

**DEPARTMENT OF DEFENSE APPROPRIATIONS  
FOR FISCAL YEAR 2007**

**WEDNESDAY, MARCH 29, 2006**

U.S. SENATE,  
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,  
*Washington, DC.*

The subcommittee met at 10:02 a.m., in room SD-192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senator Stevens, Domenici, Shelby, Burns, Inouye, Dorgan, and Feinstein.

DEPARTMENT OF DEFENSE

DEPARTMENT OF THE AIR FORCE

OFFICE OF THE SECRETARY

**STATEMENTS OF:**

**HON. MICHAEL W. WYNNE, SECRETARY  
GENERAL T. MICHAEL MOSELEY, CHIEF OF STAFF**

**OPENING STATEMENT OF SENATOR TED STEVENS**

Senator STEVENS. Well, thank you, Mr. Secretary and General, for bringing along some of the young men and women who have returned from service in the war zone. We appreciate the opportunity to have photographs taken so we can put them on the committee's web site. We're delighted to have an opportunity to listen to the Secretary of the Air Force and the Air Force Chief of Staff. I believe this is the first time you've appeared before our subcommittee.

Senator Inouye, our co-chair, is at another markup on the Indian Affairs Committee, so he will be late today.

The Air Force continues to support our Nation's forces in Iraq and Afghanistan and throughout the world, as well as remain vigilant to protect the United States in the airspace and cyberspace. The Air Force currently has more than 200,000 airmen deployed worldwide in support of the combatant commanders. In Afghanistan and Iraq, the Air Force is flying more than 200 sorties a day, providing close air support, theater airlift, intelligence support, refueling, and aeromedical evacuation of our wounded people. At the same time, you're confronted with the difficult tasks of modernization and recapitalizing the Air Force.

We note in your posture statement that the Air Force is maintaining the oldest aircraft in its history. The average age now of

an aircraft in the Air Force is 23 years. The subcommittee has begun its review of the fiscal year 2007 defense budget. In your posture statement, you state that your priorities for the Air Force are to win the global war on terror, to develop and care for our airmen, and to modernize and recapitalize the aircraft and equipment.

The budget before us requests a total now of \$105.9 billion. This is \$4.8 billion, or 4.7 percent, greater than the amount that was enacted for the current year. That's a lot of money. It's a large increase in fiscal year 2007, in this period of high deficits. However we recognize your challenges are not small, and the country is fortunate to be able to call upon your leadership for our Air Force.

Secretary Wynne, General Moseley, we're looking forward to hearing about your budget priorities and how you are positioning the Air Force for tomorrow. I want to thank you, personally, for your visit to us, telling us of some of your problems and some of your goals and how we should work together to achieve them.

We'll leave room in our record, at this point, for the statement of our co-chairman, when he arrives.

[The statement follows:]

PREPARED STATEMENT OF SENATOR DANIEL K. INOUE

Mr. Chairman, I join you in welcoming our Air Force leaders. General Mosley, Secretary Wynne we thank you for being here today.

In your budget submission last year, the recommendations to truncate plans for the F-22 and C-130 were controversial matters that eventually were overturned.

This year you are proposing to terminate the C-17 and the second source engine for the Joint Strike Fighter. Again, gentlemen, your request is not without controversy.

We will need to understand the rationale for these proposals and your candid views on how we in the Congress should respond. We would expect that today's hearing would provide a forum to address these issues.

Mr. Secretary, I want to take this opportunity to remind everyone of the great support the Air Force is providing for Operation Noble Eagle here at home, and Operations Enduring Freedom and Iraqi Freedom overseas. As is to be expected, the media and my colleagues focus on the role played by the Army and marines on the ground, but without your support they would be a lot worse off.

Gentlemen, we appreciate all the men and women in the Air Force are doing for our Nation. We cannot be more grateful for the sacrifices that you make every day.

Mr. Chairman, I thank you for calling this hearing and I await the testimony of our witnesses.

Senator STEVENS. And I'll turn to Senator Burns for any statement he may wish to make.

STATEMENT OF SENATOR CONRAD BURNS

Senator BURNS. Thank you, Mr. Chairman. And thanks for the hearing. And welcome, Secretary Wynne and General Moseley. It's good to see you this morning.

Mr. Secretary, I applaud your efforts to redirect the Air Force to address some of the challenges that we face today. We're facing different challenges, as you well know. And, unfortunately, I believe that you've got more than a tough job ahead of you. I've looked at it every now and again, and I've said, "I certainly don't—wouldn't have your job right now," because you're trying to do a lot of things.

Many of us in Congress have seen the Air Force struggling, in these past 4 or 5 years, to find a core mission and direction. Your mission statement talks of "sovereign options." I will tell you how

that term hit me. My eyes glazed over, and then I went home and shampooed, trying to make some sense of it. Now, I don't know what a "sovereign option" is right now.

We're presently engaged in a global war. And it's a long war. It isn't a war of air dominance. And, frankly, we've never had a war of air dominance. Wars are won on the ground, as you well know. And this one has taken on a completely different character than anything we've ever faced before. Our success in Iraq and Afghanistan will be solely based on the success of those boots-on-the-ground kind of operation.

In practice, I see that—our airmen in today's Air Force are leaning forward to accomplish that mission. In contrast, the senior leadership of the Air Force seems to be detached from the reality of what this operation is all about.

The measure of every branch of the Armed Forces in this war is its ability to support the efforts on the ground. This is where I, and many others, part ways from the direction the Air Force seems to be going. The future of the Air Force is in the service to the mission on the ground. It is in support of our young corporals and sergeants engaged in the real fight. Unfortunately, it seems many of the senior leaders are reluctant to recognize that waves of Russian fighters will not be coming over the horizon anytime soon. The future of the Air Force is not the main effort of the fight, but it is that of a supporting arm.

Transporting much-needed supplies to the troops, providing air support for convoys on the ground, and getting ground commanders the imagery they need in realtime are all critical missions. And I'm concerned that the future years' budgets of the Air Force continue to shortchange those missions, which is—by their very nature, are support missions for the more glamorous missions of air dominance.

The Quadrennial Defense Review (QDR), talks of irregular, catastrophic, and disruptive threats. These are the threats we face today. These are the threats we need the focus of our Nation's treasure on addressing the future. And probably, from that statement, you said I'm concerned about several elements in the direction of which we are going.

Mr. Chairman, thank you very much. And I have a couple of very pointed questions, and then I'll put my saber back in the scabbard and move on.

Thank you.

Senator STEVENS. Thank you very much, Senator.

Mr. Secretary and General, we appreciate your statements. They'll print in the record in full, as though read, but we'll—take as much time as you wish.

I want to congratulate you on this posture statement. I've gone over that, and it's really a very good one. We appreciate the work you've put into that statement. I hope the Senate and the House will pay attention to it.

Thank you very much.

Mr. WYNNE. Thank you, Mr. Chairman, Senator Inouye.

