of multinational coalition task force headquarters.

One of the first products of the MPAT program was a Multinational Force Standing Operating Procedure (MNF SOP). These procedures standardize processes, promote cooperation, increased dialogue, and provide baseline concepts of operation for coalition task force efforts. They also serve as a centerpiece for multinational workshops, seminars and exercises aimed at improving coalition interoperability and operational readiness within the region. The MNF SOPs support the Secretary's Transformation Plan and have been shared with USJFCOM to support their coalition transformation efforts. Developed by the combined efforts of 30 MPAT nations, the procedures are truly a multinational initiative.

Multinational participation in the MPAT program is robust, with 31 nations participating to date. Participation is not limited to Asia- Pacific nations. Canada, France, Germany and the United Kingdom have also supported MPAT program events and the development of multinational force standing operating procedures.

Currently, programs to support coalition building are financed by headquarters O&M funds. Additional funding marked specifically for multinational transformation efforts would greatly improve the Unified Commander's ability to improve ongoing efforts and develop new transformation efforts.

As we strengthen ties with multinational and coalition partners, USPACOM continues to develop restricted-access and secure Internet opportunities with programs such as CENTRIXS and APAN. Protection of our coalition networks with information assurance technologies is a key component of our experimentation and transformation effort. We're also transforming our capability to communicate with coalition partners using machine language translation through a variety of text, voice, and pictorial translators.

The ability to place instructional material on the APAN to provide Internet-based training and Advanced Distributed Learning would benefit our Asia-Pacific partners and support our TSCP. We could more effectively use focused military education programs to develop regional skills required to accomplish cooperative security missions, improve civil-military relations, increase respect for human rights, and strengthen democratic principles. For this reason, legislative initiatives have been drafted aimed at amending law to allow for the SECDEF, after consultation with the Secretary of State, to authorize the combatant commander to provide traditional and Internet-based education and non-lethal training to military and civilian government personnel of friendly foreign nations.

Partnering with USJFCOM on a joint fires initiative, USPACOM has integrated leading-edge time-sensitive targeting technology into joint operations across the strategic and operational force levels. Over the next 2 years, with your help, we envision extending our joint fires capabilities to the tactical level through a mix of fires and common picture technologies, such as Joint Task Force Wide Area Relay Network (JTF WARNET) and FORCEnet. We've already reduced the targeting cycle from hours to minutes by improving cross-component collaboration and targeting efficiencies, but there's still room to improve. The end result will be a more seamless battle space with coordinated fires and reduced risk of fratricide.

We are increasing our capabilities for immediate employment, emphasizing expeditionary combat power. Each of these capabilities has been evaluated to ensure support for regional contingency plans while meeting global requirements. Missile defense has already been discussed.

Stryker Armored Vehicle

The Stryker armored vehicle combines adaptability, firepower, and high technology in an expeditionary package. Lifted by C–17 aircraft or High Speed Vessels, Strykers have great relevance throughout the theater and are currently proving themselves under combat conditions in Iraq, demonstrating a readiness rate that exceeds current requirements. We look forward to the future Stryker brigades in Hawaii and Alaska.

F/A–22 Raptor

We need your support to fund and field the F/A–22 Raptor in the USPACOM AOR. The transformational capabilities of this remarkable aircraft will have enduring relevance for our warfighting needs, and promise to directly enhance both warfighting effectiveness and war plan options in the near future.

Nuclear-Powered Cruise Missile Attack Submarines (SSGN)

The conversion of four Trident class submarines to cruise missile/Special Operations Force (SOF) carriers has particular appeal in the Pacific, where our most demanding potential warfights and the continuing threat of terrorism converge. We appreciate your far-sighted support of this important platform.

New Operating Patterns And Concepts

These immediately employable forces are in turn integrated into operating patterns and concepts that satisfy both peacetime and wartime requirements. For example, the Navy's first Expeditionary Strike Group recently completed a very successful deployment to Southwest Asia and the western Pacific. Tailored air packages, based and launched from such maritime platforms, can satisfy a variety of missions ranging from non-combatant evacuation to maritime interdiction. This concept is particularly adaptable in joint and combined settings.

As yet another example, we routinely deploy bomber elements to Guam, demonstrating both the responsiveness and flexibility of the U.S. Air Force and America's ability to respond quickly to any crisis in the AOR.

Improving Force Posture And Footprint

Changes in the global security environment provide both the opportunity and the necessity to improve our force posture, positioning forces where they have the greatest warfighting relevance while reducing irritants to host nation citizens. We are considering a number of posture improvements—each of them a response to new threats, updated plans, and increased capabilities of allied and friendly forces.

This element of our transformation strategy is underwritten by five primary assumptions. First, our network of alliances and partnerships in the Pacific region is a strategic asset for the Nation—it will not be undermined. We also know that our posture must allow us to deal with uncertainty—because in the future, we probably won't fight from our current positions. Of course, we are designing posture adjustments to facilitate employment of forces both within and across combatant command regions. Fourth, the immediately employable forces discussed above argue for for-

ward force presence. In short, we're not looking to move combat power back toward the U.S. mainland. Finally, technological advances allow us to focus on capabilities, as numbers no longer reflect actual combat power.

We are well aware of the domestic and international political sensitivities associated with these changes. We also appreciate the complexity these changes add both to the upcoming BRAC process in 2005 and to our continuing MILCON programs. We will keep our friends, allies, and Congress informed.

Diversifying Access And Enroute Logistics

Finally we want to diversify contingency access opportunities in the Pacific region. Increasing our access options improves training opportunities, contributes to theater security cooperation objectives and, most important, provides warfighting flexibility when we need it most. We are looking at a number of Cooperative Security Locations throughout the Pacific—"places" rather than "bases" that meet these goals.

SUMMARY STATEMENT

In USPACOM, our dedicated men and women, both in and out of uniform, continue to operationalize our Nation's strategic guidance, assuring our allies, dissuading our adversaries and deterring aggression. The combined talents and energies of our region's friends and allies continue to promote peace and prosperity in the Asia-Pacific region. We are fully committed—in every conceivable way—to winning the war against terrorism. Meanwhile, we are maintaining a ready and viable fighting force capable of decisively defeating any adversary, all the while mindful that our personnel, our friends, and allies and our progressive transformation efforts will continue to improve our Asia-Pacific defense posture for the future.

Our finest citizens wear the cloth of the Nation. They have never doubted nor failed to appreciate your advocacy. On behalf of the men and women of U.S. Pacific Command, thank you for your support, and thank you for this opportunity to testify on our defense posture.

Chairman WARNER. Thank you for a very good statement, Admiral. We are very proud of you and your distinguished career of service to this Nation.

Admiral FARGO. Thank you.

Chairman WARNER. You fulfill your role with a great deal of enthusiasm and wisdom. Thank you.

Admiral FARGO. Thank you, sir.

Chairman WARNER. We will now listen to General LaPorte.

STATEMENT OF GEN LEON J. LAPORTE, USA, COMMANDER, UNITED NATIONS COMMAND AND REPUBLIC OF KOREA/ UNITED STATES COMBINED FORCES COMMAND, AND COMMANDER, UNITED STATES FORCES KOREA; ACCOMPANIED BY MAJ. GEN. TIMOTHY DONOVAN, USMC, C–5, UNITED STATES FORCES KOREA

General LAPORTE. Senator Warner, Senator Levin, and distinguished committee members: I am honored to appear before the committee to update you on the current situation in the ROK. I want to extend the thanks of all the soldiers, sailors, airmen, marines, and DOD civilians who serve in Korea. Your unwavering support provides these dedicated men and women with the resources to maintain the readiness that underpins peninsula security and regional stability. You can be justifiably proud of your servicemembers and DOD civilians serving in Korea.

The security and stability of the Northeast Asia region is a long-term interest of the United States. Along with our allies and friends, we continue to deter threats to security, promote freedom, and contribute to regional prosperity. The presence of the United States forces in Northeast Asia signifies our enduring commitment to these goals.

The ROK has long been a key U.S. regional ally and leading democracy in Northeast Asia. In the ROK, democratic processes continue to govern the nation, demonstrated by the peaceful constitutional processes being used to address allegations against President Roh.

The ROK–U.S. military alliance exemplifies cooperation among democratic nations to promote shared enduring interests. Our alliance remains steadfastly committed to the fundamental purpose, to deter and defend against North Korean threats and to strengthen mutual commitment to regional security and stability. The combined forces of the ROK and the U.S. remain trained and ready to accomplish its security missions.

In addition to its predominant role in peninsula defense, the ROK has demonstrated a sustained commitment to coalition operations in Afghanistan and Iraq. Since 2002, the ROK has contributed up to 500 rotational medical and engineer troops to Afghanistan and the ROK Air Force and Navy have flown and sailed in support of the United States forces engaged in the war on terrorism. Last year the ROK deployed a 675-person contingent for stability operations and pledged $260 million for reconstruction in Iraq.

This past February, the national assembly approved the dispatch of up to 3,000 additional troops to Iraq. When this contingent deploys, the ROK will have the third largest troop contingent in support of the Iraqi coalition.

On the Korean peninsula, the combined forces of the ROK and the United States alliance are transforming, guided by the enhanced, shape, and align construct which synchronizes our efforts and ensures that the ROK–U.S. alliance remains relevant to the security needs of both nations. Together we are working to enhance our combined military capabilities to bring state-of-the-art military technologies and operational concepts to the Korean theater, strengthening our combined peninsula and regional deterrence and readiness.

These enhancements include improved armored vehicles, air defense systems, chemical and biological defense, and advanced precision weapons. Advanced concept technology demonstrations programs such as Theater Effects-Based Ops, Tactical Missile System Penetrator, and Joint Blue Force Situation Awareness have demonstrated promising ways to enhance the capabilities of U.S. forces based in Korea. We also will continue to improve individual protective equipment, including Interceptor body armor and chemical protective equipment.

United States forces continue to demonstrate the ability to rapidly reinforce the Korean peninsula with advanced capabilities, such as the C–17 aircraft, deploying Stryker-equipped Army units, and high-speed vessels moving MEFs to the peninsula.

We have begun to shape the combined forces by transferring military missions from the United States forces to the ROK forces. These changes acknowledge the growing capabilities of the ROK military in its predominant role in peninsula defense while maintaining the firm United States commitment to peninsula security and regional stability.

We continue to align the United States forces into two hubs of enduring installations that support an enduring United States military presence in the ROK. Consolidating and realigning United States forces, including the Second Infantry Division and units stationed in the Seoul metropolitan area, will increase our operational capabilities while improving readiness and quality of life for United States servicemembers. These enduring hubs, coupled with the prepositioned equipment, provide the strategic flexibility to rapidly reinforce the Korean peninsula and to promptly respond to regional security concerns.

The realignment of the Second Infantry Division, begun under the 2003 land partnership plan, is a major component of transforming the USFK to meet future security requirements. The realignment of the Second Infantry Division depends on stable funding to existing projects in the future years defense plan.

We are concluding negotiations to relocate the United States forces from Seoul. The Yongsan relocation, done at the request and the expense of the ROK government, will enhance the operational readiness of the alliance, improve facilities and quality of life for the United States forces, and return valuable land to the Korean people. With your continued support, transformation of the USFK will result in a more capable and sustainable U.S. military presence in Korea and produce a stronger military alliance.

Improving community relations and quality of life remain top priorities in Korea. Our good neighbor programs, implemented at all command levels, continue to promote positive community relations with our Korean hosts. These programs, such as English language tutoring, cooperative humanitarian and conservation projects, and local Korean-American friendship associations, build mutual understanding and cultural appreciation.

Service member quality of life in Korea is trending upward. With your support, we continue to improve the operational facilities, housing, and community support facilities through renovation and construction. These improved facilities along with incentives such as increased family separation pay, cost of living allowances, and assignment incentive pay have increased retention in Korea.

On behalf of those serving in Korea, I want to thank you for your continuing support for these key initiatives and directly addressing the substandard living and working conditions, thus improving the quality of life in Korea.

USFK shares your concern about sexual assaults involving servicemembers. The command treats sexual misconduct in any form as a serious matter and we are taking stringent measures to address the issue. We have charged leaders at all levels with personal responsibility for rigorously enforcing policies and establishing a working group to identify ways to eliminate risk factors that may contribute to sexual assault.

Equally important, we have reinvigorated our educational programs, stressing risk factor awareness, prevention, and compassionate victim care. This is clearly a leadership issue and the leadership in Korea is engaged.

I thank you for the opportunity to appear before this committee and look forward to your questions. Thank you.

[The prepared statement of General LaPorte follows:]

PREPARED STATEMENT BY GEN LEON J. LAPORTE, USA

Mr. Chairman and distinguished members of the committee, I am honored to again appear before you as Commander, United Nations Command; Commander, Republic of Korea-United States Combined Forces Command; and Commander, United States Forces Korea. On behalf of the more than 37,500 soldiers, sailors, airmen, marines, and 5,700 DOD civilians serving in Korea, I thank you for your unwavering support which enables us to maintain readiness and accomplish our deterrence mission on the Korean peninsula. I appreciate this opportunity to present my assessment of the command and our implementation plan for continued military transformation of the ROK–U.S. Alliance.

Much has changed in the more than half century of the ROK–U.S. Alliance, and the pace of change has quickened since the events of September 11, 2001, violently demonstrated that the world security would be governed by a new paradigm. A new generation of young South Koreans, cognizant of their national achievements and aspiring to a larger role in international affairs, is now assuming leadership of the ROK. Last year, North Korea posed renewed threats to global security by acknowledging its pursuit of nuclear weapons, and withdrawal from the Nuclear Nonproliferation Treaty and other related international agreements. At the same time, the United States' security responsibilities, and our interdependence with allies and coalition partners, have grown throughout the world.

While the dynamics of the security environment have changed and our security relationships continue to mature, the fundamental purpose of the ROK–U.S. Alliance remains unwavering: deter and defend against the North Korean threat; and mutual commitment to regional security and stability. Together, we continue to steadfastly oppose North Korea's renewed efforts to divide the Alliance and threaten peaceful nations. We are engaged in a detailed policy dialogue for the military transformation of the ROK–U.S. Alliance over the next few years. This transformation plan includes momentous changes for an enduring United States military presence in Korea and a stronger alliance. This military transformation will bolster the U.N. Command and the ROK–U.S. Combined Forces Command, the guarantors of regional security and stability.

Today, I will address the importance of continued stability and security in Northeast Asia, the North Korean threats to the region and the world, the changes in South Korean society, the ROK's contributions to global and regional security, and the progress toward strengthening the alliance through "Enhance, Shape, and Align" initiatives. Finally, I will outline areas needing your sustained investment for the future of United States Forces based in Korea and the ROK–U.S. Alliance.

THE NORTHEAST ASIA SECURITY ENVIRONMENT

The United States has significant, long-term interests in the Northeast Asia region. These interests include economic cooperation and interdependence, mitigating threats to regional stability, and fulfilling our commitments to allies and friends. Economic interdependence is a result of improved information technologies and transportation networks that speed the flow of capital, goods, and services around the globe. United States trade with the People's Republic of China, Russia, Japan, Taiwan, and the ROK approaches one fourth of our total international trade, exceeding our trade with the European Union, and is second only to the United States trade within the North American Free Trade Agreement. Bilateral ROK–U.S. trade exceeded $59 billion last year, and United States—Japan trade was over $155 billion. In addition to bilateral trade, United States direct investment in the larger Northeast Asia approached $100 billion in 2003. United States trade with, and investment in, the region is substantial and projected to continue growing in the near term.

Even with the trends toward economic cooperation and interdependence, well documented historical enmity and a tenuous balance of power remain potential sources of instability. The Northeast Asia region is the crossroads of five of the world's six largest militaries and three of the world's declared nuclear powers.[1] There has been an upward trend in regional military expenditures over the last decade, with the regional average budget for force improvement increasing 15 percent, while the global average declined by 35 percent. North Korea's efforts to strengthen its military,

[1] The world's six largest militaries, measured by personnel strength, are: The People's Republic of China, United States, India, North Korea, Russia, and the Republic of Korea. The declared nuclear powers under the Nuclear Nonproliferation Treaty (NPT) are: United States, Russia, China, France, and Britain. India and Pakistan are considered self-declared nuclear powers, acknowledged to possess nuclear weapons, but not signatories of the NPT.

in light of its bellicose rhetoric and history of provocation, remain the most substantial threat to regional peace.

The longstanding presence of United States Forces and the strength of our strategic partnerships are the foundation of regional stability that is the catalyst for continued cooperation and prosperity. Forward-deployed United States Forces demonstrate our resolve to strengthen and expand alliances, eliminate threats from WMD, work with partners and friends to defuse regional conflicts, and stand with our partners to oppose threats to freedom wherever they arise. Robust United States Forces based in Korea, along with the ROK and other regional partners, continue to deter an increasingly manipulative North Korea.

NORTH KOREAN CHALLENGES TO REGIONAL AND GLOBAL SECURITY

North Korea poses a variety of threats to regional and global stability. Its leader, Kim Jong Il, shows little regard for the welfare of ordinary citizens, and uses brutal internal security measures to ensure that no internal challenge to his regime emerges. He maintains large conventional and SOF. He sustains an active chemical and nuclear weapons development program, and is a major proliferator of missiles and related technologies. He increasingly supports illicit activities such as drug trafficking and counterfeiting to generate hard currency. North Korea demonstrates little regard for international convention or agreements. The regime repeatedly uses the threat of large-scale war and weapons of mass destruction in order to extort aid or other concessions from the international community.

While reunification of the peninsula under North Korean control remains the primary stated purpose of the regime, Kim Jong Il's immediate overriding concern is to remain firmly in control. He personally occupies all key party, military, and government leadership positions. Kim Jong Il rules the Nation through a small cadre of lavishly rewarded elites who control all aspects of North Korean life. There is little evidence that any significant threat to the regime exists.

The North Korean Economy

The North Korean economy continues to decline and shows little prospect of recovery. Despite North Korea's limited experiments with reform, total economic output has dropped nearly 50 percent since 1992. Today, factories operate at less than 25 percent of 1992 capacity. The Nation's power and transportation infrastructure are in need of massive overhaul. Agricultural output can only feed 66 percent of the population. North Korea's economic decline is largely due to poor policy, mismanagement, under-investment, and a lack of resources. The regime's "Military First" policy directs approximately one-third of the domestic output to the military, thus limiting resources that could be used to improve the welfare of its people. North Korea's economy remains bolstered by aid from the international community and profits from regime-sanctioned illicit activities such as drug production, smuggling and counterfeiting.

The North Korean Military

The North Korean People's Army ensures regime survival by deterring external threats and providing the tool that enables the Kim regime to extort aid from the international community. North Korea has the fifth largest armed force in the world.[2] The ground force has almost 1 million active duty soldiers. About 70 percent of the North Korean Army is deployed south of Pyongyang, where they are capable of attacking with little tactical warning. A large number of North Korean long-range artillery systems can strike Seoul from their current locations. The North Korean air force has over 1,700 aircraft. The navy has approximately 800 vessels. The derelict North Korean economy has impaired the readiness, modernization, and sustainability of their conventional forces over the past decade, crippling Pyongyang's capacity to reunify the peninsula by force. However, the size, firepower, and proximity of North Korea's conventional forces to Seoul—coupled with their lethal asymmetric threats—give North Korea the capability to inflict great destruction and casualties if they chose to attack.

North Korean Asymmetric Threats: Special Operations Forces, Missiles, and Weapons of Mass Destruction

North Korea's asymmetric capabilities are large and dangerous. North Korea's 122,000-man SOF is the world's largest, and a high funding priority for the regime. They are tough, dedicated, well-trained, and profoundly loyal to the Kim regime.

[2] North Korea has a population of 22 million; over 1 million are active duty military, an estimated 2 million are employed in military support or state security work, and over 6 million are members of the Armed Forces Reserve.

During conflict, these forces would direct long-range fires against key facilities, attack to disrupt command facilities of the ROK–U.S. Combined Forces Command, and seek to destroy force generation and reinforcement from beyond the peninsula.

The North Korean ballistic missile inventory includes over 500 SCUD missiles that can deliver conventional or chemical weapons across the entire peninsula. They continue to produce and deploy medium-range No Dong missiles capable of striking cities and military bases in Japan with these same payloads. Continued research on a three-stage variant of the Taepo Dong missile could provide North Korea the capability to target the continental United States.

North Korea has an assessed significant chemical agent stockpile that includes blood, blister, choking, and nerve agents. These weapons threaten both our military forces and civilians in the ROK and Japan. We also assess Pyongyang has an active biological weapons research program, with an inventory that may include anthrax, botulism, cholera, hemorrhagic fever, plague, smallpox, typhoid and yellow fever. North Korea believes that these missile, chemical, and biological weapons programs measurably contribute to its security from external threats and supplement their conventional military capabilities.

North Korea's abandonment of the 1994 Agreed Framework and International Atomic Energy Safeguards Agreement, withdrawal from the Nuclear Nonproliferation Treaty, restart of the Yongbyon nuclear reactor, and declarations they have reprocessed 8,000 spent nuclear fuel rods indicate they are following a path that may lead to additional nuclear weapon production. The intelligence community assesses North Korea already has one or two nuclear weapons, and that they have the potential to make several additional nuclear devices. The Kim regime has clearly stated it will continue to increase its "nuclear deterrent capability" unless it receives significant economic assistance, security guarantees, and appropriate political concessions from the international community. In this context, proliferation of North Korean advanced weapons and related technologies remains a significant concern to the United States and its allies.

Assessment of the North Korean threats

North Korea poses a dangerous and complex threat to peace and security in the region and throughout the world. The Kim regime maintains a delicate balance of threats to ensure regime survival. They maintain a massive, offensively postured, conventional force that far exceeds the requirements to defend their country. Their continuing weapons of mass destruction programs constitute a substantial threat to Northeast Asia and the world. The Korean People's Army continues to invest heavily in military programs designed to offset our operational superiority. We see no indications the Kim regime will change its "Military First" policy, brinkmanship, nuclear challenges, missile proliferation, and illegal activities that ensure regime survival. The North Korean people will continue to suffer under an oppressive regime. For the foreseeable future, North Korea remains a major challenge to security in Northeast Asia.

THE REPUBLIC OF KOREA—UNITED STATES ALLIANCE

The ROK–U.S. Alliance was formed to deter North Korean aggression and preserve peace and security in the region. For over 50 years, we have accomplished these tasks in a dynamic political and security environment. Much has changed in those 50 years, and many of the changes are irreversible. Our economies have prospered and become more intertwined. Democratic institutions are stronger, reflecting the aspirations of new generations. Though these changes have not always been smooth in either country, the Alliance has evolved to remain the foundation of regional deterrence and security. The ROK has been, and remains a reliable ally in regional and global security.

The Republic of Korea Today

Throughout our half-century of economic and security cooperation, the ROK has become one of the leading economic powers and a pre-eminent democracy in the region. The ROK has the 11th largest gross domestic product in the world, and the third largest in Northeast Asia. This growth has been fueled by global exports of high technology and consumer goods. The United States is the ROK's largest trading partner, with 2003 annual bilateral trade exceeding $59 billion. The United States was the second largest source of foreign direct investment in the ROK, totaling about $1.2 billion (19.2 percent of total) in 2003.

While the ROK has firmly secured its place as an independent economic force in the global economy, 2003 has not been without challenges. Declines in domestic consumption slowed the growth of their domestic economy from 6.3 percent in 2002 to 2.9 percent in 2003. High household debt, rising unemployment, increasing individ-

ual and corporate bankruptcy, and disruptive labor strikes combined to further slow their economy. Rising labor costs and appreciation of the won against the dollar accompanied a shift in ROK foreign direct investment toward China and efforts to conclude bilateral free trade agreements with several nations. Most forecasts indicate a ROK economic recovery throughout 2004, with gross domestic product growing at rates between 4.5 and 6 percent. Analysts expect the ROK's current and trade account surpluses to grow over 60 percent in 2004 on the strength of its export economy, particularly in the electronics and automobile sectors. Fostering economic recovery remains a top priority for the ROK government, essential to achieving President Roh's vision of transforming the ROK into the transportation, financial, and information technology hub of Northeast Asia. Beyond economic growth, the Roh administration is focusing on improving the domestic democratic process in ways that reflect new societal values of a younger generation.

2003 can be considered a watershed in the development of democracy in the ROK. Older, less vocal conservative South Koreans continue to support a United States military presence on the Korean peninsula, reciprocal security cooperation under the Mutual Defense Treaty, and a pragmatic approach to North Korea. However, a generation born after the end of the Korean War has begun to assume a larger role in business and government. These younger Koreans are keenly aware of their achievements and motivated by a heightened sense of nationalism. Younger South Koreans generally want a more independent role in world affairs, a role consistent with the ROK's economic power. They advocate domestic and foreign policies based on national interest, particularly with respect to ROK–U.S. relations. Impassioned editorial debate and public demonstrations regarding the presence of USFK, the ROK's dispatch of troops to Iraq and resolving the North Korea nuclear issue demonstrate the strength of their views and the dynamics of domestic Korean politics. These dynamics firmly demonstrate that the ROK continues to be a healthy democracy, fully capable of managing change through constitutional processes.

Generational perspectives on North Korea clearly illustrate the changing social and political dynamics in ROK society. There is a clear generational divide over the military threat posed by North Korea. Older South Koreans, who recall the devastation caused by the Korean War, express a desire to maintain a strong defense against the North while following a path of pragmatic engagement to reduce North Korean military threats in a sustainable multi-lateral way. Younger South Koreans view North Korea as peaceful cultural brothers and potential trading partners. Some younger Koreans perceive little military threat from the North, expressing the view that North Korea would never use its military against the ROK. However, most South Koreans agree on two issues: first, a nuclear armed North Korea is an intolerable threat to stability; and second, catastrophic failure of the North Korean system would destabilize the entire region and have substantial adverse consequences for South Korea. To avoid these adverse consequences and accommodate domestic views, the ROK has adopted a patient approach toward inter-Korean relations.

The Roh administration developed the "policy for peace and prosperity" to guide inter-Korean relations.[3] This policy formally opposes North Korea's pursuit of nuclear weapons while continuing efforts toward inter-Korean rapprochement through humanitarian assistance, family reunions, tourism, and trade. Under the Ministry of Unification's "policy for peace and prosperity", inter-Korean commerce has steadily grown to $670 million per year. The Ministry of Unification plans to expand access to the Mt. Gumgang tourist resort, develop investment in the proposed Kaesong Industrial Complex, and use the inter-Korea transportation corridors to further advance the ROK as the transportation hub of Northeast Asia. The "policy for peace and prosperity" envisions this increased economic prosperity as the engine of peace and the key to replacing the Armistice Agreement with a peace agreement.[4] How-

[3] "The Policy for Peace and Prosperity" was developed by the Republic of Korea Ministry of Unification and published in 2003; updated in January 2004. In summary, the goals of the policy are: (1) promote peace on the peninsula; and, (2) pursue mutual prosperity for North and South Korea while contributing to prosperity in Northeast Asia. Guiding principles and implementing actions include: resolve issues through dialogue; promote international cooperation "based on the principle of the parties directly involved"; expand public participation in rapprochement dialogue; peacefully resolve the North Korean nuclear issue, fully accounting for the positive impact of inter-Korean economic cooperation; and replace the Armistice Agreement with a Peace Agreement. Available from http://www.unikorea.go.kr/en/main.php, accessed January 20, 2004.

[4] The "Policy for Peace and Prosperity" seeks "the eventual replacement of the current armistice agreement with a peace agreement between South and North Korea." It acknowledges that "International institutional arrangements safeguarding the peace regime should also be pur-

ever, full implementation of this policy is predicated on resolving the North Korean nuclear issue.

Diverse public opinion reflects the growth of democratic freedoms and nationalism in the ROK. The ROK is experiencing changes familiar to other democracies—healthy growth and generational transfer of authority. It seeks to adapt its foreign policy, establishing more egalitarian relations based on mutual interests rather than historical attachment. Undoubtedly, United States policies in general, and the nature of United States military presence in Korea, are likely to remain a central issue in the domestic Korean policy debate, particularly in the weeks before the April 2004 quadrennial National Assembly elections. Biased media portrayal of the ROK–U.S. Alliance will likely continue; however, the foundations of such expressions of bias are as much a function of Korean domestic politics as it is an expression of genuine anti-American sentiments. However, continued cooperation on security interests shows that the Republic of Korea continues to be a reliable ally.

Growth in the Republic of Korea—United States Alliance

This past year marked the 50th Anniversary of the ROK–U.S. Mutual Defense Treaty and the Armistice Agreement. Veterans of many nations who defended the Republic of Korea during the 1950–1953 war returned to Korea to commemorate these historic events. South Koreans of all ages welcomed these Korean War veterans, proudly displaying the democratic society and economic miracle that grew from the dedication and sacrifice of those who defeated unprovoked North Korean aggression.

During their May 2003 Summit Meeting, President Bush and President Roh noted the significance of the 50-year partnership and highlighted the importance of building a dynamic alliance relationship for continued peace and prosperity on the Korean Peninsula and in Northeast Asia. Noting the ROK's growing national strength, the presidents pledged to increase mutual security cooperation and to modernize the Republic of Korea—United States Alliance by improving military capabilities, and consolidating United States Forces south of the Han River, including the relocation of United States Forces from the Seoul metropolitan area at an early date. The shared views of President Bush and President Roh have reinforced the importance of frank dialogue and mutually beneficial cooperation between our Nations.

The Republic of Korea's support to global and regional security

Consistent with this spirit of mutual cooperation, the Republic of Korea continues to increase its contributions to allied defense burdensharing through troop contributions and pledges of humanitarian assistance for Afghanistan and Iraq, participation in United Nations peacekeeping operations, and sharing the costs of stationing United States Forces in Korea.

The Republic of Korea remains a consistent contributor to regional security and the war on terror. The Ministry of National Defense maintains liaison officers at USPACOM and CENTCOM to coordinate support for ROK contingents participating in United States-led coalition operations in Iraq and Afghanistan. The ROK continued its second year of troop and financial support to operations in Afghanistan. Throughout 2003, the ROK provided a 56-man medical unit and a 150-member engineer construction unit in Afghanistan, along with a 38-man medical detachment in Kyrgyzstan. ROK contributions to Afghanistan, valued at $155 million, included transportation support, radios for two newly formed Afghan National Army battalions, and in-kind military contributions to stability and reconstruction. The ROK maintains its pledge to provide $45 million in reconstruction funds focused on Afghan vocational-technical education and medical assistance, $150,000 for Interim

---

sued." This Republic of Korea policy seeks a bilateral inter-Korean agreement, rather than a comprehensive solution that involves the parties represented by the Armistice Agreement.

The Armistice Agreement, between senior representatives from the Korean People's Army, Chinese People's Volunteers, and, the United Nations Command, was signed on July 27, 1953 to govern cessation of hostilities on the Korean Peninsula. Because the Armistice Agreement has not been replaced by a permanent peace settlement, it remains the governing authority over all activity inside the Demilitarized Zone, including inter-Korean commerce and humanitarian visits. Article I of the Armistice Agreement establishes the Military Demarcation Line and Demilitarized Zone (DMZ) between the forces and prevents access to the DMZ without consent from the Military Armistice Commission. Today, the northern side of the DMZ is controlled by the Korean People's Army and the southern side of the DMZ is controlled and administered by United Nations Command. Article II establishes concrete measures to ensure separation of forces along the DMZ. The balance of the Armistice Agreement outlines composition, authorities and responsibilities of the Military Armistice Commission; recommends that the governments seek peaceful settlement of the Korean question, and provides measures for amending the Armistice by mutual agreement.

Afghan Administration expenses and $12 million for regional humanitarian aid to Afghanistan's neighbors in the 2002–2004 period.

Following the defeat of the Saddam Hussein regime in Iraq, the ROK provided a 675-man noncombatant contingent for stability operations and donated $60 million for reconstruction projects. In October 2003, the Roh administration pledged an additional $200 million, delivered over the next 4 years, for reconstruction projects in Iraq. In December 2003, the Roh government pledged to send additional troops to assist with reconstruction and humanitarian operations. In February 2004, the National Assembly authorized deployment of up to 3,000 additional troops composed of both non-combat forces for reconstruction and infantry and special operations troops for force protection.[5] CENTCOM and the ROK Ministry of National Defense continue to coordinate the details of this additional troop deployment. We congratulate the ROK for their continued pledges of commitment to the growing global coalition assisting with Iraqi recovery.

Beyond Afghanistan and Iraq, the ROK has been a partner in U.N. peacekeeping operations around the globe. After approximately 4 years of supporting the U.N. mission in East Timor, the ROK withdrew its 250-man infantry battalion last October. Six ROK staff officers remain in East Timor to support the United Nations operation in the world's newest nation. The ROK continued to post 20 medical officers in the Western Sahara, 9 military observers to the Kashmir mission, and 7 military observers in Georgia. Additionally, Lieutenant General Hwang Jin-ha continued to command the U.N. Peacekeeping Force in Cyprus, the first instance of the Republic of Korea commanding a United Nations peacekeeping force. Collectively, these contributions are a strong testament to the ROK's commitment to stability and security beyond the Korean Peninsula.

The Republic of Korea's support to United States Forces Korea

The ROK government continued to increase its contributions to offset the cost of maintaining USFK. In 2003, the ROK provided support equivalent to approximately 40 percent of the non-personnel stationing costs of USFK. Last year's indirect cost sharing was valued at approximately $544 million and direct cost sharing was $540 million.[6] Based on the current rate of cost-sharing increases, the ROK is poised to enter the top half of allied nations contributing to the cost of maintaining the installations and services supporting USFK stationed within their borders. The upcoming negotiations for the ROK–U.S. Special Measures Agreement provide a welcome opportunity to develop a long-term agreement for sustained real growth in ROK defense cost-sharing contributions.

STRENGTHENING THE REPUBLIC OF KOREA—UNITED STATES ALLIANCE

Efforts to strengthen the alliance begin with improving the South Korean people's appreciation of United States Forces based in Korea. The "Good Neighbor" programs at every command level continue to emphasize the importance of reaching out to our South Korean hosts to foster a better understanding of our shared values and interests. To connect directly with the South Korean people, we established an interactive Korean language web site as a source of information on United States Forces Korea. A Korea Advisory Council meets quarterly and remains a productive venue for senior USFK leaders to dialogue with the ROK's leading citizens, religious leaders, academics, and government and business officials. The Korea Advisory Council, coupled with the interactive Korean language web site, ensures that our Korean hosts have the opportunity to present their views directly to senior leaders at every command level of United States Forces based in Korea.

All commanders of United States units have continued their "Good Neighbor" programs that are centered on community outreach programs to improve mutual understanding with their local hosts. "Good Neighbor" programs include the Adopt-A-School program, cultural tours and exchanges, volunteer English language tutors, and sponsorship of orphanages. These efforts contribute to mutual appreciation and allow our servicemembers to contribute to the communities in which they live and

[5] On February 13, 2004, the Republic of Korea National Assembly authorized deployment of up to 3,000 additional troops "for the purpose of peace-keeping and reconstitution to Iraq from 1 April to 31 December 2004."

[6] Indirect cost sharing includes foregone rents for facilities used by United States Forces Korea and tax exclusions for goods and services provided under the Status of Forces Agreement. Direct cost-sharing contributions are governed under the existing Special Measures Agreement, which will expire in 2004. Under this agreement, the Republic of Korea annually increases direct cost sharing by 8.8 percent, adjusted for inflation. Direct cost sharing contributions are a combination of cash payments and in-kind services. Republic of Korea direct cost-sharing contributions for 2004 are estimated to be $602 million based on current economic projections.

work. Particularly impressive was the large number of United States soldiers, sailors, airmen, and marines who volunteered their time to assist local communities to clean up after Typhoon Maemi ravaged several communities last September.

These community outreach programs have been accompanied by a measurable reduction in the frequency and intensity of protest demonstrations in South Korean host cities. Our efforts to improve mutual understanding cannot guarantee that United States presence in Korea will not be manipulated for domestic political purposes. However, we can safely deduce that these community outreach programs contribute to building individual friendships that will strengthen the South Korean appreciation for the contributions that the men and women of USFK bring to the Korean peninsula and Northeast Asia.

Transforming the Commands

The ROK–U.S. Alliance—a security partnership forged during the Korean War and exemplified today through the United Nations Command and ROK–U.S. Combined Forces Command—is the foundation for the security of the Korean peninsula and continued regional stability. The ROK–U.S. Presidential Summit Meeting in May 2003 reinforced the importance of the alliance for maintaining vigilance towards North Korea and preparing the alliance to contribute to broader regional stability in the longer term. The two presidents reinforced their mutual desire to establish a stable stationing plan that supports a sustainable, long-term United States presence and contributes to continued regional stability. These mutual presidential commitments reinforce the ongoing policy dialogue to foster military transformation and improve the alliance through the Future of the ROK–U.S. Alliance Policy Initiative.

The Future of the ROK–U.S. Alliance Policy Initiative is a 2-year long series of consultations, jointly chartered by the United States SECDEF and ROK Minister of National Defense at the 34th Security Consultative Meeting in December 2002, designed to strengthen and transform the alliance.[7] Key tasks of this consultative body include: integrate the transformations of the United Nations Command, ROK–U.S. Combined Forces Command, and USFK; establish a sustainable stationing environment for United States Forces based in Korea; and examine ways to strengthen the alliance in the mid- to long-term. The first year's discussions made significant progress on each of these issues, resulting in agreements to enhance, shape, and align forces to deter North Korea and prepare for future security missions to enhance stability in the broader Northeast Asia region. Briefly stated, the objectives of the "Enhance, Shape, and Align" concept are to ensure that we: have the right capabilities on the peninsula to deter and, if necessary, defeat North Korean aggression; assign roles and missions to the appropriate units; and replace the post-Cold War basing plan with less intrusive, enduring hubs. The subsequent paragraphs describe how the "Enhance, Shape, and Align" concept, supported by command priorities, has strengthened the ROK–U.S. Alliance and contribute to transformation of United Nations Command, Combined Forces Command, and USFK.

United Nations Command

The United Nations Command, the longest standing coalition in the history of the United Nations, represents the international community's enduring commitment to security and stability on the Korean peninsula.[8] On behalf of the 15 member nations, the United Nations Command actively supervises compliance with the Armistice Agreement, fulfilling the mutual pledge to "fully and faithfully carry out the terms" of the Armistice and "if there is a renewal of the [North Korean] armed attack, challenging again the principles of the United Nations, we should again be united and prompt to resist." Today, the members of the United Nations Command coalition in Korea remain vigilant in an uneasy peace; ensuring compliance with the Armistice Agreement.

United Nations Command responsibilities include Armistice-related meetings, impartial investigations of alleged Armistice violations committed by either side, and supervision of the two transportation corridors through the Demilitarized Zone. Last

[7] The Future of the Republic of Korea—United States Alliance Policy Initiative is a fully integrated interagency consultative effort of both governments. The United States delegation includes representatives of the Department of State, Office of the Secretary of Defense, United States Joint Staff, United States Pacific Command, and United States Forces Korea. The Republic of Korea delegation represents the National Security Council, the Ministry of Foreign Affairs and Trade, the Ministry of National Defense, and the Republic of Korea Joint Staff.

[8] U.N. Security Council Resolutions following the 1950 North Korean invasion established the United Nations Command. United Nations Command member nations are: Australia, Belgium, Canada, Columbia, Denmark, France, Greece, The Netherlands, New Zealand, Norway, Philippines, Thailand, Turkey, United Kingdom, and the United States.

year, United Nations Command officers held 26 meetings with representatives of the North Korean People's Army at Panmunjon to discuss matters related to the Armistice. These meetings continue to be an important forum for frank dialogue, preventing potential miscalculation or misinterpretation by the forces deployed along the DMZ.

Impartially investigating allegations of Armistice violations on both sides of the Military Demarcation Line prevents relatively minor incidents from escalating into destabilizing crises. In 2003, the United Nations Command conducted 22 special investigations of incidents, concluding that the North Korean People's Army had committed 13 major violations of the Armistice Agreement. These violations, an increase over last year, raised significant concerns because they involved unauthorized Military Demarcation Line crossings or discharge of weapons inside the DMZ. The prompt and transparent United Nations Command investigation of Armistice-related incidents prevented escalation or miscalculation.

The United Nations Command also monitors Armistice compliance and approves DMZ crossings associated with the ongoing construction of the two transportation corridors through the DMZ. These transportation corridors are integral to the ROK's efforts to foster inter-Korean reconciliation and cooperation. Because of the threat posed by North Korea's forward deployed forces, the United Nations Command rigorously enforces Armistice rules for activities inside the DMZ. This diligence ensures that the transportation corridors cannot be exploited for prohibited purposes that may adversely affect the security of the ROK.

The United Nations Command has full responsibility for enforcing the Armistice. It has delegated responsibility for patrolling the southern half of the DMZ, except the Joint Security Area at Panmunjon, to ROK Army units. A combined ROK–U.S. battalion, organized under the United Nations Command, provides the physical security of the Joint Security Area. During the 25th meeting of ROK–U.S. Military Committee in December 2003, our two nations agreed to transfer primary responsibility for the protection of the Joint Security Area from United States to ROK forces in 2004.[9] The Military Committee agreed that the United States will continue to command the United Nations Joint Security Area Security Battalion and provide the nucleus of staff, while the ROK will replace all United States personnel directly involved in security patrols, manning observation posts, and base operations support. This mission transfer is part of a more comprehensive agreement adjusting the roles and missions of the respective Armed Forces, which acknowledges the increased capabilities of the ROK Army and the predominant ROK role in its national security.

For the foreseeable future, the United Nations Command will continue its significant contributions to security and stability on the Korean peninsula and in the region. Beyond its direct responsibilities to enforce the Armistice, the United Nations Command has the potential to become a forum for improving regional military cooperation between the ROK and Japan. This near-term cooperation centers on the seven United Nations Command bases located in Japan that provide logistical support in the event of a conflict on the Korean Peninsula.[10] Notably, the USPACOM TSCP recognizes this opportunity to enhance regional security cooperation. This year's visit to United Nations Command rear bases in Japan by the ROK's Chairman of the Joint Chiefs of Staff is but one example of the United Nations Command's ability to facilitate regional security cooperation. Rest assured that the dedicated members of the United Nations Command, backed by the 15 member nations and Combined Forces Command, continue to guard the security of the ROK, and contribute to improved regional security cooperation and confidence building. Congressional approval of Title XII provisions that allow the United States to support

[9] The Republic of Korea—United States Military Committee, established by the Combined Forces Command's Terms of Reference and Strategic Directives, includes the Senior United States Military Representative in Korea, the Chairman of the United States Joint Chiefs of Staff, the Chairman of the Republic of Korea Joint Chiefs of Staff, the Commander of Combined Forces Command and appropriate members of their respective staffs. The Military Committee holds annual meetings to review combined defense policy issues and act on directives from the Republic of Korea—United States Security Consultative Meeting.

[10] Eight of the United Nations Command (UNC) member nations maintain liaison with the UNC rear headquarters in Japan: Australia, Canada, France, New Zealand, Philippines, Thailand, United Kingdom, and the United States. Use of UNC bases in Japan is governed by a status of forces agreement between United Nations Command and the Government of Japan. UNC rear bases are located on Honshu (Camp Zama, Yokota Air Base, and Yokosuka Naval Base), Kyushu (Sasebo Naval Base), and Okinawa (Kadena Air base, Futenma Marine Corps Air Station, White Beach Naval Facility).

our foreign coalition liaison officers will continue to enhance the effectiveness of the United Nations Command and Combined Forces Command.

Combined Forces Command

Since its inception a quarter century ago, the Combined Forces Command has been the cornerstone of deterrence on the Korean peninsula: vigilant; well trained; ready to fight tonight and win. This combined deterrence is achieved by an integrated team of approximately 680,000 active and 3,040,000 Reserve personnel from the ROK and more than 37,500 United States military personnel forward deployed on the Korean peninsula.[11] The United States Forces assigned to Korea add state-of-the-art operational capabilities to the Korean peninsula. Together, these forces are a potent, integrated team with the military prowess and dominant military capabilities to defeat any provocation on the Korean peninsula, deterring escalation that could destabilize the region.