Mr. Chairman, Senator Inouye, and members of the subcommittee, especially Senator Burns, thank you for having General Moseley and me here today to testify on behalf of America's Air

Force. We are grateful for this subcommittee's steadfast support our Nation's airmen and their families.

I've seen our innovative and adaptable airmen—Active, Guard, and Reserve—firsthand, and I am inspired by their commitment and their patriotism. Nevertheless, as I told you back in October, our Air Force is challenged with trying to get 6 pounds into a 5-pound sack.

I have broken these challenges down into three critical components. First, personnel costs of an All Volunteer Force are accelerating because of the expanding benefits and the rising healthcare costs. Next, operations and maintenance costs continue to rise. We are experiencing unyielding second-order effects that continue to drain our top line. Simply stated, we are exhausting all of our assets at a much higher rate than we had forecast, and absorbing costs to organize, train, and equip for evolving new missions. Last, our investment accounts of acquisition and research and development face severe pressure as a result of the foregoing must-pay bills. Nevertheless, we continue to mobilize fast and creative responses to achieve the technology and interdependence required to dominate in the global war on terrorism and threats beyond.

So, where does our solution lie? With your assistance, we will responsibly attack all three challenges. To rein in personnel costs, we're using total force integration. Started in the mid-1990s, it has exposed redundancies to capitalize on what we continue to operationalize the Guard and the Reserve. "Mission first" continues to be our beacon while partnering with them. In fact, we have recently delivered the post-base realignment and closure (BRAC) phase II mission laydown, which has been cosigned by the Active, the National Guard Bureau, and the Reserve commanders.

In addition to using our people more efficiently through total force integration, we instituted Air Force Smart Operations 21, smarter and leaner operations. No process or organizational construct is immune from this Air Force-wide critical review. Efficiencies from Air Force Smart Operations 21, total force integration, and lessons learned from 15 years under fire permit an end-strength reduction of 40,000 full-time equivalents across the future years defense plan (FYDP). Using our manpower smarter is the key to retention and the key to force management.

Air Force Smart Operations 21 will also help us with our second challenge, operations and maintenance price increases. But smarter operations cannot overcome the elephant in the room. Fuel and upkeep for aircraft with decreasing military utility, aircraft with 1950s-era engines and design expose us to soaring fuel-cost prices, increased maintenance, and obsolete spares suppliers. Many planes are simply not deployable due to declining military utility.

We can harvest savings from cutting requirements, redundancies, and excess capacity in our aircraft and missile fleets. This lets me keep the force robust, while shifting resources to new missions, like Predator, Global Hawk, and Long Range Strike. I need this type of flexibility. And this is where I ask for your help. I need your help in lifting the legislative restrictions on retirements that prevent me from being the air-fleet manager that you expect me to be.

I think we have some illustrations here on the charts to our side.

Right now, these restrictions apply to nearly 15 percent of our air fleet. Continued restrictive language will not only impede the shift to new missions now, but will lead to exhausting resources on aircraft with declining military utility, and ultimately impact our technological edge for the future.

The final part of this 6-pound problem is within our investment accounts, acquisition and research and development. I reiterate my commitment to restore the Air Force to its premier status in acquisition and governance. And we continue to concentrate in this area.

The F-22A program illustrates the pressure our acquisition budget faces in the best way. Having been convinced of the goodness of maintaining a fifth-generation fighter production line until the F-35 is a proven commodity, the result called for a 2-year extension, but only four additional aircraft in the 3-year multiyear, to recover the cost of the lower volume and with the funding laid out as you see it. We recognize that this is an excursion from established procedure, and ask your support in working through this issue.

Similarly, we can't ignore our research and investment—the research and development investment stream, even while at war. Along with air dominance, space, and cyberspace, research and development investment is key to the future independent—interdependent warfight. Investment today provides the gateway to tomorrow's dominance.

In summary, personnel, operations and maintenance, and our investment accounts of acquisition and research and development are our targets. Despite 15 years of continuous combat since Operation Desert Storm, we have transformed our force like no other. With total force integration, Air Force Smart Operations 21, and your help, we will keep the title of the world's most agile and lethal air force. Our commitment is to increase the aggregate military utility across the total spectrum of operations for the joint force commander. This means modernizing, recapitalizing, and recognizing efficiencies as we manage this total force.

#### PREPARED STATEMENT

Thank you for your strong commitment to our Air Force and to the common defense. I look forward to your questions.

Senator STEVENS. Thank you, Mr. Secretary.

[The statement follows:]

#### PREPARED STATEMENT OF MICHAEL W. WYNNE

Mr. Chairman and distinguished members of the Committee, the Air Force has a rich heritage and a boundless future. The Service continues its transformation to meet the emerging challenges of a dynamic world, and to ensure the nation's security by dominating the global commons of air, space and cyberspace. The fiscal year 2007 budget takes a significant step toward that future.

We are America's Airmen. Our mission is to deliver sovereign options for the defense of the United States of America and its global interests—we fly and we fight—in air, space and cyberspace. For the past 15 years, our Air Force team has proven its mettle and skill every day. Since the days of DESERT STORM, we have been globally and continuously engaged in combat. We will continue to show the same ingenuity, courage and resolve and achieve success in our three most important challenges: winning the Global War on Terror (GWOT); developing and caring for our Airmen; and maintaining, modernizing and recapitalizing our aircraft and equipment.

In the GWOT we face vile enemies—enemies devoid of any positive vision of the future, who seek only to destroy the United States and the ideals and freedoms upon which America is built. We will win this fight. We will maintain our focus on winning this fight. While maintaining focus on winning the GWOT we will also maintain vigilance—vigilance in defense of our homeland and vigilance against emerging threats in an uncertain world.

Our expeditionary fighting forces and culture, centered on the Air and Space Expeditionary Force, provide the foundation for our operations. We will more closely align our Regular Air Force, Air National Guard and Air Force Reserve units with Total Force initiatives to enhance our overall capability. We will continue transforming to meet the challenges of a dynamic world.

We will remain focused on caring for and developing our Airmen—our most valuable resource. We will continue to look for ways to maintain and improve their training, their personal and professional development and their quality of life, so they may continue to meet the commitments of today while preparing for the challenges of tomorrow.

We are operating the oldest inventory of aircraft in our history, while maintaining the intense Operations Tempo required by the GWOT, humanitarian crises, and routine requirements. Meanwhile, competitor states are developing air and air defense systems that could threaten our ability to maintain air and space dominance. These factors drive the urgent need to modernize and recapitalize our aircraft. We must act now to preserve our Nation's freedom of action in the future. The Secretary of Defense described future threats in terms of four quadrants—traditional, irregular, catastrophic and disruptive. We must develop, acquire and maintain systems that can counter threats in any of these quadrants. We will do so by incorporating lean principles that eliminate waste while providing transparency in our processes.

Our 2006 Posture Statement outlines our plan to accomplish these goals regarding GWOT, our Airmen, and our aircraft and equipment. It reflects our commitment to good stewardship of the resources entrusted to us, and our dedication to protecting our Nation in air, space and cyberspace.