Readiness is the hallmark of the ROK–U.S. Combined Forces Command. The robust annual Combined Forces Command exercise program, supported by subordinate command training programs, ensures that the command is prepared for likely contingencies. The theater-level exercises, Ulchi-Focus Lens; Reception, Staging, Onward Movement, and Integration; and Foal Eagle collectively train over 400,000 active and Reserve component personnel in the critical tasks essential to deterring, and if necessary, defeating a limited warning attack against the alliance. These command post and field training exercises use battle simulations technologies to train leaders in battle command, leveraging the significant theater-wide investment in C^4 and Intelligence systems. These combat enablers provide the means to collaboratively plan, execute, and assess effects from distributed locations; allowing the Combined Forces Command to see, understand, and act to dominate the battlespace. Ulchi-Focus Lens is a simulation-driven command post exercise focused on joint and combined effects-based operations, and sustaining command and control, logistics, and dominant maneuver skill sets. The objective of the Reception, Staging, Onward Movement, and Integration exercise is to improve the ability to rapidly reinforce and sustain operations in the Korean theater. Foal Eagle is where the "rubber meets the road," providing a field training environment for tactical-level joint and combined warfighting skills and interoperability. These exercises, supplemented by subordinate command training programs, ensure that the Combined Forces Command remains ready to fight tonight and win decisively.

As we have for the last 25 years, the Combined Forces Command continues to adapt to the changing security environment. This transformation is taking place in three key areas: enhancing combined capabilities; shaping roles and missions; and aligning forces for the mid- to long-term. Close cooperation between the defense leadership of the ROK and the United States, and the leaders of the Combined Forces Command and USFK ensures that these changes enhance readiness and combined deterrence.

Enhancing Combined Capabilities

Most visible are the capabilities enhancements we are making through force modernization. In November 2003, the ROK–U.S. Military Committee reaffirmed mutual commitment to complementary, interoperable capabilities enhancements. The United States presented a force modernization program that brings state-of-the-art equipment to the Korean peninsula over the next 3 years. United States Forces based in Korea have already received tactical unmanned aerial vehicles, improved command, control, communications, and computers systems, and are beginning improvement programs for United States major combat systems and munitions. In 2003, the United States deployed enhanced capabilities to protect key installations and conducted rotational deployments to demonstrate the ability to rapidly deploy ground, air, and maritime forces to the peninsula. These programs are essential to the readiness that has deterred conflict on the Korean peninsula while the United States and its coalition partners prosecute the war on terror. The powerful deterrent capabilities of forward deployed forces continue to be a key enabler for our defense strategy.

The Ministry of National Defense views continued security cooperation with the United States as a cornerstone of the ROK's defense strategy. The Ministry of National Defense Modernization Plan seeks to enhance complementary ROK defense capabilities. This plan includes purchases of many defense systems produced by the United States and joint ventures to domestically produce advanced weapons in the

[11] Republic of Korea Ministry of National Defense, Parcipatory Government Defense Policy 2003. Active Forces include 550,000 Army, 67,000 Navy and Marine Corps, 63,000 Air Force. Active Forces are predominantly composed of conscripts with a 24–28 month term of service.

ROK. Highlights of the Ministry of National Defense Mid-Term Defense Modernization Plan include missile defense systems, advanced aircraft, precision munitions, and advanced naval combat and amphibious ships.

The ROK Air Force's recent procurement of the F–15K fighter is on schedule, with the first deliveries scheduled for 2005. These aircraft will be capable of employing a wide range of all-weather precision munitions that have proven extremely effective during recent United States-led coalition operations. The ROK Army will complete fielding in 2004 of a second Multiple Launch Rocket System battalion consisting of 29 launchers, 310 extended range ammunition pods, and 110 Army Tactical Missiles to enable long-range precision strike by this new organization. The ROK Navy has signed a contract to purchase eight additional P–3 anti-submarine warfare aircraft, received its third KDX–II destroyer this year, and the KDX–III, equipped with the Lockheed-Martin AEGIS system, is on track for delivery in 2008.

The Ministry of National Defense Mid-Term Defense Modernization Plan also includes several developmental programs to improve self-defense capabilities. Highlights include an improved missile defense system, air-to-air refueling platforms for high performance aircraft, advanced warning and airspace control aircraft, a multi-role helicopter system to replace an aging fleet, as well as advanced amphibious support ships, frigates, and patrol boats. These programs, commencing after 2007, are a needed step toward a self-reliant, modern defense capability.

The ROK's self-defense strategy goes beyond equipment modernization. It includes developing organizational and operational concepts that gain efficiencies by taking full advantage of increased equipment capabilities. The Ministry of National Defense is studying options to restructure its forces with more equally balanced air, naval, and ground components. These proposed changes will improve deterrence and are consistent with ongoing materiel and doctrinal capabilities enhancements. USFK continues to closely coordinate with the Ministry of National Defense to ensure that the United States capabilities resident in Korea provide the appropriate mix of skilled personnel, equipment, and infrastructure to maintain deterrence and promote regional stability.

However, the Republic of Korea defense budget is insufficient to fully implement its Mid-Term Defense Modernization Plan—a fundamental obstacle to achieving the Ministry of National Defense's goals. Even after this year's minimal defense budget increase to 2.8 percent of Gross Domestic Product (GDP), the ROK's defense purchasing power remains near 1997 levels. Rising operations and maintenance costs, limited force development appropriations, and a defense spending at less than 3 percent of Gross Domestic Product will likely delay the overall Ministry of National Defense capabilities enhancement program.

Shaping Roles and Missions

Enhancing ROK military capabilities, the Military Committee agreed to transfer certain Combined Forces Command missions from United States Forces to ROK forces over the next 3 years. These changes will not decrease readiness or deterrence. Moreover, these mission transfers take full advantage of the strengths of ROK forces, and tailor United States Forces in Korea for the unique contributions that they make to the peninsula and the region. The ROK–U.S. Combined Forces Command is, and will remain, the cornerstone of deterrence on the Korean peninsula for the foreseeable future. These efforts to transform the command will improve interoperability and maintain operational dominance into the future.

USFK

Transformation of USFK is underway. Your recent investments in equipment and infrastructure have improved operational capabilities and the quality of life for United States servicemembers, DOD civilian employees, and family members. This total transformation effort—enhance, shape, and align—contributes to increased strategic relevance and flexibility for United States Forces based in Korea and around the globe. Our transformed forces and basing posture enable more rapid reinforcement of the Korean theater in the event of a crisis and improves deterrence, on the peninsula and beyond, by providing strategically mobile overmatching power to dissuade potential threats to Alliance interests. Your continued support will ensure we achieve our transformation goals, providing our forces with the resources needed to deter aggression and contribute to regional stability.

The capabilities enhancements and mission transfers previously presented are key elements of USFK transformation. Consolidating United States Forces based in Korea into two hubs is the final component of this transformation effort. This consolidation consists of two parallel actions: relocation of United States Forces from the Seoul metropolitan area (commonly referred to as Yongsan Relocation), and realignment of the United States Second Infantry Division.

Relocation of United States Forces from the Seoul metropolitan area

Relocation of United States Forces from the Seoul metropolitan area is an important initiative with a long history. In 1990, at the request of the ROK and under the authority of the Status of Forces Agreement, the two governments completed a written agreement to relocate all United States Forces from Seoul to locations south of the Han River near Osan AB and Camp Humphreys. This relocation would have provided a more sustainable stationing environment for United States Forces and returned valuable land to the citizens of Seoul. The terms of the agreement—negotiated in good faith and consistent with the domestic laws of both nations at the time of signing—optimized capabilities while ensuring no degradation to readiness, operational capability, safety, force protection, or quality of life for the Korean and United States citizens who support the United Nations Command, the Combined Forces Command, and USFK. Under these agreements, the United States promptly returned a sizeable portion of the Yongsan Garrison to the ROK, on which a ROK national museum has been built. However, in 1993 the United States received notification that the ROK would unilaterally suspend its implementation of the agreements.

As part of the Future of the ROK–U.S. Alliance Policy Initiative, the ROK government asked to renew discussions on implementing the relocation of United States Forces from the Seoul metropolitan area. These discussions have been candid and productive, with agreement on major points: all relocations will be completed by 31 December 2007, with the understanding that the target date for the relocation of the headquarters of United Nations Command, Combined Forces Command, and USFK will be 31 December 2006; a small residual United States military presence will remain in Seoul to coordinate with the Ministry of National Defense and maintain a United States armed forces recreation center; and the ROK responsibility to fund this relocation, providing all necessary facilities and infrastructure to optimize operational capabilities for the headquarters', and maintain quality of life for personnel supporting those commands. When completed, these agreements will preserve the principles of the 1990 agreements, comply with the domestic laws of both nations, and ensure no reduction in readiness, deterrence, operational capability, safety, force protection or quality of life for the ROK and United States personnel affected by the relocation. We look forward to concluding the necessary agreements promptly, providing the National Assembly ample time to consider and ratify them according to the domestic requirements of the ROK.

Realignment of United States Second Infantry Division

The second facet of consolidating United States Forces into two hubs is realignment of Second Infantry Division. This realignment serves two main goals: transform the United States basing posture from its inefficient post-Korean War posture to a stable, less intrusive footprint; and focus construction investments into enduring facilities within the two hubs south of the Han River. While some Koreans have expressed anxiety that this realignment may send the wrong message to North Korea, we have clearly explained how this plan leverages our improved capabilities to improve readiness and deterrence while supporting a long-term United States military presence in the ROK.

Representatives of the Office of the Secretary of Defense and the Ministry of National Defense have agreed on a two-phased process to realign the Second Infantry Division. The first phase—a logical extension of the Land Partnership Plan—consolidates the Second Infantry Division into existing installations while construction takes place south of the Han River.[12] This plan allows all construction for the realignment of Second Infantry Division to be completed by 2008. In November 2003, we completed the necessary documents to modify the Land Partnership Plan to accommodate this realignment plan. The Ministry of National Defense has procured the first 200 acres needed to expand Camp Humphreys with funds provided by the return of the first property under the Land Partnership Plan. The Ministry of National Defense is diligently working to purchase all of the land required to expand both Camp Humphreys and Osan Air Base. The second phase of this plan will consolidate all of the Second Infantry Division units in Korea into the new facilities south of the Han River. Stable funding of United States military construction projects in the Future Years Defense Plan remains a crucial element of this plan. I remain enthusiastic about this win-win approach to recapitalizing our infrastruc-

[12] The ROK ratified the Land Partnership Plan in 2003. This plan reduced the number of United States installations in Korea from 41 to 23. The Land Partnership Plan shares relocation costs between both governments—each nation bearing the costs of the relocations it requested. Stable United States military construction appropriations are essential to implementing the Land Partnership Plan.

ture in a sustainable, enduring way and look forward to accelerating our progress toward completing this necessary consolidation.

SUSTAINED INVESTMENT FOR THE FUTURE

My command priorities remain consistent with my previous testimony: ensure peace and stability on the Korean Peninsula; readiness and training; strengthen the ROK–U.S. Alliance; transformation of the command; and, making Korea an assignment of choice. I have addressed most of the actions to enhance, shape, and align the force to meet these priorities. However, two areas merit additional comment: readiness and training; and, making Korea the assignment of choice.

Readiness

Readiness remains my top priority. Your continued support to capabilities enhancement and our training program is crucial. Key focus areas for modernization are: joint and combined C^4; ISR; pre-positioned equipment and logistics; and counterfire capabilities and precision munitions. With your help, we have made meaningful progress in joint and combined C^4 integration. We also improved the survivability of intra-theater communications networks and established a state-of-the-art Common Operational Picture and Collaborative Planning System that shares information among all commanders on the peninsula in real time. The next step is accelerated development of automated data filter devices to expand the real time information exchange between United States and ROK Forces. We need to continue these improvements and couple them with emerging coalition warfighting C^4 systems to establish a hardened, secure long-haul strategic communications network to support our missions both on the peninsula and throughout the region.

The regional missile threat requires a robust theater missile defense system to protect critical United States capabilities and personnel in the ROK. Last year's deployment of Patriot upgrades and improved munitions was a significant enhancement. To protect all critical United States facilities in Korea, we need to continue fielding advanced theater missile defense capabilities in the near-term. Your continued support to these service component programs remains integral to protecting United States Forces.

Robust ISR capabilities are essential to rapid, decisive operations. Our long-term program of continuous improvement is working. Last year, short-range UAVs that improved our tactical ISR capability were fielded in Korea. The next step is fielding long-range, high-altitude UAVs that can conduct some of the missions now performed by manned reconnaissance aircraft. Beyond collection platforms, we continue to improve our intelligence analysis capabilities to provide commanders with the timely, accurate assessments necessary to establish conditions that enable rapid dominance of the battle space. Your continued support for modernizing ISR capabilities is a wise investment for the future.

Logistically supporting United States Forces based in Korea is a complex, monumental undertaking. The proximity of the North Korean threat, coupled with the long distances from the United States sustainment base, requires a robust and responsive logistics system to support United States Forces based in Korea. The capabilities enhancements programmed for United States Forces based in Korea will improve our core logistics functions through modern prepositioned equipment, responsive strategic transportation, and modern logistics tracking systems. Pre-positioned equipment sets, which include critical weapons systems, preferred munitions, repair parts, and essential supplies, are critical to the rapid power projection to reinforce the Korean theater. Responsive strategic transportation—fast sealift ships and cargo aircraft—remain indispensable to rapidly reinforce the Korean theater and sustain United States Forces. Expeditious fielding of the Air Force's C–17 fleet and the Army's Theater Support Vessel to the USPACOM AOR remains a high priority to support United States Forces based in Korea. Equally important is the ability to maintain intransit visibility of supplies and equipment with a modernized joint Logistics C^4 and Information system. Lessons from Operation Iraqi Freedom and Operation Enduring Freedom have highlighted several areas where relatively small investments in asset tracking systems and theater distribution will yield significant efficiencies and improve the overall effectiveness of the logistics system. Your continued support for improved logistics and sustainment programs will ensure that United States Forces have the right equipment and supplies at the right time.

Counterfire and precision strike are core capabilities for all of our contingency plans, allowing us to change the dynamics of a conflict and rapidly achieve campaign objectives. Increasing the forward stocks of preferred munitions is critical to operational success in the Korean theater. Our priority ordnance requirements include: the Army Cruise Missile System, the extended-range Multiple Launch Rocket System, precision guided munitions, air-to-ground missiles, and air-to-air missiles.

Your continued support to these programs provides the overmatching capabilities that undergird deterrence.

Making Korea an Assignment of Choice—building momentum on success

Recapitalizing the USFK infrastructure and establishing a stable stationing environment enhances readiness, force protection, and overall quality of service. These key actions, along with equitable compensation for our servicemembers, are helping to make Korea an assignment of choice. This translates into increased personnel stability in Korea—fewer of our men and women are declining assignment to Korea, and higher percentages are choosing to stay in Korea for longer tours because of the improvements we've recently made. These improvements allow us to continue to recruit and retain the talented, motivated people who accomplish our mission in Korea; we need to continue to build on the momentum of recent successes.

Our challenge to recapitalize the infrastructure is substantial. Our facilities are old—over one third of all buildings in the command are between 25 and 50 years old, and one third are classified as temporary buildings. These substandard facilities pose force protection challenges because they lack sufficient standoff and structural strength to withstand attack. Many of our single and married servicemembers continue to live in substandard base housing that is increasingly difficult and expensive to maintain.[13] Others must live in expensive, densely crowded urban areas outside our installations, where force protection and safety are significant concerns. Along with the service components, we are working diligently to correct these deficiencies by 2009. We have a coordinated construction program—supported by our ongoing master planning at Camp Humphreys and Osan AB—that is executable with stable military construction funding under the Future Years Defense Plan (FYDP). We will continue to maintain existing permanent facilities through an aggressive Sustainment, Restoration, and Modernization program—funded with O&M accounts—while we move forward with our overall construction master plan. With your support, we will continue to improve living and working facilities in Korea.

Though there is more to be done, we have made progress. In 2003 we focused efforts at our southwestern hub located at Camp Humphreys and Osan AB. Figures 1 and 2 illustrate the modern facilities that you have made possible. Fifty-two newly constructed family housing units opened at Camp Humphreys, and we awarded contracts for an additional 48 units. We also converted an existing bowling alley into an elementary school that now serves 150 students. At Osan AB, United States MILCON funded a new dormitory that provides adequate housing for 156 servicemembers. We also awarded contracts for phase one of a three-phase program that will provide over 300 family housing units at Osan AB. You also authorized important provisions that extend the allowable build-to-lease period to 15 years. These provisions, approving the supplemental authority for acquisition and improvement of leased military housing in Korea, will allow us to add an additional 1,500 build-to-lease family housing units at Camp Humphreys.

Figure 1 -- New family housing unit at Camp Humphreys

Figure 2 -- New dormitory at Osan Air Base

We have made progress toward recapitalizing our infrastructure in Korea. To maintain momentum in correcting these deficiencies, we need stable military construction funding in the FYDP. Your support, along with the ROK's contributions under cost-sharing agreements, will ensure that we complete this infrastructure renewal program. The President's fiscal year 2005 budget request includes several projects that are important for United States Forces based in Korea. These projects are summarized in Table 1.

[13] Currently 8,000 unaccompanied servicemembers live in inadequate government quarters. More than 1,300 of the 2,000 available family housing units in Korea do not meet United States government standards.

TABLE 1—2005 KOREA MILITARY CONSTRUCTION PROJECTS

[In millions of dollars]

Project Description	Location	Program Authority
Family Housing Tower, Phase III (117 units)	Osan AB	$46.83
156 Person Dormitory	Osan AB	18.60
144 Person Dormitory	Kunsan Air Base	18.55
144 Person Dormitory	Kunsan Air Base	18.55
Sewer System Upgrade	Camp Humphreys	12.00
Total		$114.53

The additional family housing units at Osan AB will provide the necessary quality of life for servicemembers and their families. These facilities are a key part of the plan to provide more command-sponsored family housing to eligible servicemembers and will ensure that United States standards for space, safety, and force protection are met. The dormitory projects at Osan and Kunsan ABs will also improve the housing and quality of life for our unaccompanied servicemembers. These additions will provide adequate space in modern facilities for the individual servicemembers and allow them to live on our installations, thereby improving force protection and readiness. The sewer system upgrade project at Camp Humphreys is required to support the current population and the expected growth from our consolidation into hubs. This project is located on existing land granted for use by USFK, and will ensure compliance with health and environmental protection standards. Improving our infrastructure, along with expanded use of build-to-lease housing around our hubs of enduring facilities, will allow an increase in the number of accompanied tours, greatly improving quality of life across the services and attracting the high-quality personnel we need in Korea.

We have moved toward equitable pay, long a concern for servicemembers stationed in Korea. Last year, servicemembers in Korea were authorized a cost of living allowance for the first time. This allowance has reduced the pay disparity and offset the rising out-of-pocket costs of serving in Korea. We are also working with the Services to implement the assignment incentive pay that you enacted. This legislation provides continued opportunity to reduce perceived pay inequities. On behalf of the people serving in USFK, I want to extend our sincerest thanks and ask that you continue supporting DOD efforts to provide equitable pay for the soldiers, sailors, airmen, and marines serving in Korea.

In conclusion, I'd like to close with these thoughts:

Northeast Asia will continue to grow in importance for the United States and our partners. The presence of United States Forces in Korea demonstrates our commitment to shared interests: regional peace and stability; free trade; and the spread of democratic principles. The ROK continues to be a reliable ally and partner in the region.

United States Forces in Korea, along with our ROK counterparts, are trained and ready. We remain confident in our ability to deter and if necessary, defeat any potential North Korean aggression.

United States Forces in Korea are transforming now. Our plan to enhance capabilities by modernizing equipment and implementing new operational concepts, shape roles and missions to optimize the force structure, and align the stationing plan for a sustainable presence has begun. Your continued support to these initiatives provides our servicemembers with state-of-the-art capabilities to deter and, if necessary, defeat threats in the Northeast Asia region.

The ROK–U.S. Alliance has weathered challenges for over 50 years, and this partnership will continue to mature. Your investments in Korea have, and will continue to make a significant difference for our servicemembers and the stability of the region.

You can be justifiably proud of all the soldiers, sailors, airmen, marines, and civilians in Korea who serve the American people. Their daily dedication and performance reflect the trust and support that you've placed in them.

Chairman WARNER. Thank you, General. Your enthusiasm and dedication to your assignment and to the welfare of your men and women come through. It is a difficult post to live in, having had some modest personal experience myself on that peninsula a half

century ago, and I judge from your comments that the conditions have improved. So we will hear further.

General Hill, sir.

STATEMENT OF GEN JAMES T. HILL, USA, COMMANDER, UNITED STATES SOUTHERN COMMAND

General HILL. Thank you, Mr. Chairman, Senator Levin, distinguished members of the committee. I am honored for this opportunity to appear before you today to provide my assessment of Latin America and the Caribbean and of what the USSOUTHCOM is doing to advance United States interests in this very important region of the world.

I am very appreciative of the support of the committee for the USSOUTHCOM, the soldiers, sailors, airmen, marines, Coast Guardsmen, and civilian personnel whom I am so privileged to command. They are fine men and women and are serving our Nation admirably.

The security picture in Latin America and the Caribbean has indeed grown more complex over the past year, as the events in Haiti, Bolivia, and Venezuela amply illustrate. Deep-seated frustrations over the failure of democratic and free market reforms to improve the standard of living for all citizens are significantly challenging many of the region's governments. This frustration is exacerbated by endemic corruption and by the insidious impact on societies of the threats I addressed last year: narcoterrorism, urban gangs and other illegal armed groups, arms and human trafficking, and support to international terrorism.

Unfortunately, as a consequence some leaders in the region are tapping into this frustration to move radical agendas forward and are manipulating democratic processes to diminish rather than to protect individual rights. Our country's focused support is critical to ensuring that the strong democratic tides of the past 25 years do not reverse their flow, but instead are strengthened and reinforced.

Haiti's breakdown of law and order and its rising violence led to the voluntary resignation and departure of former President Aristide, a constitutional transfer of power, and the rapid deployment of the United Nations-mandated multinational interim force. Currently in Haiti the multinational force consists of 2,014 U.S. troops, 838 French, 500 Canadian, 329 Chilean, deployed with the mission of setting the conditions for the follow-on deployment of a U.N. force in June. We are preparing for that follow-on force by stabilizing the security environment in Haiti, containing migration, and facilitating the provision of humanitarian assistance.

I have been to Haiti twice since the crisis erupted. I will go back again on Monday. The first time I went was 3 days after the deployment of our forces, and again just last week. I was impressed by the positive change between my visits. The multinational force is performing well in a difficult and complicated environment. The troops in Haiti are progressively reestablishing the security and stability necessary for the interim government to function.

I am particularly pleased by the seamless cooperation among our multinational force allies. Thanks to the quick response and meaningful contributions of our government, along with those of Chile,

France, and Canada, our troops are working side by side with those other nations, bringing a new spirit of cooperation to the difficult task at hand.

Despite the very complex security situation in the region, much is going well. Although there remains work to be done, our country's significant investment in Plan Colombia is showing substantial results. The Colombian economy is growing. The Colombian government has established a presence in all major municipalities. Major categories of criminal activity are down. Narcotics production is down. Demobilizations by the narcoterrorist organizations are increasing, as are desertions from their ranks. The Colombian military has grown into a professional, competent force that reflects human rights and the rule of law and has gained the strategic initiative over its narcoterrorist enemies.

As a result of this substantial progress, a window of opportunity has opened in which the Colombian government has the potential to deal a decisive blow to the narcoterrorists. The Colombians have developed a campaign plan which takes them into the heartland of the territory controlled by the illegal armed groups.

To provide the maximum amount of support to this effort, the administration has recommended that the congressionally-mandated cap of 400 military and 400 contractors be raised to 800 and 600 respectively. This increase will allow us to provide the Colombians the greatest possible assistance and maximize their potential for success.

I have worked closely over the past year with President Uribe and the leaders of the Colombian military. I have visited all corners of Colombia. I have seen first-hand the professionalism and increased capabilities of the Colombian military. I have been inspired by the dedication of the Colombian soldiers in their daily fight to defend their democracy against vicious narcoterrorists.

It is vitally important that we sustain Plan Colombia's progress. As one of the oldest democracies in this hemisphere, a key trading partner and supplier of oil, a staunch ally, and only 3 hours from Miami, a stable, secure Colombia is important to our national security interests.

In stark contrast to the situation 25 years ago, democracy is now the accepted model for governments in this hemisphere. However, transnational threats, poverty, and corruption are destabilizing governments and impeding the consolidation of democracy. The continued progress as a region of democracy and prosperity is fundamentally important to our national security.

With very few resources and a modest presence, the men and women of USSOUTHCOM are working to further that progress and to ensure our Nation's security. We will remain steadfast in our efforts and look forward to your continued support.

Thank you again for this opportunity to appear before you, and I look forward to your questions.

[The prepared statement of General Hill follows:]

PREPARED STATEMENT BY GEN JAMES T. HILL, USA

INTRODUCTION

Mr. Chairman, Senator Levin, members of the committee, it is my privilege to present the posture statement of the USSOUTHCOM. The men and women of our

command are making enormous contributions to the war on terrorism and the defense of this country on a daily basis. Your soldiers, sailors, airmen, marines, Coast Guardsmen, and DOD civilians are working throughout the region to promote U.S. national security interests. Their work has done much to preserve stability and strengthen relationships with our allies. Simultaneously we are building a cooperative security community that will advance security and stability in the generation to come.

The security picture in Latin America and the Caribbean has grown more complex over the past year. Colombia's considerable progress in the battle against narcoterrorism is offset by negative developments elsewhere in the region, particularly in Haiti, Bolivia, and Venezuela. These developments represent an increasing threat to U.S. interests. We face two primary types of threats in the region: an established set of threats detailed in previous years and a nascent set likely to raise serious issues during this year. On the traditional front, we still face threats from narcoterrorists and their ilk, a growing threat to law and order in partner nations from urban gangs and other illegal armed groups, which are also generally tied to the narcotics trade, and a lesser but sophisticated threat from Islamic radical groups in the region. These traditional threats are now complemented by an emerging threat best described as radical populism, in which the democratic process is undermined to decrease rather than protect individual rights. Some leaders in the region are tapping into deep-seated frustrations of the failure of democratic reforms to deliver expected goods and services. By tapping into these frustrations, which run concurrently with frustrations caused by social and economic inequality, the leaders are at the same time able to reinforce their radical positions by inflaming anti-U.S. sentiment. Additionally, other actors are seeking to undermine U.S. interests in the region by supporting these movements.

These traditional and emerging threats are overlaid upon States in the region that are generally marked by weak institutions and struggling economies. This resulting frailty of state control can lead to ungoverned or ill-governed spaces and people, corruption, and clientalism. The militaries we work with in the AOR are feeling the brunt of both threats and weak governments, but for the most part have supported their respective constitutions, remained professional, and respected human rights. They will be under increasing pressure from these stressors over the next several years. Consequently, we must maintain and broaden our consistent military-to-military contacts as a means of irrevocably institutionalizing the professional nature of those militaries with which we have worked so closely over the past several decades.

We are assisting our partner nations' efforts to address these threats and underlying structural factors through consistent, patient cooperation. We work closely with the interagency to build a coherent, long-term vision and to coordinate our efforts, but to realize that vision will require considerable time, energy, and resources. As in Colombia, the work will be hard and will require long-term dedication and commitment. The security, economic well being, and demographic fortune of our country is inextricably linked with Latin America and the Caribbean. The entire Americas, working as one, can confront these existing and emerging threats, and they can do so while providing for economic growth and opportunity. Consequently, this region of the world, despite all the other very real and pressing demands on our national attention and resources, requires increased attention in the coming year.

To describe the current state of affairs in USSOUTHCOM, I will outline in detail the threats we are facing, both traditional and emerging. I will provide a regional assessment, with particular emphasis on the progress we are seeing in Colombia under the Uribe administration, followed by an assessment of our progress in the war on terrorism. Finally, I will address USSOUTHCOM's requirements.

THREATS

The narcoterrorists in Colombia remain the largest and most well known threat in our region and have continued their illicit activities, yet not without a price. All three narcoterrorist groups are named on the Department of State's list of designated foreign terrorist organizations: the Revolutionary Armed Forces of Colombia, or FARC; the National Liberation Army, or ELN; and the United Self-Defense Forces, or AUC. Most observers now understand that these groups are narcoterrorists rather than romantic guerillas crusading for the downtrodden. While a few might retain some of their founding ideology, by and large these groups consist of terrorists and criminals who operate outside the rule of law in pursuit of illicit profits rather than political revolution.

The FARC still comprises the largest threat, with an estimated 13,000–15,000 members. The FARC has continued to conduct terrorist activities in Colombia and

still holds three Americans hostage. Despite their numbers, they have suffered many setbacks this past year, with the capture or elimination of a number of valuable leaders and front commanders. Most notably a high-level financier, Simon Trinidad, was captured by the Ecuadorians and turned over to Colombian custody. Over 2,000 FARC members have demobilized since August 2002. The ELN, a smaller organization with an estimated 3,500 to 4,000 members, is declining in importance. There has been some progress in encouraging the ELN to demobilize via peace talks, although those who refuse may merge with the FARC. Much of the AUC, while still a threat and still heavily involved in narcotics trafficking, is in peace negotiations with the Government of Colombia. 10,000 to 12,000 members of the illegal self-defense groups are estimated to be involved in the peace process, though another 2,000 to 4,000 remain outside the process.

The narcoterrorist influence is bleeding over into what we see as a second and increasing threat to the region: growingly sophisticated criminal gangs. While not all gangs are fueled by illicit narcotics, most bolster their criminality by drawing substantial support from the drug business. The World Health Organization has described Latin America as the world's most violent region based on the numbers of homicides per capita, surpassing even war-torn Africa. Homicides and violent crime take a direct toll daily on Latin Americans. There is another insidious second order effect. The Inter-American Development Bank has estimated that per capita GDP in Latin America would be nearly 25 percent higher if Latin American crime rates resembled those of the rest of the world. Violent crime causes capital flight from within the country and stifles investment from outside the country. It literally takes money out of the pockets of those who need it most and most hurts those who have the least. This second threat faced by many Latin American countries is difficult and complex because it falls precisely on a seam between law enforcement and military operations. Latin American leaders need to resolve this jurisdictional responsibility issue to promote cooperation among their police and military forces while simultaneously restructuring their states' security forces.

Beyond narcoterrorist and gang violence, branches of Middle Eastern terrorist organizations conduct support activities in the Southern Command area of responsibility. Islamic radical group supporters, extending from the Caribbean basin to the triborder area of Paraguay, Argentina and Brazil, conduct fund raising activities. Terrorists who have planned or participated in attacks in the Middle East and the United States, such as captured high profile al Qaeda terrorist Khalid Shaihk Mohammed, have spent time in the region. Supporters generate illicit funds through money laundering, drug trafficking, arms deals, human smuggling, piracy, and document forgery. They funnel tens of millions of dollars every year back to their parent organizations in the Middle East, thus extending the global support structure of international terrorism to this hemisphere. Not surprisingly, Islamic radical groups, narcoterrorists in Colombia, and urban gangs across Latin America all practice many of the same illicit business methods.

Radical populism is another emerging concern in the region. Populism in and of itself is not a threat. Rather, the threat emerges when it becomes radicalized by a leader who increasingly uses his position and support from a segment of the population to infringe gradually upon the rights of all citizens. This trend degrades democracy and promises to concentrate power in the hands of a few rather than guaranteeing the individual rights of the many. Anti-American sentiment has also been used to reinforce the positions of radical leaders who seek to distract the populace from their own shortcomings. Anti-American sentiment also troubles our partner nations as well, as elected leaders must take into account the sometime very vocal views of their constituents. The threats and trends in the region paint a negative picture in many regards and certainly bear close scrutiny in the coming year. We will maintain vigilance. We will also continue our work with partner nations and the interagency to shore up stability and promote increasing security cooperation.

REGIONAL ASSESSMENTS

Andean Ridge

Colombia is where the most is at stake. The United States made an enormous investment in the Government of Colombia 3½ years ago with our support to Plan Colombia. That investment is beginning to pay dividends. Under President Uribe, the Government of Colombia, with robust popular support, is making impressive progress in defeating the narcoterrorists and rejoining the ranks of peaceful, safe and secure states. I have been to Colombia 23 times since I took command, and I have seen progress on every visit.

President Uribe is a unique leader who has galvanized the will of the people and motivated his armed forces. He has personally demonstrated that one individual can

change the course of events. Without his personal leadership, energy, and dedication, I don't think the Colombians would have achieved the remarkable progress we have seen. Yet his personal charisma and drive only go so far, and he well knows it. That is why he is building the structures to sustain momentum and institutionalize success beyond that of his term and beyond that of Plan Colombia.

The Colombian military has become much better and more aggressive in their operations against the FARC, the ELN, and the AUC. They have nearly doubled the number of narcoterrorists captured while also seizing the initiative on the battlefield. They have had increasing success against the enemy's leadership. Demobilizations are up, with some 3,500 members of illegal armed groups having voluntarily given up arms since President Uribe took office. There have been fewer terrorist attacks on the electrical grid, the oil pipeline, communications towers, roads, bridges, and towns. Cocaine eradication is up along with interdiction and seizures. Colombia has resumed a thoroughly vetted and robustly staffed Air Bridge Denial Program. Across the entire country, homicides, kidnappings, robberies, and thefts are down. Colombia's economy is growing as measured in its GDP, stock market, foreign investment, exports, and banking revenues. I am heartened by the progress the Colombians are making, of their own volition, and with our aid. We need to stay the course in our support of their efforts to ensure that the Plan Colombia dividend is paid in full.

The Colombians are abiding by the norms of International Humanitarian Law in their struggle. The State Department has certified this performance. Under President Uribe's "Democratic Security Policy," extrajudicial executions in 2003 were down 48 percent, assassinations were down 41 percent, homicides of trade unionists were down 68 percent and forced displacements were down 68 percent. None of the units U.S. forces have vetted and trained have been found to have committed human rights abuses. Alleged human rights abuses by Colombian security forces are now less than 2 percent of those reported and the institutionalization continues with the opening of Colombia's Armed Forces School of International Humanitarian Law, Human Rights, and Military Justice that teaches human rights and international humanitarian law to attorneys, commanders, officers, and sergeants. I am confident that President Uribe and the Colombian military have taken respect for human rights to heart, unlike their adversaries, who commit the vast majority of human rights abuses. In 2003, as members of the illegal armed groups demobilized, over 77 percent of those who did so turned themselves into government forces. If those demobilizing suspected they would be subject to torture and abuse, they would turn themselves into non-governmental organizations and the Church as they did in years past, before human rights became an integral part of the Colombian military's ethos. That professional ethos is also reflected in public opinion that now lists the Colombian military as the second most respected institution in the country just behind the Church. The Colombian military is at war, which it will win while fighting justly.

Venezuela remains an oil rich nation that provides some 13 percent of oil imported into the United States. The domestic political situation continues to be exceedingly complex, and the prospects of the presidential recall referendum are still in considerable doubt. Venezuelan society is deeply polarized and will continue to be so as long as the Government of Venezuela continues along an authoritarian path. Well-organized street protests numbering in the hundreds of thousands occurred on a frequent basis over the past year.

Bolivia faced significant turmoil over the past year. Bolivia has a very deep geographic divide between two parts of the country, the La Paz region and the lowlands around Santa Cruz, which is mirrored by deep ethnic and social divisions. There are legitimate and historic grievances, manifested partially in tension over indigenous traditions that revolve around growing coca in limited amounts as a part of their native culture. Yet the limited amounts never seem to stay limited, and the cocaleros who seek expanded rights to grow coca certainly envision the profits from illicit narcotics rather than the practice of ancient traditions. These cocaleros have found leaders who have tapped into indigenous and other social tensions. Indigenous groups, working with labor unions and others, mounted violent protests last October that led to the eventual resignation of then President Gonzalo Sanchez de Lozada. If radicals continue to hijack the indigenous movement, we could find ourselves faced with a narco-state that supports the uncontrolled cultivation of coca. Since his elevation to the presidency in October, however, President Mesa has been able to stabilize the country. Still, Bolivia bears very close scrutiny in the upcoming year.

Ecuador has demonstrated over the past year that it has the political will to secure its border with Colombia and to fight drug traffickers. Despite limited resources and a vast expanse of thickly vegetated country that needs to be covered, the Ecuadorian military has placed many of its best troops on its northern frontier

and has established cross-border communications with the Colombian military. Ecuador continues to host one of the USSOUTHCOM's Cooperative Security Locations (CSL) in Manta, which has been especially critical in providing coverage on the eastern Pacific vector of drug smuggling.

In Peru, President Toledo suffers from very low popularity ratings despite a good economy. Peru's large indigenous population remains relatively politically inactive and has not been mobilized to the extent seen in Bolivia. Sendero Luminoso (SL) remains an ongoing problem. The Peruvian military has aggressively pursued them, and they do not possess the strength or capabilities they once displayed. Ominously, SL has now adopted the FARC model of protecting narcotics traffickers in exchange for funding. In a reassuring example of regional cooperation, the defense ministers from Peru, Colombia, and Brazil signed a three-way agreement to combat illegal drug trafficking in the Amazonian region on February 10, 2004.

Caribbean

Following the resignation and departure of former President Aristide, there was a constitutional transfer of power to the interim government in Haiti, and with it, an opportunity to move forward. With United Nations support and in conjunction with our partners, we have established the Multinational Interim Force, consisting of forces from the United States, France, Chile, and Canada. We are working to reestablish security and stability for the Haitian people until such time that Haitian institutions have been sufficiently bolstered to resume that task. This operation has had the effect of saving the lives of innocent Haitians, preventing a mass migration during a time of rough seas, protecting U.S. interests in the Caribbean, and fostering regional and international cooperation to assist a nation in need. Much work remains to be done, and we will continue providing our assistance to the Multinational Interim Force's efforts and to developing plans for a potential follow-on U.N. Multinational Stabilization Force.

Beyond Haiti, the primary challenges in the Caribbean come from narcotrafficking, terrorism, document fraud, and corruption. Democratic institutions remain relatively immature, rendering many countries unable to police fully their sovereign territory, resulting in porous borders and coastlines and ungoverned spaces. Migration remains a concern should Caribbean governments be unable to meet the needs of their people. Additionally, violent crime has grown over the past decade, much of it related to narcotrafficking, arms trafficking, and money laundering. To meet these challenges regional governments are attempting to focus on cooperative efforts such as the Regional Security System, the Caribbean Disaster Emergency Response Agency, the Caribbean Information Sharing Network, and the U.S. Coast Guard's Caribbean Support Tender. A key element of USSOUTHCOM's efforts in the Caribbean is the uniquely focused Tradewinds exercise. Conducted annually, Tradewinds exercise objectives focus on combating transnational threats, counterdrug operations, and disaster preparedness.

Aruba and the Netherlands Antilles continue active support of USSOUTHCOM counterdrug efforts with their respective CSL. Of all our allies in the Caribbean, the Dominican Republic has the strongest military and has often been the most supportive. Their military capability and political leadership allowed them to support multinational forces in Iraq with a battalion sized task force. The Dominicans will be key partners in expanding the Third Border Initiative to build a Caribbean zone of confidence. The Enduring Friendship initiative will help synchronize all maritime activities in the Caribbean, deny terrorist access, protect legal trade, and suppress illicit trafficking.

Central America

Democratic governance continues to be the accepted model throughout Central America and the region is generally pro-United States. Central American leaders have shown a commitment to free trade and open economies and have also begun laying the groundwork for greater regional integration. They are overcoming historical border differences and tensions in order to pursue regional economic and military integration. Honduras, El Salvador, and Nicaragua sent forces to support OIF. Current relations with Nicaragua are a testament to how much improvement has been made in just two decades with patient, cooperative efforts. Additionally, El Salvador provides USSOUTHCOM the use of Comalapa Airport as a Cooperative Security Location for counter-trafficking coverage throughout Central America, the eastern Pacific, and the western Caribbean. JTF Bravo in Honduras continues to provide a logistical support base to the critical humanitarian missions of the region, as well as to counter illicit trafficking operations.

Despite progress, Central American countries lack resources and remain susceptible to the ills of narcotics and arms trafficking. This region is also a primary ave-

nue for illegal migrants and drugs entering the United States. Especially troublesome is the growth in gangs and drug related crime we are seeing across Central America. Unemployment and poverty, together with a demographic surge in the younger population and thousands of leftover weapons from the wars of the 1980s, make Central America a fruitful recruiting ground for organized criminals. Violence is a major problem in this area with local vigilantism taking the place of judicial systems that do not work. There are estimated to be at least 25,000 gang members in Honduras, El Salvador and Guatemala, the three countries where the problem is worst. There is also some evidence that many of those gang members have close connections with gangs in the United States, either from drug distribution networks or from immigration and re-migration to their home countries.

Southern Cone

The Argentine economic crisis has caused many to question the validity of neoliberal reforms, manifested in the Buenos Aires Consensus signed last October by Presidents Kirchner and Lula and stressing "respect for poor countries." Southern Cone countries, traditionally strong supporters of multilateralism and the United Nations, were also the most vociferous in opposition to OIF. Limitations related to the American Servicemember Protection Act (ASPA) have added yet one more complaint. Brazil continues along a moderate path but is suffering from narcotics fueled urban gang violence. The Brazilian minister of justice stated that violence in Brazil's three biggest cities costs $4.5 billion a year. Nevertheless, progress and stability in Brazil is not in question.

We are maintaining strong military-to-military relations with the countries of the Southern Cone. USSOUTHCOM has developed relationships with the new Argentinean military leadership and expects sustained cooperation in the future. Cooperation with the Brazilian administration and the Brazilian military continues routinely. We have received good cooperation from Argentina, Brazil, and Paraguay in disrupting terrorist activities in the Tri-Border Area. A Chilean platoon and a Paraguayan platoon are serving under Argentine command in the United Nations Peacekeeping Operation in Cyprus, with additional military personnel from Bolivia, Brazil, Peru and Uruguay also serving with the Argentine-led force. Chile, the fourth largest user of the Panama Canal behind the United States, Japan, and China, took an active leadership role in the Southern Command sponsored Panamax exercise designed to guarantee the security of the Panama Canal. The Chileans rapidly deployed a force to Haiti during the recent crisis. We look forward to a growing and cooperative relationship with Chile and its armed forces.

WAR ON TERRORISM

Terrorists throughout the Southern Command area of responsibility bomb, murder, kidnap, traffic drugs, transfer arms, launder money, and smuggle humans. USSOUTHCOM gains actionable intelligence on these and other terrorist activities that is then used by U.S. law enforcement agencies and our partner nations to disrupt terrorist operations and means of support. To further these efforts, we train, equip, build, and exercise partner nation capabilities to control borders, eliminate safe havens, and project government presence. Our primary efforts are in the areas of improving Colombian military capabilities, conducting detention operations, improving interagency cooperation, resetting our strategic architecture, promoting security cooperation, and institutionalizing partner nation professionalism and human rights adherence.

Colombia's Military Capabilities

USSOUTHCOM assistance programs are helping Colombia develop the capabilities to achieve security and stability. Military training of Colombian units that are vetted for human rights abuses is a key enabler in their fight. In addition to working closely with the Colombian Ministry of Defense, Army, Navy, and Air Force, we developed over the past year a close working relationship with the Colombian Special Operations Command, the 1st Commando Battalion, the Lancero Battalion, and their urban counterterrorist unit. We assist in providing operational support and developing thorough logistics systems, with a particular emphasis on casualty evacuation. We continue training the Counternarcotics Brigade and its aviation units. The Plan Colombia helicopters have proven to be a major asset in the fight against narcoterrorism, and the procedures for coordinating their use have been optimized and institutionalized. As we look to the future, careful consideration should be given to the eventual nationalization of these assets, while maintaining and respecting Congressional intent in their provision. We work on riverine techniques with the Colombian Marines and assisted in the establishment of operationally focused Riverine Combat Elements. We assisted in infrastructure security planning, and ensured

that all systems were in place to resume the State Department-managed Air Bridge Denial program. We are working closely with Colombian Military Intelligence to assist them in developing intelligence driven operations. We sent Planning Assistance Teams to support Colombian units in numerous locations throughout Colombia. We helped develop Civil Affairs capabilities that have been well used as the government reestablished its official presence in all municipalities. With funds made available from the original fiscal year 2000 Plan Colombia emergency supplemental, we have helped the Colombian Ministry of Defense institute legal reforms through the creation of a Military Penal Justice Corps, similar to our Judge Advocate General's Corps. To provide for the long-term institutional health of the Colombian Army, we assisted them in establishing a Command Sergeants Major Academy to develop a robust non-commissioned officer corps. Finally, drawing on lessons learned in our own operations, we are assisting in Colombian efforts to strengthen interagency cooperation.

Detention Operations

In addition to its work in Latin America and the Caribbean, USSOUTHCOM has directly and actively supported the war on terrorism since January 2002 by operating a terrorist detention and intelligence operations facility at Guantanamo Bay, Cuba. Intelligence operations at Guantanamo have provided critical information regarding terrorist organizations' leadership, organization, finances, planned attacks, potential attacks, and other specific information that has thwarted terrorist activities. As Guantanamo operations continue, we will improve intelligence exploitation, detainee review and repatriation procedures, and quality of life for servicemembers. We are prepared for our role as host of military commissions.

Interagency Cooperation

JIATF-South continues to serve as a model joint, interagency, and multinational organization as it coordinates source and transit zone activities from Key West, Florida. With the proven nexus between terrorists, drugs, and arms trafficking, counter illicit trafficking is becoming an increasingly important expansion of counterdrug efforts. JIATF-South and the Joint Southern Surveillance Reconnaissance Operations Center successfully merged last July, with a gain in efficiency by concentrating the trackers and planners in one headquarters. In January JIATF-South hosted a successful interagency counternarcotics trafficking conference that included high-level Colombian participation and set the course for future operations.

Responding to Secretary Rumsfeld's guidance to establish a Joint Interagency Coordination Group, USSOUTHCOM meets monthly to focus on the war on terrorism with representatives from the Department of Treasury, Drug Enforcement Agency, Department of State, Department of Homeland Security, the intelligence agencies, and DOD. The Joint Interagency Coordination Group is also a venue for sharing intelligence and effectively coordinating our regional counterterrorism efforts. Within the interagency terrorist financial designation process, USSOUTHCOM is partnering with the Department of Treasury's Office of Foreign Assets Control to assist in interdicting the flow of capital acquired through illicit activities.

Strategic Architecture

USSOUTHCOM serves as a model unified command with modest forward presence and ability to respond regionally. Over the past year we have relocated some of our components and will continue throughout this year. U.S. Army South (USARSO) relocated from Fort Buchanan, Puerto Rico, to Fort Sam Houston in San Antonio, Texas. Special Operations Command South is in the process of relocating from Roosevelt Roads, Puerto Rico, to Homestead, Florida. This move is in conjunction with the U.S. Navy's decision to leave Roosevelt Roads, which also involves Naval Forces South moving from that location to Naval Station Mayport, Florida. USSOUTHCOM, USNORTHCOM, and USPACOM successfully agreed to establish a Joint Operating Area (JOA) that gave JIATF-South the area responsibility in the eastern Pacific all the way to the California border. This JOA is just one example of combatant commands cooperating to resolve seam issues. Additionally, USSOUTHCOM has established a J–7 directorate for transformation and is establishing a Standing Joint Force Headquarters (SJFHQ) in cooperation with Joint Forces Command. This prototype SJFHQs deployed from the headquarters for the first time to Soto Cano Air Force Base, Honduras, in January and conducted a 2-week long exercise with full connectivity to USSOUTHCOM in Miami. Overall, these changes in Southern Command's strategic architecture will allow us to prosecute the war on terrorism in a more effective manner.

Security Cooperation

USSOUTHCOM's security cooperation activities expand U.S. influence, assure friends, and dissuade potential adversaries. The overarching goal is to promote regional security and stability through training, equipping, and developing allied security force capabilities that improve competence and professionalism while underscoring respect for human rights. Command programs are also intended to strengthen respect for the rule of law, civilian control of the military, and support for democratic ideals. We do this not only because it is in tune with the highest values of the American people, but also because it is a strategic, operational, and tactical necessity. Security forces must earn the trust and confidence of their people before they can be effective. Only by respecting the law and the dignity of all the citizens they are sworn to defend can security forces hope to gain the respect of those they protect.

We annually coordinate and direct more than 30 legal engagement activities among military counterparts, regional governments, and non-government organizations. Throughout the USSOUTHCOM area of operations we have advocated reform of military justice codes and procedures, education on human rights and law of war, and the inclusion of military lawyers in the planning and execution of military operations. Complementing this training are disaster relief programs to teach militaries how to respond to their civilian authorities when disasters occur. Fuerzas Aliadas Humanitarias is the cornerstone of this program and will be hosted by Panama this year. More than 20 nations will participate, including our regional partners.

Beyond disaster relief, New Horizons exercises provide unique and rigorous training opportunities to engineer, medical, and civil affairs units. These activities hone U.S. forces' engineering and medical skills in challenging environments under conditions nearly impossible to replicate in the United States. Last year the New Horizon exercises completed 31 engineer projects consisting of schools, medical clinics, wells, and rudimentary road construction and repair. The 70 humanitarian medical deployments treated more than 300,000 patients. During these deployments, our veterinary teams treated approximately 57,000 animals in varying livestock categories, which contributed significantly to sustaining local economic health. Ecuador, Guatemala, and Honduras will host New Horizons exercises this year.

The annual naval exercise, Unitas, is conducted throughout the region with significant participation by several countries. This year, Peru will host the Unitas Pacific Phase and the Unitas Amphibious Phase, while Uruguay is scheduled to host the Unitas Atlantic Phase in November. Central American nations will host several exercises this year to include Peacekeeping Operations (PKO) North that will focus on strengthening the peacekeeping skills and capabilities of the 25 participating nations. All the Central American countries and the majority of Caribbean nations will participate. We will also conduct PKO South and Cabaas to strengthen the peacekeeping skills, cooperation, and capabilities of the rest of the region's military forces.

Professionalism and Human Rights

A number of countries in Latin America and the Caribbean have a history of military dictatorships, authoritarian governments, violent internal conflicts and rampant human rights abuses dating back to the 1950s and into the early 1990s. Many countries in the USSOUTHCOM area of responsibility are dealing with the legacy of human rights abuses committed during military dictatorships by strengthening judiciary and democratic institutions and by cementing civilian control of the security forces. Since 1996, USSOUTHCOM has conducted the Human Rights Initiative (HRI), "Measuring Progress in Respect for Human Rights," focusing on developing regional standards for human rights programs in the military and security forces. The HRI is a major strategic enabler tool for USSOUTHCOM and is a key component of the Command's Theater Security Cooperation Plan. We also ensure that all units that receive U.S. security assistance are vetted for human rights violations in accordance with the Leahy Amendment.

REQUIREMENTS

As the war on terrorism progresses we will increasingly pursue operations of mutual interest with goals that increase interoperability with our allies. We will pool our resources to the extent possible, but we foresee additional threats to U.S. security interests that may require additional resources or the reprioritization of programmed funds. To reinforce success in Colombia we will address the current personnel cap. We also expect an increase in requirements for persistent ISR and additional stress on our theater communications architecture, as well as a requirement for the renewal of Expanded Authorities legislation.

Colombia Personnel Cap

The current personnel cap limits the U.S. presence in Colombia to 400 military personnel and 400 contractors. We manage the cap on a daily basis, rigorously remain under the ceilings, and frequently must cancel or postpone planned personnel travel to Colombia, request aircraft to reduce crew size, create complicated workaround schedules for aircraft flights, or simply cut back on training. Part of the difficulty lies in the types of personnel that we have counted against the cap, which include, for example, the permanent party military group itself, those in aircraft flying over but not stationed in the country, and personnel who have completed their assignments but have not yet left the country. A review of whether such personnel should be counted would be warranted.

The decision for the DOD and Department of State to seek an increase in the personnel ceilings is a change from our previous belief that we could continue our programs efficiently under the previous ceilings. The progress made by President Uribe and Colombia have led us to conclude that there is a real opportunity, with only a small increase in U.S. personnel, if we are to achieve our policy goals in Colombia. I would emphasize that we do not seek to change the prohibition on U.S. involvement in combat.

To date the impact of the personnel cap has been small. In the coming year, however, as the Colombian Military conducts full-scale operations across the depth of the country, the personnel cap will begin to have a deleterious effect on the mission. While U.S. personnel will not be directly on the front lines with the Colombian troops, more training and planning assistance at a variety of headquarters is required since a greater portion of the Colombian Military will be directly engaged on a broader front in operations to defeat the narcoterrorists. We should reinforce success this year rather than constraining ourselves with a cap number that made sense at the beginning of Plan Colombia but has not been adjusted for the current and future situation on the ground. Consequently, the administration has requested an increase of the personnel cap to 800 military personnel and 600 civilian contractors in Colombia in support of Plan Colombia.

Persistent Intelligence, Surveillance, and Reconnaissance

We conduct varied detection and monitoring (D&M) operations that require a high state of readiness and a joint effort to link multi-intelligence collectors targeted against strategic, operational, and tactical requirements. This melding of organic and national collection resources will improve operations and fulfill the Quarterly Defense Review Transformation requirement for continuous and persistent ISR. Southern Command's role in Operation Enduring Freedom includes the employment of national, airborne, ground, and maritime ISR assets that are targeted against regional terrorist groups and transnational support cells. Their combined products create a common operating picture of regional activity that can be shared with our allies as appropriate. Still, the majority of assets available to us are focused on the tactical fight in Colombia and thus unavailable for other missions. A capability to support Colombia and our other areas of concern in the war on terrorism is essential to gain the situational awareness requirement to disrupt terrorist activity. When sufficiently funded, D&M programs provide a formidable capability to detect and monitor illicit trafficking of arms, drugs and other illegal activities that fuel terrorist groups. Overall, this capability further provides critical information used by the U.S. and host nations to effectively counter the expansion of narcoterrorism and international terrorism.

Command, Control, Communications, and Computers

Improving C^4 architecture for fixed and mobile operations throughout the region has been a consistent priority, as outlined in previous testimonies. The current C^4 infrastructure lacks the flexibility to execute the assigned mission due to over-reliance on inadequate commercial communications systems, limited communications bandwidth, and fragmented operations and maintenance support. Consequently, Southern Command is unable to effectively and efficiently support a counterdrug mission simultaneously with another contingency operation such as antiterrorism, noncombatant evacuation, migrant operations, disaster relief, or defense of the Panama Canal.

Since existing military systems alone are insufficient, it is my intention to transform, expand, and maintain a cost-effective, efficient, centrally managed, and robust infrastructure that supports the Theater Security Cooperation Strategy. This strategy includes counterterrorism operations, regional engagement, crisis response, and counterdrug missions. We are partnering with DISA and the Department of State's Diplomatic Telecommunications Service Program Office to explore commercial alter-

natives such as fiber optic communication links. This effort shows promise for improving C^4 effectiveness throughout the region.

Expanded Authority

In 2003 and 2004, Congress gave us expanded authority to use counterdrug funds for counterterrorism missions in Colombia because it concluded that there is no useful distinction between a narcotrafficker and his terrorist activity, hence the term narcoterrorist. This link between narcotics trafficking and terrorism in Colombia was also recognized in the National Security Presidential Directive 18 (NSPD–18) concerning support to Colombia. Operations today are more efficient and effective because our expanded authorities allow the same assets to be used to confront the common enemy found at the nexus between drugs and terror. Expanded Authority permits greater intelligence sharing and allows Colombia to use U.S. counterdrug funded equipment for counterterrorism missions. Expanded authority from Congress is essential to this command's ability to deal with narcoterrorists. We are requesting that Congress again pass expanded authority for fiscal years 2005 and 2006.

Reprogramming of $50 Million

We request congressional support of DOD reprogramming of $50 million to support Colombia's campaign plan. Along with expanded authority and the increased troop cap, this reallocation of funds will synchronize U.S. Government efforts in assisting Colombia at this critical juncture in their fight against narcoterrorism.

CONCLUSION

I'm proud of the effort the men and women of USSOUTHCOM have made over the past year. They have been able to protect our interests in the area of responsibility while the Nation's attention was focused elsewhere, and their dedication and focus has paid off, especially in Colombia where the Colombian government is making real progress against narcoterrorists and criminal groups. These successes, however, may not be enough to stem the growth of radical populism and popular dissatisfaction in some countries where reforms have failed to solve underlying social and economic woes. We continue to work to improve both the capabilities and professionalism of our partner nations' militaries, so they can maintain their own security and can assist in combating common transnational threats. Our partner nation military forces are currently under tremendous stress while simultaneously institutionalizing their roles in democratically elected governments. These forces, if properly trained and equipped, can ameliorate aspects of the struggles many countries face. We will continue to encourage professionalization through what we are doing in Colombia, and through what we are doing throughout the AOR with security assistance, theater security cooperation, and exercises. We will continue working diligently with the interagency to build the coherent long-term policy that will improve the security, and resulting economic and social health, of the entire Americas.

I would like to thank the chairman and the members of the committee for this opportunity and for the tremendous support you have provided this command. USSOUTHCOM is a good investment of both your dollars and your trust. I can assure you that the men and women of the USSOUTHCOM are working to their utmost to accomplish their missions for our great country.

Chairman WARNER. Thank you, General Hill. Again, I have been privileged to work with you and your enthusiasm and commitment to this post come through very clearly.

We will now proceed to a 6-minute round. I would like to start off again, Admiral Fargo, on the China-Taiwan situation. You are well aware, of course, of Congress' longstanding interest in this. We have the Taiwan Relations Act, and that potentially aligns us with trying to preserve the integrity of Taiwan as we know it today. The President has spoken very clearly and precisely on this.

I was struck very positively by your observation—I believe I have it in mind—that the situation, you feel, is well in hand and it has not really changed in terms of military potential in some time now. Could you expand on that?

Admiral FARGO. Yes, Mr. Chairman, I certainly can. As you remarked, the President has made it very clear that the United States opposes any attempt, by either side, to unilaterally change

the status quo in the Taiwan Strait, and certainly it is our top goal—peace and stability in the Strait. That is the only way where the region will see the economic prosperity that everybody is looking for.

I think my role is very clearly laid out in the Taiwan Relations Act. I have responsibility to continually assess and report to the Secretary and the President, to help Taiwan develop the capability to defend itself, and then, if so ordered, I have to make sure that our forces are ready and capable to defend Taiwan.

So we are paying very close attention to this. As I mentioned to you yesterday, we do not see any indications, or any movements, that would cause us to believe that we have an imminent military crisis. They just are not there right now. Levels of activity are normal, the kinds of exercises you would normally expect for this time of the year.

We are watching the Chinese military modernization very closely. Their economic success over the last few years, that growth of 7, 8, 9 percent, has certainly fueled a military modernization that is bringing to the People's Liberation Army modern ships and submarines and aircraft.

Chairman WARNER. Thank you. Your answer is very encouraging. Again I refer back to, I thought, a very clear statement by the President indicating our commitment. But I hope the political leadership on both sides down there do not allow the heat of politics, which all of us here on this side of the rostrum understand very clearly, to develop into some sort of a military confrontation. I thought the President spoke to that very clearly.

General LaPorte, I see that you have with you a distinguished flag officer of the United States Marine Corps who, as I understand, has had a number of years of service. Would you introduce him to the committee, please?

General LAPORTE. This is Major General Timothy Donovan. He is my C–5. He has served in Korea 3 years. He is a tremendous asset to me personally, but to the command in general, and he is going to assume command of the Marines at Camp Pendleton.

Chairman WARNER. General, we welcome you and look forward to when your promotion comes before this committee. Three years of service you have put in on the Korean peninsula?

General DONOVAN. Yes, sir.

Chairman WARNER. Quite a period.

The incentive pay, General; it is a subject that you and I have worked on for the years that you have been in your post. I understand, from our conversation yesterday, that the Army has approved assignment incentive pay for soldiers who volunteer to extend their tour of duty in Korea. Those who are willing to remain in Korea receive an extra $300 a month.

Do you have any assessment of how this is going to benefit your command? What is the status of the Air Force's decision regarding assignment incentive pay for airmen?

General LAPORTE. Senator, first of all, I would like to thank you personally and the committee for the tremendous support you have given the servicemembers in Korea relative to what was perceived as a pay disparity. Since I last appeared before you last year, the servicemembers serving in Korea have benefited tremendously,

first of all with the increase in the family separation allowance from $100 to $250 a month. That is very much appreciated.

Second, we were able to work very diligently to justify the cost of living allowance that servicemembers in Korea have started to receive about 8 months ago. Up to this point in time, Korea was the only place in the Pacific that was not receiving a cost of living allowance. That is not the responsibility of Admiral Fargo. That is the responsibility of my command to justify, and we have been able to do that over the past year. So the servicemembers are benefiting from that.

Recently we looked very closely at the assignment incentive pay that you just mentioned. The Army has established a pilot program. We implemented it on March 12. The report I received last night indicated that at the closeout at the end of March, we have had 3,600 soldiers in Korea request this assignment incentive pay to either extend 1 year or 2 years in Korea.

We think this is a tremendous vote of confidence in terms of the mission, the training that they receive in the command, and also an opportunity to make a few extra dollars for a difficult assignment.

The status of the Air Force program: My understanding is that General Jumper approved the program this week and it is moving to the Secretary and then up to the OSD for approval, and I expect that will be approved shortly.

Chairman WARNER. Would you provide for the record, are other servicemembers of, say, the Department of the Navy, either naval or Marine Corps, serving in billets that would enable them to qualify under the Army's program?

General LAPORTE. The Navy has used the assignment incentive program very well over the past 2 years since they have been given the authority. I will provide you the details for the record, sir.

[The information referred to follows:]

Each of the Services is reviewing ways to improve servicemembers' quality of life incentives for personnel assigned to Korea, including overseas tour extension incentives. However, members of other Services are not eligible to participate in the U.S. Army's Assignment Incentive Pay Program.

The U.S. Navy does have an assignment-related pay program, named the Assignment Incentive Pay Program, for eligible enlisted sailors; however, it is not currently applied to those enlisted sailors assigned to Korea because they receive Sea Duty Credit—for their service at a land-based Navy activity in Korea instead.

The U.S. Marine Corps does not have an assignment-related incentive pay program. Headquarters, U.S. Marine Corps is currently evaluating its need for assignment-related incentive pay program for marines.

The U.S. Air Force has established an assignment-related incentive pay program similar to the Army's program; the program has been approved by OSD and the Air Force is in the process of implementing their program.

The U.S. Army's Assignment Incentive Pay Program is leading the way to provide Army units and organizations in Korea with options to increase servicemember stability and, at the same time, provide substantial fiscal savings to the Army by reducing the number of soldier and family member moves. This is a "great news" story, and I hope that the other Services will look at this program closely.

Chairman WARNER. I want to make sure, Admiral Fargo, that it is uniform for all service persons who have an assignment in that area.

Admiral FARGO. Yes, sir.

Chairman WARNER. The Colombia troop cap, this is something that is being very actively considered. General Hill, the United

States military presence in Colombia is currently limited to 800 personnel, 400 military and 400 contractors. The administration is asking for an increase in this troop cap. Can you give us your understanding of the justification for that and the size of increase that you think would be optimum?

General HILL. Thank you, Senator. The troop cap issue and the request for an increase is directly linked to the great success that the Colombian military has had over the last 18 months since President Uribe assumed the presidency in Colombia. He developed a strategic plan for the nation, the military developed a military plan for security for the nation, and they have now developed an operational plan to literally carry the fight to parts of Colombia where they have not had a presence for the last 15 or 20 years. They are going to take the fight to the enemy.

When I was briefed on that plan, and I was shown the complexity of it, and I was shown the size of it, and they asked my support of it, what I saw was the need to increase our planning assistance teams, the need to help them logistically in terms of planning for sustained land combat, and also communications and intelligence.

Chairman WARNER. And transportation?

General HILL. Transportation, to help them plan that transportation, yes, sir.

As we began to look at the numbers, we saw quickly that we could not do that amount of work with them underneath the existing cap. What we have been doing over the last 6 to 8 months is pulling some people out and putting some people in that are doing the more appropriate mission, and we have been managing the cap at exactly about the 400 level.

This is an opportunity for us to see success of Plan Colombia. The United States Congress 3 years ago—we are in our fourth year of Plan Colombia—has put a lot of money into Colombia, about $2 billion. That investment is beginning to pay tremendous dividends, and we need to stay the course and part of that is to, in my view, allow me the flexibility to better assist the Colombian military in their undertakings.

Chairman WARNER. General, while we want to support that government in its effort to preserve freedom in its country and to stabilize the governmental situation, the drugs that emanate from that region cause a tremendous cost to this country in life, disease, and harm, and law enforcement and the like. Can you say that there is a direct correlation between that flow of narcotics from that region and this troop cap? In other words, will the troop cap hopefully further try to limit that flow?

General HILL. In my view the answer to that question is yes, it will. The FARC, the AUC, and the ELN derive their resources to conduct their narcoterrorist activities out of narcotics. The region that the Colombian military is going into is one of the highest growing narcotics areas. We will continue to take down their ability to finance themselves, they being the illegal armed groups.

We have seen over the last year the progress that the Colombian military has had. It has in fact played a significant role in making life much more difficult for especially the FARC to operate in their areas because of lack of resources.

Chairman WARNER. So there is a clear correlation and a clear benefit to our Nation to give this added support?

General HILL. In my view, yes, sir.

Chairman WARNER. In your professional view. I thank you very much.

Senator Levin.

Senator LEVIN. Thank you.

Admiral Fargo, in order to meet the current demand for forces in Southwest Asia the Marines decided to redirect to Iraq some of the battalions usually assigned to Okinawa. In your view, does that increase the risk that you will not be able to meet operational requirements?

Admiral FARGO. Senator, we took a very careful look at this. In the first rotation of forces to Southwest Asia the Pacific was largely untouched. We did move the carrier *Kitty Hawk* into the Gulf, but it was immediately backfilled by the carrier *Carl Vinson.* This rotation we have moved forces and the marines off of Okinawa, those three battalions, are part of that.

General LaPorte and I looked at this very carefully and felt that the risk that we would accept by moving those marines was both reasonable and prudent. In addition, the Navy and the Air Force have had the opportunity to pretty much reset. They have been able to come back and reconstitute, recock, if you will. We have the ability to use those forces to help mitigate that risk.

Senator LEVIN. Admiral, this question is either for you or General LaPorte. It relates to our intelligence regarding North Korea's nuclear capabilities. I am wondering whether or not you believe that they have reprocessed all of the 8,000 fuel rods over the last 6 months?

Admiral FARGO. I will give you my initial answer and I am sure General LaPorte can add to that. Senator, I do not know whether they have or not. I do not think we have enough intelligence to tell that.

Senator LEVIN. General?

General LAPORTE. I would agree with that. Obviously, they have had the opportunity to in terms of time, but we do not have the intelligence that tells us they in fact have done that.

Senator LEVIN. Now, how good is our intelligence generally relative to North Korea?

General LAPORTE. Senator, North Korea is a very tough intelligence target because of the closed nature of its society. They have worked very hard at countering technical intelligence means, such as using fiber optics, developing indigenous frequency-hopping radios. They have a tremendous number of underground facilities. So technical intelligence becomes problematic when you are addressing a target of that nature.

From the HUMINT intelligence standpoint, because it is such a closed and controlled society, that is also challenging for us.

Senator LEVIN. Do you disagree with that or do you want to add anything to that, Admiral?

Admiral FARGO. No. I think it is a very tough target, as General LaPorte said. The society makes it tough to penetrate. We have had numerous conversations with our intelligence community and certainly we have laid out our requirements with them, and they

are working on them and they are working on them hard. But it is a tough target.

Senator LEVIN. General LaPorte, have you noticed anything different or unusual in North Korea's military posture, training, or operations?

General LAPORTE. Sir, since I last appeared before the committee I would say no, we have not. I agree with Admiral Fargo's assessment. The likelihood of war on the peninsula, my assessment is that it is low at this point in time. During the past 12 months there have been no tactical provocations along either the DMZ or in the west sea. Their conventional forces continue to train within seasonal norms that we have seen. They are just recently completing their winter training cycle, and there has been an average level of training that we have seen over the past 5 years.

Senator LEVIN. The South Koreans seem to think that instituting a freeze, going back to the Agreed Framework as a starting point, is more desirable than the current situation where the 5-megawatt reactor continues to produce enough plutonium for about another device each year and where reprocessing has and may continue to occur.

Do you have an opinion on the issue of whether or not it would be desirable to re-institute that freeze or do you think that we should basically insist the they dismantle everything up front? Do you have an opinion on that issue?

General LAPORTE. First of all, I would like to say that the United States many times is accused of unilateral action, but in this case the United States has been the driving force in developing the six party talks and getting other nations who have a vested interest in keeping the peninsula nuclear-free involved in the process.

I think we need to have a very strong diplomatic effort that is backed up with a very strong military readiness posture.

Senator LEVIN. On the specific issue, however, as to whether, since the South Koreans apparently believe that re-instituting a freeze would be a good starting point or an adequate starting point compared to the position of requiring the North Koreans to dismantle everything first, do you have an opinion on that issue?

General LAPORTE. The challenge always with the North Koreans is getting them to abide by any agreements that they make.

Senator LEVIN. Either way.

General LAPORTE. They do not have a history associated with complying.

Senator LEVIN. Admiral, do you have an opinion on the question I asked?

Admiral FARGO. I think that General LaPorte has stated it very properly. Getting the North Koreans to abide by the agreement is the toughest proposition, and getting to the end state we are looking for, which is a nuclear-free Korean peninsula, is where we need to be.

Senator LEVIN. Okay. General Hill, if we raise that cap that you and the chairman talked about, will that increase the risk in any way that U.S. troops will be drawn into combat?

General HILL. No, sir. I am not asking for a change in the rules of engagement. I do not propose to put American troops into a combat situation, nor frankly would the Colombians like that to hap-

pen. The Colombians understand that this is their war, it is their war to win, and they are going about doing that.

Senator LEVIN. So in your judgment specifically, if we increase the cap as you requested, that does not increase that risk?

General HILL. I do not believe so, no, sir.

Senator LEVIN. Thank you.

Thank you, Mr. Chairman.

Chairman WARNER. Senator, your question is very important, but I think the record should reflect that our troops by virtue of their physical presence in that region are subjected to a fairly high degree of risk.

General HILL. Senator Warner, that is correct, and if that is the context of Senator Levin's question——

Senator LEVIN. I was talking about combat, whether they will be drawn into combat.

General HILL. No, sir.

Senator LEVIN. That is the risk I referred to. There are a number of risks that you are referring to, but I had limited the question to that risk.

General HILL. But on the force protection issue, Senator Warner, we have a vigorous force protection policy in Colombia, and we work that every day very hard.

Chairman WARNER. I do not question that.

General HILL. Yes, sir.

Chairman WARNER. But our attention is drawn this morning to a tragic picture of contractors and others. But at any moment elsewhere in the world our troops, while they are not in direct combat——

General HILL. Yes, sir.

Chairman WARNER.—they are in harm's way. Let it be very clear.

General HILL. Clearly.

Senator LEVIN. I agree with that.

Chairman WARNER. Thank you.

Senator Allard.

Senator ALLARD. Thank you, Mr. Chairman.

I want to thank all of you for your testimony today and thank you for your service to America and its citizens.

The first question I want to direct to Admiral Fargo, and this deals with an issue that I have been working on through my office. Two Americans were murdered and several others were injured in Indonesia on August 31, 2001, when they were attacked as they were returning from a picnic. As a result of Indonesia's lack of progress in investigating this attack, last year I, along with Senator Russell Feingold, inserted language in the Fiscal Year 2004 Foreign Appropriations Act restricting funding for the International Military Education and Training to Indonesia until the Secretary of State has certified that Indonesia has made progress in its investigation and is cooperating with the Federal Bureau of Investigation.

Are you satisfied with Indonesia's progress in investigating this attack?

Admiral FARGO. Senator, I think we all recognize that Indonesia is a tremendously important place. This is the largest Muslim

country in the world, over 200 million people, larger than Russia. Right now it is a moderate secular democracy and a relatively immature democracy. They are going to hold their first direct election for president in April. A lot of their institutions are immature and require a large degree of reform, and the TNI is one of those.

The latest reports that I have from the country team on the TNI's cooperation with the FBI are actually very positive. They indicate that the cooperation has improved dramatically and the FBI is getting very close to being able to file their report. So I am encouraged by that.

I have had direct conversations with General Sutarto, the Chief of Defense for Indonesia, about the importance of their full and open participation in this investigation and he has assured me he is going to provide his complete cooperation.

Senator ALLARD. It sounds like you have emphasized the importance of finding those responsible and holding them accountable to Indonesian leaders and I appreciate your helping us out in that and being involved in that very crucial issue.

The next one I want to address also to you, Admiral Fargo, and then also General LaPorte. It regards missile defense. In your prepared testimony you both underscore the problems and concerns with the growing proliferation of weapons of mass destruction and ballistic missiles. It is no secret that the North Koreans are assembling a significant missile inventory of great ranges and are one of the most aggressive proliferators across the globe.

I am glad to hear in your testimony the added emphasis on ballistic missile defense programs. Could you share with us your respective efforts and progress in completing your concepts of operations and operator training activities for initial ballistic missile defense operations later this year? In particular, I would appreciate hearing any resource concerns you may have.

Admiral FARGO. Yes, sir. Senator, let me start if I may. We think missile defense in the Pacific is tremendously important and of course on the national level also. It is one of my top three priorities that I have submitted in my integrated priority list.

Right now we are moving to an initial capability this year. In the Pacific, that will involve the deployment of Aegis ships that provide a search and track capability and that will fit into the larger national architecture. We also think it is particularly important that we move ahead on theater ballistic missile and cruise missile defenses because of our clear responsibilities to protect our forces, our ships, and personnel ashore as well as our allies. So the early fielding of systems like the Theater High Altitude Air Defense system and expanding the Patriot PAC–3 capability, the fielding of the Navy's mid-course sea-based system and sea-based terminal system are particularly important to me to meet my responsibilities.

Senator ALLARD. General?

General LAPORTE. Senator, let me just add to what Admiral Fargo has said. My responsibilities, obviously, are localized to the peninsula. During the past 12 months we have been able to significantly upgrade our Patriot capabilities on the peninsula as a result of integrating the PAC–3 missiles and technology into the forces that are currently on the peninsula.

Senator ALLARD. Thank you.

General Hill, there seems to be a growing trend among terrorist elements to partner with drug traffickers for financing their terrorism. This direct and growing linkage between the narcotraffickers and the global terrorists I think is becoming more of a direct threat to the United States. Is it time to start looking beyond just foreign military assistance programs and toward direct U.S. military action against these illicit partnerships?

General HILL. Senator Allard, you raise a true concern of mine also. In my region, there is a growing Islamic community, some of it longstanding, some of it fairly new. They are involved in all manner of illegal activity, including narcotrafficking. There is a connection between many of those groups and Hamas, Hezbollah, and other organizations where illegal funds generated in our region pay for and help support international terrorism.

We watch those groups very carefully in the region. To this point, we have never found, have not found, an operating terrorist cell. Were those to be found, then I would recommend appropriate action.

Senator ALLARD. Thank you.

Mr. Chairman, I see my time has expired.

Chairman WARNER. Thank you, Senator.

Senator Reed.

Senator REED. Thank you very much, Mr. Chairman.

Iraq has become a drain on our land forces of considerable scope. We have talked about the marines that have been deployed from Okinawa. The 25th Infantry Division has significant deployments into Southwest Asia. In addition, I assume that there are items of equipment that are in high demand, such as airlifters and other pieces of equipment. Beyond the units, there is a huge demand for special forces, special operators.

Can you comment, Admiral Fargo and General LaPorte, on the effect on the Pacific of this commitment in Iraq? Do you have areas where you have less forces? Obviously you have less forces today, but that they are draining your ability to respond?

Admiral FARGO. Certainly, Senator, we have less forces that are specifically based in the Pacific. As you point out, the deployment of the 25th Infantry Division to both Iraq and Afghanistan in this rotation as well as the marines—but of course, we source forces for all of our efforts globally from the entire capacity, really the immense capacity of the United States military. That is precisely what we are doing in these cases.

As I responded earlier to Senator Levin's comment, we do have the ability to achieve comparable effects with other forces other than ground forces, such as the air that is provided by both the Navy and the Air Force, which are largely reset. So I think that, based on what we have available and our evaluation of the risk, we are in an adequate posture right now.

Senator REED. General LaPorte?

General LAPORTE. Senator, your concern is a concern that we need to stay focused on. I will tell you the forces resident to the peninsula have been minimally affected by the Iraqi operation. We continue to be trained and ready. I work very closely with Admiral Fargo in terms of the reinforcing forces, and we have exercised

those reinforcing forces globally, not just in simulation, but in real life movements of those forces.

I am confident that we have the capability as a Nation to reinforce the Korean peninsula if required.

Senator REED. Admiral Fargo, you pointed out that the administration is pursuing a diplomatic approach to the North Korean nuclear situation and that the military stands by as a complement or an exclamation point, if you will, to their diplomatic efforts. The North Koreans seems to be intransigent, noncooperative. Might that be a result of their simply looking around the Pacific and seeing the 25th in Southwest Asia, the Marines from Okinawa are now in Southwest Asia, even though you do have considerable air power? I guess the question would be, do you think our military posture is complementing effectively this diplomatic initiative?

Admiral FARGO. Senator, what I have seen is that the North Koreans are complaining about our presence. As General LaPorte just mentioned, we just finished up our annual exercises, Reception, Staging, Onward Movement and Integration, Full Eagle, and Freedom Banner, on the peninsula. As General LaPorte mentioned, we used forces that were sourced globally for some of those efforts. We have maritime forces, a carrier strike group and an expeditionary strike group, that was fully involved in that effort. We rotate forces into the Pacific on a regular basis from the continental United States that maintain a very level and deterrent posture.

The response we have gotten out of the North Koreans is one of: they notice that, and in some cases they object to it.

Senator REED. General LaPorte?

General LAPORTE. Senator, I would only add that my command is a combined command of both ROK and U.S., and the ROK military is an extremely capable military force. They are well-trained, well-equipped, well-led, and highly-motivated. So the U.S. and the ROK alliance together complement and allow us to, first of all, accomplish our deterrent mission; and second of all, to be ready to fight tonight if required.

Senator REED. Thank you.

General Hill, following up in USSOUTHCOM, there have been stories about the drain of special operators from the Active Forces for private employment and other endeavors, and also obviously the demand in Southwest Asia for these special operators. Your Colombia operations seem to have a particular rationale for additional special operators. Will you find a problem there filling these additional slots that you requested?

General HILL. No, sir. In context to the whole OPTEMPO-PERSTEMPO issue, which I am very sensitive to, not only just for Iraq but for other operations, most of the requirements and many of the requirements that I am going to fill in terms of upping from 400 to, as we see it, in 2005 about 726 people max, are short-term. They will be mostly filled from forces already assigned to me or from headquarters assigned to me. Some SOF, but in many regards not Special Operations Forces.

Senator REED. Thank you.

Admiral Fargo, the Philippines has been a source of concern. Can you comment upon the situation now with the JI and their Abu Sayyaf operatives? What is the situation?

Admiral FARGO. Sir, from the outset the Philippine government has provided superb support on the war on terrorism. They do have significant concerns, as we do, about the Abu Sayyaf Group and the Jemaah Islamiyah. The ASG was really pretty much a hostage for a ransom group that operated in the southern Philippines really in the archipelago.

President Arroyo has recently stated that the JI is their top threat and concern. The Philippines has made some progress against the ASG. There were reports this weekend of the arrest of four to six ASG members and the recovery of some number of explosives. We are still trying to corroborate those reports.

The JI are a regional concern. The region—the countries of this region, Southeast Asia, have cooperated very thoroughly, and I mean the Philippines and Indonesia and Thailand and Singapore, to arrest or detain some 200 JI members. But I think we need to be concerned about the JI. I am concerned about the potential for JI training in the Philippines and certainly our goal and our effort with the armed forces of the Philippines is to provide them the intelligence and the training and advice so that they can develop a long-term and sustainable counter-terrorist capability to deal with these threats.

Senator REED. Thank you.

Thank you, Mr. Chairman.

Chairman WARNER. Thank you very much, Senator.

The Senator from Alabama.

Senator SESSIONS. Thank you, Mr. Chairman.

General Hill, what is the troop strength you have under your command in SOUTHCOM?

General HILL. Sir, I have about 1,200 people in my headquarters, and then my command—I derive forces from JFCOM. I am a force user. So I do not have a lot of people under my personal command.

Senator SESSIONS. I think about Germany. We recently had an opportunity to be there and examine our strength there, and I think we are around 88,000 in Germany. I am not sure that we have any threats to United States interests of significance in Germany that require 88,000 troops.

It is pretty clear to me that USSOUTHCOM has the potential to have some real problems and as part of our realignment and restructuring of our forces I am inclined to believe you should gain strength out of that process. Do you have any comment on that?

General HILL. Senator, I think that the American people have gotten a big bang for their buck out of USSOUTHCOM for many years. I operate right now at .22 percent of the defense budget. We get a lot of goodness out of USSOUTHCOM for that.

Senator SESSIONS. I think we are a bit of a Eurocentric government around here, but we have a big world. We have a lot of responsibilities in the world, and I do not expect that we can expect a lot of European help if there is a problem in South America. That is just the way it is. So I think we need to consider that.

General LaPorte, I know you are restructuring your bases, thinking completely anew about how we ought to be positioned in South Korea. I visited very poor housing for some of the soldiers there, that had not been changed since we first came into Korea, and I know you want to change that, create better circumstances.

I guess my questions would be: How is that going? Are you on pace? Do you have the funds to make that move? Will that allow you to reduce troop strength in South Korea without diminishing our capabilities?

General LAPORTE. Senator, our program in Korea is an enhance, shape, and align program. Over the past 2 years and in the next 3 years, we will make significant enhancements in our military capabilities. That runs the range from command and control all the way through missile technology to naval and air forces.

So that helps tremendously in our ability to shape the force and align it into what we call two strategic hubs. One hub would be in the Osan-Camp Humphreys area that you visited and the other would be down in the southeastern portion of Korea.

We are making progress. We have a long series of negotiations called the Future of The Alliance Study ongoing with the ROK. The ROK has agreed in general principle to the Second Infantry Division's relocation south of Seoul and also the relocation of forces that are in the greater Seoul metropolitan area. We have 7,000 servicemembers in 41 different locations in the metropolitan area. Those forces no longer are required in that area. They can be much more effective in an area south.

So we are moving in that direction. The South Korean government has begun to purchase land. We have developed a master plan and have submitted it to the Department of the Army that will submit it to Congress here very shortly, a master plan for Camp Humphreys that will allow us to continue on. We continue to negotiate the timing of this move with the ROK government. So we are moving very aggressively on this project.

The discussion of troop reductions has not entered into our discussions at this point.

Senator SESSIONS. You do not expect, however, that you would need more troops, and is it possible that you could use less troops as you reconfigure your positions in Korea?

General LAPORTE. I think we have to take a look and assess our capabilities, not necessarily the number of personnel but the capabilities that we are able to put towards our deterrent mission and our warfighting mission.

Senator SESSIONS. Thank you.

General Hill, with regard to Colombia, I know you have made some comments about how the war is going against the narcoterrorists there, and I am very proud of the people of Colombia. I know they for many, many years tried talking. They tried working with the insurgents that threatened the oldest democracy in South America, and it did not work. They have, I think, pulled together effectively and have taken strong military action.

Do you sense that they are continuing to pursue the advantages they gained? Are they losing momentum? Are they willing to see it through so that they can rid themselves of this terrible problem they have been having for so many years?

General HILL. Senator, I think your opening statement was exactly on the mark. I think that what happened in August 2002 when President Uribe was inaugurated, he was elected to that post by a people who had said to themselves, we are fed up with this. He maintains about an 80 percent popularity rate. The Colombian

military is today the second most respected institution in the country, right below the church. They are respecting human rights in their way of dealing with their people. The people are responding.

I believe that there is a momentum in Colombia today to see this through. There is a desire to see this through. They can travel on roads today they could not have traveled on 2 years ago. They like that. They have a sense of security that they did not have 2 years ago. They like that.

So I think that there is a momentum that will continue beyond President Uribe, and they will see this through.

Senator SESSIONS. General Hill, one of the things that has frustrated me is that a group out there continues to criticize the American military for training foreign militaries. I believe we have the highest standards in the world in human rights and civil rights. Are you telling me, it seems to me that you are saying, that the troops that we have helped train—we have not trained them all, but helped train—the values that we have taught are being applied and they are being respected by the population as a result?

General HILL. I do not think there is any doubt about that. If the Colombian military was abusing its citizenry, they would not be the second most respected institution in the country.

Another anecdote on that issue. Several years ago—for the last several years, as members of the FARC, the ELN, or the AUC have deserted or demobilized, they have almost always gone to the church or to a nongovernmental organization of some kind to turn themselves in—75 percent of those demobilized last year—about 3,000 folks—turned themselves in to the military. Now, if they feared that they would be abused by the military, they would not do that.

In 2002 less than 3 percent of the human rights allegations in Colombia were against the military. In 2003 that number is 2 percent, less than 2 percent.

I feel strongly that they are on the right approach. In my view also, the Colombian military looks at it in two ways. It is a very practical solution to them because they know that they have to have the support of the people; and they will not gain that support if they are abusing their people.

Senator SESSIONS. Thank you very much, Mr. Chairman.

Chairman WARNER. Thank you, Senator.

Senator Ben Nelson.

Senator BEN NELSON. Thank you, Mr. Chairman.

Thank you for what you do on behalf of the American people and the world to make us safe and our democracies free. I have a couple of questions.

Admiral LaPorte, it is good to see you again after having seen you twice last year in South Korea. This would really be to either you or Admiral Fargo. As you are making progress with the relocation of the troop locations in Korea, do you have any kind of a time line that you might expect to have the discussions finished with the South Korean government? I know you are working on the cost of the relocation because it seems that South Korea, the government there, would pick up a considerable amount of the costs of the relocation.

Can you give us some idea of what kind of time frame progress might mean?

General LAPORTE. Yes, Senator. We have made significant progress to be where we are today. The Future Of The Alliance (FOTA) initiative was a 2-year program and we are 12 months into that program. We have had seven sessions and we have an eighth session scheduled next month. Our desire is to complete these negotiations so that legislation in the South Korean National Assembly can be presented after the 15 April elections when a new National Assembly takes office on 1 June.

Senator BEN NELSON. Of this year?

General LAPORTE. Of this year, yes, sir. So we would like to complete these negotiations this year, have them approved and ratified by the National Assembly.

Senator BEN NELSON. Can you give us some expectation of what the costs may be that we will bear versus the costs that their government would be expected to bear?

General LAPORTE. Senator, that is all under study right now, so I would hate to mention any numbers because I really do not have a good firm grasp on that.

Senator BEN NELSON. But you are going to try to get a good deal, I take it?

General LAPORTE. Yes, Senator.

Senator BEN NELSON. Okay. Good luck with the discussions and negotiations.

Anything further, Admiral, that you might want to add to that?

Admiral FARGO. The only thing I would add, Senator, is that I think, as General LaPorte said, the South Koreans are going to pick up a very significant portion of these costs. There will be some military construction costs to us, but I think it will be on locations that will facilitate our enduring presence on the peninsula, and I think strategically that is absolutely where we want to be.

Senator BEN NELSON. Then with respect to North Korea, because the lack of intelligence is so obvious in dealing with the North Korean nuclear activity, is it safe to say that over the last year or so that it is very likely that they could have increased the use of those 8,000 rods by making them into significant nuclear potential devices?

General LAPORTE. Senator Levin in his opening comment really gave a great synopsis of that process. The answer is: it is possible.

Senator BEN NELSON. Well, likely?

General LAPORTE. But we do not know, Senator. We just do not know.

Senator BEN NELSON. But because we do not know, we also have to assume that it is likely that they have done that, because it would be consistent with what they have been doing to become a fairly significant one-stop shop for technological and weapon-grade equipment; is that fair?

General LAPORTE. That is a fair assessment, yes, sir.

Senator BEN NELSON. That is why last year I said that we ought to stop debating and talking about whether we are going to talk and propose they—and this is for the diplomacy side, not the military side. But it seemed to me that we—and I developed a simultaneous model, where we would begin mutual talks with mutual

agreement, that we would agree during the talks not to take action against them if they would stop in place and begin to talk about reducing their nuclear activity and their nuclear stock.

I am worried that the time that continues to go on while talking about talking is occurring, that we are losing ground, that the potential is for them to increase their activity, although I applaud the fact that the Chinese government is now engaging in some of those conversations. But I am very, very much concerned about their expanding their ability because of their lack of a significant economy outside of selling technology to increase the shelf stocks, if you will, for those who might otherwise come buy and purchase what they have to sell.