#### INTRODUCTION—HERITAGE TO HORIZON

Over a century ago, America crossed the threshold of powered flight and gave wings to the world. Soon military leaders realized the implications of this development, and warfare was changed forever. America was fortunate to have “Great Captains” with the vision to imagine the possibilities of air and space power—Airmen like Billy Mitchell, Frank Andrews, Hap Arnold, Ira Eaker, Jimmy Doolittle and Bennie Schriever. They have given us a proud heritage of courage, excellence and innovation. In so doing, they also give us a sense of perspective and a way to understand the Air Force's future.

They have shown us an unlimited horizon. Each of them lived in dangerous times and faced many demanding challenges. Today, we also find ourselves as a Nation and an Air Force facing similarly dangerous and demanding challenges. Some are global or national in scope; others are specific to the Air Force.

During the last decade the United States Air Force transformed to a modular expeditionary force of ten Air and Space Expeditionary Force (AEF) packages providing agile air and space power. Our Airmen have proven tremendously successful across the spectrum of operations from humanitarian efforts to Homeland Defense operations and the Global War on Terrorism. We will continue transforming to meet the challenges of a dynamic world by rebalancing the force and realigning our structure into a Total Force that meets increased demands for persistent intelligence, rapid mobility and precision strike capabilities. The AEF construct provides the ideal toolbox from which we can provide tailored, efficient and lethal air and space forces to deal with future challenges.

The Air Force faces the broadest set of mission requirements across the entire spectrum of warfare. We will bolster our Nation's ability to respond swiftly, flexibly and decisively to asymmetric, irregular and emerging threats. We have embarked on a bold, new initiative known as Air Force Smart Operations for the 21st Century (AFSO21) as a means to best allocate our resources to meet this increasing set of challenges. All of these challenges will require the very best efforts of our Airmen throughout the Total Force.

#### *Winning the Global War on Terror (GWOT)*

Our first priority is to maintain focus on winning the GWOT. We will continue to operate as part of a true Joint and Coalition team, multiplying the effectiveness of our partners to win this war. We fly and we fight—whether we're flying A-10s over Afghanistan; flying F-16s over Iraq; operating and maneuvering communications satellites in geosynchronous orbit; remotely piloting Unmanned Aerial Vehicles

(UAVs) patrolling over Baghdad; or maintaining vigilance over our Nation's homeland in an E-3 Airborne Warning and Control System (AWACS) aircraft. All Airmen, no matter what their specialty, contribute to this mission.

We must keep in mind that the GWOT is not defined by today's headlines or locations. It will be a long war, with shifting venues and constantly evolving threats. The character and capabilities of potential U.S. adversaries are increasingly uncertain, veiled, growing and changing, as both state and non-state actors acquire advanced technology and the means to either acquire or develop weapons of mass destruction (WMDs).

We can foresee serious threats posed by increasing numbers and sophistication of ballistic and cruise missiles; chemical, biological, radiological and nuclear weapons; advanced surface-to-air missiles (SAMs); and sophisticated combat aircraft. We also anticipate the real threat of potentially crippling attacks on our Nation's critical infrastructure, including space networks. Not only must we be prepared to confront known threats, but we also must be ready for unexpected, disruptive breakthroughs in technology that may undercut traditional U.S. advantages.

Maintaining a strong defense able to overcome and defeat these threats remains an imperative for our Nation. Currently, the Air Force can command the global commons of air and space and significantly influence the global commons of the sea and cyberspace; however, we cannot indefinitely maintain this advantage using the current technology of the air and space systems and equipment comprising our existing force structure.

#### *Developing and Caring for Our Airmen*

Our Regular Air Force Airmen, Air National Guardsmen, Air Force Reservists and civilians, who together form our Total Force, are building on their inheritance of courage, excellence and innovation. They are highly educated and resourceful, and have created the most lethal Air Force that has ever existed. We must continue to look for ways to maintain and improve their training, their personal and professional development and their quality of life, so that they may continue to meet the commitments of today while preparing for the challenges of tomorrow.

Airmen today are contributing to combat operations in ways never before envisioned—as convoy drivers and escorts, detainee guards and translators to give a few examples. Other Airmen routinely serve “outside the wire” as Special Tactics operators, Joint Terminal Attack Controllers and Special Operations Weather personnel. All of these Airmen must receive the proper training to survive, fight and win. We are working within the Air Force, as well as with our Joint warfighting partners, to ensure that all Airmen are fully prepared when they arrive in the combat zone.

Developing Airmen involves more than combat skills. It is a career-long process that maximizes the potential of each member of the Total Force team. We will look at every Airman as an individual and provide them with specialized training, relevant educational opportunities and appropriate assignments in order to capitalize on the talent these brave Airmen offer for this country's defense.

Every Airman is a vital national resource and must be cared for as such. In addition to providing professional opportunities for our Airmen and fostering an environment of mutual respect, the Air Force is committed to investing in health and fitness programs and facilities, world class medical access and care, and housing and morale programs for our Airmen. Our Airmen have proven themselves to be the best America has to offer—they deserve the best support available.

By ensuring that our Airmen are prepared for combat, effectively developed and properly supported, we will continue to provide our Nation with the best Air Force in the world.

#### *Maintenance, Modernization and Recapitalization*

One of our most daunting challenges is maintaining the military utility of our aircraft as reflected in mission readiness, maintenance costs and other factors. We have been actively engaged in combat for the past 15 years. We currently maintain an Air Bridge to Southwest Asia. Our state of alert for GWOT requires us to operate at an elevated and sustained operations tempo (OPSTEMPO). Increased investment and increased maintenance tempo can keep our older aircraft flying and slow their decaying military utility, but equipment age and use are unrelenting factors.

Presently, we have the oldest aircraft inventory in our history. Our aircraft are an average of over 23 years old—older in many cases than those who fly and maintain them. In particular, our inventory of tanker aircraft averages over 41 years old, and our C-130 tactical airlifters average over 25 years old. As our equipment ages, it requires more frequent maintenance and replacement of parts; meanwhile, increased OPSTEMPO accelerates wear and tear on our equipment and operational

infrastructure, exposes our equipment to extreme conditions and, in some cases, delays routine maintenance.

We must recapitalize our aircraft and operational infrastructure, as well as modernize our processes for services, support and information delivery in order to maintain the grueling pace required into the foreseeable future. We must do so in a fiscally prudent manner. This means retiring and replacing our oldest, least capable and most expensive aircraft and equipment, as well as accepting a manageable level of risk in order to selectively maintain some older systems until newer systems are on the ramp.

These newer systems will cost far less to operate and maintain and are designed to defeat emerging threats. The United States no longer enjoys a monopoly on advanced technology, and we are already witnessing the emergence of highly sophisticated systems that threaten our capability to achieve Joint Air and Space Dominance. Along with ongoing robust science and technology (S&T) programs, transformational systems such as the F-22A Raptor, F-35 Joint Strike Fighter (JSF), Space Radar (SR) and Transformational Communications Satellite (TSAT) will ensure that we maintain the ability to provide overwhelming air and space power for our Combatant Commanders.

Concurrently, the Air Force is also focusing on reforming, modernizing, and improving processes for acquisition of new systems and equipment. We will achieve greater efficiencies and higher productivity by reforming our business practices. By incorporating lean processes and transparent accounting, and reinforcing a culture of continuous improvement, the Air Force will maintain the high standards of our heritage. We will continue our tradition of transformation, realize both lethality and efficiency in our capabilities in this new century, and stand ready for the challenges of the future.

The future is what you bring with you when tomorrow comes. Our 2006 Air Force Posture Statement outlines our flight plan into the future. By focusing on winning the GWOT, maintaining the excellence and maximizing the potential of the America's Airmen, and maintaining, modernizing and recapitalizing our aircraft and equipment, we will provide Air and Space Dominance for U.S. forces well into the future.

#### AIR AND SPACE POWER TODAY—BUILDING ON OUR HERITAGE

##### *Current Security Environment*

The current security environment is marked by seemingly constant change and uncertainty. Our security environment is also marked by the threats posed by terrorist organizations and rogue states around the world bearing ill will toward our Nation. In times of uncertainty and heightened threat, our citizens turn to the military to defend this great Nation at home and abroad. Our Airmen stand alongside Soldiers, Sailors, Marines and Coast Guardsmen—a Joint team poised and ready to defend the Nation.

Throughout the history of American air and space power, Airmen have often faced complex challenges during times of change and uncertainty—times when our Nation's survival was at stake. In early 1945, General "Hap" Arnold reported to the Secretary of War, "our Air Force must be flexible in its basic structure and capable of successfully adapting itself to the vast changes which are bound to come in the future. Whatever its numerical size may be, it must be second to none in range and striking power." In retrospect, Hap Arnold's words were amazingly prescient.

Today our force is still second to none in range and striking power. Potential adversaries, well aware of the strength of our Air Force, seek to limit our range and striking power through development of new and emerging threat systems. These systems, coupled with the proliferation of weapons of mass destruction, form a formidable threat to the Joint Force and to our Nation.

In order to achieve victory in the GWOT and meet the challenges of emerging threats, the Air Force looks to build on the great heritage established by decades of Airmen—Airmen who have confronted daunting challenges and succeeded as vital members of the Joint warfighting team.

##### *Global War on Terror (GWOT)*

Several key elements—ideologies of hatred, vast resources, mutual support structures, as well as veiled state and private sponsorship—provide linkages across the array of enemies confronting us in the GWOT. The general terrorist threat also spans several regions of the world, often acting on a global scale. While the strategy to prosecute and win the GWOT is an enterprise necessarily involving many agencies and actions in addition to military forces, the Air Force, in particular, serves a vital role in our Nation's battle against terrorist networks.

America's Airmen have become seasoned veterans of Post-Cold War conflicts and are postured to answer any contingency or challenge on a moments' notice. The Air Force has been taking the war to America's enemies for 15 consecutive years. Our constant presence in Southwest Asia since Operation DESERT SHIELD and DESERT STORM kept regional instability in check. Airpower effectively controlled two-thirds of Iraq for over a decade, setting the conditions for Iraq's stunning military collapse in Operation IRAQI FREEDOM.

Recognizing the new reality of rapidly emerging global threats in the Post-Cold War environment, the Air Force has significantly reduced its force structure and transitioned from a Cold War legacy paradigm to a vastly more agile, responsive and scalable force structure built around the AEF concept. The AEF construct provides the Combatant Commanders and the Joint Force with the agility and lethality required to engage U.S. adversaries anywhere in the world with correctly tailored forces—all in a matter of hours to single-digit days. The AEF construct presents air and space forces in a continuous rotation cycle—currently a 20-month cycle with nominal 4-month deployments—and provides the Combatant Commands with greater capability and stability of forces in theater while providing more predictability for our Airmen.

As defined by our national leadership, the GWOT strategy seeks to reduce both the scope and capability of terrorist networks globally, regionally and locally. This strategy requires global perspective and regional focus. It also demands an ability to simultaneously conduct long-range strikes and humanitarian relief on opposite sides of the world. In order to execute effectively, the strategy requires unparalleled command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR). These are all activities our Air Force conducts for the Joint Force on a daily basis—activities critical to successfully prosecuting the GWOT.

As an essential part of the Joint team, the Air Force contributed to defeating the Taliban and eliminating Afghanistan as a safe haven for al Qaeda. While the Air Force remains actively engaged in operations in Afghanistan, our national strategy is simultaneously focused on Iraq as the central front for the war on terror. While the United States and its partners have defeated Saddam Hussein's regime of terror, the enemies of freedom—both members of the old regime and foreign terrorists who have come to Iraq—are making a desperate attempt in the name of tyranny and fascism to terrorize, destabilize and reclaim this newly-liberated nation and aspiring democracy.

The Air Force continues to lead the fight in defending the home front as well. The Air Force recently conducted an Air Force-Navy strategy conference addressing the GWOT and counterinsurgencies. The conference report forms the basis for an ongoing Air Force study to further improve the Air Force's posture for Homeland Defense. The Air Force has also taken a leadership role in developing a Concept of Operations for Joint Maritime Interdiction to defend our shores and those of our allies. In addition, Air Force aircraft maintain a 24/7 alert status in defense of the United States and its approaches, against both airborne and maritime threats.

From a global perspective, we are continually bolstering Airman-to-Airman relationships with our allies and partners to build interoperable and complementary capabilities as well as to ensure access to foreign airspace and support infrastructure. We are using training, exercises, personnel exchanges, cooperative armaments development and foreign military sales to expand and cement these vital coalitions that are essential to prosecuting the GWOT and to our future Joint air operations.

In addition, from local, regional and global perspectives, foreign internal defense is an indispensable component of successful counterinsurgency strategies. The Air Force is partnering with Special Operations Command to rapidly expand Air Force Foreign Internal Defense forces to bolster partner nations on the front lines of the GWOT.

From direct support of Special Forces, to maritime interdiction, to Global Strike, the Air Force remains prepared to engage those who would threaten our friends, our interests, or our way of life.

#### *Emerging Threats*

The threats Airmen will encounter in the coming years are changing dramatically. Adversaries are developing and fielding new ground-based air defenses, improved sensor capabilities and advanced fighter aircraft. These capabilities will increasingly challenge our legacy aircraft, sensors and weapons systems.