Let me ask as it relates to Colombia, General Hill. In 2001, I think it was, a couple of my colleagues, Senators Nelson, Reed, Levin, and I visited Colombia and USSOUTHCOM when General Peter Pace was the commander. I notice that we feel like we are making some true progress with respect to the narcotrafficking. I have heard from those who are involved in dealing with the problem of methamphetamine use in the United States that maybe part of the progress is because there is less demand, maybe less demand for Colombian product, based on the fact that there is a growing demand for meth here in the United States.

Do you have any thoughts or any knowledge of that?

General HILL. Senator, I would defer on that to experts on meth use in the United States. But if I could, just one point on that. Let us just say that the hypothetical number is about 900 metric tons of cocaine that are generated in the Andean region every year. We do not know exactly how much comes to the United States, but about 550 metric tons begin to make their way to the United States. We interdict anywhere from 150 to 200 metric tons. That means that 300 or so tons get in the United States.

But if the United States consumers stop doing cocaine tomorrow afternoon, there would still be a huge market for cocaine in the world.

Senator BEN NELSON. In the world, yes.

General HILL. In the world. That would still lead to destabilization in the region, and we have to go after that because that affects us.

Senator BEN NELSON. I am not going to suggest for a minute that we abandon Plan Colombia, because I think it is of course a very important part of dealing with narcotrafficking. But it did strike me as sort of at least ironic that the drug of choice might move from one to the other, which could affect some production in Colombia.

General HILL. I do not think there is any doubt about that, that there is a growing market for methamphetamines, there is a growing market for heroin, and that is cutting into the market for cocaine, along with our efforts to counter it.

Senator BEN NELSON. It does seem ironic and perhaps it is poetic justice for the production of that narcotic in that area by those narcotraffickers.

General HILL. Yes, sir.

Senator BEN NELSON. Thank you, Mr. Chairman. I appreciate it.

Chairman WARNER. Thank you, Senator.

Senator Bill Nelson, it is your turn.

Senator BILL NELSON. Is it my turn? Well, bless you. I defer to my senior Senator so that he can go. Oh, no, I insist.

Chairman WARNER. The distinguished Senator from Hawaii.

Senator AKAKA. Thank you very much, Mr. Chairman.

I want to add my welcome to our witnesses and tell you that we are very proud of what you are doing and what our troops are doing outside of our country.

I want to follow up on the discussions with Senator Sessions and Senator Ben Nelson on the status of overseas basing strategy, basing strategy that was being developed by the Joint Chiefs in cooperation with the Under Secretary of Defense for Policy. This question is primarily to Admiral Fargo and General LaPorte. Has DOD decided which installations in the Pacific region we intend to make our enduring bases? Can you tell this committee what is the status of our discussions with the host nations, such as Korea and Japan? Have we reached agreement with them on long-term basing of our forces in their country?

As a part of this global basing strategy, will DOD be seeking to base our forces or build any new facilities in the Pacific region in countries where U.S. forces are not currently stationed? If so, what would be the financial impact? The comment was made here that South Korea is picking up a lot of the costs of relocation there.

So will you please give me your views on these? Admiral Fargo?

Admiral FARGO. Thank you, Senator. To answer your question directly, these processes are still ongoing with our good friends and allies in the Pacific. We have very solid processes. General LaPorte alluded to one of them, the FOTA initiative with the Koreans. We have a similar process with the Japanese called the Defense Policy Review initiative. Of course, we have arrangements with Australia, another treaty ally, through the Australian-U.S. ministerial where we go through and collaborate with them to work through these particular issues.

I think what is clear is certainly the need to transform and to improve our posture and footprint. I think this is well-recognized. I think we have also settled on some pretty clear principles to move forward with. First and foremost, these alliances that we have in the Pacific are tremendously important to us and have been the basis for our security for the past 50 years, the alliances with Japan and Korea and Thailand and the Philippines and Australia. They are very important and we are not going to do anything to diminish those alliances because of their importance.

We are going to move forward with our allies and our partners in close consultation. That is a key principle. We are also going to take into account the changes in capability. Our capability has changed markedly in recent years and you recognize that in terms of speed and precision. But our allies' capability has also changed remarkably and they are much more capable and much more professional than they were say 15 or 20 years ago.

We have to produce a posture that can deal with the uncertainty in the world and the changed global threat spectrum. We have to make sure that we focus globally, that we are not just looking at this regionally, that we are looking at how the Pacific fits together

with the CENTCOM, and also how it fits together with the European Command. So we are going to take a global look.

Then the last point that I would mention is we have to make sure that our forces are immediately employable, because we recognize that warning is reduced and we have time lines in this world where speed is particularly important. So forces for immediate employability are also key to our strategy.

So we are going to move ahead on that basis. We recognize that the Asian-Pacific region is tremendously important to the future. If you just look at Northeast Asia alone, it is some 44 percent of the gross domestic product of the world. Certainly the future of Asia is very bright and our security concerns in Asia are preeminent.

Senator AKAKA. General LaPorte?

General LAPORTE. Senator, I would just reinforce what Admiral Fargo has said. Korea is very important to the stability of Northeast Asia. Our enduring presence is going to be there for many, many years, to include after possible reconciliation with North Korea. We have the mechanisms with the land partnership plan and the FOTA Initiative to address the issue of consolidation and reorganization of our forces in Korea. We are aggressively pursuing that plan.

Senator AKAKA. To all of you, and I would like to get your views on it: The Navy's new Fleet Response Plan (FRP). As I understand it, one of the goals of FRP is to reduce continuous presence in various areas of responsibility and instead provide naval forces on a surge as-needed basis. This should allow the Navy to achieve some savings, but it seems to me that there are also some potential down sides. For example, it may decrease opportunities for low-level engagement activities, and it might mean that units have fewer opportunities to conduct training in a variety of different locations so that training is less scripted.

In a sense, each of you is a customer of the Navy. Could you each please give me your views on what you think the impact of the FRP will be in your theater and whether you think some of the possible negative consequences I can imagine might in fact come to pass? Do you have any concerns about the ability of the Navy to respond quickly enough to possible crisis if it reduces its forward presence? Finally, do you have any concerns about extending FRP to the Marine Corps?

Admiral Fargo?

Admiral FARGO. Senator, I see the FRP as a positive initiative, a very positive initiative. I do not see it diminishing our forward presence. In fact, I think it is going to complement those forward forces that we have right now in the western Pacific.

The way the FRP is going to work as I understand it is it is going to make better utilization of the capacity that we have right now. We are going to change the maintenance and training of those carrier strike groups and expeditionary strike groups such that we will have six carriers available within 30 days, so that we can respond with greater capacity more quickly.

It will still require the movement of these carriers into the region at appropriate times and on a pretty regular basis. I think the CNO calls it presence with a purpose, which I think is good. As we will see this summer, we will move a carrier from the West Coast

into Northeast Asia, into the central Pacific, and we will meet a lot of those requirements that you talked about: making sure that our theater security cooperation plan is well-resourced, making sure that we are sending the right signals to our allies and friends, making sure that we are doing the kind of training, not only with our joint forces, but also with our allies, that will ensure that our collective readiness is improved.

Senator AKAKA. General Hill?

General HILL. Senator Akaka, USSOUTHCOM has had a longstanding exercise called Unitas. That is a naval exercise on both the Atlantic and the Pacific sides of the region. That program continues as we speak. We are also engaging our regional partners in an exercise called Enduring Friendship. More than an exercise, it is in fact an operational training event inside the Caribbean, and we will expand that later.

Finally, what I would say to you is that we are engaging the navies of our region with my naval component in a true regional manner. I will point to one exercise we did last year. The Chileans are the fourth largest user of the Panama Canal, and I asked them would they like to help in the defense of the Panama Canal? They responded: Absolutely. So we ran an exercise last year on the Pacific approaches to the canal with the Chileans, the United States Navy, and the Panamanian naval forces. That exercise was a counterterrorism exercise.

That will expand this year to nine nations operating with the Panamanians as we collectively work to ensure the defense of the canal.

Senator AKAKA. General LaPorte?

General LAPORTE. Senator, in the FRP, as other plans, I look at it through an availability of warfighting capabilities lens, because I need to be prepared to fight immediately. I am confident that the Navy can provide these capabilities in the times that would be required, both in a deterrent role and also in a warfighting role. So I support Admiral Fargo's position on this.

Senator AKAKA. Thank you very much, and I thank my friend from Florida for the time.

Thank you, Mr. Chairman.

Chairman WARNER. Senator Bill Nelson.

Senator BILL NELSON. Mr. Chairman, one of the delights of your committee is having the opportunity to visit with the commanders, in this case combatant commanders, as I have visited with all three in their headquarters. Indeed, we can be very proud of them. So it is a pleasure.

Chairman WARNER. Senator, I would like to thank you. You have been able to find the time to travel to a number of places in the world, by and large alone, to carry out your oversight responsibilities. I thank you.

Senator BILL NELSON. I am trying to next week as well if I can get Powell Moore off his duff and find me a military aircraft so I can get into the Dominican Republic and also into Haiti. [Laughter]

Chairman WARNER. I do not want to get into this dogfight. [Laughter.]

Senator BILL NELSON. I would like in a more secure environment, Admiral, to discuss with you the question of North Korea

having shot an intercontinental ballistic missile over Japan and what you think their intentions are; and, General Hill, to follow up with you after—we did an extensive trip, Mr. Chairman, throughout Latin America back in December—following up regarding the tri-border region and what you see there. I want to make the committee aware that we have to be concerned about terrorism coming out of Central Asia and the Middle East, through Africa, and now into Latin America. General Hill and I were concentrating on that in several areas, particularly the tri-border region.

But also, in a closed session, if you would also bring me up to date with the three Floridians that are held as hostage somewhere in the jungles of Colombia.

But let me start on the record here in the public session. There is a rumor going around that Secretary Rumsfeld wants to combine USNORTHCOM with USSOUTHCOM. Of course, I asked this of the combatant commander of USNORTHCOM. What you can say and what you cannot say, I will respect that, but I will just give you my two cents as long as we are here and then whatever you can say I would like for you to say for the record.

This USSOUTHCOM is not only in need of a military commander, but the USSOUTHCOM, as evidenced in General Hill and General Pace before him, has to be a diplomat and has to engage almost on a daily basis with the heads of government of all these countries to protect the interests of the United States. I just do not see how we combine a USNORTHCOM, if there is anything to that rumor—and I hope there is not—with the USSOUTHCOM.

But General Hill, say whatever you can for the record.

General HILL. What I ought to ask is, what did General Eberhart say, but I will not do that.

My view on this, Senator Nelson, is that it is under study and advisement. We are conducting the study and will give an honest appraisal to it. But all of the points that you just said about USSOUTHCOM are strong points.

Senator BILL NELSON. It might be of interest also for me to just note for the record, Mr. Chairman, that, interestingly, as General Hill and General Pace before him conduct their activities, and where it is necessary for them to see so many of the elected heads of government and other cabinet members, interestingly the place of easiest destination for all of those world leaders is not somewhere in Latin America. Because of the flights, it is Miami, Florida, and indeed, that is where we have our headquarters of USSOUTHCOM.

Chairman WARNER. Senator, I think that this matter has not come before the committee, but it appears to me that, just out of the profound respect that we have for the Central and South American countries and given the volume of leaders that you have to deal with and the fact that in my judgment USNORTHCOM has a very full platter right now, that I think it would be well-advised to leave things status quo for the present time.

Senator BILL NELSON. Mr. Chairman, those words are golden, and those will be duly noted.

General Hill, in Haiti do you have enough operations and maintenance resources for the ongoing operations?

General HILL. I do, Senator Nelson.

Senator BILL NELSON. How long do you expect this operation to last?

General HILL. The operation that we are conducting right now by U.N. mandate is to accomplish three tasks: to stabilize the country for a follow-on force; to work with repatriation and migration; and to assist in humanitarian assistance to the country. In my view, we are accomplishing all of that with the force that we were given. The U.N. mandate says right now that there will be another vote within 30 days to establish the longer force. We are to be there for 3 months until the follow-on force comes.

I think that that is a doable issue. I met 2 weeks ago with the U.N. assessment team in Port au Prince and we all believe that that is a doable operation.

Senator BILL NELSON. So in 3 months what you envision, do I understand, is a replacement of these existing U.S., French, Canadian, and Chilean troops by some other international team?

General HILL. Yes, sir. The U.N. will pass—is supposed to pass another resolution, and I suspect that they will, for a follow-on force. Then the U.N. will organize that follow-on force around participating nations, and that force can be anywhere from 3,500 to 6,000. I think that that will be about the size of the force that they will generate.

Senator BILL NELSON. Does this committee need to take note of any of the terrorist and narcotrafficking that is going on in Colombia that might be seeping into Venezuela?

General HILL. The borders of all the countries that border Colombia are porous. The most porous of those borders is the Venezuelan border, and the Colombians have let it be known in strong terms, at the presidential level and at the military level, that the Venezuelans need to do more on their side of the border, and they need to.

Senator BILL NELSON. Are we seeing any of the kidnapping that has been in Colombia start moving over into Venezuela?

General HILL. Sir, there has always been not only FARC but ELN and AUC presence in the Venezuelan side of the border, and they go back and forth with essentially impunity into Colombia. Kidnapping does in fact take place on both sides of the border.

Senator BILL NELSON. We have spent, as you stated in your testimony, billions of dollars down in Colombia. State again for the record whether or not you think that with our help that the Colombian government is winning the war against FARC?

General HILL. I believe that the Colombian government has a strategic momentum against all the illegal armed groups, in particular the FARC. I believe that they have done it on the battlefield and they have also done it with the will of the people. They have—the phrase I use sometimes is they have turned the corner. How far around that corner they have gone, I am not sure. Can they be kicked back? Yes, if they do not sustain that momentum and, frankly, if we do not sustain our momentum.

Senator BILL NELSON. In these upcoming elections in the Dominican Republic that we are worried about some questions of honesty in the elections, do you have a force structure that you can call on if chaos were to erupt there or, for example, in Venezuela; where

the interests of Americans were suddenly threatened, that you would be able to get your hands on the assets to respond to that?

General HILL. We very quickly put in a Marine Forward Area Support Team into the embassy in Haiti, in a matter of hours, to bolster the Marine Force defending the embassy in Haiti. We were able to put in Marines and then follow-on forces from the French and the Chileans within a matter of 24 hours into Haiti. There is no doubt in my mind that we can respond in my area if the United States administration wants to do that.

Senator BILL NELSON. One thing that I was surprised, Mr. Chairman, to learn is that we have quite a number of U.S. troops in Honduras. Why do you not share with the committee the force that is there and what their mission is?

General HILL. Sir, we have about 600 Americans at Soto Cano, Honduras. They have been there for many years and their mission is to maintain an operating base with the Honduran Air Force to facilitate humanitarian assistance down in the region and to provide assistance to law enforcement in the conduct of illegal—or in the conduct of drug busts.

I am working on it with them and the militaries of the region, to develop at very little cost a regional training center so that the Central American militaries can come together in even more meaningful ways as a regional force, vice simply acting in their own stead.

Senator BILL NELSON. Thank you, Mr. Chairman. I would like in a more secure environment also—every Floridian, indeed member of this government, ought to be concerned about events occurring in the Caribbean that would cause a mass migration as we have seen in the past from Cuba, also from Haiti. The plans that you have on the shelf coordinated with the Department of Homeland Security, I would like for us to discuss that.

Thank you, Mr. Chairman.

General HILL. Senator, I think you and I are scheduled to meet right after this, and I will be happy to go over both those points with you.

Chairman WARNER. I think that would be very helpful because at the moment I do not believe we will—we are going to start voting at 12:00 and there would be some difficulty trying to have an additional follow-on.

Senator Pryor.

Senator PRYOR. Mr. Chairman, thank you.

General Hill, I have a Bloomberg News report from about a week ago where it talks about us increasing our troops and contractor presence in Colombia. I had a couple questions about that, and these are follow-ups to the chairman's questions earlier when he was asking about those. With regard to the troops and the contractors there, the first question I have is what do the contractors do and how does that differentiate from what the troops do?

General HILL. Sir, the contractor support in Colombia, working mostly for the embassy and the Department of State, fly the drug eradication planes. They do training with the Colombian military operating Plan Colombia helicopters and a variety of other tasks. But those are—the big numbers would be those numbers.

Senator PRYOR. Right. The reason I ask that is because we focus a lot of times just on the troops, but there is this other group of people that are impacted by this and obviously there are U.S. dollars, tax dollars, that follow that. So I just wanted to ask that question.

Also, with regard to Plan Colombia, I believe Senator Sessions mentioned that a few minutes ago. Under the lessons learned category, are you satisfied with Plan Colombia or are there things that we can improve there, can do better in the future?

General HILL. I think Plan Colombia has been a visionary endeavor between the United States, the United States Congress which funded it, and the Colombian military and people. Several things happened. There was the commitment of the Congress of the United States to the Colombians and the Colombians have responded. The helicopter support has allowed the Colombian military to make the tactical and operational moves that they could not have made without that helicopter support, and the operational advice and mentorship that we have provided them has allowed them to exponentially improve themselves as a military.

I think Plan Colombia has been a significant investment and it is truly beginning to pay off.

Senator PRYOR. Are there ways to improve upon it?

General HILL. To continue to sustain it, and we need to begin to think our way through in the next couple of years how do you nationalize the helicopters that we have been paying for under Plan Colombia to provide them to the Colombians in a way that they can sustain that effort. We are beginning to develop those plans and will be coming to the Congress later with that.

Senator PRYOR. Great. I look forward to working with you on that.

Admiral Fargo, I have a question for you about missile defense. In your testimony, on page 15, you talked about "Our forward-deployed naval forces, command and control elements, and interceptor assets will be ready to support missile defense initial defense operations on or before 1 October." We still need to increase the numbers of Patriot, Gem, and PAC–3 missiles offshore to develop a sea-based terminal missile defense capability.

I would like to ask you about the Patriot, Gem, and PAC–3. Does this mean that you think we need to increase those over and above what we are requesting right now, over and above the President's request?

Admiral FARGO. I think there are a couple of aspects of this, Senator. One is that the Patriot PAC–3 is an effective system. We know it provides solid terminal defense. We need to look at our requirements throughout the region. We also need to look at the requirements of our friends and allies with respect to Patriot PAC–3, very specifically Taiwan.

That does not diminish the requirement for the sea-based systems that you just mentioned. They are self-lifting, they have the ability to move into locations on short notice to provide defense. I think it is all part of the larger architecture that has to be in place to defend our homeland as well as our forces that are forward.

Senator PRYOR. One reason I ask that question is I notice that, in terms of authorization, we have authorized 144 PAC–3s and we

are capable of building that many, we have the capacity to do that. But I believe that the current budget request is for only 108. So actually I plan on trying to get that increased up to the level that we had originally authorized, because from everything I hear they work wonderfully, they are very proven, they are very good at what they do.

So I just wanted to hear your comments on that. I thought it was interesting, your testimony was very consistent with what my impression is.

Mr. Chairman, that is all I have.

Chairman WARNER. Thank you, Senator Pryor.

We will now proceed with another round of questions, bearing in mind that in probably 25 minutes or so the Senate will be voting and we will have to depart, of course.

General LaPorte, I have always taken quite an interest in the situation in Korea, and I think you lay out on page 16 of your very well-prepared statement—indeed, I want to commend all the witnesses for the preparation and thoroughness of their statements. I would like to read it: "Since its inception a quarter of a century ago, the Combined Forces Command has been the cornerstone of deterrence on the Korean Asia-Pacific peninsula—vigilant, well-trained, ready to fight tonight and win. Combined deterrence is achieved by an integrated team of approximately 680,000 active and 3 million plus Reserve personnel from the ROK and more than 37,500 U.S. military personnel forward deployed in Korea. The United States forces assigned to Korea add a state-of-the-art operational capability to the Korean peninsula."

Now, that is a very significant force structure, certainly numerically, that the South Koreans have. I would like to have you tell us a little bit about how the command and control of this entire force structure, including ours, is exercised and your own professional judgment as to the professionalism and the equipment of the South Korean military structure, as we are always concerned that something could happen, given the extraordinary uncertainties surrounding the government of North Korea and indeed the unpredictability.

But basically, as I look at this, 680,000 active on the South Korean forces and 37,500 on ours, we are a relatively small part with regard to numerical statistics. I presume—how quickly can the 3 million reservists be called up and activated? It would be helpful if you expanded a little bit on that in response to my question, and then I would hope you would provide the committee, I ask you to provide the committee, an expanded dissertation on this force structure and the command and control.

[The information referred to follows:]

Senator Warner, your question regarding the command structure and capabilities of the ROK military forces and the command structure of the ROK-United States Combined Forces Command is relevant and timely as the United States transforms its forces and basing strategy.

The ROK armed forces are trained and ready to deter and defend against external threats to the ROK. Under the current Armistice conditions, the Active-Duty Force structure of the ROK military is commanded by the ROK Joint Chiefs of Staff and consists of 550,000 Army, 67,000 Navy and Marine Corps, and 63,000 Air Force. Three million forty thousand Reserve personnel, all of whom have completed approximately 2 years of compulsory active service, can augment these formidable, professional, and well-equipped ROK forces.

ROK Army forces are organized into three field armies that defend specified geographic areas of the peninsula, and are augmented by functional commands performing support and special operations missions. ROK Army units are equipped with modern tanks, artillery, and infantry fighting vehicles tailored for defense on the Korean Peninsula. The ROK Army continues to pursue advanced precision strike, operational maneuver, intelligence, reconnaissance, and surveillance systems to enhance the effectiveness of its warfighting formations.

The ROK Air Force has over 700 fighter, bomber, airlift, and reconnaissance aircraft—including a large number of older F4 and F5 fighter aircraft, along with modern F–16s and a program to procure 40 F–15K and long-range refueling aircraft. The ROK Air Force is procuring advanced precision munitions to enhance its close air support and interdiction capabilities. Additionally, the ROK Air Force commands peninsula air defense artillery composed of three brigades currently equipped with HAWK and NIKE missiles. The air defense command is seeking to enhance peninsula defense capabilities by fielding an advanced surface-to-air missile system.

The ROK Navy is organized into three fleets and two flotillas performing coastal defense and amphibious operations. The ROK Navy has over 200 ships, comprised of a variety of submarines, destroyers, frigates, coastal patrol, mine warfare, amphibious operation and support ships, and rotary and fixed-wing aircraft to accomplish its missions. The ROK Navy is in the process of bringing advanced destroyers, submarines, amphibious landing craft, anti-submarine systems, and advanced missiles into service. These enhanced capabilities will transform the ROK Navy from a coastal fleet to a strategically mobile, regionally capable force.

ROK Marine Corps consists of 25,000 well-trained and highly-motivated personnel organized into two divisions and a separate brigade. The ROK Marines are equipped with amphibious landing vehicles, tanks, and artillery to support operational maneuver. The ROK Marine Corps, like the other services, is in the process of enhancing its capabilities with upgraded equipment.

ROK Army Special Warfare Command is a highly trained, experienced special operations force. This command has participated in peacekeeping operations in East Timor. The ROK Army Special Warfare Command will provide many of the 3,000 additional troops pledged for deployment to Iraq later this year.

Overall, the ROK military is well-organized and equipped to defend the peninsula against threats from North Korea. Ongoing ROK transformation efforts will only improve these capabilities in the future.

United States forces based in Korea provide state-of-the-art command and control, intelligence, precision strike, air superiority, and dominant maneuver to augment ROK forces during Armistice and crisis. The 37,500 U.S. forces based in Korea, along with other forces that can rapidly reinforce the peninsula, ensure that the combined forces of ROK and United States based in Korea have the capabilities to deter and if necessary, rapidly overwhelm and defeat aggression. Transformation of U.S. forces based in Korea will significantly enhance our ability to accomplish these missions. Moreover, the presence of U.S. capabilities on the peninsula reassures allies and friends of our commitment to peace and stability in the region.

During Armistice conditions, our normal day-to-day condition in Korea, command is exercised through national lines; that is United States forces are commanded through the United States Joint Chiefs of Staff, and ROK forces are commanded through the ROK Joint Chiefs of Staff. To formally establish command relations in the event of crisis on the peninsula, ROK–U.S. Combined Forces Command was established in 1978. Because the Combined Forces Command is a binational command, the U.S. Secretary of Defense and the ROK Minister of Defense provide strategic guidance for training, readiness, and operations to the ROK–U.S. Military Committee. The ROK–U.S. Military Committee, which includes the Chairman of the U.S. Joint Chiefs of Staff, the Chairman of the ROK Joint Chiefs of Staff, and the Commander of Combined Forces Command, implements these guidelines to ensure military readiness and deterrence. The Military Committee provides the Commander of the Combined Forces Command with overall command of ROK–U.S. forces during crisis and substantial armistice authorities to prepare ROK and U.S. forces to accomplish wartime missions; for example, assignment of roles and missions, operational planning, training exercises, and making recommendations for capabilities enhancements and modernization.

The Combined Forces Command is a truly integrated headquarters, commanded by a U.S. four-star general with a ROK four-star general as deputy commander. The joint and combined staff of ROK and U.S. officers, from all the military services and branches, works and trains together every day of the year. This combined headquarters, and the close integration of the joint and combined units on the Korean peninsula, ensures that the forces remain trained and ready to accomplish the core

purposes of deterring threats, defeating aggression, and strengthening regional security and stability.

General LAPORTE. It is certainly my pleasure to expand on that question. I think it is a very good news story. First of all, I get in my duties to travel around the peninsula and visit all the Army, Air Force, Navy, and Marine Forces, both ROK and U.S. I will tell you, Senator, you would be very proud.

It is truly a combined force. At most of these headquarters you would see U.S. personnel sitting side-by-side with a ROK soldier, sailor, airman, or marine. We clearly do everything in a combined manner. My headquarters is combined.

We have made tremendous advancements in our command and control, communications, and intelligence apparatus, and infrastructure, over the past 2 years. I am very confident in our ability, the ability to battle command that force. The ROK military, as I mentioned previously, is well-trained, well-equipped, all their forces, and highly-motivated, and they have extremely competent military leaders who have trained, many of them, in U.S. service schools.

I am very confident of this force. The Reserve Force can be mobilized within 4 days, and this is a process that takes place and it is practiced yearly as part of two major exercises.

I have just returned to the United States from Korea, where we just conducted a 10-day exercise called Reception, Staging, Onward Movement, Integration. We rehearsed and trained on our ability to reinforce the peninsula. Again, this is a very, very professional effort on the behalf of both the ROK and the U.S. forces, tremendous combined operations: Air Force flights being led by ROK pilots with U.S. forces integrated; an amphibious operation conducted primarily by the ROK marines, supported by the U.S. Navy; Army and naval, the same type of operation.

Chairman WARNER. I guess I accept those personal observations, but 37,500 is a very significant number in relation to our total Armed Forces and, given that that is about 5 percent compared to the Active Force in just the army of the ROK, is it the equipment that we possess? That equipment is presumably, of course, state-of-the-art. But is comparable equipment found in the South Korean forces?

General LAPORTE. The South Korean forces have the predominance of the forces, as you mention. The United States complements that with tremendous strategic and operational capabilities that we can bring to bear both in a deterrent role and in a warfighting role.

Chairman WARNER. Is it your judgment that that 37,500 is the number of forces you need to, I presume the word is, augment the forces of South Korea, although I would presume you have a sort of——

General LAPORTE. It is really a complementary role that we have. Senator, my professional assessment is that we have the force structure, both ROK and U.S., to be able to accomplish our mission.

Chairman WARNER. We will take a closer look after you provide your paper to us as to that force level. Once again, is the military

equipment of the South Korean forces comparable to ours in quality and state-of-the-art?

General LAPORTE. In most cases, yes, Senator. For instance, they are buying an Aegis cruiser. They have purchased the F–15 aircraft. They fly F–16 aircraft and have very capable naval forces.

Chairman WARNER. All right, let us look at it further.

Lastly, to each witness: In my opening statement I reported that you address the Secretary of Defense's global force posture review and how that would impact on your AOR. First, Admiral Fargo?

Admiral FARGO. I think that, as I mentioned earlier, the global force posture review, its time has certainly come. It has been really 50 years since after World War II, we have reset the force properly. We have been working on this for almost a year in the Pacific, providing our recommendations to the Secretary of Defense, and we will have another session this week.

I am very confident that we are going to meet all of those principles I outlined a few minutes ago in terms of strengthening our alliances and immediate employability and certainly dealing with the new and uncertain threat environment for the future. I think it is probably premature to talk about the specifics with respect to that global posture. It is a large and complex effort and one that working through with our allies, I think, is particularly important to its success.

Chairman WARNER. General Hill?

General HILL. Senator Warner, I would echo all of Admiral Fargo's comments and then just add that, as you are aware, my forward presence is very modest. We have some 600 folks at Soto Cano and we operate four cooperative security locations, which used to be known as forward operating locations, at Manta, Ecuador; Comalapa, El Salvador; Aruba, and Curacao. Those are joint ventures with those respective countries where we share an airfield and do drug interdiction and monitor flights out of.

Chairman WARNER. Thank you.

General LaPorte?

General LAPORTE. Sir, I agree with Admiral Fargo and General Hill. I think this is a good program to continue.

Chairman WARNER. Thank you.

Senator Levin.

Senator LEVIN. Thank you, Mr. Chairman.

First, General Hill, according to a U.S. Army War College paper that was published in March 2003, some of the gains under the administration of President Uribe could be credited to former President Pastrana's efforts, including increasing the size of the army, retaining effective commanders, and certain operational successes.

I visited Colombia when Pastrana was the President and I did have the feeling that he was really trying to move Colombia in the right direction. Would you agree with that assessment, by the way? If so, would you have hopes and expectations that Uribe's successor, I guess a couple years now down the road, would continue in this pattern?

General HILL. Yes, sir, I think that that is a correct assessment. I think the Pastrana government was in fact modernizing and growing the Colombian military. If there is anything that—the Pastrana government gave us two things, I think. One, it gave us

Plan Colombia and their ability to work with this Congress to develop Plan Colombia. That was visionary.

The second thing it did was the whole idea of the dispeje (safe haven), where they gave the FARC a portion of Colombia about the size of Switzerland and said, let us all kind of negotiate through this, clearly proved that there is no negotiating with the FARC and it set—it clearly showed them to be the evil people that they are, and that helped the Colombian people understand the real threat against them.

I also believe that when President Uribe leaves office in 2 years that his successor will continue those, because I believe that the Colombian people want that to continue.

Senator LEVIN. Thank you.

General Hill, relative to Haiti, do you expect that U.S. forces will remain in Haiti after a U.N. peacekeeping force deploys, if it deploys?

General HILL. Sir, I do not know what the U.S. role will be in the follow-on U.N. force. That will be a matter of negotiation over the coming months.

Senator LEVIN. There is no decision made yet on that?

General HILL. No, sir, there has not been.

Senator LEVIN. Admiral Fargo, I think you may have made a brief reference to this, but let me ask you to expand a bit. Have the Chinese changed their military posture or operations in any way in response to the political situation in Taiwan and their distrust of the Taiwanese president?

Admiral FARGO. No, sir, not that we have detected. They are doing the kinds of exercises we would expect them to be doing this time of the year.

Senator LEVIN. Let me go back to you, General Hill. I want to ask you about the Panama Canal, as to whether or not the location of Hutchison Whampoa at either end of the Panama Canal has had a negative security impact?

General HILL. It has not, sir.

Senator LEVIN. Switching back to you, Admiral Fargo. Has the situation in Taiwan affected our military relations with China?

Admiral FARGO. I would say, Senator, that the modest military-to-military relationship that we have with China is actually on a positive vector. I have visited once in my capacity as Commander of the U.S.PACOM and once as the U.S.PACFLT Commander. I hosted my counterpart, the Nanjing military region commander, this year in Hawaii. What I have noticed over these successive visits is the dialogue has improved in terms of candid conversations and developing some understanding of what our shared interests are, and also what our differences are.

We had two port calls in China over the last 12 months. I think this modest military-to-military relationship is healthy. It does provide us an opportunity to show the People's Republic of China the quality of our capability and the quality of our relationships.

Senator LEVIN. Finally, Admiral Fargo, you have made reference to Indonesia and the investigation in the aftermath of the Bali bombing and also other acts of terrorism in Indonesia. I want to just quote to you from that March 2 Associated Press story. It says that, "A senior U.S. official familiar with the investigation of the

August 2002 killing of the two U.S. teachers and an Indonesian colleague asserts that there was Indonesian military involvement and that 'it is only a question of how high up this went within the chain of command.'"

Now, that is a pretty serious statement. In your judgment, is it accurate, and, if so, have you raised this issue with the Indonesian military?

Admiral FARGO. I have not seen an FBI report that says that, Senator. This is something we are tracking very closely and obviously I am looking at every piece of information and investigation that comes out. But I have not seen that.

Certainly, as I mentioned earlier, I have had a number of conversations with General Sutarto about the importance of their full and complete cooperation with this investigation, and the most recent reports that I have received from our country team there is that cooperation has been good.

Senator LEVIN. But as of this point, at least, it has not been brought to your attention any evidence that the Indonesian military was involved in those killings?

Admiral FARGO. I have not seen any evidence to that respect. I read the same stories, but I have not seen a report that so indicates.

Senator LEVIN. I assume that if and when such evidence is presented to you that you would take appropriate action and raise that issue very strongly with the Indonesian military?

Admiral FARGO. I certainly raised both points with General Sutarto and he has told me that if these investigations come out and indicate that the Indonesian military was involved that he will take disciplinary action.

Senator LEVIN. Thank you.

Thank you, Mr. Chairman.

Chairman WARNER. Senator Bill Nelson.

Senator BILL NELSON. No questions. I am going to do it privately, Mr. Chairman.

Chairman WARNER. Senator Pryor.

Senator PRYOR. I do not have any questions, Mr. Chairman. Thank you.

Chairman WARNER. I would like to do one or two wrap-up questions.

General Hill, we recognize that the U.S.NORTHCOM has Cuba in its AOR. I will have to go back and check the record of our hearings at the time the U.S.NORTHCOM commander was here. At one time it was in your command, was it not?

General HILL. It was in my AOR, correct, in my space.

Chairman WARNER. But I think the situation in Cuba has a direct impact on the situations in your AOR and I think it would be helpful for our record today to have your professional summary of what you view as taking place in Cuba today and how it impacts on the responsibilities that you have.

General HILL. I will provide that for the record, Senator, if that is what you would like. But also, to just——

Chairman WARNER. I think I would like to have a clear statement for the record, but perhaps you can comment a little bit.

[The information referred to follows:]

[Deleted.]

General HILL. Yes, sir. The fact that it is not in my area, I still have operational issues with Cuba.

Chairman WARNER. That is correct.

General HILL. I still run Guantanamo, for example, and if there were operational needs in Cuba, I would do that. We have had very solid relations with the Cubans around Guantanamo, especially as we have brought in the detainees, and we watch what happens there very carefully.

Short of that, I need to provide you for the record, sir.

Chairman WARNER. All right.

Admiral Fargo, India and Pakistan. I think it would be important that our record reflect today some expansion of your views on that, the tensions along the line of control, and its current status. Would you provide that now orally and then provide such additional comments as you wish to have for the record?

Admiral FARGO. Mr. Chairman, we are very encouraged by the current dialogue that is ongoing between India and Pakistan. Certainly these are two very important countries. India of course, being the largest democracy, will be a natural partner with the United States. The dialogue that is occurring in our assessment is reducing tensions along those borders and we would hope would proceed toward some resolution of the issues in Kashmir. But right now I would tell you it is encouraging.

[The information referred to follows:]

Recent dialogue between India and Pakistan and the resulting relaxation in tensions are very positive signs. As a result of the President's vision to transform relations with India and forge strong ties with Pakistan, the United States now enjoys excellent and productive relations with New Delhi and Islamabad at the same time. Both countries are important strategic partners—we work each relationship on its own merits and our mutual security needs.

We strongly support the ongoing dialogue between India and Pakistan. We welcome the steps they have taken to rapprochement, such as the cease-fire along the Line of Control and the reopening of some transportation links.

Both governments have put forward a comprehensive dialogue agenda on a measured timetable. The new Indian Government has asked for a short delay in progression of talks in order to prepare for the upcoming meetings. By all accounts Prime Minister Manmohan Singh's government will continue the Indo-Pak peace process. Expert level talks on nuclear confidence building measures will be held 19–20 June while the Foreign Secretaries will sit down at the end of June. Additional dialog between India and Pakistan will occur throughout the summer, which is a positive sign that the subcontinent is focused on peace rather than conflict.

Chairman WARNER. I have had the opportunity to visit Pakistan twice, the first time recently with my distinguished colleague and this last time with Senator Stevens and Senator Hollings. We had a very thorough opportunity to visit with the president and other leaders in that country.

The recent U.S. announcement that Pakistan would be declared a "major non-NATO ally," did that in any way destabilize this relationship?

Admiral FARGO. No, sir, I do not think so.

Chairman WARNER. I think they are deserving of it. That country is pivotal in our war on terrorism and they have been a strong ally.

Senator Levin, do you want to take a question or two?

Senator LEVIN. I am all set. I am all questioned out. That is off the record, by the way. [Laughter.]

Chairman WARNER. I think we should have a quick mention by General LaPorte of the ROK's contribution to the coalition of forces serving in Iraq. Could you describe that for the record, please?

General LAPORTE. Yes, sir. Since 2002 the ROK has steadfastly supported the global war on terrorism. They are providing forces to Iraq and Afghanistan. Their navy and air force have supported the logistics efforts. They have medical personnel serving now in Iraq and they are deploying 3,000 troops. That will make them the third largest nation contributing forces, and they will deploy here shortly.

General HILL. Senator Warner, could I add something for the record in that same vein?

Chairman WARNER. Yes, of course.

General HILL. That is to recognize the contributions of El Salvador, the Dominican Republic, Nicaragua, and Honduras to the OIF also.

Chairman WARNER. That is important.

Admiral Fargo, are there nations in your AOR involved?

Admiral FARGO. The nations in our AOR have made a wide range of contributions. When you look from north to south, of course the Japanese are making historic deployments. As General LaPorte mentioned, Korea, Thailand, the Philippines, Mongolia, Nepal, and even Fiji and Tonga have offered up troops. Singapore has been very supportive. The Indians of course provided the first Strait of Malacca patrol after September 11. So the support has been superb.

I need to mention Australia, too, of course, and New Zealand. I hope I have not forgotten somebody, but I am moving north to south here.

Chairman WARNER. I think it is important to share credit for the coalition of forces that are working towards freedom for the Iraqi people.

General LaPorte, as we close, I must say that I am very encouraged by your assessment of the South Korean military forces. My modest knowledge on that is over a half century old, but I remember you are still loading a U.N. force, which I think is interesting. I think we should remind people of that. The United Nations, that is the umbrella under which you operate, am I not correct?

General LAPORTE. That is correct, sir.

Chairman WARNER. I remember in the conflict, 1951–1952, the front lines were drawn up such that nations were sort of in parallel in their positions, and there was an old axiom among the marines: When a ROK division was on your flank you could sleep tonight; they were good soldiers.

Thank you very much. The hearing is adjourned.

[Questions for the record with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR JOHN MCCAIN

TRANSNATIONAL THREATS

1. Senator MCCAIN. Admiral Fargo, from your statement, you identified that transnational threats of terrorism, narcotics trafficking, and proliferation as a primary concern to you in PACOM. They are also a challenge to all of us in the global war on terrorism. What initiatives, multinational approaches, or arrangements are you suggesting that we support to handle this very serious concern in the Pacific and can they be extended elsewhere?

Admiral FARGO. Thank you, Senator, for the opportunity to address this extremely important issue. I am often asked whether I am a "multilateralist" or "bilateralist." My answer, of course, is "both," because while some activities, such as Operation Enduring Freedom-Philippines which is building counterterrorist capacity, are more easily conducted in a bilateral format, most transnational threats demand multinational solutions. Clearly, the evolving character of transnational threats demands creativity in response. So let me provide some examples that illustrate the cooperative and interagency flavor of PACOM's approaches to transnational threats.

Multilateral approaches include our Regional Maritime Security Initiative (RMSI) to promote cooperation against transnational maritime threats.

Secure waterways are vital to peace and prosperity of the Asia-Pacific region. The oceans provide trade, communication, travel, and access to precious energy resources on which the growing economies of Asia depend. The narrow straits of Southeast Asia, through which one-third of the world's shipping and half of its oil pass each year, are of strategic importance to us all. So clearly the seas, and the resources that flow through them, must be both shared and protected.

Transnational threats not only challenge maritime security itself, but also abuse the maritime environment for illicit purposes. Unsecured or ungoverned seas are potential havens for criminal or terrorist activity, providing relatively cheap and inconspicuous movement. The thousands of miles of coastline many of us enjoy are sometimes uninhabited and often difficult to regulate.

A RMSI would provide a plan of action to address these concerns. The goal of RMSI is to develop a partnership of willing regional nations with varying capabilities and capacities to identify, monitor, and intercept transnational maritime threats under existing international and domestic laws.

This collective effort will empower each participating nation with the timely information and capabilities it needs to act against maritime threats in its own territorial seas. As always, each nation will have to decide for itself what response, if any, it will take in its own waters.

Information sharing will also contribute to the security of international seas, creating an environment hostile to terrorism and other criminal activities. Any RMSI activity in international waters will, again, be in accordance with existing international law.

We believe there are five primary elements of maritime security. Operationally, this initiative has to start by leveraging technology to build and share a clear picture of the maritime environment to match that which we have of international airspace today. So we need to enhance situational awareness of the maritime environment, establish protocols, processes, and standards to fuse that information, and then share it between like-minded governments.

Then, participating nations will need responsive information sharing and decision-making arrangements and appropriate maritime interdiction capabilities to carry out those decisions. In most instances, these will take the form of law enforcement or customs vessels, but military forces may be needed for more organized threats, especially on the high seas.

The fourth element for RMSI is the ability to provide security in challenging littoral regions. Most nations need a coast guard before they need what I would call a "blue water" navy. Once established, integration of coast guard operations with naval forces is essential to eliminate seams at sea, just as that same coast guard must have established protocols and procedures to integrate its efforts with harbor security agencies ashore. Of course, port security measures like the Container Security Initiative are key elements in the continuum of protection.

Finally, 21st century maritime security is much more than the application of military capability. In fact, RMSI will often be a law enforcement effort. So clearly, maritime threats that span oceans, threaten straits, and prey on international trade will demand cooperation among a wide array of agencies and ministries to synchronize all elements of our regional capability.

The RMSI is still in its infancy. We are discussing the RMSI concept with friends and allies in the region, both to clarify the concept and to explore existing technologies and best practices relevant to maritime security. My sense is there is already much good work ongoing throughout the region that we can leverage. Although RMSI is a Pacific Command initiative, its elements, and the underlying concerns that precipitated this initiative, certainly are applicable worldwide.

I should also mention our premier multilateral exercise in the Pacific, Cobra Gold, an annual event hosted by Thailand. This exercise is specifically designed to promote capabilities and cooperation to deal with military operations other than war and transnational threats like terrorism and illicit narcotics.

We also have crafted creative U.S. interagency approaches to transnational threats. Let me provide just two examples.

Our Joint Interagency Coordination Group for Counterterrorism (JIACG/CT) is the PACOM staff entity responsible for coordinating DOD and other government agency CT activities within the U.S.PACOM area of responsibility. Last year, the JIACG combined intelligence, operations, and training goals with interagency representation to produce our first theater CT Campaign Plan. This plan, aligned with Department of State goals embedded in embassy Mission Performance Plans, focuses on both near-term and long-term war on terrorism efforts. These efforts include CT resource creation, terrorist identification and destruction, and the long-term effort to strengthen democratic institutions of governance. As the lead staff element in U.S.PACOM's fight against transnational threats, the mission of JIACG–CT is being broadened to include coordination of our counterdrug and counterproliferation efforts. Other regional combatant commands also employ JIACGs for a variety of missions.

The Joint Interagency Task Force-West (JIATF–W) has long been U.S.PACOM's premier operational counterdrug entity. Formerly based in California, JIATF–W is relocating to Hawaii to better confront the narcotic threat in the western Pacific. Its experience, assets, and interagency relationships will also be relevant against related transnational threats like narcoterrorism, piracy, human trafficking, and especially weapons proliferation. JIATF–W's interagency approach facilitates contributions of law enforcement, host nations, and Special Operations Forces.

PROMOTING REFORM AND COUNTERTERRORISM IN INDONESIA

2. Senator MCCAIN. Admiral Fargo, Indonesia is the world's most populous Muslim nation and third largest democracy. I believe that enhancing stability and democratic reforms in this country are critical to peace in the region. Indonesia is proving to be an active supporter in the global war on terror assisting in the arrest and prosecution of 34 Jemaah Islamiyah terrorists who committed the Bali bombing in October 2002. From your statement you stated that Australia is supporting a joint antiterrorism center in Indonesia. What efforts can we pursue to advance counterterrorism efforts and promote Tentara Nasional Indonesia (TNI) professional reform in this critical country?

Admiral FARGO. The TNI is one of the most coherent Indonesian government institutions and will play a central role in shaping the future of the democracy. It is also an organization tainted by past human rights abuses, a lack of accountability, and corruption—conditions that led to restrictions on our military-to-military relationship and must be resolved.

The TNI appears committed to reform, and there is evidence of positive change in the military. I have discussed these reform efforts with TNI Chief of Defense, General Sutarto, and rate it as one of the highest priorities for PACOM security cooperation with Indonesia. I believe that the most effective means of aiding reform efforts and increasing the professionalism of TNI is by providing in-depth and prolonged exposure to our own military through education, training, and exercises.

To that end, and working with our embassy country team in Jakarta, we have developed a plan of activities that meets all legal constraints. We will leverage E–IMET, Regional Defense Counterterrorism Fellowships, and other authorized multilateral venues to expose Indonesian officials, including appropriate TNI officers, to non-lethal U.S. professional military standards.

QUESTIONS SUBMITTED BY SENATOR WAYNE ALLARD

INDONESIAN CONNECTION TO MURDERED AMERICANS

3. Senator ALLARD. Admiral Fargo, during your oral testimony, you indicated that you had no knowledge of information or intelligence suggesting that the Indonesian military could be tied to the murder of two Americans on August 31, 2001 in Papua, Indonesia. Yet press reports and other administration officials have indicated otherwise. Is there intelligence that suggests the Indonesian military was responsible for the murder of these two Americans on August 31, 2001?

Admiral FARGO. Investigation and accountability for the Freeport-McMoran Mine slayings is the primary issue shaping our relationship with Indonesia today. I have discussed this incident with the TNI Chief of Defense, General Sutarto, and emphasized the importance of full accountability. He assured me that if this investigation shows that there are members of the TNI that took part in this attack that he is going to hold them completely accountable, and there will be the kind of discipline that we would expect would be proper in this particular situation.

I have also pressed for open cooperation with FBI investigators, including interrogation without the presence of TNI minders and forensic investigation in the continental United States. I have received several recent reports of enhanced cooperation and I believe the investigation is on track. I have not seen a final FBI report and, as the investigation is still ongoing, it would be inappropriate for me to speculate as to the outcome.

4. Senator ALLARD. Admiral Fargo, some have suspected that the attack was ordered by military commanders in Jakarta, Indonesia. Do you believe the Indonesian military command authority was involved in the planning and execution of the attack?

Admiral FARGO. Investigation and accountability for the Freeport-McMoran Mine slayings is the primary issue shaping our relationship with Indonesia today. I have made this point clear to TNI leadership, and have pressed for open cooperation with FBI investigators, including interrogation without the presence of TNI minders and forensic investigation in the continental United States.

I have received several recent reports of enhanced cooperation and I believe the investigation is on track. As the investigation is still ongoing, it would be inappropriate for me to speculate as to the outcome.

5. Senator ALLARD. Admiral Fargo, last year you stated that withholding IMET funding would not result in the satisfactory conclusion of this investigation. Why do you believe this?

Admiral FARGO. On the contrary, withholding IMET funding only serves to further reduce U.S. influence in Indonesia and will likely lead to less satisfactory outcomes.

In numerous discussions with Indonesian military and government officials, I have clearly identified accountability for the Freeport-McMoran Mine slayings as the primary issue shaping our relationship with Indonesia.

I have also been thoroughly briefed by General Sutarto, the Indonesian Chief of Defense, on TNI reform efforts that eliminate their involvement in politics and emphasize civilian control of the military under the rule of law.

I believe that we can best serve as role models and positively influence Indonesia's future through cooperation rather than isolation. IMET is one very useful influence tool for this purpose.

6. Senator ALLARD. Admiral Fargo, I offered legislation last year that prohibited IMET funding for Indonesia until the Secretary of State certifies that Indonesia is proceeding with its investigation into the August 31, 2001 attack. I believe the United States cannot be seen as providing military assistance to a foreign military that might be responsible for murdering Americans. Until the Indonesian military is exonerated, wouldn't you agree that the United States cannot be seen as aiding a foreign military that might be responsible for murdering innocent Americans?

Admiral FARGO. Thank you, Senator, for the opportunity to comment on this extremely important matter.

I believe it is important to note from the outset that U.S.PACOM conducts military-to-military activities in full consideration of and adherence to DOD and Department of State regulatory procedures as well as in accordance with the Leahy Amendment emphasizing civilian authority over the military and respect for the rule of law.

As the world's third largest democracy and largest Muslim nation, Indonesia's success is crucial to peace and stability in Southeast Asia and to our efforts in the war on terrorism. It is a critical crossroad in Southeast Asia and sits squarely in the sights of the region's primary transnational terror group, the JI. To allow this strategically important nation, one that is currently attempting to cement its nascent democracy, to remain both unknown to us and unaided could carry unfortunate consequences.

The Indonesian government is moderate, secular and still developing as a free market democracy. I want to assure you that we share the same goals regarding the Indonesian military (TNI) and that I have discussed with General Sutarto our desire to see genuine reform of the TNI, accountability for human rights abuses, and full cooperation with the Timika investigation. We believe it is important to provide

Indonesian military a role model and take an active part in their reform. By operating in accordance with existing guidelines for our activities with Indonesia, we maintain insight into their military's progress with their own reform program as well as position ourselves for future cooperation as Indonesian reform goals are achieved.

[Whereupon, at 11:52 a.m., the committee adjourned.]

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2005

THURSDAY, MAY 13, 2004

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

CONTINGENT RESERVE FUND REQUEST

The committee met, pursuant to notice, at 9:42 a.m., in room SH–216, Hart Senate Office Building, Senator John Warner (chairman) presiding.

Committee members present: Senators Warner, McCain, Inhofe, Allard, Sessions, Collins, Ensign, Talent, Chambliss, Dole, Levin, Kennedy, Byrd, Lieberman, Reed, Akaka, Bill Nelson, E. Benjamin Nelson, Dayton, Clinton, and Pryor.

Committee staff members present: Judith A. Ansley, staff director; and Leah C. Brewer, nominations and hearings clerk.

Majority staff members present: Charles W. Alsup, professional staff member; Ambrose R. Hock, professional staff member; Gregory T. Kiley, professional staff member; Thomas L. MacKenzie, professional staff member; Lucian L. Neimeyer, professional staff member; Paula J. Philbin, professional staff member; Lynn F. Rusten, professional staff member; Scott W. Stucky, general counsel; and Diana G. Tabler, professional staff member.

Minority staff members present: Richard D. DeBobes, Democratic staff director; Richard W. Fieldhouse, professional staff member; Creighton Greene, professional staff member; Jeremy L. Hekhuis, professional staff member; Bridget W. Higgins, research assistant; Maren R. Leed, professional staff member; Gerald J. Leeling, minority counsel; Peter K. Levine, minority counsel; Michael J. McCord, professional staff member; and William G.P. Monahan, minority counsel.

Staff assistants present: Michael N. Berger, Sara R. Mareno, and Pendred K. Wilson.

Committee members' assistants present: Cord Sterling, assistant to Senator Warner; Christopher J. Paul and Marshall A. Salter, assistants to Senator McCain; John A. Bonsell, assistant to Senator Inhofe; Jayson Roehl, assistant to Senator Allard; D. Armand DeKeyser, assistant to Senator Sessions; Derek J. Maurer, assistant to Senator Collins; D'Arcy Grisier, assistant to Senator Ensign; Lindsey R. Neas, assistant to Senator Talent; Clyde A. Taylor IV, assistant to Senator Chambliss; Christine O. Hill, assistant to Sen-

ator Dole; Russell J. Thomasson, assistant to Senator Cornyn; Sharon L. Waxman, Mieke Y. Eoyang, and Jarret A. Wright, assistants to Senator Kennedy; Christina Evans, Terrence E. Sauvain, and Erik Raven, assistants to Senator Byrd; Frederick M. Downey, assistant to Senator Lieberman; Elizabeth King, assistant to Senator Reed; Davelyn Noelani Kalipi and Richard Kessler, assistants to Senator Akaka; William K. Sutey and Pete Mitchell, assistants to Senator Bill Nelson; Eric Pierce, assistant to Senator Ben Nelson; William Todd Houchins, assistant to Senator Dayton; Todd Rosenblum and Rashid Hallaway, assistants to Senator Bayh; Andrew Shapiro, assistant to Senator Clinton; and Terri Glaze, assistant to Senator Pryor.

OPENING STATEMENT OF SENATOR JOHN WARNER, CHAIRMAN

Chairman WARNER. The committee meets this morning to receive testimony from Deputy Secretary of Defense, Paul Wolfowitz; Vice Chairman of Joint Chiefs of Staff, General Peter Pace, United States Marine Corps; and Deputy Director of the Office of Management and Budget (OMB), Joel Kaplan, on President Bush's request for a fiscal year 2005 contingent reserve fund for ongoing military operations in Iraq and Afghanistan. We look forward to your testimony.

On May 5, 2004, President Bush announced his intention to request a $25 billion contingent reserve fund for fiscal year 2005 for United States military operations in Iraq and Afghanistan. The President stated that, "while we do not know the precise cost for operations next year, recent developments on the ground and increased demands on our troops indicate the need to plan for contingencies to make sure that there is no disruption in funding and resources for our troops."

This is a prudent course of action which I personally support. Congress received the President's formal request for this additional funding just yesterday. It's important to note that even with this reserve fund, the administration will still request a full fiscal year 2005 supplemental after the first of next year, 2005, when it can better estimate the costs of the ongoing war on terrorism.

When the President made his announcements last week, the committee was in the process of marking up the fiscal year 2005 National Defense Authorization bill. At the request of Senator Byrd, the committee deferred action on this request for additional funding until we could hold a hearing to receive more information on this request. I'm pleased that we're able to conduct this hearing prior to the floor action on the defense bill and I would say the ranking member was very active in putting this hearing together, and it was one that you also wanted very much.

When the administration presented its budget request for fiscal year 2005 in February, the request did not include funding for costs associated with the ongoing global war on terrorism. This is in keeping with longstanding tradition of funding ongoing military operations through supplemental appropriations. At that time, the administration stated that it expected to request a supplemental to cover the costs after the start of calendar year 2005.

Prior to the passage of a supplemental, the administration planned to cover the costs of the war with funds from other military accounts, a process commonly called cash flowing. Administration officials assured the committee in February and March that cash flowing ongoing military operations presented acceptable and manageable risk.

However, circumstances have changed. Increased demands on our troops, particularly in Iraq, have led to concerns that additional funding may be needed prior to the start of calendar year 2005. Thus, the need for contingency funding. The proposed contingent reserve fund would act as a bridge between the fiscal year 2005 budget request and the fiscal year 2005 supplemental expected in February 2005.

If the President determines that additional resources are needed for ongoing military operations, he would first report to Congress and then be able to use funds in the contingent reserve up to $25 billion. The Senate is scheduled to begin consideration of the 2005 authorization bill this coming Monday, May 17. This hearing is designed to inform the Senate of the specifics of the proposed contingent reserve fund prior to floor action. We will then be in a better position to decide how and whether to authorize the additional funding for 2005 as part of our bill.

I look forward to hearing from our witnesses the reasons for this request for a contingent reserve fund, and how the fund will be used to provide the additional resources our troops need to consider military operations in Iraq and Afghanistan.

I'm also interested in administration recommendations on how the fund should be structured, including any suggested mechanism to govern the dispersal of these funds and necessary reporting requirements to ensure accountability for the use of these funds. I concur with the President that our first commitment must be to America's security and that our troops "have the resources they need when they need them." We stand by to assist.

There were a number of colleagues on my side of the aisle, including Senator Sessions whom I spoke with this morning, and others, such as Senator Allard, who is on the Budget Committee, who spoke of the need for this hearing.

[The prepared statement of Senator Warner follows:]

PREPARED STATEMENT BY SENATOR JOHN WARNER

The committee meets this morning to receive testimony from Deputy Secretary of Defense Paul Wolfowitz, Vice Chairman of the Joint Chiefs of Staff General Peter Pace, USMC, and Deputy Director of the Office of Management and Budget (OMB), Joel Kaplan, on President Bush's request for a fiscal year 2005 contingent reserve fund for ongoing military operations in Iraq and Afghanistan. We look forward to your testimony.

On May 5, 2004, President Bush announced his intention to request a $25 billion contingent reserve fund for fiscal year 2005 for United States military operations in Iraq and Afghanistan. The President stated that, "While we do not know the precise costs for operations next year, recent developments on the ground and increased demands on our troops indicate the need to plan for contingencies. We must make sure there is no disruption in funding and resources for our troops." This is a prudent course of action, which I support. Congress received the President's formal request for this additional funding yesterday.

It is important to note that, even with this reserve fund, the administration will still request a full fiscal year 2005 supplemental after the first of the year, when it can better estimate the costs of the ongoing war on terror.

When the President made his announcement last week, the committee was in the process of marking up the National Defense Authorization Bill for Fiscal Year 2005. At the request of Senator Byrd, the committee deferred action on this request for additional funding until we could hold a hearing to receive more information on this request. I am pleased that we are able to conduct this hearing prior to floor action on the defense authorization bill.

When the administration presented its budget request for fiscal year 2005 in February, the request did not include funding for costs associated with the ongoing global war on terrorism. This is in keeping with longstanding tradition of funding ongoing military operations through supplemental appropriations. At that time, the administration stated that it expected to request a supplemental to cover these costs, after the start of calendar year 2005. Prior to the passage of a supplemental, the administration planned to cover the cost of the war with funds from other military accounts—a process commonly called "cash flowing." Administration officials assured this committee in February and March that "cash flowing" ongoing military operations presented acceptable and manageable risk.

However, circumstances have changed. Increased demands on our troops, particularly in Iraq, have led to concerns that additional funding may be needed prior to the start of calendar year 2005, thus the need for contingent funding. As proposed, the contingent reserve fund would act as a "bridge" between the fiscal year 2005 budget request and the fiscal year 2005 supplemental expected in February 2005. If the President determines that additional resources are needed for ongoing military operations, he would first report to Congress and then be able to use funds in the contingent reserve, up to $25 billion.

The Senate is scheduled to begin consideration of the National Defense Authorization Bill for Fiscal Year 2005 on Monday, May 17. This hearing is designed to inform the Senate on the specifics of the proposed contingent reserve fund prior to floor action on the bill. We will then be in a better position to decide whether to authorize this additional funding for fiscal year 2005, as part of our bill.

I look forward to our witnesses outlining the reasons for the request for a contingent reserve fund, and how the fund will be used to provide the additional resources our troops may need to continue military operations in Iraq and Afghanistan. I am also interested in the administration's recommendations on how the fund should be structured, including any suggested mechanisms to govern the disbursement of these funds, and necessary reporting requirements to ensure accountability for the use of these funds.

I agree with the President that our first commitment must be to America's security and that our troops "have the resources they need, when they need them." We stand ready to assist in this goal.

Chairman WARNER. Senator Levin, do you have a few comments?

STATEMENT OF SENATOR CARL LEVIN

Senator LEVIN. Thank you, Mr. Chairman. Today we're meeting to hear testimony on the administration's request for $25 billion to fund the cost of ongoing operations in Iraq and Afghanistan over the first few months of fiscal year 2005. U.S. Armed Forces are currently spending over $5 billion per month for operations in Iraq and Afghanistan, and the homeland defense activities known as Operation Noble Eagle (ONE).

A supplemental for fiscal year 2004 was enacted in early November, 5 weeks into the fiscal year, so that the Services would not have to absorb these tremendous incremental costs out of their regular budgets.

In his State of the Union address in January, President Bush told us, "in 2 weeks I will send you a budget that funds the war." But the fiscal year 2005 budget that the President sent to Congress contained no funding to fund the substantial costs of these ongoing operations.

On February 24, I wrote to the Senate Budget Committee on the need to provide this type of funding to cover the expenses for these ongoing operations during the first few months of fiscal year 2005.

I wrote the Budget Committee as follows: "We should not wait until sometime during fiscal year 2005 to submit a supplemental budget request, as the administration did last year. Circumstances are different this year. Last year the war had not begun. Now having U.S. troops on the ground is a fact and recognizing this reality and paying for it is the responsible thing to do."

While it is certainly true I wrote that no one can predict with precision what these fiscal year 2005 costs will be, we could certainly provide funds to cover likely requirements for some period of the year, and I suggested in that letter increasing the budget authority and the national defense function by $30 billion in fiscal year 2005 to cover up to 6 months of the incremental costs for the current pace of operations.

The Senate Budget Committee agreed with that proposal and Section 312 of the Senate Budget Resolution provides for up to $30 billion to fund activities in Iraq and Afghanistan if the President makes a request for such funding. This language was contained in the resolution adopted by the Senate on March 11.

On April 15, the Department of Defense (DOD) announced it was extending the tours of 20,000 servicemembers in Iraq, effectively increasing the size of our forces there and guaranteeing that the so-called burn rate, which already exceeds $5 billion a month for these operations, will climb still higher. Yet, when Deputy Secretary Wolfowitz appeared before this committee to discuss Iraq and Afghanistan a week after that announcement, there was still no acknowledgment of the need to adopt a supplemental budget.

Last September, Section 8139 of the 2004 Defense Appropriations bill stated that the cost of ongoing operations in Iraq and Afghanistan should be included in the budget request, and last October, the chairman of the House Budget Committee told the DOD comptroller that these costs should be included in the 2005 budget request. Yet for months, DOD witnesses have asserted that no supplemental was needed until sometime next year.

Since September 11, 2001, Congress has provided this administration with considerable sums of money and considerable flexibility in using that money. That flexibility has led to problems. In April 2003, the conferees on the fiscal year 2003 supplemental for Iraq and Afghanistan stated the following: "Approximately $750 million appropriated to operation and maintenance (O&M) accounts has been obligated for construction activities supporting the global war on terrorism and operations in Iraq." Funds for these projects have been expended without providing notice to Congress, despite repeated requests for information by both House and Senate Appropriations Committees and House and Senate Armed Services Committees, and as required by law.

Given the recent statements by Senator Byrd and other Members of Congress that the DOD failed to keep Congress properly informed about how emergency funds have been spent, we need to find a way to act quickly to support our troops while still holding the executive branch accountable for how these funds will be used.

We have to do better as we move forward. Congress has recognized that our Federal budget should not sweep these costs under the rug until after November and pretend that because we can't

predict the exact cost of these operations, that we should not estimate the costs and budget for them now.

On May 5, the President issued a statement finally acknowledging the problem, requesting that Congress, "establish a $25 billion contingent emergency reserve fund to support operations in Iraq and Afghanistan." When the President announced his intention to submit this budget amendment, I had already prepared an amendment for last week's mark-up to authorize the $30 billion in additional funding that the Senate Budget Resolution has provided. The amendment that I circulated at that time contained budget detail.

On learning of the President's statement, Senator Byrd very appropriately asked that our committee withhold action on providing these funds for 2005 until we could hold a hearing on how the administration intends to use such funds. The Defense Authorization bill, as our chairman has mentioned, is scheduled to go to the floor next week, and it's essential that we address this issue. We cannot pretend that our bill addresses the most pressing needs of our men and women in uniform if we do not address a major readiness issue facing our forces. Our bill does not yet fund the cost of these ongoing operations. We should act to do so in order not to damage the readiness of our forces by forcing them to borrow against their entire year's budget just to get through the first 4 or 5 months of the year.

But to budget responsibly, we need information from the DOD and OMB, and we need to have control over these funds and the detail which is proposed and necessary so that we can budget in a reasonable and responsible way, and that is what today's hearing is intended to be.

Over a week now has elapsed now since the President announced his decision, and yet there was no formal request made until last night. The administration has acted too unilaterally in many ways in the Iraq war. They failed to budget for the costs of the war. Now they want, apparently, as I read these letters, what amounts to a blank check for the supplemental costs.

Congress should write a check. In fact, we've been pressing to write a check, but not a blank check. We need to support our men and women in uniform who are performing very difficult and challenging tasks under dangerous circumstances, but we should do so in a way which provides the accountability that the taxpayers expect and deserve.

Finally, Mr. Chairman, while this hearing is focused on funding these operations for fiscal year 2005, many of us are concerned that the Army in particular does not have sufficient funds to make it through the rest of fiscal year 2004, especially in light of the DOD's decision to increase our planned troop levels in Iraq by about 20,000 personnel. I hope our witnesses are prepared to tell us whether or not we have the resources necessary to sustain our forces for the rest of this fiscal year. Thank you.

Chairman WARNER. Thank you, Senator Levin. Colleagues, I'd like to turn to an administrative announcement and request to the committee. Indeed, the President and the Secretary of Defense and Deputy Secretary have been in consultation with the committee about the promotion of General David H. Petraeus from the rank

of Major General to be Lieutenant General. The President has asked him to return to Iraq where he once commanded the 101st Airborne to take on the really challenging and vital task of working with strengthening the security forces.

In consultation with my colleague, Mr. Levin, we feel that we'll take his nomination out of order, and if confirmed by the committee here today, we'll send it to the floor for full confirmation. So a quorum being present, I ask the committee to consider the nomination of Major General David H. Petraeus to be Lieutenant General and Chief, Office of Security Transition-Iraq.

Senator LEVIN. So moved.

Senator CLINTON. Second.

Chairman WARNER. The nomination before the committee the required length of time, so moved, seconded. All in favor say aye. [A chorus of ayes.]

Opposed? [No response.]

The ayes have it. The nomination is confirmed.

Colleagues, also, it's the desire of the chair to move through this morning the important testimony with regard to the budget. Should Senators have questions other than what's specifically before the committee this morning, I would ask that you defer them and the chair, working with the ranking member, will see that hopefully an opportunity is made to have our witnesses reply.

I know, having worked here daily with Secretary Wolfowitz and indeed General Pace, that both of you have been concentrating on the ongoing business of the building, and as such, there are some details about the prison that has been handled by the Secretary himself and the chairman, but nevertheless, we'll see what occurs by way of desired and future questions.

Senator KENNEDY. Mr. Chairman, I must express some reservation about that. We've had limited amount of time to try and deal with something which is of enormous importance. The Secretary was directly informed by the Red Cross about some of these allegations and abuses that took place in the prison and I have intention of questioning him.

Chairman WARNER. We'll try and make that arrangement.

Senator KENNEDY. I'm glad to conform with the chair, but I'd like to be able to reserve my 6 minutes for matters which I think are enormously important.

Chairman WARNER. The Senator is heard. I would like to, however, continue with the budget hearing and we'll make that possible towards the end. Thank you very much.

Secretary Wolfowitz.

STATEMENT OF HON. PAUL D. WOLFOWITZ, DEPUTY SECRETARY OF DEFENSE

Secretary WOLFOWITZ. Thank you, Mr. Chairman, and members of the committee, and I'd like to actually begin by thanking you for that speedy action on the nomination of General Petraeus. It is a very important appointment to a critical post, because as you pointed out, he is going to be pulling together all the different pieces involved in training, equipping, and organizing Iraqi security forces, which is one of the key elements for our strategy for success in Iraq. I can't imagine a better qualified individual to take on that

assignment and I appreciate the speed with which the committee has addressed that nomination.

Chairman WARNER. Many members of the committee met him in the course of their individual visits to the country of Iraq.

Secretary WOLFOWITZ. In fact, Senator, I think one can even see in some of the success that's been achieved, in spite of the difficulty of recent weeks in Mosul and in the area that General Petraeus was in charge of that he has fundamental understanding of what it takes to succeed.

Mr. Chairman and members of the committee, I appreciate the opportunity to testify today in support of President Bush's request for a $25 billion reserve fund and to receive your input on the structure of that reserve.

Chairman WARNER. If I might interrupt you, we'll put into the record the statements by each of you in their entirety, and we also note the presence at the witness table of Mr. Lanzillotta. We welcome you back, a former, very valued staff member of our committee, and you're here as they say, as back up, is that correct? Thank you. Thank you, Mr. Secretary.

Secretary WOLFOWITZ. He's performing efficiently, as you no doubt are aware.

The reserve fund we are requesting will provide an insurance plan so that the DOD has adequate resources for both its core defense activities and its operations in Iraq and Afghanistan. It is critical so that we can avoid any disruption in funding for our military forces.

The DOD's plan had been to cash flow fiscal year 2005 operations in Iraq and Afghanistan until a supplemental budget request could be prepared with more precision in the first quarter of calendar year 2005. However, our higher projected troop levels increase the risk that certain accounts, especially operation and maintenance (O&M) Army, could have difficult cash flowing operations beyond the February and March time frame in 2005. This reserve fund will eliminate that risk and provide a margin of safety.

The reserve fund would be used primarily for O&M requirements, but a portion is expected to be used for force protection needs as well. Requirements are likely to include fuel for helicopters, tanks, and other vehicles; transportation costs for movement of personnel and equipment in and out of the theater of operations; equipment maintenance and logistics supplies; force protection needs, such as body armor and up-armor and high-mobility multipurpose wheeled vehicles (HMMWVs); and very importantly, continued momentum to achieve a more modular Army and a larger brigade structure in the Army.

The administration still anticipates submitting a supplemental appropriation request to Congress in early 2005 to fund the incremental costs for contingent operations in fiscal year 2005. But as of today, it continues to be impossible to know what our total supplemental funding needs will be for the next fiscal year, particularly after the election in Afghanistan and after sovereignty is transferred in Iraq. Depending on the circumstances, we could face the need for either more troops or fewer troops, for more intensive operations or less intensive operations.

Mr. Chairman, support of this request will ensure that our wonderful men and women in uniform have the tools that they need to continue winning the fight in Iraq, a victory that will also make our country more secure. America's commitment to success in Iraq was underscored again this past Monday when the President visited the Pentagon. As the President said on that occasion, the United States has a vital national interest in the success of free institutions in Iraq as the alternative to tyranny and terrorist violence in the Middle East.

As we carry out this mission, we are confronting problems squarely and we are making changes as needed. Despite recent violence, and at a time when so much attention is being focused properly on the abuses of detainees in Iraq, we need to continue to move forward on all fronts, implementing the coalition's strategy to set conditions that will ensure a free Iraq that is stable and at peace with its neighbors.

Our strategy involves three interdependent lines of operation to build indigenous Iraqi capacity and to transition responsibilities from the Coalition to Iraq rapidly but not hastily. While there are lessons to be learned from the violent events of the past few weeks, which will affect the way we pursue these lines of operation, we think these are still the three key elements that will bring us success in Iraq.

The first line of operation involves building capable Iraqi security forces to achieve stability. That is the effort that Lieutenant, now Major General Petraeus, will undertake. We have redoubled our efforts to recruit, train, equip, and most importantly, mentor Iraqi security forces, all five branches, the police, the Iraqi Civil Defense Corps, the army, the Border Police, and the Facilities Protection Service. Over the next few months, our aim is to certify the ability of these forces that they are ready to assume greater responsibilities from coalition forces.

Similarly, through technical assistance and mentoring by U.S. prosecutors and judges of their Iraqi counterparts, we have been helping to build a capacity of the Iraqi criminal justice sector.

The second line of operation involves nurturing Iraq's capacity for representative self-government with the aim of creating a government that the Iraqi people will feel is theirs, and that moves us out of the position of being an occupying power.

While many think that June 30 will be a magical date on which the Coalition Provisional Authority (CPA) will suddenly transition out of all of its responsibilities to a new Iraqi Government, it is actually just one step in the process. Already, free Iraqis have been gradually assuming responsibility for governmental functions for quite some time. Many Iraqi ministries report to the Governing Council rather than to the CPA.

Iraq now has a functioning judiciary. At the local and provincial levels, elected assemblies are up and running. When the interim government assumes office on June 30, its most important task will be to prepare the way for elections to establish a transitional government in January 2005, another step in the process. That government in turn will be replaced by elections for a fully constitutional government at the end of 2005.

The third line of operation involves the reconstruction of Iraq's infrastructure and the restoration of essential services to provide better lives for Iraqis and put people back to work. Iraq has tremendous potential. It has well-educated and industrious people. It has fertile land, water resources, and abundant natural resources. Our strategy aims to put Iraq on course to realizing that potential and setting conditions for Iraqis to reap greater prosperity in the future.

This strategy remains a valid guide to working through new realities and uncertainty about events after Iraqis begin governing themselves. We have encountered intense armed resistance in recent weeks, but that does not invalidate these three basic elements of the strategy. In fact, what the enemy fears most is that Iraqis will be in charge of their own country, and then the enemy will face what that key terrorist, Abu Musab al-Zarqawi, called suffocation.

The surviving hard core elements of Saddam's regime have everything to lose from eradication of the old order and the prospect of being held to account for their crimes. They and the terrorists and foreign fighters with whom they make common cause, are tough and ruthless killers, but they have no positive vision to offer Iraq, only fear and death and destruction. They are trying to destabilize the country before it has a chance to stand on its own feet. While we cannot inspire fear the way that they do, and we would not want to, we offer a hopeful vision of a new Iraq that the great majority of Iraqis look forward to. The transition to Iraqi sovereignty and elected constitutional government will eventually make the enemy's position untenable.

Let me say a word to thank the committee for its support of our request for authority for the commander's emergency response program. As I think most of you know, this has been a remarkably successful way of helping the people of Iraq and Afghanistan and gaining their support for our operations there.

I'd also like to thank you for providing train and equip authority to help us enhance the ability of Iraqi and Afghan military and security forces to combat terrorism and to support U.S. and coalition military operations, and I appreciate the expansion of that authority as we requested to all Iraqi and Afghan security forces.

As I think you know, in the past our military commanders have been hampered by the lack of flexible funding for indigenous security forces, especially in Iraq. As you move toward conference, I ask that you let us discuss with you the possibility of building on this important step to adopt the fuller authority the President requested, and in particular, to raise the ceiling above $150 million.

In closing, I would also like to thank the wonderful men and women who wear the uniform of the United States of America, and particularly the nearly 140,000 in Iraq and more than 15,000 in Afghanistan who serve on the front lines of the global war on terrorism. Words cannot adequately express how proud and grateful we are for their service.

I also thank this committee for the strong support given to U.S. security and to our military people in your National Defense Authorization Bill for Fiscal Year 2005. The President's staff and the DOD are still reviewing the details and we will provide you our

views shortly. We look forward to working with you in achieving the best possible support for America's Armed Forces and our vital missions around the globe. Thank you, Mr. Chairman.

[The prepared statement of Secretary Wolfowitz follows:]

PREPARED STATEMENT BY HON. PAUL WOLFOWITZ

Mr. Chairman and members of the committee, I am happy to be here today to testify in support of President Bush's request for a $25 billion reserve fund and to receive your input on the structure of this reserve.

THE PRESIDENT'S $25 BILLION RESERVE FUND

The reserve fund we are requesting will provide an insurance plan so the Department of Defense (DOD) has adequate resources for both its core defense activities and its operations in Iraq and Afghanistan. It is critical to avoid any disruption in funding for our military forces.

The DOD's plan had been to cash flow fiscal year 2005 operations in Iraq and Afghanistan until a supplemental budget request could be prepared by early 2005. Now, however, our higher projected troop levels increase the risk that certain accounts—especially Operation and Maintenance, Army (OMA) would have difficulty cash flowing operations beyond the February-March timeframe in 2005. This reserve fund will eliminate that risk and provide a margin of safety.

The reserve fund would be used primarily for operation and maintenance (O&M) requirements, but a portion is expected to be used for force protection needs. Requirements are likely to include:

- Fuel for helicopters, tanks, and other vehicles.
- Transportation costs for movement of personnel and equipment in and out of the theater of operations.
- Equipment maintenance (such as lubricants, repair parts) and logistics supplies.
- Force protection needs such as individual body armor and up-armored HMMWVs.
- Continued momentum to achieve a more modular Army.

The administration still anticipates submitting a supplemental appropriation request to Congress in early 2005 to fund incremental costs for contingent operations. It continues to be impossible to know what our total supplemental funding needs will be for fiscal year 2005—particularly after the election in Afghanistan and after sovereignty is transferred in Iraq. Depending on the circumstances, we could face the need for either more or fewer troops—and more or less intensive operations.

THE COALITION'S STRATEGY TO ACHIEVE VICTORY IN IRAQ

Support of this request will ensure that our wonderful men and women in uniform have the tools that they need to continue winning the fight in Iraq, a victory that will also make our country more secure. America's commitment to success in Iraq was underscored again this past Monday during the President's visit to the Pentagon with his strong statement of support. As the President said, "The United States has a vital national interest in the success of free institutions in Iraq as the alternative to tyranny and terrorist violence in the Middle East. As we carry out this mission, we are confronting problems squarely, and we are making changes as needed."

Despite recent violence and at a time when so much attention is being focused properly on the abuses of detainees in Iraq, we need to continue to move forward on all fronts implementing the coalition's strategy to set conditions that will ensure a free Iraq that is stable and at peace with its neighbors. Our strategy involves three interdependent lines of operations to build indigenous Iraq capacity and transition responsibilities from the coalition to Iraq rapidly, but not hastily. While the lessons to be learned from the violent events of the past few weeks affect the way we pursue these three lines of operation, these are still the three key elements that will bring success in Iraq.

The first element involves building capable Iraqi security forces to achieve stability. Accordingly, we have redoubled our efforts to recruit, train, equip and, most importantly, mentor Iraqi security forces—Police, Iraqi Civil Defense Corps, Army, Border Police, and the Facilities Protection Service. Over the next few months our aim is to certify the ability of these forces, that they are ready to assume greater responsibilities from coalition forces. Similarly, through technical assistance and

mentoring by U.S. prosecutors and judges of their Iraqi counterparts, we have been helping to build the capacity of the Iraqi criminal justice sector.

The second element involves nurturing Iraq's capacity for representative, self-government with the aim of creating a government that the Iraqi people will feel is theirs and that moves us out of the position of being an occupying power. While many think that June 30 will be a magical date on which Coalition Provisional Authority (CPA) will suddenly transition all of its responsibilities to a new Iraq government, it is actually just one step in a process. Already, free Iraqis have been gradually assuming responsibility for governmental functions for quite some time. Many Iraqi ministries report to the Governing Council rather than the CPA. Iraq now has a functioning judiciary to provide equal justice for all. At the local and provincial levels, elected assemblies are up and running. When the Interim Government assumes office on June 30, its most important task will be to prepare the way for elections to establish the Transitional Government in January 2005. That government in turn will be replaced by elections for a fully constitutional government at the end of 2005.

The third element involves the reconstruction of Iraq's infrastructure and the restoration of essential services that are providing better lives for Iraqis and putting people back to work. Iraq has tremendous potential. Iraq has well-educated and industrious people. It has fertile land and water resources, and it has abundant natural resources. Our strategy aims to put Iraq on course to realizing that potential and to setting conditions for Iraqis to reap greater prosperity in the future.

This strategy remains a valid guide to working through new realities and uncertainty about events after the Iraqis begin governing themselves. We have encountered intense armed resistance in recent weeks, but that does not invalidate our strategy. In fact, what the enemy fears most is that Iraqis will be in charge of their own country, and they will face what the key terrorist, Zarqawi, calls "suffocation."

The surviving hard-core elements of Saddam's regime have everything to lose from eradication of the old order and the prospect of being held to account for their crimes. They and the terrorists and foreign fighters with whom they make common cause are tough and ruthless killers, but they have no positive vision to offer Iraq—only fear and death and destruction. They are trying to destabilize the country before it has a chance to stand on its own feet. While we cannot inspire fear the way they do—and would not want to—we offer a hopeful vision of a new Iraq that the great majority of Iraqis look forward to. The transition to Iraqi sovereignty and elected constitutional government will eventually make the enemy's position untenable.

MORE FLEXIBLE AUTHORITIES

Regarding the special authorities that President Bush requested, I thank the committee for its support of the Commander's Emergency Response Program (CERP). This has been a remarkably successful way of helping the people of Iraq and Afghanistan and gaining their support for our operations there.

I also thank you for providing "train and equip" authority to help us enhance the ability of Iraqi and Afghan military and security forces to combat terrorism and support U.S. and coalition military operations. In the past our military commanders have been hampered by the lack of a flexibility funding authority that included security forces, especially in Iraq. As you move toward conference, I ask that you let us discuss with you the need to build on this important step by adopting the fuller authority that the President requested.

CLOSING

In closing, I want to thank all the wonderful men and women who wear the uniform of the United States of America, and particularly the nearly 140,000 in Iraq and more than 15,000 in Afghanistan serving on the front lines of the global war on terrorism. Words cannot adequately express how proud and how grateful we are for your service.

I also thank this committee for the strong support given to U.S. security and our military people in your National Defense Authorization Bill for Fiscal Year 2005. The President's staff and the DOD are still reviewing the details and will provide you our views shortly. We look forward to assisting you in achieving the best possible support for America's Armed Forces and our vital missions around the globe. Thank you.

Chairman WARNER. Thank you, Mr. Secretary.

Director Kaplan.

STATEMENT OF HON. JOEL D. KAPLAN, OFFICE OF MANAGEMENT AND BUDGET

Mr. KAPLAN. Thank you, Mr. Chairman and members of the committee, for inviting me to appear before you today to discuss the President's request. I do have a full text I'll submit for the record, but in the interest of time and because Secretary Wolfowitz covered much of what I have to say, I'll highlight the key factors that shaped our thinking in working with the DOD in putting together the President's request.

First, we were guided by the President's clear and consistent direction, making sure the commanders and the men and women in the field have the resources they need to accomplish the mission.

Second, the funding is requested as a contingent emergency reserve, with funds activated only after the President submits a request designating all or parts of the funding as an emergency and essential to operations in Iraq or Afghanistan.

Third, relatedly, the reserve is intended for operations in Iraq and Afghanistan only.

Finally, I'd just like to note, as Deputy Secretary Wolfowitz has, that we continue to plan to come to Congress with a full supplemental request for 2005 early next year when we can have more precise and reliable estimates of what operational needs are likely to be in Iraq and Afghanistan in 2005.

Thank you again, Mr. Chairman. I look forward to answering the committee's questions.

[The prepared statement of Mr. Kaplan follows:]

PREPARED STATEMENT BY JOEL D. KAPLAN

Thank you, Mr. Chairman and members of the committee, for inviting me to appear before you today to discuss the President's request for a $25 billion contingent emergency reserve fund for operations in Iraq and Afghanistan, which the President formally submitted to Congress yesterday.

In his remarks at the Pentagon on Monday, the President reiterated this Nation's commitment to the brave men and women of our Armed Forces who are engaged in Iraq, Afghanistan, and elsewhere around the world in the war on terror. The President has never wavered in his commitment to provide those men and women in the field the resources they need to accomplish their missions. Consequently, his direction to us has been clear and consistent: make sure the commanders have the resources they need to accomplish the mission and protect our men and women in uniform.

It is with those men and women in mind that the President last week decided to propose this contingent emergency reserve, to provide the commanders and the troops in the field the confidence that the resources they need will be there when they need them. This reserve, if enacted by Congress, will guarantee we have the ability to respond to rapidly changing conditions in the region, while affording the necessary time and experience after the transition in Iraq and the elections in Afghanistan to ensure that a supplemental request made of Congress in early 2005 more accurately reflects real needs.

There are several core principles that guided the administration's request for this reserve. First, it should be made available as a contingent reserve activated only after the President submits a request designating the funds as an emergency and essential to operations in Iraq or Afghanistan. While the levels requested in the 2005 base defense request may well be sufficient to meet all operational needs until Congress acts on a fiscal year 2005 supplemental early next year, the President, based on the advice and recommendations of the Secretary of Defense, believed it was prudent to have an insurance policy in place.

Based on our work with the Department of Defense (DOD) and the Services, it is clear that they will need to—and can without disruption—pull forward funds planned for the second half of the year to use in the first and second quarter for operational needs if the tempo continues at the current high pace. In the current

environment, a need to "cashflow" from the last two quarters in 2005 has the potential to raise concern about the reliability of resources later in the year. We wanted to provide commanders, as well as the troops serving in the field, with the confidence that nothing will stand in the way of the President's pledge to provide them with the resources they need to accomplish their mission. A reserve guarantees they will have what they need when they need it.

Second, the reserve should provide adequate flexibility to allow us to respond to a fluid operational environment and emerging requirements. The DOD and we believe that at the current pace the pressure points in planning and executing are likely to develop in the Operation and Maintenance (O&M) accounts, and particularly Army and Marine Corps O&M. This understanding is reflected in the allocations we have requested in the language we sent to Congress yesterday. We also are seeking to assure that these resources are matched with transfer authority to promptly address changing requirements, including emerging procurement requirements related to force protection.

Third, the reserve should address requirements in Afghanistan and Iraq only. We believe the base 2005 request provides ample resources to meet requirements unrelated to the critical operational missions in Iraq and Afghanistan.

Fourth, we want to assure that enactment of the contingent emergency reserve does not come at the expense of the President's 2005 base request for the DOD of $401.7 billion. Early in his administration, the President determined that predictability in funding was critical to fulfilling the DOD's transformation agenda. That predictability is even more important now as the Services are asked to fully engage in the war against terror abroad even as it fundamentally transforms it organization, infrastructure, force, and doctrine. While some may argue to shift requirements identified in the 2005 base request into the proposed reserve, such a shift risks creating uncertainty and disruption in the DOD's planning and execution of key national security missions.

Finally, I'd just like to note that this administration has tremendous respect for Congress' Constitutional role, and its responsibility, in authorizing and appropriating resources for our armed services. It is in deference to this role that we want to make sure that the next supplemental request you consider is accurate and precise as to the military's needs. Some have recommended that we simply extrapolate from today's costs, multiplying those costs over some fixed period as the basis for a request. We have found that such estimates often mean funds are mismatched with accounts and the requirements that actually develop. The combination of a reserve that can be activated as needed with a future supplemental built on actual 2005 conditions assures we will spend what is necessary to support our troops and their vital mission.

Thank you again for the privilege of appearing before this committee with my distinguished colleagues. I will be happy to take your questions.

THE WHITE HOUSE

WASHINGTON

May 12, 2004

Dear Mr. Speaker:

I ask the Congress to consider the enclosed FY 2005 budget amendment to establish a $25 billion contingent emergency reserve fund to support operations in Iraq and Afghanistan.

Although we do not know the precise costs for operations next year, developments on the ground in Iraq indicate the need to plan for contingencies. We plan to pursue a full FY 2005 supplemental request when we can better estimate precise costs. In the meantime, this reserve fund will ensure that our men and women in uniform continue to have the resources they need when they need them.

I have pledged to our troops that they will have all the resources they need to accomplish this vital mission, and I urge the Congress to approve this reserve fund.

The details of this proposal are set forth in the enclosed letter from the Director of the Office of Management and Budget.

Sincerely,

The Honorable J. Dennis Hastert
Speaker of the
House of Representatives
Washington, D.C. 20515

Enclosure

Estimate No. 5
108th Congress, 2nd Session

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

THE DIRECTOR

May 12, 2004

The President
The White House

Submitted for your consideration is a request for an FY 2005 budget amendment to establish a $25 billion contingent emergency reserve fund to support operations in Iraq and Afghanistan.

The Department of Defense developed this recommendation following discussions with our commanders in Iraq and Afghanistan. Developments on the ground and uncertainty when Congress would be in session to consider an FY 2005 supplemental indicate that the availability of a reserve fund may be necessary to ensure there is no disruption in funding and resources for our armed forces.

Following Congressional action, the contingent emergency reserve fund would be available only if you make a subsequent request designating all or some of these funds as an emergency and essential to operations in Iraq and Afghanistan. The funds would not be available for reconstruction activities. While the funds initially would be allocated into the Iraq Freedom Fund across the military services, the amendment would provide flexibility to transfer funds if necessary. The contingent emergency reserve fund would be available beginning in FY 2005. The Department believes it has the resources it needs for FY 2004, assuming it has sufficient flexibility to transfer funds between accounts.