Advances in integrated air defense systems, to include advanced sensors, data processing and SAMs continue trends noted in the 1990s. SAM systems are incorporating faster, more accurate missiles, with multi-target capability, greater mobility and increased immunity to electronic jamming. Currently possessing ranges of over 100 nautical miles (NM), these anti-access weapons will likely achieve ranges

of over 200 NM by the end of the decade. These advanced SAMs can and will compel non-stealthy platforms to standoff beyond useful sensor and weapons ranges. Proliferation of these long-range SAMs is on the rise, with projections for 2004–2007 indicating a twofold increase over the number of advanced SAM system exports during the mid to late 1990s.

Another trend is the development and proliferation of upgrades to older, 1960/70's-era SAMs. At a fraction of the cost of a new advanced, long-range SAM, many African, Asian and Mid-East nations are looking to upgrade older SAMs to revitalize their aging air defense forces. By bringing in modern technologies, improved missile propellants and increased mobility, older SAM systems are becoming more reliable and more credible threats.

Finally, the threat from Man Portable Air Defense Systems (MANPADS) continues to grow. Large, poorly secured stockpiles of these weapons increase the chances of highly capable MANPADS ending up in the hands of an insurgent or terrorist group.

The threats from advanced fighter aircraft also continue to grow. Currently there exist 31 nations already fielding 2,500 or more airframes. Increased use of state-of-the-art radar jammers, avionics, weapons and reduced signature airframes/engines are becoming the norm in fighter design. Additionally, countries like India and China are now able to produce their own advanced fighters, thereby increasing the quantity and quality of adversary aircraft the Air Force may face in the future. By 2012, China will more than double its advanced fighter inventory to over 500 airframes, most with advanced precision-guided munitions and air-to-air weapons. Similarly, self-protection jamming suites are growing in complexity and proliferation, potentially eroding our ability to target adversary aircraft.

The threat from the development, fielding and proliferation of standoff weapons such as long-range cruise missiles will also provide potential adversaries with offensive capabilities of ever-increasing accuracy and range which, when combined with their relatively small size, presents an increasing challenge to detection and tracking.

Many nations are enhancing the utility of advanced fighters by pursuing, procuring and integrating support aircraft as force multipliers. They acquire aerial refueling tankers to extend the range of strike operations and increase on-station time for fighters. Furthermore, airborne early warning aircraft are extending the reach of many nations through datalink capabilities that provide control of fighter operations well beyond the reach of land-based radars. Several nations are also purchasing standoff jamming assets in both manned and unmanned platforms to attempt to deny our traditional sensor advantages. Unmanned Aerial Vehicles (UAVs) of all varieties are in high demand and are becoming increasingly available on today's market, providing low-cost, but highly effective reconnaissance capabilities. This situation represents a new and increasingly prolific and complex challenge on the battlefield.

Additionally, the combination of improved C4ISR with improved ballistic and cruise missile capabilities will increasingly threaten regional and expeditionary Air Force basing. China, in particular, has a growing over-the-horizon intelligence, surveillance and reconnaissance (ISR) capability from a combination of ground, air and space-based systems. Coupled with its large and growing inventory of conventionally armed theater ballistic missiles, China's increasing capabilities and reach collectively present a serious potential to adversely impact allied and Joint air and space operations across the Asian theater.

Worldwide advancements in the development, deployment and employment of foreign space and counterspace systems are challenges to U.S. Space Superiority. Adversaries, including terrorists, are more and more easily obtaining a number of increasingly sophisticated space services. Furthermore, they are developing the means to degrade U.S. space capabilities, freedom of action and access. The intent of U.S. adversaries combined with the capabilities of foreign space and counterspace systems will increasingly threaten U.S. military forces and interests worldwide.

#### *Threat of WMD Proliferation*

The threat of proliferation of WMD to countries with advanced military capabilities has changed dramatically since the end of the Cold War. India and Pakistan became overt nuclear powers in 1998, adding to their formidable conventional capabilities. North Korea claims and is assessed to have built nuclear weapons, while Iran is suspected of pursuing them; both countries face intense international pressure to halt their efforts.

Less catastrophic, but of equal concern, are chemical and biological weapons (CBW). Chem-bio WMDs can range in sophistication from World War I-vintage gases or traditional agents like anthrax, to highly advanced "fourth-generation"

chemical agents or genetically modified bacterial or viral weapons that challenge state-of-the-art defenses and countermeasures. It is much less expensive and more technologically feasible to produce CBW than it is to obtain nuclear weapons or fissile materials. Furthermore, CBW can be concealed very effectively and inexpensively, veiled under a veneer of legitimate civilian industry or “dual-use” activities.

Future adversaries, deterred from challenging the United States openly, may seek to offset U.S. warfighting advantages by developing, using or threatening to use these weapons. As such, the acquisition of WMD capabilities by terrorists/non-state actors is a grave concern. Many groups have declared their desire to pursue such a goal, and evidence is growing they are attempting to obtain the necessary financial means, weapons knowledge and necessary materials.

*Air Force Contributions to OIF, OEF and ONE*

*Air and Space Operations in OIF and OEF*

Over 26,000 Airmen are currently forward deployed in support of Combatant Commanders throughout the world. These Airmen continue to deliver key Air Force capabilities of precision engagement, rapid global mobility and information superiority to OEF and OIF missions.

Pulling from 89,000 tailored deployment teams built around specific capabilities, the Air Force has flown the preponderance of Coalition sorties in support of OIF and OEF. In Iraq, the Air Force has flown over 188,000 sorties, while in Afghanistan, Airmen have flown over 130,000. Overall, the Air Force has flown a total of over 318,000 sorties, or approximately 78 percent of the total Coalition air effort. Counted among these sorties are missions ranging from airlift and aeromedical evacuation, to close air support (CAS) missions to protect ground troops as well as provide them with precise fire support and sensor capabilities.

In 2005, Air Force fighters and bombers supporting OIF and OEF expended over 294 munitions (bombs), 90 percent of which were precision-guided, including the Joint Direct Attack Munition (JDAM). These trends represent a 10 percent increase over 2004 totals in the use of precision-guided munitions (PGMs). Our Airmen have also provided nearly all of the in-flight refueling for Joint and Coalition forces.

Leading the way in reconnaissance and imagery, the Air Force is currently flying Predator UAV missions 24 hours a day, 7 days a week. This capability will grow from 8 to 12 total orbits in 2006 to meet increased demand. Predator aircraft are able to transmit live video pictures to ground-based targeting teams equipped with the Remote Operations Video Enhanced Receiver (ROVER) system. Linking precision engagement and persistent C4ISR capabilities to forces on the ground, ROVER has been used repeatedly to detect, target and destroy improvised explosive devices (IEDs) and disrupt insurgent activities across the region. Bolstering these capabilities are Tactical Airborne Reconnaissance System (TARS) equipped F-16s flown by Air National Guard units. In recent testing, TARS has demonstrated the ability to aid in the location and destruction of IEDs.

Air Force operations in Iraq and Afghanistan also highlight the importance of space-based C4ISR capabilities to U.S. and Coalition forces. These capabilities have become integral to effective warfighting operations and include secure communications, global weather, persistent worldwide missile warning and intelligence gathering. Commanders continue to rely extensively on the all-weather precise position, navigation and timing capability provided by the Air Force’s Global Positioning System (GPS) constellation, satellite communications (SATCOM) and timely observations of weather and enemy activity to conduct operations in Iraq and Afghanistan. In strikes against time-sensitive targets, nearly 40 percent of all munitions used in OIF were GPS-guided, which made them unaffected by sand storms and inclement weather. Additionally, at the senior leadership level of warfighting, the Joint Force Air and Space Component Commander’s duties as the Space Coordination Authority have become critical to successful Joint planning and execution of space capabilities for Joint Forces. Holding the ultimate high ground, Air Force space professionals keep a constant vigil over a global battle space—planning, acquiring, maintaining and operating the systems that sustain our Nation’s advantages in space.

Sister-services and U.S. government agencies continue to heavily rely on Air Force capabilities. Running the spectrum from logistics expertise to medical care, the Air Force is fully partnered with the Army and Marine Corps units running convoys throughout Iraq with more than 1,000 transportation, security forces and medical Airmen trained to support convoy missions.

Moreover, Air Force capabilities are saving Soldiers’ lives and simultaneously reducing our required footprint in Southwest Asia. Increased use of Air Force airlift capabilities—notably the unconventional yet highly effective use of workhorse C-17s as well as C-5 aircraft to increase our intra-theater airlift capabilities in Iraq—has dramatically reduced the need, number and frequency of ground convoys along the

most dangerous roads and routes in Iraq. These capabilities and optimized theater airlift mission planning methods have also contributed to a planned reduction of the number C-130s required for OIF support.

Additionally, Air Force support personnel are taking a more active role in the direct protection of personnel and resources. In early 2005, Air Force Security Forces at Balad Air Base, Iraq, in conjunction with the Army, were assigned a sector outside the base to patrol and clear of insurgent operations. This aspect of the air base defense mission has not been seen since the Vietnam War, yet Task Force 1041 was successful in reducing attacks on Balad Air Base by 95 percent.

Airmen also worked to strengthen relationships, develop capabilities and enhance the self-reliance of Afghanistan, Iraq, and other regional GWOT partners. For example, Air Force Air Traffic Controllers helped return safety and commercial viability to Afghan airspace. At Ali Airbase, Iraq, a cadre of Air Force instructors taught Iraqi airmen how to fly and maintain their newly acquired C-130 aircraft. In Kyrgyzstan, Air Force C-130s air-dropped U.S. Army and Kyrgyz National Guard troops over a drop zone in the capital of Bishkek during a joint training exercise. Additionally, United Arab Emirates (UAE) recently acquired American-made F-16 Block-60 aircraft. This acquisition provides them with cutting edge aviation technology and a capability complementary to the UAE's new Gulf Air Warfare Center, which has become a tremendously successful training venue for our regional and global Coalition partners.

Finally, Air Force innovations in C2 technologies have allowed Airmen to seamlessly automate and integrate efforts of critical air assets. The systems baseline in use in the Falconer Air and Space Operations Center (AOC) at Al Udeid has improved automated support for the daily air tasking orders, while the capabilities of the Battle Control System-Mobile communications module reduces the number of Airmen needed at forward locations in Iraq, resulting in fewer Airmen exposed to hostile fire.

#### *Air and Space Operations in ONE*

While engaged in OEF and OIF, the Air Force simultaneously contributes to Operation NOBLE EAGLE—the defense of the homeland. Through a variety of efforts, the Air Force continues to guard the skies of our Nation from coast to coast. The Air Force's principal Homeland Defense mission is Air Defense and preserving the air sovereignty of the United States and its territories.

Since 9/11, over 41,000 fighter, aerial refueling and airborne early warning sorties have been flown in defense of the United States, while over 2,000 air patrols have responded to actual incidents and suspicious flight operations. This is a true Total Force mission, leveraging the combined capabilities of the Air Force Reserve, Air National Guard and Regular Air Force components to provide seamlessly orchestrated C2 and refueling support for fighter aircraft operating from alert sites throughout the United States.

The range, flexibility, persistence and precision inherent in U.S. air and space power provide Joint warfighters with a unique tool set for creating war-winning results with a relatively small footprint. Air and Space operations stand ready to continue providing these important resources to OIF, OEF and ONE, as well as exploring new ways to lead the way in the GWOT.

#### *Air and Space Power—An Essential Element of the Joint Fight*

Innovation is a central theme in Air Force heritage. It is a strength the Air Force lends to the overall effort to transform Joint operations into a more seamless, integrated and interdependent team effort. U.S. military performance during ongoing operations in Iraq and Afghanistan demonstrates unprecedented Joint interdependence. We've gone from struggling with C2 and coordination of air and ground forces on the battlefields of Operation DESERT STORM to demonstrating a high degree of integration among Joint and Coalition forces engaged in OIF.

Overall success of future interdependent Joint Force efforts will place greater demands on Air Force capabilities. As ground forces seek to increase their agility and speed, they will rely increasingly on air and space power to move them throughout the battlespace; provide the information needed to outmaneuver numerically superior or elusive adversaries; and deliver precise, rapid strikes across multiple, distributed operations areas. The future Joint Force concept of Seabasing, as yet another means to project power and support ground forces, further underscores the requirements for land-based air and space power. Clearly, the need for rapid mobility, persistent C4ISR and precision engagement will only increase in the future.

Concurrently, as we reduce prepared, garrisoned overseas bases in the out-years, the Air Force will increasingly operate from expeditionary air bases. The Air Force, having transformed over the past fifteen years to an AEF construct and culture,

continues to innovate and evolve with new expeditionary concepts. AEF contingency response groups (CRGs) are organized, trained and equipped to provide an initial “Open the Base” capability to Combatant Commanders. The theater CRG provides a rapid response team to assess operating location suitability and defines combat support capabilities needed to AEF operating locations. In addition, Basic Expeditionary Airfield Resources (BEAR) will provide the scalable capability necessary to open and operate any austere airbase across the spectrum of AEF contingency or humanitarian operations. BEAR will provide vital equipment, facilities and supplies necessary to beddown, support and operate AEF assets at expeditionary airbases with limited infrastructure and support facilities.

#### *Battlefield Airmen*

Airmen are increasingly engaged beyond the airbase and “outside the wire,” bringing ingenuity and technology to Joint warfighting on the ground by using advanced systems to designate targets, control aircraft, rescue personnel and gather vital meteorological data. The Air Force is optimizing this family of specialties, known as Battlefield Airmen. So far, we have identified program management, acquisition and sustainment synergies across the Combat Rescue, Combat Control, Terminal Attack Control and Special Operations Weather functional areas. Air Force personnel are an integral part of the battlespace, and we are continuously identifying and updating common training requirements for these Airmen.