The costs of continued operations over the next year cannot be estimated with precision at this time. The contingent emergency reserve fund would be accessed should there be a need for additional resources. We plan to submit a full supplemental request in early 2005 when the Department of Defense will have better information on required resources. Until then, the reserve fund will ensure that our troops will have the necessary resources when they need them. Funds spent from the reserve would reduce the cost of a full FY 2005 supplemental request.

Recommendation

Attached for your consideration is legislative language that would establish this fund. We understand that both the House and the Senate Armed Services Committees have indicated an interest in authorizing this fund in their FY 2005 Department of Defense Authorization bills. This legislative language could be adapted to authorize this fund.

I have reviewed this proposal and am satisfied that it is necessary at this time. Therefore, I join the Secretary of Defense in recommending that you transmit the proposal to the Congress.

Sincerely,

Joshua B. Bolten
Director

Enclosure

DEPARTMENT OF DEFENSE
Iraq Freedom Fund
Contingent Emergency Reserve
(Including Transfer of Funds)

For additional expenses, not otherwise provided for, necessary to support operations in Iraq or Afghanistan, $25,000,000,000, available October 1, 2005, and to remain available until expended: *Provided*, That the funds made available under this heading shall be available only to the extent that an official budget request for all or part of the funds is transmitted by the President to the Congress and includes designation of the amount of that request as an emergency and essential to support activities and agencies in Iraq or Afghanistan: *Provided further*, That funds made available under this heading, may be available for transfer for the following activities:

Up to $14,000,000,000 for "Operation and Maintenance, Army";
Up to $1,000,000,000 for "Operation and Maintenance, Navy";
Up to $2,000,000,000 for "Operation and Maintenance, Marine Corps";
Up to $1,000,000,000 for "Operation and Maintenance, Air Force";
Up to $2,000,000,000 for "Operation and Maintenance, Defense-Wide;
Up to $5,000,000,000 may be used to reimburse other appropriations or funds of the Department of Defense and classified programs:

Provided further, That in addition to the transfers authorized in the previous proviso, after consultation with the Director of the Office of Management and Budget, the Secretary of Defense may transfer the funds provided herein to any appropriation or fund of the Department of Defense or classified programs, to be merged with and available for the same purposes and for the same time period as the appropriation to which transferred: *Provided further*, the Secretary of Defense shall notify the Committees on Appropriations and the Authorizing Committees five days prior to the transfer of funds made available under the previous proviso: *Provided further*, That upon a determination that all or part of the funds transferred from this appropriation are not necessary for the purposes provided herein, such amounts may be transferred back to this appropriation: *Provided further*, That the transfer authority provided under this heading is in addition to any other transfer authority available to the Department of Defense.

This request for $25 billion for the Iraq Freedom Fund would provide the resources necessary to ensure there is no disruption in funding and resources for our armed forces. The funds would only be available to the Department of Defense and classified programs to support operations in Iraq and Afghanistan and would only be available if the President makes an emergency determination that additional resources are needed for essential war costs. Funds would be available for all service operation and maintenance accounts as well as emerging needs. The amendment provides flexibility to transfer funds across accounts and services if there is a need.

Chairman WARNER. General Pace. Thank you.

STATEMENT OF GEN. PETER PACE, USMC, VICE CHAIRMAN OF THE JOINT CHIEFS OF STAFF

General PACE. Mr. Chairman and members of the committee, thank you very much. I want to get to your questions as quickly as possible. I'd be remiss though if I didn't say thank you on several levels. First, to this committee, and indeed to all of Congress for your very strong bipartisan support of your military. We're on a very difficult mission. You are making sure, you have made sure, and you continue to make sure, that we have the assets available to get the job done and we thank you very much for that.

Second, to the magnificent young men and women who are in fact carrying forth the missions in Iraq and Afghanistan and around the world. They are making us proud. To their families, whose sacrifices are equal to that of the soldiers in combat. Lastly,

to the employers of our tremendous members of the Guard and Reserve. They have shown incredible flexibility and support, and we know that this is a sacrifice for them as well and we'd like to publicly thank them for that. Sir, thank you.

Chairman WARNER. I've carefully looked through all the documents that have come up requesting that the committee take up this issue. I'd like to put this in some historical context, so I will start with you, Director Kaplan. This particular type of financial arrangement, I'm not talking about the substance at the moment for what the funds are needed, it seems to me clear documentation, but the mechanism by which this particular vehicle was chosen and titled. What is the historical precedent, if any, for this type of financing?

Mr. KAPLAN. Thank you, Mr. Chairman. Certainly the first element of the character is the account structure which we've identified. We've tried to put this into the Iraqi Freedom Fund (IFF), which was a creation of Congress in the April 2003 supplemental.

Chairman WARNER. Yes, I'm familiar with that.

Mr. KAPLAN. Within that account structure, we've tried to identify those areas where we think there will be the greatest pressure points or are likely to be the greatest pressure points as we enter the beginning of the next calendar year. As Secretary Wolfowitz mentioned, we had intended to cash flow. We want to make sure that in particular the Army O&M accounts, the commanders, and the Service, knows that it has the confidence that as we get into calendar year 2005, those resources will be there.

So, again, the account that we've identified is the IFF.

Chairman WARNER. It's an existing fund and ongoing expenditures are being made out of it. Is that correct?

Mr. KAPLAN. I believe that's correct. Ongoing expenditures are still being made out of it, yes, sir.

Chairman WARNER. To what extent was the normal supplemental route considered?

Mr. KAPLAN. Mr. Chairman, as many administration witnesses and officials have noted, we did consider a supplemental when we submitted the President's budget in February 2005. We concluded that the best way to proceed would be to come forward with a full-year supplemental later in the year rather than in the beginning of fiscal year 2005 when we could identify, with some reliability and precision, what those needs would be.

As I said in my testimony, that is still our intention. As Secretary Rumsfeld and Secretary Wolfowitz talked to their commanders and their Service Chiefs, they concluded that we needed to provide some additional assurance that as we progressed in the beginning part of the fiscal year 2005 and particularly early calendar year 2005, they would have those resources. It is still our intention to cash flow, and we believe, and the Services believe, as I understand it, that that can be done without disruption to ongoing operations. It's still our intention to do that. It's just that we want to make sure, as we get into the early months of calendar year 2005, the Services have the confidence that the money will be there. If there is a delay in getting a supplemental in early 2005, either because of the congressional calendar or——

Chairman WARNER. Does this procedure give the executive branch any advantages of more flexibility over the use of the funds in comparison to the normal supplemental, and most specifically the funds in the 2003 supplemental? Did you designate it?

Mr. KAPLAN. I believe it gives similar flexibility that existed in the IFF component of the 2003 supplemental. I think that flexibility is important and it does go to why we've requested it in this fashion. That again is that we don't know right now what the needs are going to be as we proceed later into the year. We want to make sure that commanders, the Secretary, and the President have the flexibility, after notification to Congress, to direct those resources to the needs.

Chairman WARNER. So there's flexibility over and above what was agreed upon between the executive branch and legislative branch with regard to the 2003 supplemental.

Mr. KAPLAN. I think—and maybe Larry can correct me if I'm wrong—it's similar flexibility.

Chairman WARNER. Similar's a nice word, but I want to know how it varies.

Mr. KAPLAN. I think, Mr. Chairman, that within the IFF language——

Chairman WARNER. You think. Does anybody know? Excuse me, I don't mean to be embarrassing. Mr. Secretary, would you like to deal with this for a few minutes?

Mr. LANZILLOTTA. Mr. Chairman, the flexibilities in this reserve account as submitted to Congress are the same flexibilities and transfer authority that we already have.

Chairman WARNER. Over and above previous procedures?

Mr. LANZILLOTTA. The general transfer authority would be over and above previous procedures. It allows us as an insurance fund to reduce the risk to our ongoing program. Normally, to go back to your original point, historically the DOD submits a supplemental in late winter, early spring, and it is a normal procedure for the Services to cash flow those expenses to that time period.

Chairman WARNER. We understand that.

Mr. LANZILLOTTA. This fund though will allow us to reduce the risks to the program, especially Army O&M, who has an exceptionally high burn rate at this point——

Chairman WARNER. We understand that.

Mr. LANZILLOTTA.—to restore to the commanders the stability and funding that they need to continue their program so it'll have no negative effects on readiness.

Chairman WARNER. According to the General Accounting Office (GAO), the incremental costs of the global war on terrorism are about $5 billion a month. Such a monthly expenditure rate could translate into a requirement for $60 billion for the cost of the war for all of fiscal year 2005. Do you agree with those cost estimates?

Mr. LANZILLOTTA. Currently, Mr. Chairman, our operational costs in Iraq, a marginal cost right now, is running about $4 billion. Some months it's $4.1, some months it's $3.9, but it's about $4 billion, and Afghanistan has been running between $600 million to $800 million, but is seeing a downward trend. Generally it's about $4.6 billion. This isn't the supplemental. This is only an in-

surance fund and the supplemental will be a larger number in the spring.

Chairman WARNER. Why $25 billion? If you used that formula, you should have a higher amount for this.

Mr. LANZILLOTTA. What this reserve fund will allow the DOD to do, when we look at the burn rate, particularly for the Army, who is carrying the burden for this burn rate right now in the operations, is allow us to ensure that the Army accounts have sufficient funding to when we think it is a probable outcome to get a supplemental submitted and approved in Congress. This would allow the Army to reduce their risk into the March/April time frame when a supplemental is likely to be approved.

Mr. KAPLAN. If I could just make it clear, it is not intended to be the amount that we need for the first 6 months. It is intended to allow us to cash flow during that period without disrupting key programs.

Chairman WARNER. That's clear.

Mr. KAPLAN. That's the point.

Chairman WARNER. But we want to ensure that Congress has its traditional oversight responsibilities to monitor the expenditures, and I think we have to focus in very closely on how this particular—and I think it's a first of a kind. Would that not be correct?

Mr. KAPLAN. As far as I'm aware.

Mr. LANZILLOTTA. It's unusual.

Chairman WARNER. Unusual's a different word, but it's a first of a kind, and we want to make certain that it is in conformity with the traditional practices to the extent we can so that we can maintain our oversight.

Now, my time is up so I cannot pursue other questions.

Mr. KAPLAN. Could I just say one thing to be clear?

Chairman WARNER. Yes.

Mr. KAPLAN. There will be a request for a full year's supplemental early next calendar year. It will likely be much larger than $25 billion.

Chairman WARNER. There's no question of that, but this is a very significant sum of taxpayers' money over which Congress must exercise its appropriate oversight.

Mr. KAPLAN. Absolutely.

Chairman WARNER. Senator Levin.

Senator LEVIN. According to the letter to the President, this contingent emergency reserve fund would be accessed should there be a need for additional resources. As a matter of fact, your testimony makes it very clear that there will be a need for additional resources, isn't that not clear? General Pace, is there any doubt in your mind we're going to need additional resources?

General PACE. There is no doubt in my mind, sir.

Senator LEVIN. So when the letter reads, "should there be a need," you're already fudging. This is your letter, I think, Director Kaplan. Or this is Director Bolton's letter.

Mr. KAPLAN. Yes, Senator. The letter states—should there be a need to provide additional resources prior to enactment of a fiscal year 2005 supplemental that can't reasonably be covered by cash flow. We know and we've consistently said there will be a supplemental.

Senator LEVIN. That's not what the letter says. The letter says, "the emergency reserve fund would be accessed should there be a need for additional resources." In any event, it's clear in everyone's mind we're going to need additional resources. We're presently spending about $4.6 billion more than we have appropriated for Iraq and Afghanistan. The question is, why not consider a supplemental at this time? This is not a very great range, by the way. This is not some highly speculative expenditure. This is a very obvious expenditure that we know we're going to need of about $4.6 billion a month, that's pretty precise. Why don't we consider a supplemental for that and be honest about it?

Mr. KAPLAN. Senator, the problem is, we really don't know what the number is. It easily could be higher, it might be lower.

Senator LEVIN. If it's higher, fine, we'll have another supplemental. If it's lower, fine, don't spend it. But you say it's $4.6 billion, I mean, you actually added up the exact amount for Iraq, the exact amount for Afghanistan, and it came to somewhere around $4.5 or $4.6 billion. That's plenty precise for us to consider a supplemental. There's no reason not to be direct on this issue and to acknowledge what the costs are of this war, and to simply call this a speculative or a possible or a contingent emergency reserve fund it seems to me just continues to fudge the reality, which is that this war is costing us about $4.6 billion a month more than the President requested in his budget. I think we ought to have an honest presentation of a supplemental request rather than presenting it this way. That's number one.

Number two, in terms of the flexibility, the way this is written, it says you divide it among six categories here. Then you say that, in addition to the transfers authorized in the previous proviso, which are already plentiful, after consultation, DOD may transfer funds provided here into any appropriation or fund of the DOD. So under this letter, this request, the Secretary of Defense, after consultation, basically inside the administration, can transfer that money from any of those areas to any of the other areas. Is that right, Director Kaplan?

Mr. KAPLAN. Yes, Senator, that's correct.

Senator LEVIN. This is just a $25 billion blank check.

Mr. KAPLAN. Senator, I don't think so.

Senator LEVIN. Where's the congressional control? Do you say here that Congress has to approve these expenditures? I know there's notice of 5 days. Is there any approval either before the expenditure or after the proposed expenditure required by Congress?

Mr. KAPLAN. No, Senator, other than the appropriation and this committee's authorization.

Senator LEVIN. You're asking for $25 billion to go anywhere you want.

Mr. KAPLAN. For purposes in Iraq and Afghanistan.

Senator LEVIN. For any purpose you determine in Iraq and Afghanistan. All this is window dressing. When you allocate $14 billion for O&M, $1 billion for O&M Navy, $2 billion for O&M Marine and so forth, that's just window dressing because you can move it from one account to another at your whim. Is that not correct?

Mr. KAPLAN. Senator, that's our attempt as we sit here today to identify where we think the pressure points are most likely to occur.

Senator LEVIN. I understand that. But you have the authority under—if given the authority—to move that money from any account to any other account without any congressional involvement other than a 5-day notice. Is that correct?

Mr. KAPLAN. For use in Iraq and Afghanistan, yes, Senator.

Senator LEVIN. That's the only limit? Here's $25 billion more for use in Iraq and Afghanistan, so these numbers that you're giving us are just window dressing numbers.

Mr. KAPLAN. No, Senator, they represent the DOD's best estimate today.

Senator LEVIN. But they don't limit you expenditure in any way, do they?

Mr. KAPLAN. No, sir.

Senator LEVIN. All right. So you have an unlimited $25 billion. That's what this amounts to. I think that's the definition of a blank check. I can't think of a better definition of a blank check.

Before my time runs out——

Chairman WARNER. Could we allow Mr. Lanzillotta to answer?

I'll add additional time so that he can answer the question.

Senator LEVIN. Sure.

Mr. LANZILLOTTA. Senator, what this will allow us to do, and we outlined it for the operational cost, we know during this period of time that we're going to have operational costs and force protection needs. The reason we allowed that flexibility, because we're going through the 2004 right now, is because when we got very specific as to where the accounts are, we were trying to match the money to where the bills are. We currently have a stress point with general transfer authority, and so what we were trying to do is find that balance with Congress, because we know we need to support the operational costs and force protection costs as they happen on the ground and have the flexibility to deal with that, especially the force protection, without going through lengthy processes which would delay us getting that equipment to the troops in Iraq.

Senator LEVIN. I understand. That's exactly what Director Kaplan said basically. But you need to understand, you're not talking about balance with Congress here. You're talking about $25 billion for Iraq and for Afghanistan, and you can spend that in any way that you want. By the way, you don't provide any personnel costs to those additional 20,000 troops, which is another problem I have with this.

But because I'm going to run out of time, this is the definition of a blank check. I think most of us want to provide funds. We want a supplemental. It's pretty ironic here. We've been trying to pressure this administration to cough up a request for the additional money, and to come forth with a reasonable request for additional money. The administration refused to do that until now, and this is what we get as a result of all our effort to have some responsible budgeting for the cost of this war. It's Congress which has said this war's costing $5 billion a month at least more than you have requested. That's not responsible budgeting. Give us a respon-

sible request. It hasn't been forthcoming until last night and this is not responsible because it's just a blank check for $25 billion.

So in terms of balance with Congress, there's no balance here. There's no balance here at all that I can see.

Here's my last question, and Secretary Wolfowitz, it seems to me you opened up an area of questions with your opening statement. I must say your opening statement is not limited at all to the budget issues in front of us. I understand the chairman's desire to have this be a budget hearing, and I think that is what it should be too, but your statement, Mr. Secretary, went way beyond budget issues, and it seems to me it is then appropriate that people use their time if they want to ask you questions about what you testified to here this morning.

I want to ask you just one question about the prison situation in Iraq.

Chairman WARNER. I'm just going to ask if Senator——

Senator LEVIN. I think his statement opened this up. His statement was not limited to budget numbers. His statement was an argument for the administration's whole position in Iraq, it was not just a budget presentation. So I think, Mr. Chairman, that in fairness, if we're going to hear an opening statement like that, that Senators ought to have an opportunity, if they want to use their time, to ask questions of Secretary Wolfowitz on the subject of Iraq, because he went way beyond the budget issues which we were supposed to be talking about this morning.

Chairman WARNER. I suppose that this is the responsibility of the chairman. The notice that went out to all members was related to the budget hearing. Many members are here for that purpose. I'd like to contain the questioning to the questions of the budget, and as soon as that is over, we will then recognize members for the purpose of asking other questions. I thank the indulgence of all members.

Senator LEVIN. Well, then, I have one question.

Chairman WARNER. Well, I——

Senator LEVIN. No, this is my question. It's not my substantive question, it's my procedural question. Did Secretary Wolfowitz get a copy of the notice of this hearing? Because he sure didn't comply with the notice of this hearing in his opening statement.

Secretary WOLFOWITZ. Senator Levin, I thought since we're asking for funding for operations in Iraq that it was appropriate to say something about the purposes of those operations.

Senator LEVIN. Thank you, Mr. Chairman.

Chairman WARNER. I thank the indulgence of my members. I will not take further time. I'll put into the record at this place my own study of the reports by Congress with reference to the October 23 conference report on the IFF and the April 12, 2003 report, in which language is adopted by Congress, I think closely related to what you're here for today. I'll ask those be placed in the record.

[The information referred to follows:]

Emergency Wartime Supplemental Appropriations Act, 2003

Became Public Law No: 108-11

Iraq Freedom Fund

(TRANSFER OF FUNDS)

There is established in the Treasury of the United States a special account to be known as the `Iraq Freedom Fund'. For additional expenses for ongoing military operations in Iraq, and those operations authorized by Public Law 107-40, and other operations and related activities in support of the global war on terrorism, not otherwise provided for, necessary to finance the estimated partial costs of combat, stability operations (including natural resource risk remediation activities), force reconstitution, replacement of munitions and equipment, and other costs, there is hereby appropriated $15,678,900,000, to remain available for transfer until September 30, 2004: *Provided,* That amounts provided under this heading shall be available for transfer for the following activities:

Not less than $1,771,180,000 for classified programs, which shall be in addition to amounts provided for elsewhere in this chapter, and under this heading, for procurement and research, development, test and evaluation;

Not less than $1,100,000,000 for increased fuel costs, for transfer to `Defense Working Capital Funds';

Up to $1,400,000,000 for transfer to `Operation and Maintenance, Defense-Wide', only for purposes further specified in section 1310 of this chapter;

Up to $489,300,000 for transfer to the `Natural Resources Risk Remediation Fund';

Up to $400,000,000 for transfer to Department of Homeland Security, `United States Coast Guard, Operating Expenses', to support military activities in connection with operations in and around Iraq and the global war on terrorism;

Up to $57,600,000 for research, development, test, and evaluation; and

Up to $25,000,000 for counter-terrorism military training activities for foreign governments in connection with the global war on terrorism, including equipment, supplies and services, on such terms as the Secretary of Defense, with the concurrence of the Secretary of State and 15 days following submission of a financial plan for the use of such funds to the congressional defense committees, may determine:

Provided further, That in addition to the transfers authorized in the preceding proviso, the Secretary of Defense may transfer the funds provided herein to appropriations for military personnel; operation and maintenance; Overseas Humanitarian, Disaster Assistance, and Civic Aid; procurement; research, development, test and evaluation; military construction;

the Defense Health Program appropriation; and working capital funds: *Provided further,* That the funds transferred under this heading shall be merged with and shall be available for the same purposes and for the same time period, as the appropriation to which transferred: *Provided further,* That the transfer authority provided in this paragraph is in addition to any other transfer authority available to the Department of Defense: *Provided further,* That upon a determination that all or part of the funds transferred from this appropriation are not necessary for the purposes provided herein, such amounts may be transferred back to this appropriation: *Provided further,* That the Secretary of Defense shall, not fewer than 5 days prior to making transfers from this appropriation, notify the congressional defense committees in writing of the details of any such transfer: *Provided further,* That the Secretary of Defense shall submit a report no later than July 1, 2003, and then 30 days after the end of each fiscal quarter to the congressional defense committees summarizing the details of the transfer of funds from this appropriation.

MAKING EMERGENCY SUPPLEMENTAL APPROPRIATIONS FOR DEFENSE AND FOR THE RECONSTRUCTION OF IRAQ AND AFGHANISTAN FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 2004, AND FOR OTHER PURPOSES

Became Public Law No: 108-106

IRAQ FREEDOM FUND
(INCLUDING TRANSFER OF FUNDS)

For `Iraq Freedom Fund', $1,988,600,000, to remain available for transfer until September 30, 2005, for the purposes authorized under this heading in Public Law 108-11: Provided, That the Secretary of Defense may transfer the funds provided herein to appropriations for military personnel; operation and maintenance; Overseas Humanitarian, Disaster, and Civic Aid; procurement; military construction; the Defense Health Program; and working capital funds: Provided further, That funds transferred shall be merged with and be available for the same purposes and for the same time period as the appropriation or fund to which transferred: Provided further, That this transfer authority is in addition to any other transfer authority available to the Department of Defense: Provided further, That upon a determination that all or part of the funds transferred from this appropriation are not necessary for the purposes provided herein, such amounts may be transferred back to this appropriation: Provided further, That the Secretary of Defense shall, not fewer than 5 days prior to making transfers from this appropriation, notify the congressional defense committees in writing of the details of any such transfer: Provided further, That the Secretary shall submit a report no later than 30 days after the end of each fiscal quarter to the congressional defense committees summarizing the details of the transfer of funds from this appropriation: Provided further, That not less than $62,100,000 shall be transferred to `Other Procurement, Army' for the procurement of Up-armored High Mobility Multipurpose Wheeled Vehicles and associated equipment: Provided further, That $10,000,000 shall be for the Family Readiness Program of the National Guard.

Chairman WARNER. Senator McCain.

Senator MCCAIN. Thank you, Mr. Chairman. I believe that every member of this committee wants to provide the executive branch with whatever funds are necessary to prosecute the conflict in Iraq in the most successful fashion. But I am very troubled because I have never seen a request that basically outlines some priorities and then states that it can be "used for any fund." I've never seen anything like that, Mr. Chairman. There may be some precedent for it, but I agree with Senator Levin's characterization. This is a blank check.

I am intrigued that there's no mention in this set of priorities, Director Kaplan, about the increased personnel costs. We have 20,000 additional personnel there now. I think we need more. I said we needed more 9 months ago when the unanimous response was, well, the commanders on the ground haven't asked for them, which is one of the most disingenuous answers I've ever heard in response to what was clearly a requirement, which we're paying a very heavy price for right now, lack of enough sufficient troops on the ground.

So now we're going to give you $25 billion, which by the way, just a very short time ago it wasn't going to be needed in testimony, now we're going to give $25 billion, and I'll give $50 billion, I'll give $100 billion. But it seems to me, Mr. Chairman, that we do have an oversight responsibility as to where this money is spent. I don't think that all of that money has been well spent in the past.

So I guess my first question is, what about personnel costs, Mr. Secretary? I hope I'm within the confines of the chairman's narrow interpretation of what this hearing is all about. Do we need more troops, and if so, how many?

Secretary WOLFOWITZ. Senator McCain, I think on personnel costs we're talking about an account that is large enough that we think we can cash flow until we have a clear idea of how many troops we need. You're absolutely right. We needed more in the recent months than we had anticipated and we don't know what we're going to need next winter or next spring, but by next January we should have a much clearer idea of it.

The Army personnel account is large enough, I believe, and I'll ask Mr. Lanzillotta to correct me if I'm wrong, not to create that problem. Army O&M is only $26 billion, and at the rate we're going to be consuming our Army O&M, we can run into serious problems early next spring without this kind of reserve available.

Let me emphasize this is not any number designed to get us through any fixed period. It is a number designed to allow us to cash flow in a responsible way without breaking the momentum of the key Army modularization program or requiring us to short change the troops on things they need in the field.

Senator MCCAIN. I won't take up the time of the committee, Mr. Chairman, except to say that I have never seen a request exactly like this. If we want to, again, give up all oversight responsibilities, which apparently is the case, then that's the wish of the majority to do that. I want to give them sufficient funding. I think they're going to need more money. I think they need a lot more than $25 billion given the tempo of operations, but the way I read this proposal is that we will be notified perhaps within 5 days and that will pretty much sum it up.

This committee has become a very interesting debating institution, but I don't know where our oversight responsibilities lie, and I hope that at some point we would respond to our constituents' desire to have much more careful scrutiny over this conflict and the way it is being conducted and the mistakes that have been made which have led us to a situation which I think is very grave at this particular point in the history of this conflict. I have believed from the beginning and believe now, it is of the most vital importance

to the future of the world and our democracy and freedom that we win in this conflict.

I don't believe very frankly, Mr. Chairman, that we are playing nearly the role that is our constitutional responsibility to carry out. Thank you, Mr. Chairman.

General PACE. Mr. Chairman, may I take a minute and just add a bit more information on the troop strength? Because, Senator McCain, you are absolutely correct, sir. It would be disingenuous for any of us in a leadership position to simply take numbers from the field and either say, that's what they need or that's what they don't. You are correct, sir.

I will speak for myself. I am a member of the Joint Chiefs of Staff. I have a responsibility to absorb the data that first General Franks gave to us and now General Abizaid is giving to us, to do my own analysis, and to provide my best guidance—correction, my best recommendations.

As recently as this past Monday, the Joint Chiefs met via video teleconference (VTC) with General Abizaid, and we reviewed his plans for the coming months and his request to maintain the current 19,000 to 20,000 man increase for the foreseeable future. I personally, and we collectively, agreed with that assessment, is not to lay this on the commanders in the field. It is a responsibility of us collectively as leaders to absorb that data and to make judgments.

Senator MCCAIN. I sure wish the answer hadn't been for months, when those of us who believed that we needed more troops, and the answer was, that, the commanders in the field haven't asked for it. That was the response given for the record on 50 to 100 occasions. Again I want to emphasize, I want us to do everything possible to help you win this conflict. I mean that with all sincerity. I am concerned about where we are in this conflict today. I believe we can and will still win it, but I wish we played a more participatory role, not because of my own ego, but because I believe the Constitution has deemed that we do so.

Thank you, Mr. Chairman.

Chairman WARNER. Thank you, Senator.

Mr. KAPLAN. Mr. Chairman, may I clarify something for the record?

Chairman WARNER. Gentlemen, I have to continue.

Mr. KAPLAN. Sorry.

Chairman WARNER. Senator Kennedy, I appreciate your indulgence to defer——

Senator KENNEDY. Mr. Chairman, I want to just point out in the Secretary's statement, he talks on page 2 about Iraq's capacity for representation. He talks about assuming responsibility for governmental function. He talks about a functioning judiciary. He talks about elected assemblies. He talks about preparing the way for elections. He talks about reconstruction of Iraqi infrastructure. He talks about fertile ground, water resources, and natural resources. In his first page, he says, "despite recent violence at a time when so much attention is being focused properly on the abuses of detainees in Iraq," I think I'm entitled to ask my question and I intend to use it for the 5 minutes.

Chairman WARNER. Senator, I respectfully ask that you indicated you'd be willing to defer——

Senator KENNEDY. Excuse me, Mr. Chairman, I didn't. I recognized that you mentioned that comment, but I've been on this committee for 24 years, I've been in the Senate 42 years, and I have never been denied the opportunity to question any person that's come before a committee on what I wanted to ask. I resent it and reject it on a matter of national importance. We're talking about prison abuses, we're talking about the Red Cross meeting with Secretary Wolfowitz in January of last year, we're talking about published reports about this, we're talking about what he did do and what he didn't do, and the activities as the number two person in the DOD, and we are entitled to answers, Mr. Chairman. I'm going to use my 6 minutes.

Chairman WARNER. I indicated to you I would recognize you immediately upon the conclusion of the first round.

Senator KENNEDY. Mr. Chairman, then you're going to have to rule me out of order and I'm going to ask for a roll call of whether the committee is going to rule me out of order. I think I am entitled to ask a question on a subject which is relevant to his testimony on it. I'm entitled to that, Mr. Chairman. This is the United States Senate.

Secretary WOLFOWITZ. Senator Kennedy, I'd be happy to answer your question about the meeting with the Red Cross.

Senator KENNEDY. I'd appreciate it.

Chairman WARNER. You have opened the inquiry broader than the scope that was the intended, Mr. Secretary, so I expect that the Senator has a point. It had been my intention to conduct this hearing on the budget. That was the notice, that was the purpose, and then at the conclusion of the testimony on the budget, I was perfectly willing to allow Senators to ask other questions.

Secretary WOLFOWITZ. Sorry. I'll do it your way, Mr. Chairman.

Chairman WARNER. You have opened it up in your opening statement to I think any legal construction, you've opened it up to all issues.

Senator KENNEDY. We're limited by our 6 minutes.

Chairman WARNER. I will not detract from your time.

Senator KENNEDY. I appreciate it.

Chairman WARNER. So let us proceed with your 6 minutes at this time.

Senator KENNEDY. I want to say, Mr. Chairman, at this time, you've always been a respected chairman. Once in a while we get worked up around here.

Chairman WARNER. That's all right. That's the way the committee should work. But I see the point that you and the ranking member make.

Senator KENNEDY. Thank you.

Chairman WARNER. But I would hope that we could continue on this budget and then have a second round.

Senator KENNEDY. Thank you, Mr. Chairman, and thank you, Mr. Secretary, for your willingness to address this issue. The question I have is, as you saw in The New York Times report this week, the President of the Red Cross was here for 2 days in January to talk with the State Department, Secretary Powell, Condaleeza

Rice, and yourself about detention problems. At least on their calendar, and my conversations and contacts with the President, he raised the detention issues at Guantanamo as well as in Iraq. He didn't get into the specifics as your aide has reported, but he raised the issues of abuses in Iraq jails.

My question to you is, when those issues were raised to you, what did you do about it? You came here about 5 weeks ago and made a very eloquent statement about human rights issues, about the concern that the administration had about the abuses of the previous regime which was very legitimate, but there was no mention of any of the violations or the problems in Iraqi jails. My question to you is, when the head of the Red Cross briefed you that there were going to be problems, and that there was going to be a report later in February, what did you do? You heard the bells go off. Did you ask to read the previous reports in the DOD? Did you ask for an early report from the Red Cross so that you would have been alerted on February? Did you check with the DOD to find out that this is just the time that Sanchez was supporting Taguba to do an independent report already in the DOD, and that actions were already being taken?

What did you do at that time when you as the number two person in the DOD had this notification by the Red Cross?

Secretary WOLFOWITZ. Mr. Chairman and Senator Kennedy, I'm as horrified as anybody at these abuses, and I think Secretary Rumsfeld has made it clear just how horrified he is, how seriously he takes this issue, how determined he is to find out what has happened to make sure that in an appropriate legal fashion we deal with people who have committed offenses, and that we find out what we need to do to prevent these kinds of things from taking place in the future.

At the same time, we have incredibly important business at DOD to run. He's designated a considerable number of officials to assisting him in getting to the bottom of this whole issue and to going through hours of testimony before this committee and other committees of Congress, and hours and hours of briefings from the various investigations that have been launched, and I would emphasize launched by the Army and by the DOD, and it's a very time-consuming business.

He's asked me and General Pace to make sure that the remaining business of the DOD, the critical issues of training and equipping and making sure our forces have what they need, and most of all that our forces in the field have what they need, that those things are being properly staffed, and he specifically asked the two of us to focus on that.

I can't answer in detail on those issues. I can tell you I do remember the meeting with the chairman of the Red Cross, and I took it very seriously. My recollection of it was that it was entirely about Guantanamo. There are some serious issues between us and the Red Cross about Guantanamo. I might emphasize they have nothing to do with the kinds of abuses that we've been hearing about in Iraq. The central issue is this issue that everyone is aware of is the impact of long-term detention. That's not the issue in Iraq.

The abuses that took place in Iraq were clearly outside of anything that was authorized in any circumstances anywhere by U.S. military officials.

Senator KENNEDY. My time is up, but your own staff, Charlie Cooper, indicated that the Iraqi prison issue was discussed at that time.

Secretary WOLFOWITZ. Some people in the meeting believe that the chairman of the Red Cross mentioned that there was a report coming on Iraq. I honestly don't remember.

Senator KENNEDY. There was no follow-up, no further follow-up from your own people?

Secretary WOLFOWITZ. We were waiting for it.

Chairman WARNER. Thank you very much, Senator Kennedy.

Senator Inhofe.

Senator INHOFE. Thank you, Mr. Chairman. I might add that after listening to all the testimony, there are 7 people responsible primarily for the problems that existed. They are all in some stage of prosecution under the Uniform Code of Military Justice (UCMJ) at this time, and I might add they were before any of this came to the public's eyes. That was already underway and that was done swiftly.

In your opening statement, you may have addressed this, I just have one question. Your requests are entirely of funds allocated to O&M accounts, and yet there are some other areas that we know are going to have to be covered like some of the equipment that's been destroyed and so forth. Do you have a way of using this for those purposes that become necessary?

Mr. LANZILLOTTA. Senator, this was just meant to be a bridge account to allow us to support operational costs and force protection costs. Equipment losses and some of the major expenses that we're incurring will be in the full supplemental request that would be submitted later.

Senator INHOFE. That's good. Let me use this opportunity to recall something that happened 3 years ago. I think it was during the Secretary's confirmation hearing, I asked a question about the problems we seem to have, and I've experienced this, not for 42 years, but for 18 years, that it always seems like we're under crisis control. Something will come up and all of a sudden we're going to have to come up with the money and we're going to have to do it. I remember during the 1990s, in order just to get bullets, some of the training commanders were actually taking money out of their real property maintenance (RPM) accounts, but I think they call it something else now. Consequently, we didn't have roofs on our barracks down at Fort Bragg and different places. So it's also kind of in a crisis.

I asked the question of Secretary Rumsfeld at that time, how can we overcome this, looking down the road, not just looking at today and the problems today? I'd like to ask you to being doing that. He said, if you go back all throughout the 20th century, the percentage of gross domestic product (GDP) that went to the defense budget has been an average of 5.7 percent on non-war years. That slowly went down in the 1990s to 2.7 percent. Now I understand the most current percentage is 3.6 percent.

At that time, he said, I think we're going to have to look at it someday in order to be able to resolve these problems and not always be meeting at a crisis, around 4.5 percent. I would only observe that what he said 3 years ago seems to have been pretty prophetic, because it seems to be that way to me. I would just hope that your staff as time goes by might look to the future, and look where are we going to be 10 years from now.

By the way, General Pace, our mutual friend from Texas called the other day and sent along his best wishes to you and his congratulations for the great job you're doing.

General PACE. Thank you, sir.

Senator INHOFE. Thank you, Mr. Chairman.

Chairman WARNER. Thank you very much. Senator Lieberman.

Senator LIEBERMAN. Thank you, Mr. Chairman, Mr. Secretary, General, Mr. Kaplan, and Mr. Lanzillotta. Mr. Secretary, on this Senate Armed Services Committee you have Senators who have been steadfastly and fervently in support of our military involvement in Iraq, you have members here who are skeptics about it, and you have some who have been opposed to it. But there's not a member of this committee that doesn't want to provide our military with the resources they need to do the job that you and we are asking them to do.

In that regard, having listened to Senator Levin and Senator McCain, with whom on this matter I agree, I believe we're heading into a situation that is already conflicted enough and difficult enough, and into an unnecessary disagreement about whether this money is provided through this committee and Congress by a reserve fund, which is very unusual, and perhaps unprecedented, or through a supplemental request.

Of course, the skeptics will say that the administration is doing this because people were demanding in Congress all along that you come in with a supplemental and because you didn't want to yield to that, you're calling it a reserve fund. In the interest of achieving some unified ground here in pursuit of what I believe we all support, which is adequate resources for our personnel in Iraq, would you consider reshaping this request as a more traditional request for supplementary funding for the war in Iraq?

Secretary WOLFOWITZ. I think the problem, Senator Lieberman, is, if you start to do that, then you start to try to predict the unpredictable, and you either underestimate what you're going to need and then that has consequences. When you later come in with a larger number, then people say, you weren't honest with us or you got it wrong. If you overestimate what you need, you end up with money that doesn't get spent wisely, and frankly, not only are we not pretending this is not the supplemental, we're not pretending this is 6 months of the supplemental. It is very likely, and you can do the arithmetic, Senator, we're not hiding the bill on what we're spending now. It's roughly—and I'm not using the precise $4.4 billion—it's roughly $4.5 billion, or if you add in some other things, it's pushing closer to $5 billion a month. It is $50 to $60 billion if you look at all of our operations in Iraq and in Afghanistan. It's a big bill.

We'll manage much better if you will give us the time to wait until early next year when we really know what that bill is going

to be. If it turns out miraculously, or happily, to be significantly lower, it will be much better to ask for a smaller amount. If it turns out to be higher, we will ask for a larger amount.

This is a war. It's a war in Iraq, it's a war in Afghanistan. War is unfortunately a very unpredictable operation, and we're not pretending that we are predicting, and we're not pretending it's cheap.

With respect if I might add too, to this issue about a blank check. We're not looking for a blank check. We are looking for the kind of flexibility that will make sure that when a need arises we can allocate funds to where that need exists.

Senator LIEBERMAN. I hear you, and I understand what you are saying, but I want to repeat what I said before. We're heading down a road to an unnecessary fight in a circumstance where that battle may do damage to our cause and may lead others to question more than they should the willingness of Congress to support our troops regardless of the individual attitudes of Members of Congress on this.

We all agree. You've said it, all of you on the panel, we know it. This is not a supplemental request for all the money we're going to need to prosecute the war in Iraq through the end of fiscal year 2005. But the answer to that is just to come in with a partial supplemental request. We all know that, and we won't be deceived by it. We know that there's going to need to be one more coming in next year. I just worry that we're heading down a road here where we all ought to be unified, where we're going to hear a lot more use of the term blank check, and more conflict over this than I think we need to have.

Therefore, I got your answer, and I just want to ask you to go back and speak to the Secretary and perhaps the White House about whether this is really a fight you want to fight.

I want to go briefly, if I can, to the prison abuse scandal which troubles us all. Here's another case where no matter where you stand on the war, everybody agrees this was horrific, unacceptable, damaging behavior.

Chairman WARNER. If the Senator would indulge me. I don't intend to prolong this, but the chair did ask with regard to the restriction by members, in no way have I ever in my 26 years in the Senate tried to curtail a Senator's right to question. But it was pointed out, and I wasn't fully aware of your opening statement, as we would say in the law, opens up the subject. As such, the chair hereby withdraws the request to the members to confine their questions to matters related to the budget.

I did not want to go to a vote because I know how to count votes. Having said that, the chair withdraws that admonition, but bear in mind, we're here on the question of this budget. I do not deduct from the time of the Senator.

Senator LIEBERMAN. Thank you.

Senator LEVIN. Could I just add one quick comment and also request it not be deducted. I just want to thank the chair. He's always very reasonable, a gentleman, and maintains the dignity, decorum of this committee, and the good relations of our members sometimes under very difficult circumstances. I just want to commend him publicly for the way he is able to do all that at the same time.

Senator DAYTON. You'd have all the votes on that one.

Chairman WARNER. I thank my good friends. I always remember Yogi Berra said good guys finish last. I'm still trying to place up here.

Senator LEVIN. You'll finish first by that standard, Mr. Chairman.

Chairman WARNER. Go ahead.

Secretary WOLFOWITZ. If I might just say it, I addressed the issues I did in my opening statement because I think it is perfectly proper for the committee to ask what the $25 billion is being used for. As I said earlier, if you want to get into the issue of the prisoner abuse scandal, you really need to get people who are able to devote pretty much full time to digging into the facts, and we have multiple officials who've been testifying over 20 hours on those issues.

Chairman WARNER. I indicated at the beginning of the hearing, that you and I, in the course of our conversations preparatory to this hearing, said that your full attention really had been put on the maintenance of the DOD and the everyday demands, together with to a great extent General Pace. Is that correct, General? But the questions will be asked and you'll respond to the best of your knowledge. Thank you very much.

Senator LIEBERMAN. Mr. Chairman, thank you.

Chairman WARNER. Your time is restored. You have another minute.

Senator LIEBERMAN. I appreciate it. One question, and I'll try to draw a line from your initial purpose to the wider agenda now, and it is this: to support and maintain public and congressional support for the troops and the mission, it seems to me that we have to guarantee that there is the widest and most unfettered investigation of how the prison abuse scandals happened, including up the chain of command, to look wherever responsibility for action or inaction should be placed.

I wanted to ask you in that regard whether you think the various investigations going on now have the latitude to do that. Particularly, I thought one of the most important things Secretary Rumsfeld said last Friday, which was lost in the coverage of his testimony, was the creation of the four-person independent investigating group with Secretaries Schlesinger and Brown, General Horner, and former Congresswoman Fowler.

Am I correct that they will have independent staff and that they will independently review the other investigations, including any culpability, and not only by those in the prisons but up the chain of command?

Secretary WOLFOWITZ. Senator, this is where I feel I'm not sufficiently informed on the details to give you a confident answer. I'd like to give it to you for the record. I think the answer is yes, but I'd like to confirm it. I think they also have the ability to recommend additional investigations if they think additional investigations are needed. I will confirm that for the record.

[The information referred to follows:]

SECRETARY OF DEFENSE
1000 DEFENSE PENTAGON
WASHINGTON, DC 20301-1000

May 12, 2004

MEMORANDUM FOR THE HONORABLE JAMES R. SCHLEGINGER,
CHAIRMAN
THE HONORABLE HAROLD BROWN
THE HONORABLE TILLIE FOWLER
GENERAL CHARLES A. HORNER, USAF (RET.)

SUBJECT: Independent Panel to Review DoD Detention Operations

Various organizations of the Department of Defense have investigated, or will investigate, various aspects of allegations of abuse at DoD Detention Facilities and other matters related to detention operations. Thus far these inquiries include the following:

-- Criminal investigations into individual allegations
-- Army Provost Marshal General assessment of detention and corrections operations in Iraq
-- Joint Task Force Guantanamo assistance visit to Iraq to assess intelligence operations
-- Administrative Investigation under AR 15-6 regarding Abu Ghraib operations
-- Army Inspector General assessment of doctrine and training for detention

operations
-- Commander, Joint Task Force-7 review of activities of military intelligence personnel at Abu Ghraib
-- Army Reserve Command Inspector General assessment of training of Reserve units regarding military intelligence and military police
-- Naval Inspector General review of detention procedures at Guantanamo Bay, Cuba, and the Naval Consolidated Brig, Charleston, South Carolina

I have been or will have been briefed on the results of these inquiries and the corrective actions taken by responsible officials within the Department.

It would be helpful to me to have your independent, professional advice on the issues that you consider most pertinent related to the various allegations, based on your review of completed and pending investigative reports and other materials and information. I am especially interested in your views on the cause of the problems and what should be done to fix them. Issues such as force structure, training of regular and reserve personnel, use of contractors, organization, detention policy and procedures, interrogation policy and procedures, the relationship between detention and interrogation, compliance with the Geneva Conventions, relationship with the International Committee of the Red Cross, command relationships, and operational practices may be contributing factors you might wish to review. Issues of personal accountability will be resolved through established military justice and administrative procedures, although any information you may develop will be welcome.

I would like your independent advice orally and in writing, preferably within 45 days after you begin your review. DoD personnel will collect information for your review and assist you as you deem appropriate. You are to have access to all relevant DoD investigations and other DoD information unless prohibited by law. Reviewing all written material relevant to these issues may be sufficient to allow you to provide your advice. Should you believe it necessary to travel or conduct interviews, the Director of Administration and Management will make appropriate arrangements.