We are organizing Battlefield Airmen for maximum effectiveness in the modern battlespace. In addition, we will train Battlefield Airmen in the skills required to maximize airpower and standardize that training across those Battlefield Airmen. Finally, we must equip our Battlefield Airmen with improved, standardized equipment for missions in the forward and deep battlespace. This will expand the commander’s ability to employ battlefield airpower professionals able to integrate unequaled accuracy, responsiveness, flexibility and persistence into air operations supporting Joint ground forces.

From forward positions, Joint Terminal Attack Controllers (JTACs), a subset of Battlefield Airmen, direct the action of combat aircraft engaged in CAS and other offensive air operations. Recently JTACs have become recognized across the Department of Defense (DOD) as fully qualified and authorized to perform terminal attack control in accordance with a Joint standard.

In addition to night vision equipment, JTACs carry a hardened laptop computer and multi-channel radio. We’ve significantly reduced the weight these Battlefield Airmen must carry while simultaneously providing them with greater ability to perform critical tasks such as designate targets ranging up to several kilometers away. We are striving to further decrease the weight of their gear while increasing the capabilities and interoperability of their equipment with other air, space and ground assets. This combination of technology facilitates the direct transfer of information to combat aircraft, minimizing errors in data transfer. This equipment will increase situational awareness, assist in combat identification, maximize first-attack success, shorten the kill-chain and provide better support to ground forces.

#### *Innovative Uses of Technology*

Innovation—our Air Force heritage and strength—is critical to success in defeating enemies on the battlefield as well as in defending our homeland. Each day, Airmen across the world produce military effects for the Joint team through ingenuity or with advancements in technology.

To meet U.S. Central Command’s (CENTCOM’s) urgent operational needs, the Air Force is accelerating the modification of our Sniper and LITENING Advanced Targeting Pods (ATPs) with video datalink transmitters to share information more rapidly. The high resolution images from our targeting pod TV and infrared video is generations better than the Low Altitude Navigation and Targeting Infrared for Night (LANTIRN) pods used during previous conflicts, and they provide tactical information in greater volume and relevance than ever before.

The Air Force is quickly adapting new tactics, techniques and procedures for integrating the ROVER III and ATPs into Non-Traditional Intelligence Surveillance and Reconnaissance (NTISR) missions. These include convoy escort, raid support and infrastructure protection missions in addition to traditional CAS missions. Equipped with air-ground weapons, our ATP-equipped aircraft have the flexibility to provide responsive firepower and unprecedented tactical reconnaissance, making our fighters and bombers more effective and versatile than ever.

Furthermore, some ROVER IIIs were diverted to support Disaster Relief and Humanitarian Assistance in the aftermath of Hurricanes Katrina and Rita. Instead of flying ATPs on fighter or bomber aircraft, we located video transmitters on rooftops

or attached them to helicopters to provide overhead video streams to the recovery teams equipped with ROVER III.

Predator UAV systems continue to demonstrate the Air Force penchant for innovative application of technology for fighting the GWOT. Current operations allow Airmen in Nevada to pilot and control Predators operating in the Iraq and Afghanistan theaters of operations. Increasing experience in these novel approaches to flight and mission control operations have led to revolutionary advances in the execution of military capability.

Equipped with an electro-optical, infrared, and laser designator sensor, and armed with Hellfire missiles, Predator has not only shortened the sensor-to-shooter timeline—it has allowed the sensor to become the shooter. Since 1995 Predator has amassed over 120,000 total flying hours. From January through September of 2005, Predators logged more than 30,000 flight hours, over 80 percent of which were in direct support of combat operations. In August 2005, the Predator program flew 4 aircraft controlled by a single pilot and ground control station, successfully demonstrating the Multiple Aircraft Control concept.

Complementing the Predator's capabilities, the Global Hawk is a high altitude, long endurance, Remotely Piloted Aircraft (RPA). Through the innovative use of synthetic aperture radar as well as electro-optical and infrared sensors, Global Hawk provides the Joint warfighter persistent observation of targets through night, day and adverse weather. Global Hawk collects against spot targets and surveys large geographic areas with pinpoint accuracy, providing Combatant Commanders with the most current information about enemy location, resources and personnel. The Global Hawk program is delivering production systems to the warfighter now and is in constant demand by Combatant Commanders.

Since its first flight in 1998, Global Hawk has flown over 8,000 hours—including over 4,900 combat hours and over 230 combat missions with prototype systems deployed in support of GWOT. In OIF and OEF the prototype systems have produced over 57,000 images.

The long-established ISR stalwart, the RC-135 RIVET JOINT continues to demonstrate its adaptability to a changing and evolving threat environment with the application of progressive technologies and upgrade programs.

The RC-135 RIVET JOINT continues to field improvements in tactical SIGINT capabilities and platform performance, including re-engining and avionics modernization, to support the full spectrum of combat operations and national information needs. Additionally, RIVET JOINT has become the cornerstone for airborne net-centric development. RIVET JOINT plays a key role in the Network-Centric Collaborative Targeting Advanced Concept Technology Demonstration and serves as the platform of choice for implementation of new reachback technologies to enhance national and tactical integration. Adding yet another chapter to RIVET JOINT's continuous record of support to CENTCOM since 1990, the platform flew over 550 airborne reconnaissance missions in support of OEF and OIF.

#### *Aeromedical Evacuations*

As early as 1918, the military has used aircraft to move the wounded. The Air Force continued this proud tradition with the aeromedical evacuation of over 11,000 wounded personnel from Afghanistan and Iraq. The aeromedical evacuation system has transformed to ensure the Air Force can conduct rapid and precise operations in an expeditionary environment. The placement of aeromedical crews in forward locations continues the chain of survival that starts on the battlefield with self-aid and buddy care. The chain continues through Expeditionary Medical Support hospitals, to aeromedical in-flight care and finally to stateside medical centers within as little as 72 hours. Expeditionary aeromedical operations reduce the necessity and large footprint of theater medical assets and conserve valuable health care resources.

The force mix of aeromedical evacuation crewmembers consists of 12 percent Regular Air Force and 88 percent Air Reserve Component. This use of the Total Force was best demonstrated in the fall of 2005 during the swift aeromedical evacuation of over 3,800 sick and elderly people threatened by Hurricanes Katrina and Rita.

As modern medicine evolves, the aeromedical system continues to adapt to meet future challenges. The Air Force continues to lean forward by looking at future threats such as biological warfare. We are leading the way in the development of a litter transportable patient isolation unit for the movement of contaminated patients. The aeromedical evacuation system demonstrates the Air Force's commitment to providing the best capabilities to the Joint team and our Coalition partners.

*Adaptive Airmen: Airmen Filling Non-traditional Roles*

Presently, Airmen are meeting the challenges of filling CENTCOM shortfalls in several critical roles which are non-traditional for Airmen, including Convoy Support, Detainee Operations, Protective Service details, Law and Order Detachments, Military Transition Teams and Provincial Reconstitution Teams.