I intend to provide your report to the Committees on Armed Services, the Secretaries of the Military Departments, the Chairman of the Joint Chiefs of Staff, the Commanders of the Combatant Commands, the Directors of the Defense Agencies and others as appropriate. If your report contains classified information, please also provide an unclassified version suitable for public release.

By copy of this memorandum, I request the Director of Administration and Management to secure the necessary technical, administrative and legal support for your review from the Department of Defense Components. I appoint you as full-time Employees of this Department without pay under 10 U.S.C. Article 1583. I request all Department of Defense personnel to cooperate fully with your review and to make available all relevant documents and information at your request.

Signed //Donald H. Rumsfeld//

Senator LIEBERMAN. General Pace, do you have a response to that?

General PACE. Sir, I have not read the document, if there is one, that the Secretary may have signed on that to the members. I do know that in the discussions leading up to it, the concept was that these would be four individuals who would have the opportunity, the authority, and the support to take all investigations, no matter

what level they were derived from, read them, look at them, cross-reference them, and make recommendations to the Secretary about what other investigations might be needed to flesh out the story. I do not know the specific guidance he has given to the individual members.

Senator LIEBERMAN. I thank you and I just say finally that as a supporter of the war, I think it is critically important that at some level, and that looks to me like the most natural level, there be that independent review by people outside of the Pentagon who can guarantee the American public and the world that they have looked without limits at anyone who may bear a blame for this scandal and hold them accountable.

I thank you, Mr. Chairman. You're both a winner and a good guy as far as I'm concerned.

Chairman WARNER. Thank you very much. Senator Allard.

Senator ALLARD. Thank you, Mr. Chairman, and I just want to say that along with all my colleagues here on this committee that have stated that they fully support our men and women in Iraq and Afghanistan and really respect the great job that they're doing, we want to make sure that the money that we're making available has some oversight, at least as far as Congress is concerned. We've had this discussion on the Budget Committee on which I serve, Mr. Chairman. We have worked out a solution which I thought might take care of your concerns. I can understand when we have a supplemental, everybody adds their own projects because they're outside the budget and it gets abused. There are members on this committee who have abused that and there are Members in Congress who have abused that, because it goes beyond what was intended in the supplemental. It ties it up, and it doesn't make dollars available for the DOD. I can understand all that concern.

But on this side, we need to have some oversight. So what the Budget Committee came up with in their resolution—this is another reason why we need to get it passed—is a provision where the committee set aside $30 billion to go through a process where you make your request to the Committee on Appropriations, and then the Appropriations Committee is in a position to manage that request. That expedites the procedure so you don't have a supplemental out here that gets abused. It goes ahead and makes the process move much faster, so that as your needs come up you can go ahead and make those requests to the appropriators and they can make the money available to you.

It seems to me like that's a reasonable approach. It's Section 312 in the Budget Committee that we're working to get passed, and I wish you'd take a look at it. Maybe you'd like to comment further on this approach. Maybe General Pace would like to comment. You can perhaps comment on it, Mr. Secretary, and even Director Kaplan, would maybe like to comment on that provision.

Secretary WOLFOWITZ. Let me just say first I think you're absolutely right that it is important. There's a temptation when you have emergency accounts available to start using them for things that are not emergencies. I think it was Senator Inhofe who correctly pointed out that when Secretary Rumsfeld testified here in his confirmation hearings and in the summer of 2001, we were working very hard to make sure that we stopped funding regular

expenditures and pretending that they were emergencies. It had very bad effects on the management of the DOD.

The other side of the coin is if you over budget for something that you predict is going to be an emergency 12 months from now, you're inevitably going to have people using those funds in an undisciplined way. I think that's the philosophy for waiting until part way into the fiscal year when we have a better fix on things.

I'm not familiar with the vehicles and I think Director Kaplan might want to address that.

Mr. KAPLAN. Senator, we're of course appreciative of any efforts and ideas that Congress has to provide expedited procedures to make sure that the flexibility exists to get the resources where the DOD and the commanders say they need them. We want to be mindful of course of the appropriators, their ability to consider these requests, and expect that they will act on this contingent emergency reserve fund as well as the ultimate 2005 supplemental.

If I may back up for a minute, I think I may have led to a bit of confusion by my imprecision of language in saying that this proposal was similar to the IFF. I didn't have the language in front of me. But it is in fact modeled after the IFF that Congress created in the fiscal year 2003 supplemental. It identified several accounts and said money shall be available for transfer for the following activities, and then proceeded to say not less than up to several enumerated specific accounts. It then provided that in addition to those transfers, the Secretary of Defense may transfer the funds provided herein to appropriations for military personnel, O&M, overseas humanitarian, disaster assistance and civic aid, procurement, research and development (R&D), and proceeds to list, actually in some ways a more expansive list even than we've asked for because it goes outside of the fence.

So we were mindful of Congress' prerogatives and recognized that that was something that Congress had supported and created in the past.

Senator ALLARD. I want to emphasize again that this provision we have in the budget, which is an agreement between the House and the Senate, is to accommodate incremental expenditures associated with ongoing military operations in Iraq and Afghanistan, and this is just exactly what you're asking for. There's $30 billion that we're setting aside in there to do that, and then the only caveat that we have here is that you just go to the appropriators and explain the items that you want to use that for, and the appropriators can make that available.

It seems to me like we have the proper balance between congressional oversight. It becomes a part of our budget process, so we have accountability there. It meets your needs as you run across these incremental expenditures, so you can go ahead and make those requests and the appropriators can provide them.

Mr. KAPLAN. Senator, I think that's not inconsistent with what you and the Budget Committee have——

Senator ALLARD. It is inconsistent in this regard in that we do have some oversight there, which I don't believe we have in the provision that you're asking for. But I don't think it's excessive oversight. I think that you can rapidly get a decision from our appropriators when you need those dollars.

Mr. Chairman, thank you.

Chairman WARNER. Thank you very much, Senator.

Senator LEVIN. What was their answer?

Senator ALLARD. I'm not sure that I asked a question. We were just having a discussion here and I was explaining how I felt like this provision that we have in our current budget right now would work and would work in an expedited way so that we would have congressional oversight and they could have the resources they need there for those incremental expenditures that come up that need to be met on a rather urgent basis.

Senator LEVIN. I agree.

Senator ALLARD. Fiscal year 2005 is what this is providing for.

Chairman WARNER. The chair recognizes Ben Nelson.

Senator BEN NELSON. Thank you, Mr. Chairman, and thank you, gentlemen, for being here today. I think it's important to say as others have that we certainly want to support the needs of our men and women in uniform, both here and abroad, particularly as it relates to the continuing costs associated with the war in Iraq and the war in Afghanistan, and we need to fund the needs.

But I also agree with my colleagues that the process is at the very least confusing, and at the very worst it looks like it might be a complete, or if not complete, partial erosion of oversight responsibility which causes us all some concern. I don't think anybody sitting here wants our oversight to morph into a blank check scenario, so that's why I think there is a lot of concern and there are a lot of questions that are being asked regarding this.

But think of the confusion. We have budget supplements, and insurance funds that are not supplements, intended to cash flow. We have a burn rate that conceivably will utilize the $25 billion in a fairly short period of time, and a request for flexibility in the midst of what we provide for accounts.

So if we're not confused, that will surprise me, and I suspect that there is some effort underway to try to help us understand that. It's hard to accept in the halls of Congress making a budget the way you make a pie, a piece at a time. We think we have a budget, but then we find out we don't have a budget. Nevermind the fact that whatever we do can be changed with 60 votes, so it's hard to call anything permanent, let alone temporary.

I guess what I'm really trying to get to is that I'm not adverse to block grants. My question would have to be, how realistic is the figure $25 billion? Just how realistic is that? We have a burn rate at nearly $5 billion, depending on how you account for it, so why would we do it for 5 months? I do understand the importance of not leaving money on the table for a longer period of time than you would account for under most circumstances because money does get spent. When I was Governor I used to worry about the legislature spending it. Now I see the administration worrying about the administration spending it because of the money being there.

But how realistic is this figure of $25 billion? Any one of you can answer. I'm not trying to pick on you, Mr. Secretary.

Secretary WOLFOWITZ. Let me try and when I mess it up I'll go to the experts. Senator Nelson, I don't think the idea is that we'll go $5 billion a month out of the $25 billion until that runs out. The idea is that we will cash flow, where accounts are adequate, and

they're all adequate to transfer, to use up some fourth quarter money in the first and second quarters.

Where we don't want to end up is in a position, and there are particularly some Army accounts where you could be in this position, where by in the middle of the second quarter you're already using third quarter money. Then you start to discipline your expenditures in a very harmful way. You break programs, you short people on things, and you cut corners in the way any business will cut corners if they see themselves heading into a financial crunch. We don't want that kind of thing to happen.

Senator BEN NELSON. But can we have the assurance that the kind of assets that are required, such as the appropriate armor for vehicles or for personnel, the number of personnel that we're looking to increase to take care of the continuing mission or changing mission as we go along, will be funded? I think that's our fear.

One of the issues about having some oversight is being able to direct where the money is spent in advance, and I think there is a lot of concern that we have not had adequate armor protection for vehicles, therefore unnecessarily exposing personnel to harm. That's why we have the lines of authority, and that's why it's a line-item budget. How can you assure us that we're going to be comfortable, that the money will be spent on what we consider to be priorities, not simply what DOD considers as its priorities?

Secretary WOLFOWITZ. Again, I'm going to turn to the experts in a minute, but we are not looking for a blank check, at least I don't think that's what we're looking for. What we are looking for is the flexibility to move money when you need to move it. In fact you mentioned up-armored HMMWVs, and that's precisely one of the places where, as you probably know, the Army requirement has grown and grown.

Senator BEN NELSON. Is that one of the areas identified as an illustration as opposed to a line-item account, Director Kaplan?

Mr. KAPLAN. As has been pointed out, the accounts are broad, O&M for the various——

Senator BEN NELSON. For illustrations, not accounts. But when we're dealing with illustrations, not accounts, anything goes that's not on there, or what's on there may not be funded, if you're following where I'm going. So it's the flexibility that almost begins to look like any of the above or whatever we decide in the future.

Mr. KAPLAN. There's no question that we're looking for flexibility, and it's for the reasons Secretary Wolfowitz pointed out. It's to make sure that the DOD is able to respond quickly to an emerging threat environment, and as the needs change, to make sure, that the troops in the field—and I expect Congress—have the comfort and the confidence that those resources will be there.

Senator BEN NELSON. Is there a way to limit the number of accounts so that we don't have something going outside of one of these accounts that is nothing more than an illustration? I think that might give us more comfort about our oversight.

Secretary WOLFOWITZ. I think that might be possible, Senator. Mr. Lanzillotta?

Mr. LANZILLOTTA. Senator, to continue using your example of the up-armor HMMWVs and why we need the flexibility, we have funded the requirement for up-armored HMMWVs three times.

When we put the supplemental in, we put in what we thought was the full requirement for up-armored HMMWVs. The requirement grew because of reality on the ground. We fully funded again but the reality changed again and so we fully funded it again. We don't have a specific——

Senator BEN NELSON. I'm not challenging you on that point. I think you're doing what you need to do. My point is, couldn't we fence in all the things for which it could be spent, recognizing that between accounts or among accounts you might have some flexibility to be able to do exactly what you're doing, or, as circumstances change, you're able to redirect some money in that way. But at least we would know what the parameters are, not just by the total amount of money, but also by where it might be spent.

Mr. LANZILLOTTA. Our attempt when we structured it for basically O&M was to assure Congress that we were using it for operational support costs associated with Afghanistan and Iraq.

Senator BEN NELSON. Or anything else that might come up. I mean, that's a problem.

Mr. LANZILLOTTA. That's the flexibility. But the 5-day reporting period where we come down there and tell you if something changes was to give Congress notice. I'll give you an excellent example. There are certain R&D efforts that have helped us immensely with the booby traps and the explosive devices that we've encountered. We wanted to be able to have the flexibility if we find something to be able to transfer an amount of money to R&D to be able to rush that to the battlefield.

Now, that has happened already with the same flexibility that Congress was able to give us in the IFF account. We're able to find something new, rush it up there, and do it. Our problem is without the flexibility, and the reason why the account was structured this way, is because right now as we sit a year out, I don't know what that technology may be.

Senator BEN NELSON. But you're going to come back to us between now and 12 months.

Secretary WOLFOWITZ. Senator Nelson, I think there's some room here to work on something that gives the troops the flexibility they need, gives Congress the oversight it needs, and frankly, a little discipline on the process so that people can't go and use this fund for whatever suits their fancy. That would be quite all right with me.

Senator BEN NELSON. I thank the chair and I thank the Secretary for picking up the point that I think we're making. I may not have made it very well, but I think you have the idea. Thank you, Mr. Chairman.

Chairman WARNER. The committee thanks you, Senator, because while in our opening round of questions we expressed these concerns, we now hear you proffering some type of document to this committee which could be incorporated should we move forward on the floor, and that would lend itself to give the specificity and the restrictions on the flexibility that we feel appropriate. Is that correct? Did I hear you say that?

Senator BEN NELSON. I didn't quite get to the point of a document, Mr. Chairman, but let me——

Chairman WARNER. I think I like things in writing.

Senator BEN NELSON. I understand the need. I need some expert advice though.

Chairman WARNER. Will you please communicate with the chair and the ranking member and we'll see that the committee is so advised. I believe you detect the concern among the committee, and this is a case of first impression. If we go forward with it, we want to make sure we do it right, and we will work in consultation with the Appropriations Committee, which in many respects have the principal authority for this type of package.

Thank you. Senator Collins.

Senator COLLINS. Mr. Chairman, I'm going to follow up and try to get that commitment for that document. Mr. Secretary, we need to strike the right balance here between the administration's understandable need for flexibility and the congressional need to closely oversee spending. I recognize that the administration will be submitting a traditional supplemental request next year, but I want to echo the concerns of many of my colleagues, Senator Lieberman, Senator Allard, Senator Nelson, and others, in encouraging you to consider either resubmitting this $25 billion request in the form of a traditional supplemental appropriation, or along the lines suggested by my colleague from Colorado.

We really do need to preserve the important role that Congress plays. It is our duty. This is not a case where we're not eager to give you the money you need. We are eager to ensure that our troops have all the resources that they need. You don't need this dispute, and I would encourage you to work with the committee to come up with some controls on the spending. We're very eager to move quickly to give you the funding that you need, but I hope you will consider working with the committee to come up with a more traditional request with checks and balances in it so that we can move forward without having this needless dispute.

Secretary WOLFOWITZ. I appreciate the spirit of that comment, Senator Collins, and we will work with you.

Senator COLLINS. Thank you.

Chairman WARNER. Senator Collins, without interrupting you, I think it would be nice to get Director Kaplan on the record.

Senator COLLINS. Thank you for that admonition.

Chairman WARNER. Direct your question to Director Kaplan.

Senator COLLINS. Director Kaplan, since you're representing OMB, which tends to play a very important, deciding role in these issues, I would like to get from you also a commitment to work with the committee to resolve the concerns that you've heard expressed on both sides of the aisle. Again, I want to emphasize this is not a dispute over giving you the resources that our troops need. All of us want to make sure that we do that quickly and fully.

But we do need to exercise our constitutional responsibilities, so I would ask for the same commitment from you.

Mr. KAPLAN. Of course, Senator, and thank you, Mr. Chairman, for giving me the opportunity to get on the record as well. We share Secretary Wolfowitz's commitment to working with members of this committee and other committees and members with interest to try to strike that balance between making sure Congress can exercise its constitutional oversight prerogatives while still providing the flexibility that the commanders and the Services need.

Chairman WARNER. Fine. Bear in mind we're on the floor Monday, so you have your weekend work cut out. Thank you. You can take another minute.

Senator COLLINS. Thank you. General Pace, I continue to receive e-mails from soldiers in Iraq who tell me that they still lack the equipment they need, and that is just so troubling to me. Just a few days ago, a member of my staff received an e-mail from a friend serving in Iraq, who doesn't happen to be from Maine, but let me tell you what he said. He said, despite numerous requests, he still had no long-range communications, only light-armored vehicles, and the only ammunition he had for one of his weapons came from the generosity of a local Danish military unit. That really troubles me.

Do you believe that this additional $25 billion will be sufficient to ensure that our troops have what they need? We're sending them into such a dangerous environment, and I feel we have a moral obligation to make sure that they have all of the supplies and equipment, and most of all, protection that they need. Are you confident that the $25 billion that the administration has requested will solve those concerns once and for all?

General PACE. Senator, thank you. That e-mail and the way you just described it troubles me as well, and whatever way you think appropriate, if you could share as much information from that as you can with me, I would like to get directly to answering that specific problem.

Second, I am confident that this Congress has already allocated sufficient resources for that problem to not exist today. So if it does exist, it is not because you have not given us the wherewithal, it exists for some other reason. You have funded very quickly, for example, when we identified to you the need for up-armored vehicles, for more armor on them, when we identified the need for the new state-of-the-art personal body protection. All those requests that we have brought forward to this Congress, were funded very quickly. I am confident that you have already given us the assets we need to answer that question, but I cannot answer that question without having more specifics.

Senator COLLINS. I'll see what we can share with you. Obviously I don't want to get the soldier in trouble in any way who brought this to our attention, because it's not just one soldier. I keep hearing similar reports, and we do need to remedy it.

In my remaining time, could you please explain more precisely, General Pace, to the committee how you arrived at the $25 billion figure?

General PACE. Ma'am, I did not personally arrive at that number, but I can tell you that it is specifically based on the numbers that Mr. Lanzillotta indicated, which is a utilization today of about $5 billion per month combined between Iraq and Afghanistan. It is based on our understanding that if things did not change, if come 1 October of this year we are operating exactly the way we are today, and that's not a known, but if it is, then that would take us through the first 5 months of the coming fiscal year in a way that would allow us to not have to reach deep into 2005 to come forward with training and fuel and things that we would buy in the fourth quarter to pay for the current expenditures at that time.

Senator COLLINS. Mr. Secretary or the comptroller, if either of you could add to that.

Secretary WOLFOWITZ. Senator Collins, it was intended to give us a very comfortable margin of error, which doesn't mean that we wouldn't be paying for some first quarter expenses with fourth quarter money. That we think we can do, but we don't want to end up in a situation where we're paying for second quarter expenses with third quarter money and people start to see their accounts running dry, especially Army O&M, which I mentioned earlier.

Sometimes businessmen come and say, you have a $400 billion budget. Certainly that gives you a lot of latitude to move money around. But the account that is most critical here is the Army's $26 billion O&M account, and it's the Army as we all know that is incurring the greatest share of that supplemental funding. So we need to make sure that those accounts don't start to run dry and the managers of those accounts start to say, I have to cut back on something that's pretty important because I need to fund something that's absolutely essential. We want to make sure, and particularly when it comes to maintaining the momentum of key Army programs like the brigade restructuring.

If I might just make a comment reinforcing what General Pace just said, if there are issues, we want to find them and fix them as fast as we can in the area of force protection. In fact, Ron Sega, who's the director of defense research and engineering, has a task force that reports to me on force protection measures across the board. The Joint Staff also has an Army-directed or Army-led force protection effort that focuses particularly on equipment issues. We've already accomplished nearly $2 billion. In fact, $1,931,000,000, to be precise, out of fiscal year 2004 funding, particularly for up-armored HMMWVs, interceptor body army, and there's another $720 million in process. In other words, it's over $2.6 billion, which is another reason why we do need some considerable degree of flexibility. Many of those expenditures were different from what we anticipated a year ago.

Chairman WARNER. Thank you very much, Senator Collins. I think, Senator Collins, we have made an incremental landing here. [Laughter.]

We're all waiting until your turn comes, Senator Byrd.

Senator Dayton.

Senator DAYTON. Mr. Chairman, I would be honored to defer to Senator Byrd.

Chairman WARNER. I've made that proffer, but there's been a bit of a stiff resistance. He wants to maintain his order out of respect for his colleagues. Now, once more, Senator Byrd, do you wish to go forward? Your colleagues have invited you to do so.

Senator DAYTON. I'll defer to you, sir.

Senator BYRD. Thank you, and thank you my colleagues. These are the invincible 23 who stood against the resolution of shame of October 16, 2002. Now, Mr. Secretary, and Mr. Chairman, thank you. Mr. Secretary, turning to the $25 billion request, which reads that the President would be able to transfer any amount from the fund at his discretion at any time effective October 1, which would exempt the spending from any limits on discretionary spending.

This would further transfer authority to the Secretary of Defense in consultation with the Director of OMB, and would give the administration a blank check, limited only by the requirement that funds be used to support operations in Iraq and Afghanistan. There is no requirement for consultation with Congress. Shame. There is a modest reporting requirement that Congress included in the fiscal year 2003 and fiscal year 2004 supplemental for the IFF. That is not part of the President's request.

Mr. Secretary, I want to compliment the lady from Maine. She is entitled to the plaudits of the entire committee for the wisdom that she has demonstrated here today. She has brought some common sense to the committee and I compliment the panelists for their joining and indicating their support for her proposal.

The proposal is deficient in a number of ways. Further, there should be a requirement to consult with the chairman and the ranking member of the Armed Services and the Appropriations Committees prior to transferring funds. There should be a requirement to report to Congress on the expenditure of funds. There should be detailed justification for the request.

In support of the $25 billion request, there is a four-page request. We don't know how much is for pay, how much is for procurement, how much is for classified projects, or for military construction projects. The proposal provides for a blanket $25 billion transfer authority with no requirements for detailed justification, no consultation, and no reporting.

Mr. Chairman, there must be consultation with the chairman and ranking member of this committee, and consultation with the chairman and ranking member of the Appropriations Committees of both Houses. The language is ambiguous about whether the funds would be used for dual use purposes that could result in missions outside of Iraq and Afghanistan. We need absolute clarity and assurances that these funds will not and cannot be used to export war to get into another country.

Mr. Chairman, our forefathers would have scorned such arrogance as has been demonstrated by this administration and this request. Let me call to your attention, it shouldn't have to be done but I think it should be done, here is the Constitution of the United States. I hold it in my hand. Section 9, let me call it to the attention of the messengers of this administration: No money shall be drawn from the Treasury but in consequence of appropriations made by law and a regular statement and account of the receipts and expenditures of all public monies shall be published from time to time. Appropriations made by law.

Let me read where that comes from. That comes from Section 1, Article 1, all legislative powers herein granted shall be vested in a Congress of the United States, which shall consist of a Senate and House of Representatives. God bless the Constitution of the United States. God bless the Constitution of the United States. I call this to the attention of my colleagues. Let us keep in mind this Constitution. Let us keep in mind this Constitution and let us adhere to it. Let us remember that we swore under oath to uphold this Constitution, and when we appropriate these monies, Mr. Secretary, we're going to keep in mind this Constitution and we're

going to put limitations on this appropriation, and it's not going to be in this appropriation when we appropriate it.

The President is not going to be able to take these monies from one account to another as he has requested through you. No, we're not going to allow him to do that. No, the people still reign in this country of ours, the people still reign, and this Constitution guarantees that. I'm going to support this $25 billion, but we're going to put limitations on it. We're supposed to do that, because we're sworn to protect the people's money. Remember that great Roman Senator who said, there is no fortress so strong that money cannot take it.

Thank you, Mr. Chairman.

Chairman WARNER. Thank you, Senator. Senator Dole.

Senator DOLE. Senator Warner, I want to thank you for your tireless efforts in support of our military and I certainly want to thank our witnesses. I applaud your efforts in protecting our country through your respective positions, and I appreciate your willingness today to facilitate a discussion of the importance of seeing this war through to its completion.

Thousands of men and women from my home State of North Carolina have proudly gone to serve in Iraq. While some have come home, many more remain in theater fighting for the safety of our world and the freedom of millions, and sadly some will never come home. The 25-year-old lieutenant whose first child was just born, the 33-year-old sergeant who can no longer support his five children, the 19-year-old private who leaves behind an 18-year-old widow, and the four guards from Blackwater whose families will be forever haunted by the horrific images of their deaths.

I am proud of our men and women who are risking their lives in the name of freedom, and in the last few months the operation in Iraq has proven to be, as we all know, much more dangerous and grinding than some had expected. Adequate resources are essential to providing security and allowing our troops to complete their assignments in Iraq, and these must be our first priority. We must stay focused on what is most important, providing whatever funding is necessary to move forward.

General Pace, this committee, as is clear today, has been closely monitoring the supply of up-armored HMMWVs, protective vests, personnel communications systems, and other equipment vital to the safety of our individual servicemembers. Does this supplemental fund your strategic lift needs for the remainder of this calendar year?

General PACE. Senator, to my knowledge, this supplemental that takes effect October 1 does not fund this fiscal year's strategic needs. I believe this fiscal year's strategic needs are already taken care of in the monies you've already allocated. But we do have sufficient funding in the current budget to do the transfer of troops that is ongoing as we speak.

Senator DOLE. Secretary Wolfowitz, DOD contractors and private business representatives are critical to the rebuilding effort, of course, in Iraq. Terrorists have shifted their focus and are targeting these unarmed civilians. Again, I just want to be assured that we do have funds that will increase security for these Americans.

Secretary WOLFOWITZ. That's certainly one of the possible requirements in our operations that is critical. I would also emphasize I think it's a reason why, as I emphasized in my opening statement, that we put Iraqis forward as much as possible to do the rebuilding of their own country. It is their country. If someone's going to be targeted, they're the ones appropriately who should. But I also think that as Iraqis they're much less likely to be targeted. We're working very closely with our division commanders to make sure that they, the contractors and the very brave civilians that work for U.S. Agency for International Development (USAID) and other agencies are working together so that this effort can go forward safely.

Senator DOLE. Now, I understand that the Army has shifted resources to provide tighter protection along the lengths of food and supply convoys. Has that left other areas like oil fields, pipelines, and weapons caches, more vulnerable?

General PACE. Ma'am, one of the reasons that General Abizaid asked to retain 19,000 more troops that he needed, which basically is an additional division plus their support, was to in fact cover the kinds of additional security requirements you're talking about. Part of the ongoing support for pipelines and the like is underneath the auspices of the Iraqi Minister of Interior and the troops that he has in his security forces. We work in combination with them.

Senator DOLE. Thank you, Mr. Chairman.

Chairman WARNER. Thank you very much, Senator Dole. Now, Mr. Dayton, you've exercised great patience. Please proceed.

Senator DAYTON. Thank you, Mr. Chairman. Thank you for your wise guidance of our committee today, and thank you, Senator Byrd, for all the incredible education I've received from you about the Constitution and its true meaning to our country. Your service on behalf of that Constitution has been extraordinary, sir, both of yours, I thank you both.

Last spring, we approved a $75.5 billion supplemental and then last fall a $87.5 billion supplemental for a total of $163 billion. Next year, fiscal year, starting in 5 months, we have, as others have pointed out, not received a formal request, and I gather that this today does not constitute such. Rather, it's what is called a contingent emergency reserve fund.

I'm going to support it, but I'm very concerned about doing so before receiving any accounting as to how the $163 billion that has been appropriated in the previous two supplementals has been spent or is being spent now. I'd like to ask that this committee receive that, not dollar for dollar but in the basic categories, and I would ask for that by close of business Friday, because I'd like to have it before we take it up next week.

As I recall, the last supplemental provided $15 billion for reconstruction costs of Iraq. I've read some reports that that money has not been expended. I saw in the last monthly report in terms of the status in Iraq that to date, I believe it was through April, Iraq's oil revenues are $5.4 billion. I'd be interested to know if that is meeting, falling short, or exceeding your expectations, and at what point will those funds become available for use in Iraq's own reconstruction.

As I recall, the last supplemental provided $5 billion for security force training. I'd like to know if that's been fully expended. I believe there was a certain amount, I don't recall the amount, provided to extend, or provide unemployment benefits to some 1.8 million Iraqis, which is more than we've been able to get out of the Senate this week for American workers. So I'd like to know to what extent financial aid to Iraqis not currently employed is still being expended.

Also, Mr. Kaplan, if you could update the figure that you provided us today. If I heard you correctly, the monthly expenditure approximating $4 billion, I believe is a figure that preceded the retention of the additional 20,000 troops and some of the other intensified activities. I would appreciate receiving a current fix on what is being expended on a monthly basis, say last month, this month, and expected for next month either now or in writing.

My first concern regarding this request is without having received, I believe, any kind of accounting. Maybe the Appropriations Committee has, but certainly this committee, this Senator has not seen accounting for $163 billion that has been provided literally in the last 12 months.

Then I'm also concerned about approving something when we don't know what plan it is that we're forward funding. I heard a quote this morning attributed by Fox News—to Secretary Rumsfeld, "there is a very real possibility that we may not succeed in Iraq and we've got to realize that now. These pictures could have done immeasurable harm. The alleged acts of these soldiers could have made the difference."

I don't know what the context was for that statement, I don't know if that reflects any shift in the administration's thinking or planning for what our purposes in continuing to keep the force level that's been described in Iraq. But I would like, Mr. Chairman, to ask if, not in this hearing—and again I expect this supplemental will be approved, so it wouldn't be in time for that decision next week in the full Senate—that this committee devote a hearing either in open or closed session to what is the plan for the operation in Iraq, what are the objectives, military and diplomatic, and what is the time table for realizing those goals so that we know what it is we're buying into here.

Chairman WARNER. I assure you that the ranking member, Senator Levin, and I are reviewing options to do just that shortly after we get back from the recess period. Could you further define the origin of that quote?

Senator DAYTON. It was approximately 8:30 a.m. on Fox News.

Chairman WARNER. Was this attributed to him or was he on Fox News himself?

Senator DAYTON. There was footage of him. It was attributed to him. The commentator or the anchor person was E.D. Hill, and the quote was attributed to Secretary Rumsfeld. I wrote it down carefully, in fact, because I was on the program, I had my staff video it so I get a chance to get it over again.

Chairman WARNER. So you have it on tape then?

Senator DAYTON. I have it on tape. What she said, what she attributed to him.

Chairman WARNER. That transcript should be available and we'll ask staff to immediately get that transcript. I thank the Senator.

Senator DAYTON. I'd be open to any comments.

Secretary WOLFOWITZ. On that last point, I don't know what was said or the context. I do know that in the hearing before the Appropriations Committee yesterday, the Secretary was asked in a question by an individual who felt that the situation was a—I don't remember the exact context—but what the Secretary's response was, "I understand an individual feels that way, I can understand that, we all go through strong emotions when something like this Abu Ghraib thing occurs. We see it and we're shocked and we're stunned and we're disgusted and we know in our hearts we're better than that. I know it doesn't represent our country, that isn't American."

Then he went on to say that "the conclusion that that young person came to that we're at the beginning of the end, I submit, will prove to be wrong, and the good Lord willing I'll be right, and his understandable concern and comment and emotional reaction I hope and pray will be wrong."

I don't know the context of the other quote, but I certainly think, and the Secretary believes, in spite of some difficulties in the last few months and a real body blow from this prisoner abuse, that we are succeeding and this is something that we can win and is very important to win, and that's why I addressed those issues in my opening statement.

We will give you the full accounting that you've asked for. I would note on the reconstruction numbers, they keep growing, so they tend to change on a daily basis. The numbers that I have as of a few days ago are that nearly $11 billion of the $18.4 billion has been apportioned. I notified Congress as to the provisions, and I think it's section 2207. Of that, $6.6 billion has been committed against specific projects and $3.1 billion has been obligated.

That's by no means the total of reconstruction work that's going on in Iraq, and if you will permit me, the fact is that this was done more or less overnight by CPA and they'd like more time to be sure the numbers are accurate. Let me just say in round numbers, over $5 billion of Iraqi funds have been budgeted from July of last year to the end of this year for reconstruction, and of that, nearly $3 billion of Iraqi funds have been obligated or expended.

So there is a lot going on. We don't want that $18 billion to go out the door overnight. It wouldn't be prudent and it would diminish our ability to manage with that over the coming couple of years. So I think it's moving at a reasonable pace.

Senator DAYTON. I just want to conclude by saying I think we have succeeded in very important respects. Our military won a tremendous victory in 3 weeks last year from the border to taking over Baghdad and toppling the Saddam Hussein regime, which was one stated goal. We determined that there are no weapons of mass destruction (WMD) there that threatened our national security. This June 30, we are turning over the reins of government in the initial phase to a successor Iraqi Government, so I think we should recognize and be very proud of our military and proud of what has been accomplished.

I just want to know what it is that our objectives are and I'm glad the Secretary is, if he is reassessing, or assessing anyway, based on current realities, what the time table is going to be. We're talking about 134,000 troops into the year 2006, what their role is going to be, and what the role of a couple hundred thousand Iraqis that have been equipped to train now. They should be taking over responsibility.

I don't have time to get into what's happening in Fallujah, but I know that General Conway has ceded some authority there. The volatile situation is not in the news. Well, it sure is volatile, but at least it's not exploding currently. I don't know what the assessment is of that success, but that seems to me to augur what ought to be the goal to get the Iraqis responsible for walking the streets and policing their own communities and enforcing law and order rather than our troops.

I hope we can have time to devote to that in the near future. Thank you, Mr. Chairman.

Chairman WARNER. Thank you very much. If my colleagues would indulge me a minute, I've just been handed a press report, New York Daily News, today. It's titled, "Rumsfeld Has Doubts." But as I read through it, his quotes, which I'll read, are very cryptic, and I think he's addressing the turnover of authority on June 30.

Rumsfeld said the prison abuse scandal had delivered, "a body blow to the nation building effort in Iraq that has cost the lives of more than 770 U.S. troops. Will it happen right on time? I think so. I hope so. Will it be perfect? No. Is it possible it won't work? Yes." In the overall war on terror, Rumsfeld said the U.S. is making progress in Afghanistan, but, "I look at Iraq and all I can say is, I hope it comes out well and I believe it will and we're going to keep at it."

I think it expresses his resolve, but a pragmatic observation of the events that we've see in the last 30 or so days. Thank you very much.

Senator DAYTON. Thank you very much, Mr. Chairman.

Chairman WARNER. Senator Sessions.

Senator SESSIONS. Thank you, Mr. Chairman, and I would just add that I hope those remarks and decapitation of the American recently there will cause Iraqi leaders to realize they have to step up, that it's time for them to lead in Iraq.

Mr. Chairman, or Mr. Secretary, as I understand this situation, we have a number of accounts with money in it, some with some extra money in it, some with some monies, and some accounts that may be running low. I don't think we can afford this item because that account is running low and we have a soldier lost because we didn't have the money necessary to give to him, because they have certain responsibilities not to let the account run over. I don't want them to get panicky and say, make those kind of decisions. Is that part of your concern?

Secretary WOLFOWITZ. It's exactly our concern, Senator Sessions, and I would add we also don't want them to say, well, we have money, but it's in the wrong account and it's going to take a month to reallocate it. We don't want them to say, well, we have a lot of money for tank ammunition, but we don't have any money to give

you body armor, and radios for the Iraqi police whom you're trying to equip. That was a problem last fall and, as I said in my opening statement, I appreciate the flexibility this committee is trying to get us in the next fiscal year. But flexibility is very important, not just the total amounts that you have, but the ability to meet an emergency need when it arises.

So exactly in the spirit of Senator Collins' comment earlier, we want to work with Congress to make sure Congress has the right degree of oversight and the troops have the right degree of flexibility.

Senator SESSIONS. I felt strongly that this was really an unacceptable event when we had this bureaucratic problem with getting money to the security forces in Iraq who are critical, I believe, to the stability and success there. Has that been solved to date? Also, will this money allow commanders and General Petraeus, who is going there to deal with this specific problem, to bring that force up to the highest level?

Secretary WOLFOWITZ. In terms of total quantity of money, yes. In terms of flexibility, largely, since the supplemental money is now flowing. There is one issue which I think is more in the area of the Appropriations Committees with respect to the authorities for which certain funds can be used, and we want to make sure that we have the right understanding on the flexibility there.

Senator SESSIONS. I'll ask General Pace, are you confident that we can get the funds necessary to bring the Iraqi security forces up to their highest possible level under the current circumstances with this supplemental or this account that you're requesting? Will this help in that area also?

General PACE. Sir, it will help in that area, and it has been pointed out, there has been in the past understandable problems with allocation of dollars on the battlefield for hiring Iraqi military, Iraqi police, and local civilians to do work by the commanders on the battlefield. We should be accountable for every single dollar you've given us and every dollar you may give us. That goes absolutely unquestioned.

Secretary WOLFOWITZ. Senator Sessions, I do want to add, we did request $500 million in authority, nonfunding authority, to use accounts for training and equipping Iraqi security forces and I believe this committee reduced that to $150 million, and I would encourage any effort that could be made to raise that ceiling.

Senator SESSIONS. I have been concerned about that, since I went there in August of last year. I visited with the local security forces and they will tell the tale. Their success, and lack of it, will make the key difference here.

Just with regard to the philosophy of where we are, I have felt that a supplemental is all right for this effort. In fact, I think it allows us to separate the costs of the war from the cost of operating the DOD. I've not agreed with Senator Levin, although he brilliantly raised the question earlier today, on the fundamental idea that it's appropriate to fund an extraordinary military effort by a separate account. I think it leaves Congress in a better position to watch it.

Now, I tend to agree with the others, however, that this lacks a transparency that we'd like to have and we feel like we need to

have, so I'm glad that you are willing to look at it and help us get some more transparency and oversight.

General Pace, we've increased the DOD funding, but not greatly. As Senator Inhofe said, as a percentage of the GDP of this country, we're less than we were probably in the 1990s, certainly in the 1980s, or early 1990s, late 1980s. I'd like to know that the supplementals that are going to Iraq and Afghanistan are not being used to fulfill some DOD wish list on the theory that whatever you need for this war you're going to get, so as much as you can stack in there to fill other needs would be a temptation, I would think. Are you watching that?

General PACE. Sir, we are watching that, and we should watch that and we should be accountable to you for that. You have my commitment to ensure that the money you allocate for us to use in Afghanistan and in Iraq is used properly in both those countries.

Senator SESSIONS. We voted by better than three-fourths in this Congress and the American people have supported sending our soldiers there. We have an absolute obligation to support them completely. We committed them. They are performing exceedingly well under very dangerous conditions. Many of them this very moment are in dangerous conditions, perhaps executing the policies of this Congress, so we need to support them.

I thank you for your answer and thank you, Mr. Chairman.

Chairman WARNER. Senator, thank you very much. Senator Akaka has not come yet, has he? All right.

Senator Bill Nelson.

Senator BILL NELSON. Thank you, Mr. Chairman. Senator Byrd, thank you for reminding us of the Constitution. It's not honoring the Constitution when we relinquish our constitutional authority without requiring the specificity. I want to give a couple of examples. We've now gotten into a routine where we pass an appropriations bill and then shortly thereafter we pass a supplemental appropriations bill. It happened just last year. We passed the appropriations bill in October, or in September, and low and behold, 1 month later, we pass a supplemental appropriations bill. Now, that's not a way to run a railroad.

We have the administration's request coming to us earlier this year in the Budget Committee, and they do not request in their budget request any of the money for the operations in Afghanistan and Iraq. That's not a way to run a railroad. That's not a way for us to exercise our constitutional authority as the appropriators.

I think you all have gotten the message here today that we need some specificity. For example, last year in the supplemental, I put in a $10 million little item which was for family readiness in the National Guard. That was in October of last year that it was passed and it has yet to obligated by the DOD. That was to help the family members since the National Guard members were being extended on duty.

Since the DOD is relying so heavily on the Guard and Reserves these days, it's going to be necessary to refit the National Guard and the Reserves when they are then going to be returned to Iraq. So a logical question for me that you all can't answer today is, how much is in this $25 billion request to reset the Guard and the Reserves so that we know that they are prepared? It's not here, you

don't have that information. Ultimately what's going to have to be done is we're not going to have 105,000 or 130,000, but I think we're going to have to go to 150,000 troops.

I think sooner or later that the world community is going to be convened and some kind of consensus is going to come and the North Atlantic Treaty Organization (NATO) is going to be asked to come in, led by the U.S. To stabilize Iraq for the long term is going to take some 150,000 troops, so we're going to have more expenditures, which I'm willing to support, but I need to know the specificity so that I know what I'm doing, and as Senator Byrd has so eloquently pointed out, that I am fulfilling the oath that I took to uphold the Constitution. I think this is kind of the message that you all are clearly getting today.

On the prisoner abuse issue, I would just say this in passing, that one of the photographs that struck me the most was the one that had already been printed in the newspaper, which was of the cell block where the bodies were clumped together naked and, in this particular photograph, it looked like that they were shackled together.

What was instructive about the photograph that we saw in the newspaper was that it seemed that the troops there were just going on about their normal business. In the photograph that we saw that was not tightly cropped like it was in the newspaper, we could see other troops there. Senator Clinton and I counted seven or eight troops, as if this was business as usual. Now, you can't tell me that seven or eight Army privates are going to be responsible for this and that it is our responsibility, indeed, it's your responsibility, to go up that chain of command and to find out how these troops were ordered to do what they were doing.

I personally think that it's not going to lead to General Miller. I think he went over and made a recommendation on what he saw happen in Guantanamo. I think clearly it's not going to lead to General Sanchez, because in the report that I've seen and the time line, he clearly started the inquiry immediately after he was notified. But we need to know where this goes, Mr. Secretary. Thank you, Mr. Chairman.

Chairman WARNER. Thank you, Senator. Thank you very much for your observations on this question. We will now turn to Senator Reed.

Senator REED. Thank you, Mr. Chairman, and I understand that your original guidance has been withdrawn.

Chairman WARNER. The Senator is correct, for reasons which I stated clearly.

Senator REED. So I will pose the following question. General Pace, if you were shown a video of a United States marine or an American citizen in the control of a foreign power in a cell block naked with a bag over their head, squatting with their arms uplifted for 45 minutes, would you describe this as a good interrogation technique or a violation of the Geneva Conventions?

General PACE. I would describe it as a violation, sir.

Senator REED. Would your conclusion be different if it was ordered by a high-ranking officer of that foreign power?

General PACE. No, sir.

Senator REED. As I read General Sanchez's guidance, precisely that behavior could have been employed in Iraq. Let me ask, since you said in respect to this supplemental appropriation, your responsibility, and I respect it, is to absorb all the details and all the data from the theater of operations and make recommendations and decisions.

Did the Joint Staff review General Sanchez's recommendations and his interrogation rules?

General PACE. Sir, I'm not aware—what recommendations?

Senator REED. The rules that we were shown by General Alexander and others, which would allow, with his permission, keeping someone in a squatting position and presumably naked with their arms up for 45 minutes. Did you review any of those rules or standard operating procedures which General Sanchez approved?

General PACE. Sir, I did not personally see them and I do not know to what level they were visible or reviewed.

Chairman WARNER. Senator, that's an important question. I think the witness should be given a full opportunity to answer that promptly for the record. I think we should also provide him with the document that was utilized by this committee and the Intelligence Committee yesterday to which you refer.

General PACE. Yes, Mr. Chairman, I concur.

Senator REED. Were there any discussions of these interrogation techniques by the Joint Staff since General Sanchez is commanding a joint operation?

General PACE. Senator, the only discussions of which I am aware with regard to interrogation techniques and procedures had to do with our operations in Guantanamo. I am not personally aware of any discussions beyond the theater of the interrogation techniques in Iraq.

Senator REED. Mr. Secretary, are you aware of any discussions about these interrogation techniques and General Sanchez's order?

Secretary WOLFOWITZ. I'm not aware, no. I am aware of discussions about Guantanamo, and I can tell you that what I'm aware of, those certainly would not have been remotely permitted in Guantanamo.

Senator REED. I've just heard General Pace say that the behavior that General Sanchez authorized, subject to his order, is a violation of the Geneva Convention. That was unvetted by the senior members, civilian members of the DOD, no discussion, no suggestion to General Sanchez that he could pursue this either in writing or verbally?

Secretary WOLFOWITZ. Senator Reed, as I said earlier, there's an enormous amount of detail involved in this investigation. You're talking about things that General Pace and I have not seen and don't think are in a position to fairly comment upon. We will answer you for the record. You've heard hours of testimony and, including closed testimony, from people who are digging into this subject in great detail and great depth at the Secretary's instruction. His instruction to the two of us is to make sure that while that work is going on, that the other business of the DOD is being attended to.

Mr. Chairman, I'll be happy to understand for the record what this question refers to and give you a clear and honest answer, and I know General Pace will also.

Senator REED. Mr. Secretary, we've heard hours of responses, but until General Pace's response, I haven't heard anything as candid and as forthright, frankly. What I've heard from you is dissembling and avoidance of answers, and lack of knowledge, pleading legal process.

Secretary WOLFOWITZ. I'm not dissembling, Senator Reed. I have General Pace's same reaction. What you've described to me sounds to me like a violation of the Geneva Convention. It's the first time I've heard that it was in General Sanchez's direction and I believe it's the first time General Pace has heard that it was General Sanchez's direction.

Senator REED. I would suggest, Mr. Secretary, that you're not doing your job then. These were the orders issued to a joint intelligence operation in that prison presented to us in a hearing yesterday by a representative of the DOD as the standard procedures that could be followed.

Chairman WARNER. Senator, let me interrupt here just for a moment. In preparing for this hearing, I talked at length with the Deputy, expressing the absolute essential need that he and the Vice Chairman come up today. He told me very candidly that for the past week or so he has had to focus on the daily operations of the DOD, and such questions that might be put to him regarding the prisoner situation in Iraq, he said, Senator Warner, I simply haven't had the opportunity to keep the pace of all the work that the Secretary of Defense and the chairman are doing on this question.

So I'd like to say in fairness to our two witnesses today, to me they were very forthcoming about their working on these budget issues at the same time the Secretary is working on the other issues. They may not be able to fully respond to questions today, and I think he's honestly said that.

Senator REED. Mr. Chairman, I respect immensely your leadership of this committee.

Chairman WARNER. Let's just let the Senator finish. Thank you.

Senator LEVIN. I wonder if Senator Reed will yield on this issue just for 1 minute.

Senator REED. I will yield.

Senator LEVIN. If you haven't seen these rules, they were at a public hearing before this committee, and were presented by General Alexander. You ought to see them. Maybe could we have somebody take them out to them? If you folks don't know about what happened in open session on this issue, there's a problem. This goes to the heart of the issue.

Here's what he said on the interrogation rules of engagement. We brought with us the rules—that's what's coming down to you right now—of engagement that were in effect at the Combined Joint Task Force 7 in Iraq prior to October 2003. These rules are in compliance with the Geneva Convention, he says, and I think as Senator Reed has just pointed out, if you look at those rules there—stress positions up to 45 minutes, that's what I assume Senator Reed is referring to, directly stem from the interrogation man-

ual. These are the rules that interrogation soldiers are trained on, and what you were asked about were those rules right there. If that's a stress position, which I agree with Senator Reed about, I think he said 40 minutes is a violation of the Geneva Convention. It pretty clearly seems to me, the fact that a commanding general (CG) approves it, as you'll see in that right hand column where it says CG approval, does not eliminate the violation of the Geneva Convention.

So those are the rules, but Secretary Wolfowitz, this was in public session in front of this committee here, and it just amazes me that you're not familiar with something that goes to the heart of the issue of the Iraq interrogation.

I have to point out one more thing, and I'm taking too much of Senator Reed's time. Perhaps the chairman would allow this not to be counted against his time. But take a look at the title. Have you ever seen a title about rules of engagement relative to interrogation? Rules of engagement relative to interrogation. General, have you ever seen that description before?

General PACE. Not those words, no, sir.

Senator LEVIN. Rules of engagement have to do with the use of force. The title of that document seems to me to dramatically say it all. That was approved. Secretary Wolfowitz, you're saying you don't know or you've never seen that document before? That's a formal document.

Chairman WARNER. But it came out of Central Command.

Senator LEVIN. I know. I'm just asking. I want to make sure and I'll go back, because it seems to me this dramatizes the failure of leadership here. It goes into a lot more than just the six enlisted personnel, as Senator Nelson said. Those are rules of engagement for confronting detainees, using the very term which is not supposed to be used against detainees?

Secretary Wolfowitz, you're not familiar with that document at all?

Secretary WOLFOWITZ. I saw this document for the first time this morning. It seems to me, but I don't know, and this is why I'm very reluctant to start commenting, that what Senator Reed described is something that goes quite beyond what is permitted here.

Senator LEVIN. No, no, look at the two dots, those two dots, stress up to 45 minutes.

Secretary WOLFOWITZ. No, Senator Reed described something that went quite a lot beyond just stress positions.

Senator LEVIN. Okay, I'm sorry.

Secretary WOLFOWITZ. Let me say, it says here, detainees will never be touched in a malicious or unwanted manner, and approaches must always be humane and lawful. I don't think that what Senator Reed described is either humane or lawful.

Senator REED. Mr. Secretary, do you think crouching naked for 45 minutes is humane?

Secretary WOLFOWITZ. Not naked, absolutely not.

Senator REED. So if he's dressed up, that's fine, but this also has other environmental manipulation. Let me put it this way, 72 hours without regular sleep, sensory deprivation, which would be a bag over your head for 72 hours. Do you think that's humane?

That's what this says, a bag over your head for 72 hours. Is that humane?

Secretary WOLFOWITZ. Let me come back to what you said the work of the Department——

Senator REED. No. Answer the question, Mr. Secretary. Is that humane?

Secretary WOLFOWITZ. I don't know whether it means a bag over your head for 72 hours, Senator, I don't know.

Senator REED. Mr. Secretary, you're dissembling, and nonresponsive. Anybody would say putting a bag over someone's head for 72 hours, which is——

Secretary WOLFOWITZ. I believe it's not humane, it strikes me as not humane, Senator.

Senator REED. Thank you very much, Mr. Secretary. Thank you, Mr. Chairman.

Chairman WARNER. Thank you very much, and again, as I pointed out, it was made clear to the chair that these witnesses for the past week or 10 days have been heavily engaged in the daily operations of the DOD. I can understand in a situation of this magnitude how the Secretary needs to allocate responsibilities among his principal subordinates.

So we'll continue now and we have our wonderful and patient——

Secretary WOLFOWITZ. Mr. Chairman, if I might point out, the reason we know so much about this is because since we first understood back in January there was a problem, DOD has undertaken extensive investigations. That's where this information comes from, and one of my problems is that I don't know what some of these words mean. If they mean what Senator Reed says, then I can tell you, I think it's not humane. I don't know what the words mean on the piece of paper.

Chairman WARNER. I think, Mr. Secretary, you and General Pace have done your very best to be responsive to the questions. I do not detect any evasiveness. To the extent of your knowledge, you've spoken out forthrightly.

The Senator from New York.

Senator CLINTON. Thank you, Mr. Chairman. Before I get to my questions, I just want to clarify that this entire committee has been supportive of the DOD and particularly of our men and women in uniform and the questioning and even the contentious nature of our concerns should not in any way be taken as an indication of any lessening of that support.

We are properly focused on the behavior that has been brought to our attention because it is an issue that must be investigated, not only because the actions of a few should not be permitted to besmirch the honorable service of all of our men and women in uniform, but also because we are a Nation that abides by the rule of law, and we are a Nation that understands not only the necessity of adherence to our Constitution, but that due process is one of the great inventions of Western civilization.

These issues go to the real heart of the use of power. An occupying army by its very nature is in a powerful and dominant position. We deplore the barbaric conduct of those who murdered Mr. Berg. We deplore the extraordinary cruelty that they have evidenced

with respect to our civilians and military personnel. But we are not them.

It is not just in the nature of ensuring that our conduct is held to a higher standard, but that we safeguard the rule of law. I have to say, Mr. Secretary, you come before this committee with respect to this budget request, in my view, having seriously undermined your credibility over a number of years now. When it comes to making estimates or predictions about what will occur in Iraq and what will be the costs in lives and money that the people in the United States, particularly our young men and women in uniform will bear, you have made numerous predictions time and time again that have turned out to be untrue and were based on faulty assumptions.

For example, in March 2003, you said, "there's a lot of money to pay for this reconstruction. It doesn't have to be U.S. taxpayer money. We are dealing with a country that can really finance its own reconstruction and relatively soon." Again, another quote, "the Iraqi people understand what this crisis is about, like the people of France in the 1940s, they view us as their hope for liberator."

I want to commend General Pace for his candor today. It reminds me very clearly of another United States officer who served honorably, General Shinseki, who before this committee told us, based on his best judgment and experience, that it would take several hundred thousand American troops. In response to that prediction, you said, "the notion that it would take several hundred thousand American troops just seems outlandish."

Now, Mr. Secretary, the challenge we face in dealing with this request is one that has increasingly caused concern on both sides of the aisle. The competence and credibility of the leadership team on the civilian side in the DOD has certainly been called into question for good reason. So when you come before us and ask for a $25 billion blank check, which indeed is what it is, that raises questions among my colleagues on this committee and throughout the Senate, but it for me goes beyond just the issue of this particular request.

It reminds me very much of what happened according to Bob Woodward's book, Plan of Attack, when President Bush acknowledged that months before Congress voted an Iraqi war resolution in October 2002, he approved 30 projects in Kuwait that helped set the stage for war with no real knowledge or involvement of Congress. Now, I know in all the explanations we've heard about how it wasn't really this and it was contingent that. It did not come out of any account however that Congress appropriated for the purposes for which the money was unintended.

Secretary Wolfowitz, several weeks ago Secretary Rumsfeld said in response to a question, if you had said to me a year ago, describe the situation you'll be in today one year later, I don't know many people who would have described it the way it is today. I would not have described it the way it happens to be today. I certainly would not have estimated that we would have had the number of individuals lost that we have lost in the last week.

Mr. Secretary, there have been many veteran members of this committee and elsewhere in Congress who have repeatedly urged the administration to increase troop strength. There have been a

number of our military leaders who have made the same argument. That has been resisted time and time again. I think it is appropriate that you have accepted the suggestion made by Senator Collins, and I hope you take it to heart. The United States Congress is a full and equal party in our government. That is the way it was set up, that is the way it has worked very well, and that is the way it should continue to work. No matter how strongly anyone in the administration feels about this mission, that cannot be an excuse for undermining the time-proven method of our doing business in this Congress.

I, for one, will join my colleagues in supporting the money that is needed, but I will not do it without further specificity and without a greater understanding of where we are headed. I look forward to the further consultations that the chairman has suggested will be held. If we're going to be responsible for sending along with you these young men and women to Iraq, Afghanistan, and elsewhere, then we should accept the full responsibility for what that entails, and that means working with you as a co-equal branch of government. Thank you.

Secretary WOLFOWITZ. Senator Clinton, I can't respond to everything you just said, but I would like, Mr. Chairman, to just comment on this issue about troop strengths. You leave the impression that this is a civilian decision and by quoting General Shinseki that the military has a different view. The reason I said what I said some time ago was because in fact General Shinseki's estimate was very different from the combatant commander, General Franks. In fact I had a discussion in a previous conflict in Afghanistan with General Franks pressing him on the question of whether or not more troops were needed and he was quite insistent that he not only didn't need them, he didn't want them.

I believe in hindsight that General Franks was absolutely right, and that he was right to hold down our troop levels in Afghanistan. We've had many discussions back and forth between the civilian leadership, the military leadership back here and our combatant commanders in the field about troop levels, and about whether you can leave the Shia heartland to a coalition division or if you need American troops. There is not a military view and a civilian view, as you try to suggest. There has been a unified view and an attempt to realistically estimate what we need.

It is a mistake, it is a serious mistake, to put in more troops than you need. As General Abizaid would say, it increases the hostility toward us as on occupying power, and of course it exposes us to more casualties. Equally it's a mistake to put in too few troops, and when we needed more troops because the situation in Najaf and Karbala in particular had grown into something that that multinational division couldn't handle, we kept the 1st Armor Division to deal with the job.

We're trying to get the numbers right. We are working closely with military and civilian. It's what General Franks in a long and eloquent presentation to a combatant commanders conference called iterative planning. It's a constant back and forth. There is no ignoring of military advice, I can assure you of that.

Chairman WARNER. We note the vote is on. We're very late. We will return as quickly as possible. [Recess.]

Senator SESSIONS [presiding]. All right. Senator Warner asked that I chair the remainder of the hearing or until he returns. I hope he does because he's such a great presider and it's a pleasure and an honor to work with him. Next is Senator Talent. I would note that we had indicated to the panel that you had some things that had to be done and 12:30 was when we were trying to finish up. We're past that. Thank you for staying past that time and I recognize Senator Talent.

Senator TALENT. There could hardly be anybody else next, Mr. Chairman, nobody else being here.

Senator SESSIONS. There may be. You never know.

Senator TALENT. I appreciate your sticking around, and I came back because I had a few things I wanted to say that actually differ somewhat from some of the sentiments my colleagues have expressed. First of all, a lot of people have said this appropriately, we're grateful for your being here and answering these tough questions. I'm grateful for your service on behalf of a very noble cause, and one that I share and believe in very much.

Let me phrase it this way to you. If I had been drawing up this supplemental and I'd been in your shoes, I'd have had some concerns about how it was going to go over on the Hill and how it was going to be treated. I think I might have said to myself, if I ask for a big number, I'm going to be accused of asking for more than I need so that I don't have to come back very soon and get some more money from Congress and I'm going to be criticized for undermining accountability with Congress. If I ask for a small number, I could be criticized for not saying exactly what it was I really think I'm going to need. If I say specifically what I think we're going to need, my best guess now as to what we're actually going to spend this money on, and I'm probably going to have to change some of that later, war being what it is, then I'm going to be accused of incompetence and not knowing what I was talking about. But if I don't say specifically what I'm going to need for the money, then I'm going to be accused of undermining Congress' oversight ability by not telling Congress exactly what it is I want.

I've sat through a lot of these hearings over the years and I know, and I think everybody here knows, that there's oversight and then there's second-guessing and sometimes it's possible that this institution doesn't know the difference. I know you had a problem. A war is a messy and difficult thing. I've heard a lot here about our oversight responsibilities and that's very important. I'm a huge believer in the checks and balances in the system.

The question I ask myself when I consider your request is, will it help us win the war? Yes, our oversight responsibilities are very important, but more important than preserving that is, will giving you this money in this form help us win the war? I want you to know, I think it makes some sense what you're doing. You're saying, look, we don't know what the next 5 or 6 months or 8 or 10 months is going to entail exactly. Maybe the transition's going to mean we need to train a whole lot more Iraqis or it's going to be a whole lot more difficult than it's been. Maybe there will be some insurgent leader in some other town besides Fallujah and we're going to need more money for that. Maybe we're going to need to shift this money here or there.

I think it makes sense to come in to ask for a relatively small number, and to say to us that you're going to report all the time to us what you're doing and you're going to have to come back pretty quickly and if you don't like what you've done with it, you know you're going to hear about it when you come back again. I think it's a pretty useful compromise.

I'll say something else. We're going to end up with some compromise version of this, I think, along the lines of what Senator Collins had suggested. If you had come in and suggested a compromise version, you probably would have ended up being told hook, line, and verse exactly what to do. I know it was difficult figuring all this out. I think it's going to end up that you did a pretty good job, and I'm one Senator on this committee who supports the approach that you've taken. Thank you, Mr. Chairman.

Senator SESSIONS. Thank you, Senator Talent.

Secretary WOLFOWITZ. Can I just make one comment apart from saying thank you?

Senator TALENT. If you dare, go ahead.

Secretary WOLFOWITZ. You've described the needle we're trying to thread, but you cited one case, which is we may decide we need a lot more Iraqi security forces than we'd planned on, and that is the one thing that isn't covered, because let me be clear. We have a lot of money for Iraqi security forces in the supplemental. We have Iraqi budget money that's been applied to Iraqi security forces, over $1 billion. I don't know the exact amount, but I'll get it for the record.

[The information referred to follows:]

There are two types of funding that have been used in fiscal year 2004 for Iraqi security forces; the Iraqi Relief and Reconstruction Fund Iraq (IRRF) and the Defense Fund Iraq (DFI). The IRRF contains $4.281 billion that represents the Department of Defense's funding to support security forces. The DFI contains $172 million which has been used specifically for security forces.

If this committee's proposal goes through, we will have $150 million for Iraqi security forces that will no longer be limited to just the Army. We did ask for $500 million, which would give us an extra margin. I must say and I'll say it again, we tie our troops' hands when it comes to equipping indigenous forces that are fighting with them in a way we wouldn't conceive of tying their hands when it comes to providing them ammunition. Yet, Iraqi troops in the front lines are better than ammunition. They're people dying for their own country. More than 300 of them have already died in the line of duty. There have been some big disappointments in the last couple months, but there were some big successes, especially up in Mosul where General Petraeus trained and equipped the Iraqi security forces up there.

So I'll make one more appeal. If this committee would grant the President's request in the main budget for $500 million in authority rather than $150, we would be very appreciative.

Senator TALENT. I think if all of us would recognize, and we do, and I could tell you the respects in which I'm a little critical also. I do think you're going to need this money, and maybe calling it a contingent is a mistake. This back and forth is very important. I think we all have to recognize, sometimes you fail to think adequately and sometimes we fail to, that there is no way to predict

in war with any degree of specificity exactly what's going to happen. I'm always worried when people ask you for predictions, about what you are going to need 6 months from now, because again, if you don't predict, then you're accused of not saying what you think, and if you do predict, it's probably going to be wrong.

I think the overall effort on a strategic level is going very well. We have the finest people who have ever served in a military in the history of mankind, and I think they're pretty well led too. Thank you, Mr. Chairman.

Senator SESSIONS. Thank you, Senator Talent. Just to get this straight, the President has requested in this budget $500 million for this fiscal year defense bill for training local police and security forces?

Secretary WOLFOWITZ. Training and equipping security forces. We define it somewhat more broadly. This committee narrowed it to Iraqi and Afghan security forces.

Senator SESSIONS. So if you get that, you'd be able to handle that without having to handle this money perhaps.

Secretary WOLFOWITZ. No. What I'm saying is we have no authority beyond that to dip into this money for Iraqi security forces.

Senator SESSIONS. All right.

Secretary WOLFOWITZ. Or in any other money in our budget. We are limited to what's already in the supplemental. Let me not be misleading. There's a lot of money in the supplemental, but if it's allocated, and sometimes it's tightly allocated and we're having some difficult decisions about how much goes to the Iraqi army, and how much goes to the civil defense corps. Senator Talent referred to the distinct possibility, especially if they're successful, that we'll want more Iraqi security forces and better equipped Iraqi security forces. The only margin we have beyond the considerable money that's already budgeted is, because of limitations on authorities, $150 million. We'd like to raise it to $500 million.

We have expansive authorities for pretty much everything else we do, which is why with consultation and reprogrammings and so forth we can move within military accounts. What we don't have is the ability to move into this account, which people have correctly been concerned that it could be viewed as actually doing foreign security assistance by the back door.

Let me assure you it's not that either. We will not do any of that funding without the concurrence of the State Department. We've been clear about that and explicit.

Senator SESSIONS. Thank you, Mr. Secretary. Senator Levin.

Senator LEVIN. Thank you, Mr. Chairman. There was a commitment from other countries to contribute towards the reconstruction of Iraq, and I'm wondering if you can tell us how much money has actually been received.

Mr. KAPLAN. Senator, I don't have those numbers in front of me. I know it was included in the most recent quarterly report, under section 2207. I'd be happy to take that for the record and get you that information.

Senator LEVIN. Do you know how many countries made a commitment and how many have come through with their commitment?

Mr. KAPLAN. Senator, I don't have that number. I am happy to respond for the record.

[The information referred to follows:]

IMPLEMENTING MADRID PLEDGES: NON-U.S. DONOR DISBURSEMENTS

• Of the $32 billion in pledges for 2004–2007 at the Madrid Donors' Conference, $13.584 billion was from non-U.S. sources. Of this, $5.55 billion was pledged by the World Bank and IMF in lending programs. The remaining $8.034 billion was from 36 countries and the European Commission.

• Now that there is an internationally recognized government in Baghdad, the World Bank and IMF are discussing with the new Iraqi Interim Government its interest in their lending programs.

• As of June 30, 2004, of the roughly $8 billion in donor assistance, other donors had disbursed $1.148 billion of their pledges, according to State Department estimates. This does not include other assistance these donors already provided to Iraq, such as humanitarian assistance, military assistance, or other aid to Iraq and the coalition.

• It also undercounts some donors where we do not have detailed information or confirmation from the donor countries on amounts disbursed for bilateral assistance. For example, the State Department understands the U.K. has disbursed about another $60 million in bilateral project assistance in addition to the U.K. figure reflected in the attached chart that is not yet captured in the disbursement numbers.

• The bulk of the $1.148 billion disbursed by donors has been in the form of deposits to the International Reconstruction Fund Facility for Iraq (IRFFI), which is comprised of U.N. and World Bank trust funds. The U.N. and World Bank trust funds are now starting implementation of their initial IRFFI projects.

• Disbursements and implementation have been complicated by the security situation in Iraq, but nonetheless are continuing.

• Disbursements by non-U.S. donor countries of over $1.148 billion in the first 6 months of a 4-year pledge of $8 billion indicate a disbursement rate comparable to disbursement rates by our donor partners for previous post-conflict assistance efforts, though on a bigger scale.

• The Iraqi Interim Government (IIG), through its Iraqi Strategic Review Board (ISRB), is playing a central role in coordinating donor assistance and setting assistance priorities.

• For additional information on reconstruction progress, including examples of progress on the ground attributable to international donations, please refer to the Quarterly Section 2207 report on reconstruction progress. This report is posted on the White House Web site. Appendix 2 includes international donation information.

Disbursements of Madrid Pledges for Iraqi Reconstruction*

6/30/04

* Because not all information is available, **this chart should not be construed as a comprehensive list of all disbursements to Iraq**. Rather it reflects a conservative accounting of reconstruction disbursements of which we are aware. For example, the State Department understands that the UK has disbursed approximately another $60 million in bilateral assistance for reconstruction from its Madrid pledge not yet captured below. It also does not capture other significant assistance to the effort in Iraq. For example, the Kuwaiti total does not include the over $1 billion that Kuwait reports it has already provided for the liberation and reconstruction of Iraq. Similarly, many donors (including Kuwait and the UK) last year provided significant amounts of humanitarian assistance.

Donor	All amounts are in U.S. dollars.				
	Madrid Pledges for 2004-2007 (World Bank figures)	Amount Disbursed for bilateral projects or non-IRFFI trust funds	Commited to IRFFI (trust funds)	Amount disbursed as IRFFI deposits	Total Disbursed on Reconstruction
Australia	45,590,000	15,900,000	14,595,800	14,595,800	30,495,800
Austria	5,480,000	600,000	-	-	600,000
Belgium	5,890,000	4,150,000	-	-	4,150,000
Bulgaria	640,000	250,000	-	-	250,000
Canada	187,470,000	35,200,000	67,197,130	44,728,639	79,928,639
China	25,000,000	-	-	-	-
Cyprus	120,000	-	-	-	-
Czech Rep.	14,660,000	2,262,000	-	-	2,262,000
Denmark	26,950,000	5,700,000	-	-	5,700,000
EC	235,620,000	40,629,000	209,773,000	167,807,800	208,436,800
Estonia	800,000	1,000,000	-	-	1,000,000
Finland	5,890,000	-	6,200,000	-	-
Germany	-	4,150,000	-	-	4,150,000
Greece	3,530,000	1,200,000	3,600,000	-	1,200,000
Hungary	1,240,000	-	-	-	-
Iceland	2,500,000	-	1,000,000	1,000,000	1,000,000
India	10,000,000	-	10,000,000	5,000,000	5,000,000
Iran	5,000,000	-	-	-	-
Ireland	3,530,000	1,075,000	1,226,400	1,226,400	2,301,400
Italy	235,620,000	-	12,200,000	-	-
Japan	4,914,000,000	165,000,000	490,000,000	450,000,000	615,000,000
Korea	200,000,000	-	10,000,000	-	-
Kuwait	500,000,000	-	10,000,000	10,000,000	10,000,000
Lithuania	-	30,000	-	-	30,000
Luxembourg	2,360,000	240,000	-	-	240,000
Malta	270,000	-	-	-	-
Netherlands	9,420,000	-	6,000,000	-	-
New Zealand	3,350,000	2,920,000	950,000	-	2,920,000
Norway	12,870,000	650,000	4,323,700	2,203,000	2,853,000
Oman	3,000,000	-	-	-	-
Pakistan	2,500,000	600,000	-	-	600,000
Portugal	-	600,000	-	-	600,000
Qatar	100,000,000	-	10,000,000	2,500,000	2,500,000
Saudi Arabia	500,000,000	-	-	-	-
Slovenia	420,000	334,000	-	-	334,000
Spain	220,000,000	18,000,000	20,000,000	-	18,000,000
Sweden	33,000,000	-	10,000,000	-	-
Turkey	50,000,000	-	1,200,000	-	-
UAE	215,000,000	21,100,000	-	-	21,100,000
UK	452,300,000		127,354,149	127,354,149	127,354,149
Vietnam	-	700,000	-	-	700,000
Totals:	8,034,020,000	321,590,000	1,015,620,179	826,415,788	1,148,005,788
Planned World Bank/IMF lending	5,550,000,000				
Total non-US pledge	13,584,020,000				

Senator LEVIN. Secretary Wolfowitz, Secretary Rumsfeld, in referring to the Geneva Convention in the Iraq context, said just a few weeks ago on NBC that the Geneva Convention did not apply precisely. Do you know what he meant?

Secretary WOLFOWITZ. I think the Geneva Convention, both Geneva Conventions 3 and 4, apply in Iraq.

Senator LEVIN. Do you know what the Secretary might have meant when he said that they did not apply precisely then?

Secretary WOLFOWITZ. I don't know.

Senator LEVIN. Were you aware of that comment before right now?

Secretary WOLFOWITZ. I think I had heard something like it, and I could speculate, but I'd be speculating.

Senator LEVIN. All right. Mr. Feith has made commitments to provide materials that he has not kept. Last time you were in front of us on April 20 you said you would look into the delay of the materials that I had requested back in November 2003. On February 26, Mr. Feith promised in a letter to me that he would provide those materials quickly and promptly. I still didn't receive the letters. Do you know what is going on what that commitment?

Secretary WOLFOWITZ. Senator, I think there was a big package of materials that should have come up yesterday. I'm not 100 percent sure. We will check that.

Senator LEVIN. Will you let us know what is going on? One way or the other, will you get back to us?

Secretary WOLFOWITZ. Yes.

Senator LEVIN. Tell us when that's going to be forthcoming.

Secretary WOLFOWITZ. I hope I can tell you it's here.

Senator LEVIN. The way I see these pledges of other countries to Iraq reconstruction is that there's $13 billion that had been promised by 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 countries. Does that sound right, Mr. Kaplan? Does anybody follow this? Japan committed $4.9 billion. Do you have any idea how much of that they've come through with?

Mr. KAPLAN. Senator, I have in front of me the amounts of the pledges.

Senator LEVIN. I don't want the pledges. I want to know whether they've kept their pledges.

Mr. KAPLAN. Senator, I don't have that in front of me, but as I say, we'll be happy to provide it for the record.

Senator LEVIN. Do you have a sense as to whether most of the pledges have been kept by most of the countries?

Secretary WOLFOWITZ. Senator Levin, we've had difficulty in Afghanistan, I know, in slow delivery by the international community on their pledges. I think it's even slower in Iraq because of the security conditions there. We'll have to get you the exact numbers.

Senator LEVIN. So the security conditions are difficult enough. That's no excuse for the pledges not being fulfilled, is it?

Secretary WOLFOWITZ. The pledge was not for an expenditure by this particular month. It's over a period of time.

Senator LEVIN. But some of it has been owing so far, I assume, right? Some of the pledges have supposed to have been arrived by now?

Secretary WOLFOWITZ. You'd have to ask the State Department or Secretary Powell, who chaired the Madrid meeting. I don't believe they pledged a specific time schedule. I think they pledged certain amounts within a couple of years.

Senator LEVIN. Does OMB know? Does OMB track this?

Mr. KAPLAN. We collect the information from the appropriate Departments, Senator.

Senator LEVIN. Okay. Would you let the committee know something that I think we should be on top of? I mean, it's already pretty tiny compared to what our commitment is. It seems to me at a minimum somebody ought to be knowing whether or not other countries that have made these minimal pledges have come through with even whatever they've pledged.

The $25 billion that you request also is funding that does not expire, so it's a no-year request. Would you agree with that characterization?

Mr. KAPLAN. Yes, Senator.

Senator LEVIN. There's no time limit on it?

Mr. KAPLAN. That's correct, Senator, although it's our intention that if Congress funds our forthcoming supplemental request for fiscal year 2005, those funds would supersede whatever is remaining in the contingent emergency reserve.

Senator LEVIN. All right. I just want to be clear on this one question, which came up before about these interrogation rules. There were rules for Guantanamo, is that correct, Secretary Wolfowitz?

Secretary WOLFOWITZ. Yes.

Senator LEVIN. Were you familiar with those?

Secretary WOLFOWITZ. Familiar might be overstating it, but yes, I've seen them.

Senator LEVIN. Okay. Were you part of the approval process for those rules of interrogation for Guantanamo?

Secretary WOLFOWITZ. Yes.

Senator LEVIN. Okay. But on these rules relative to Iraq of General Sanchez, you were not aware of these until just a couple of days ago?

Secretary WOLFOWITZ. Actually, I was not aware of them until this morning.

Senator LEVIN. Okay. General Pace, does that also go for you and the chiefs, that you were not aware of these until the last few days, or were you?

General PACE. I do not know about the other chiefs, sir. I personally was aware of the ones for Guantanamo. I was not aware of the ones for Iraq.

Senator LEVIN. Could you check out and see whether or not these rules were ever submitted to the chiefs or whether they were aware of them?

General PACE. I will find out the individual chiefs. They were not submitted to the Joint Chiefs. I will find out if any of the service chiefs knew.

Senator LEVIN. Okay. General Pace, I asked you before about this use of the term, rules of engagement, relative to interrogation, and I found it so shocking that that term, rules of engagement, which normally applies to when force is going to be permitted, would apply to that term interrogation. Do you remember, either of you, relative to the Guantanamo rules of interrogation, whether or not they were called rules of engagement?

General PACE. To my knowledge, they were not, sir. That is a term that does not have any military definition to it to my knowledge, rules of engagement for interrogation. Rules of engagement apply to the use of force and the way they are authorized to use force.

Senator LEVIN. What about you, Secretary Wolfowitz? Do you remember whether or not that term was used relative to Guantanamo?

Secretary WOLFOWITZ. I certainly don't remember it being used.

Senator LEVIN. Mr. Chairman, if I could have just one more question, even though my time, I notice, is expired. I think this

would be all that I would need. Let's see if I can find this term. This was a statement in the annex of the Taguba report. It was an unclassified, December 12, 2003, situation update to Major General Miller, and the document describes interrogation techniques permissible for use in the Iraqi theater. It includes the following statement: "Interrogation officer in charge will submit memoranda for the record requesting harsh approaches for commanding General's approval prior to employment, sleep management, sensory deprivation, isolation longer than 30 days, and dogs." Is that something that either of you are familiar with, Secretary Wolfowitz?

Secretary WOLFOWITZ. No, I'm not.

Senator LEVIN. General Pace?

General PACE. No, sir, I haven't seen that.

Senator LEVIN. Have you ever seen the term, harsh approaches, used relative to interrogation as being something that would be permitted? Is that a term which is used in a sense that harsh approaches can be authorized under certain circumstances, Secretary?

Secretary WOLFOWITZ. I don't recall it being used in any of the Guantanamo techniques that we discussed.

Senator LEVIN. Or anything else you've seen?

Secretary WOLFOWITZ. No.

Senator LEVIN. General Pace?

General PACE. It's not a term I'm familiar with, sir.

Senator LEVIN. Has Secretary Rumsfeld or you ever signed exceptions or approvals for the use of force in specific instances, either in Guantanamo or in Iraq that you know of? Has there ever been a request for authorization to use certain techniques relative to specific detainees that required secretarial approval that have come to your attention in Guantanamo or in Iraq?

Secretary WOLFOWITZ. I think you had testimony in closed testimony yesterday on issues about interrogation. I don't believe they talk about the use of force, but there are certain things, and I think you were in that session and I'd be happy to have someone come back and answer any further questions you have on it in a closed session.

Senator LEVIN. The Guantanamo rules did provide for a certain secretarial approval, did they not, of certain kinds of techniques?

Secretary WOLFOWITZ. That's right.

Senator LEVIN. Without asking you which cases, do you know whether there were some approvals given relative to Guantanamo?

Secretary WOLFOWITZ. I believe there were.

Senator LEVIN. I'm not saying that was use of force. I'm just saying there was use of certain techniques which required——

Secretary WOLFOWITZ. To the best of my recollection, and my recollection is pretty old on this, it did not involve the use of force, and so we're clear on this, it was a very exceptional authority to be used in the case of people who had information about possible major terrorist plots against the United States. That's why that authority was there. The extreme care with which any special techniques, all of which had to comply with human treatment standards.

Senator LEVIN. Under Geneva?

Secretary WOLFOWITZ. Under Geneva. I mean, even the special techniques were judged by the lawyers to be compliant. The ex-

treme care with which some of those could only be used emphasizes the fact that there was nothing about the Guantanamo operation that can explain the incredible abuses that took place in Iraq.

Senator, you and many other members of this committee have been to Guantanamo. I think you've seen first hand that this is an operation that we believe met very high standards.

Senator LEVIN. Thank you.

Senator SESSIONS. Thank you, Senator Levin. I know we've kept you past your time. I served on the Judiciary Committee for a brief few years, filled a Judge Advocate General (JAG) slot, although I'll admit I did not do JAG officer schooling, at the Army Reserve that I served in for several years. With regard to the Geneva Convention and Secretary Rumsfeld's statement that it did not apply precisely, I would assume, and anybody, you're wise not to speculate, but I'll speculate that what he meant was unlawful combatants who are in Iraq, just like the unlawful combatants in Guantanamo, are not entitled to protection under the Geneva Conventions.

However, the DOD said regardless they will all be treated under the Geneva Conventions. Is that correct?

Secretary WOLFOWITZ. Yes, with one qualification as I understand it, and I'm not a lawyer. The Geneva Convention requires——

Senator SESSIONS. Senator Levin will catch us if we make an error.

Secretary WOLFOWITZ.—humane treatment for all detainees. It gives special and very important privileges to lawful combatants that are prisoners of war.

Senator SESSIONS. Yes, and just to follow up on that, in Guantanamo, you had required approval higher up. General Pace, you've been a commander in the field. General Sanchez's memorandum about harsher approaches, that's a restrictive memorandum, is it not? In other words, General Sanchez said, some of these things may be legitimate, if you desire to go into these category of interrogation techniques, I want a written request from the field and I want to approve it first. Isn't that what he was saying?

General PACE. That would be a restrictive guidance from the commander, the way it was read and the way I heard it, I heard that as restrictive.

Senator SESSIONS. It was not a permissive memorandum to go do all these things. It said, if you're thinking about these things, seek my approval in writing. Does he have a legal officer on his staff there that could help him?

General PACE. He does, yes, sir.

Senator SESSIONS. They know all these case histories of the Geneva Conventions and can advise him correctly. Things went awry. We're not happy with it. They went awry and it's not good. I don't think that memorandum should be seen as a permissive suggestion that they should go beyond the Geneva Conventions.

I agree with Senator Levin about these pledges. I think it's time for us to ask our allies why they are not on board, not having come along. I know some of them did not make specific dates as to when they would do this, but sometimes the time is now it seems to me.

Secretary WOLFOWITZ. I agree with both of you. Maybe I should have been clearer about that. I think we should be careful about

whether they've broken a pledge, but I think our allies should be doing more, not less, absolutely.

Senator SESSIONS. They're helping a good bit in Afghanistan, although some of that has been slow. There was a suggestion earlier that the administration made these promises about how many troops there would be utilized and how long we would be there. Mr. Secretary, have you ever stated, or the Secretary of Defense, or the President to your knowledge, said that by a certain date we would be out of Iraq, that we'd only use so many troops? Isn't it true the President has told us we're going to do what it takes to be successful and it's going to take a long time to win the war on terrorism?

Secretary WOLFOWITZ. Yes, Senator, and I've tried always to emphasize the great uncertainty of war. I frankly anticipated many things much worse than we've encountered that fortunately didn't take place, and actually I shared Senator Levin's fear that the greatest danger in this war was going to be the possibility that he would actually use WMD, because we both believed he had them.

There are a lot of things that didn't happen that would have been much worse. The thing that did happen that has led to this continuing war is that the enemy that was defeated in major combat on May 2 dispersed into the countryside, and what we're dealing with now are some tough, ruthless killers who were the core of that abusive regime for 35 years. They know how to build bombs, they know how to murder people, they know how to kill and assassinate and that's what their specialty is. They offer no hope for the country, that's what I said before.

We need to speed up the process so that Iraqis understand we're not there to own their country. They have to step up and take responsibility. There's a really positive vision and Iraqis are hungry for it.

Senator SESSIONS. I think this has been a good hearing. I think you've heard from this side of the aisle and the desk and you've indicated you'll try to respond as you can to meet the concerns. The Senate committee has made it clear that we're willing to support the troops and get this funding as you need it.

Senator LEVIN. Just one more question for General Pace. General Pace, there was a decision made basically to expand the Iraqi army or not to try to reconstitute elements of the Iraqi army right after the war. Was that a decision of the chiefs or was that made by someone else?

General PACE. Sir, I think it happened at first on the battlefield when the Iraqi army disintegrated, so that the units that we expected might be there——

Senator LEVIN. I mean after the battles were over. We understand. There was a decision made not to attempt to reconstitute those units even eliminating the top level officers of the Baath party. There was a specific decision that was made not to try to reconstitute those units. Did the chiefs support that or make that decision or recommend that decision?

General PACE. Sir, to my knowledge, certainly I know I did not have a discussion about that with my fellow chiefs in the tank. That decision to my recollection was made inside of Iraq in the CPA, who had the responsibility, Ambassador Bremer and his team

had the responsibility to work with rebuilding the new Iraqi army with the Governing Council. That was a decision made in theater.

Senator LEVIN. A decision of that magnitude which has had such implications and such ramifications surely should have involved our top military leadership, and I've been critical of the decision right from the beginning, but I'm also critical of the failure to involve our top military leadership from what I can tell. I've been unable to identify our top military uniform leaders that have been involved in that decision and I think it was the wrong decision, but it was surely wrong not to include the chiefs.

General PACE. From my perspective, sir, the enemy had disintegrated on the battlefield.

Senator LEVIN. We wanted them to disintegrate too, didn't we? We urged them not to fight, didn't we?

General PACE. We urged them not to fight. We were hopeful that some might surrender en masse and actually start working for the future of the Iraqi people. That did not happen. Then after we were stood up as the governing authority, and the question was, how to go out and resurrect these units that have dispersed to places we don't know, and if we did, how do we do that? Or do we start recruiting for the new Iraqi army?

Senator LEVIN. Reconstituting the units, right.

General PACE. I'm sorry, sir.

Senator LEVIN. Right. That was the question. But you're saying you were not involved——

Secretary WOLFOWITZ. Senator Levin, it was a conscript army. These people went home.

Senator LEVIN. I understand.

Secretary WOLFOWITZ. I remember television coverage of people walking from northern Iraq to southern Iraq. The issue was what do you do with the officer corps? I think hindsight is 20/20. This was, as General Pace said, a CPA decision. I think it was recommended back here and approved back here.

Senator LEVIN. By?

Secretary WOLFOWITZ. By Ambassador Bremer.

Senator LEVIN. It was recommended to you?

Secretary WOLFOWITZ. To Secretary Rumsfeld. He reports to the President through Secretary Rumsfeld.

Senator LEVIN. But my point is that the uniform leadership——

Secretary WOLFOWITZ. Can I finish for a minute?

Senator LEVIN. Sure.

Secretary WOLFOWITZ. Because you say it was an obvious mistake.

Senator LEVIN. But that's not my point.

Secretary WOLFOWITZ. First of all, there wasn't an army to hang together. The mistake with 20/20 hindsight, I believe, and I think most people would agree, was that when it was disbanded, it took a long time before it was clear that the people who were cashiered would get pensions. If that had been made clear from the beginning, we would have avoided a significant problem. The officer corps is not by any means black and white. We just brought back one of those officers in Fallujah and we pretty much had to sideline him immediately because he was working with the enemy. We need clean, new officers.

Senator LEVIN. We agree on that. The question isn't whether it was black and white. I think it was a mistake, okay, and I said so at the time, so it wasn't 20/20 hindsight, but that's beside the point who's right on this. My point here is apparently our top uniform military leadership here were not involved in that decision. That's my point.

General PACE. Sir, I should stand up to my responsibilities there. I was certainly aware that that decision had been taken. I was certainly aware that that recommendation had come forward. I had the opportunity as an adviser and a responsibility as an adviser that if I thought that was a wrong thing to have stood up and be counted. I looked at it. I thought it was a correct decision based on——

Senator LEVIN. So you were asked for your advice?

General PACE. No, sir. I was not specifically asked for my advice on that. However, I have a responsibility as a member of the Joint Chiefs to proffer my advice, to be knowledgeable, and to as best I can give my best advice. We looked at this, I looked at it for sure. They had disintegrated, and the decision that was made was whether we go out and try to resurrect units that have disappeared or should we start recruiting to a new army and vet those as we come on board. That made sense to me.

Senator LEVIN. My only question is whether you were consulted and you weren't. You're now saying that you feel you should have initiated comment had you disagreed with it, and I agree with that. My only question is, were the Joint Chiefs consulted for formal consideration, but apparently they weren't. I think that's just a generally bad, ineffective, and insufficient process. That's my only point here. Whether it was right or wrong we can differ on.

Secretary WOLFOWITZ. Senator Levin, do you think we should have called the army back, summoned these conscripts back to the army? I think that would have been a terrible mistake. I think it was a mistake not to let them know that when they were in effect being retired, that they would also be paid. That I think we might agree on, but I think it would have been a big mistake to summon Saddam's army back to active duty when they——

Senator LEVIN. You can call it Saddam's army, but as you point out, it was a conscript army. Many of that army hated Saddam, and didn't fight for him. We wanted them not to fight for him.

Secretary WOLFOWITZ. They didn't want to be drafted back in.

Senator LEVIN. It was not a matter of being drafted back in, it was a matter of whether they would voluntarily rejoin units to defend a new Iraq. Instead we have no army. We still have about 9,000 out of a huge need much greater than that in an army. But we can argue back and forth whether it was a wise decision or not. I just think that what is not wise is not to formally inquire of our top uniform leadership what they think. I think General Pace is magnanimously saying that he should have initiated if he had disagreed with it. That's fine, that's magnanimous. That's not the way this process should work. Our top uniform, and best thinking, should be solicited on an issue of that magnitude. It shouldn't be left up to just some kind of a point paper, which is what it was.

Senator SESSIONS. Thank you, Senator Levin. I know you've expressed that prior to the decision being made and he still adheres to it and that's all right.

If there's nothing else, you're beyond the time that we asked you to stay. We thank you for your service and for your support. This Senate will give you, and our soldiers, the money they need. We just need to work out the details about how it'll get done. Thank you. We are adjourned.

[Question for the record with answer supplied follows:]

QUESTION SUBMITTED BY SENATOR MARK DAYTON

REST AND RECUPERATION LEAVE PROGRAM

1. Senator DAYTON. Secretary Wolfowitz, it is very important to me that the military continue to pay travel expenses in relation to the Rest and Recuperation (R&R) Leave Program for servicemembers deployed in support of Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF). Do you currently have the funds available to continue the R&R Leave Program, including the travel between the domestic point of entry and the servicemembers' homes?

Secretary WOLFOWITZ. On September 25, 2003, the United States Central Command initiated the R&R Leave Program for Active and Reserve servicemembers and DOD civilian employees serving on a 12-month tour of duty within Central Command Area of Responsibility in support of the global war on terror. On January 1, 2004, we implemented the Fully Funded Onward Travel Program, which pays the air travel expenses to the commercial airport nearest the leave destination.

P.L. 108–220, April 22, 2004, requires the Secretary of Defense to reimburse military R&R travelers for certain transportation expenses incurred on R&R leave before the program was expanded to include domestic travel. The law does not provide additional funding, however, and we expect that these costs will range from $13 million to $19 million.

Implementation instructions for retroactive reimbursement of R&R travel are still pending. The $55 million supplemental that was established for onward travel is not sufficient to cover onward travel and retroactive reimbursement through fiscal year 2004. The DOD should be able to cover the cost by reallocating operations and maintenance, Army (OMA) funds already earmarked for other R&R expenses.

[Whereupon, at 1:17 p.m., the committee adjourned.]