Detainee Operations and Convoy Support are our most heavily supported missions. Airmen attend training at Fort Lewis, WA or Fort Dix, NJ where they learn the fundamentals of detainee security, handling and interaction. At the conclusion of this training, Airmen move forward to a detainee facility in theater and receive additional on site training. Airmen provide Convoy Support in the form of heavy weapons teams supporting long haul convoy operations. These Airmen attend heavy weapons training followed by a convoy-training course. From that training platform, Airmen deploy forward to support theater operations.

Air Force intelligence personnel are also fulfilling non-standard, unconventional roles as members of the Joint team. Air Force intelligence analysts attend the Enhanced Analyst and Interrogation Training Course at Fort Huachuca, AZ, where they learn to provide analytical support for interrogations. At the conclusion of this training, intelligence personnel deploy forward as part of the interrogator teams to Joint Interrogation Detention Centers in Southwest Asia.

Law and Order Detachments provide vital Joint support missions throughout the Area of Operations. In this capacity, Air Force security forces personnel provide garrison law enforcement and security. Never routine, these missions occasionally support operations outside the confines of an installation.

Military Transition Teams are comprised of specially trained personnel who work within the organizations of indigenous forces. They are responsible for training these forces to support and sustain themselves without the assistance of advisors. Provincial Reconstruction Teams are organizations that move into a different region within the Area of Operations and provide additional support, training and sustainment.

With the exception of the Law and Order Detachments, none of these missions fall within the traditional skill mix of Air Force Security Forces. Additional training varies from one to five months, and deployments are normally longer than the standard 120-day deployment. We are understandably proud of the outstanding adaptability and professionalism with which our Airmen have filled the shortfalls in required skillsets on the Joint roster and accomplished these non-traditional yet critical missions on behalf of the Joint team.

*Other Operations*

In addition to our major contingencies and defense of the homeland, the Air Force remains engaged in numerous other operations around the world ranging from humanitarian relief and disaster response to maintaining our strategic nuclear forces and space assets. The presence of forward deployed forces is just the leading edge of a greater effort representing the totality of Air Force daily support to the Combatant Commanders.

*Humanitarian and Disaster Relief Operations*

In December 2004, nearly sixty years after the great Berlin Airlift of 1948–1949, the Air Force, while fully engaged in operations in Afghanistan and Iraq, once again answered the call for help in the wake of the tsunami that devastated Indonesia and South Asia—one of the worst natural disasters in history. Our Airmen responded immediately, and in the course of the first 47 days following the disaster led an allied effort that airlifted over 24 million pounds of relief supplies and over 8,000 people. The entire world witnessed the absolute best of America at work—agility, strength, resolve and compassion—just as it had witnessed nearly 60 years before.

At home, the Air Force leveraged the agility, scalability and responsiveness inherent in our AEF structure and culture to speed support to civil authorities for Hurricanes Katrina and Rita. Hurricane Katrina devastated an entire region of the southern United States. While destruction of infrastructure stifled ground transportation, Airmen continued to reach flooded areas and bring relief. The Air Force flew over 5,000 sorties, airlifting more than 30,000 passengers and 16,000 tons of cargo and accomplishing 5,500 search and rescue saves. Additionally, Air Force operations were a Total Force effort, incorporating Guard and Reserve capabilities into airlift and rescue operations as well as into the establishment of state-of-the-art medical facilities that treated over 17,000 patients.

Air Force support during Hurricane Katrina and Rita recovery operations illustrated how persistent C4ISR can integrate with other agencies and proved critical to supporting U.S. Northern Command (NORTHCOM) and the Department of

Homeland Security during civil support operations. Our airborne reconnaissance platforms, ranging from C-130s to U-2s, combined with military satellite communications (MILSATCOM) capabilities like the Global Broadcast Service (GBS), provided detailed imagery critical for decision makers and aided in directing relief efforts to the worst hit areas.

Additionally, our civilian auxiliary, the Civil Air Patrol (CAP) provided capability to NORTHCOM, federal agencies and state and local governments during all phases of the hurricane rescue and relief efforts. The CAP provided nearly 2,000 hours of air and ground search and rescue, airborne reconnaissance and air transport of key personnel. The CAP leveraged the skills and vigilance of 60,000 non-paid volunteers in over 1,700 units to bolster the Nation's defense during these national crises.

Future natural disasters and relief operations will likely be similar to those faced by the United States over the past year. Major populations requiring immense support are often isolated from the infrastructure that is their lifeline. Airpower provides the capability to overcome terrestrial obstacles and deliver aid directly to those in need. Always seeking new ways to innovate and improve, the Air Force will continue its ongoing transition to a force with unprecedented capability for civil support and Homeland Defense.

#### *Maintaining Our Nuclear Deterrent*

The DOD's new strategy of employing a capability-based approach vs. threat-based approach to planning led to the ongoing transformation of the existing triad of U.S. strategic nuclear forces, consisting of intercontinental and sea-launched ballistic missiles and bomber aircraft armed with cruise missiles and gravity weapons, into a New Triad composed of a diverse portfolio of systems. Elements of the New Triad will include nuclear and non-nuclear strike capabilities, active and passive defenses, and robust research and development programs and industrial infrastructure for developing, building, and maintaining offensive and defensive weapon systems. Maintaining our traditional nuclear strategic forces is a key capability in an effective New Triad.

National Security Presidential Directives outline the future force structure and requirements for U.S. nuclear forces. To meet National Military Strategy, Nuclear Posture Review and the Moscow Treaty requirements, near-term capability and sustainment improvements must be made to the legacy forces while development and procurement of follow-on systems proceed. These efforts will enable Air Force nuclear forces to continue to provide critical capabilities to policy makers. The nuclear forces will dissuade current and potential adversaries from pursuing policies or military initiatives that are unfavorable to our interests or those of our allies.

Our Intercontinental Ballistic Missiles (ICBMs) and cruise missiles are poised to decisively defeat an adversary if deterrence fails. The cruise missile inventory, both Air Launched Cruise Missile and Advanced Cruise Missile, is being upgraded through a Service Life Extension Program (SLEP) to maintain a viable and flexible bomber-delivered weapon. Additionally, the Department of Energy is conducting a SLEP on the cruise missile warhead.

The Air Force is committed to the New Triad and the associated nuclear C2 systems. To provide survivable strategic communications, the Air Force fielded and currently operates the Milstar SATCOM system. We are preparing to field the next generation Advanced EHF SATCOM system to replace it, as well as a single terminal to provide reliable, redundant and secure radio and satellite communication links with Minuteman ICBM forces. The Air Force recognizes the importance of the Nation's nuclear C2 resources and will continue to pursue the New Triad strategy for our strategic systems to ensure they are always ready to respond to the direction of our national leaders.

#### *Space Support for Operations*

The United States depends upon the Air Force to supply critical space capabilities to meet the needs of Joint operations worldwide, and also the needs of national missions across the instruments of diplomatic, informational, military and economic power. The National Security Strategy commits us to assuring allies, dissuading military competition, deterring threats and decisively defeating adversaries. The robust space capabilities our Airmen provide and maintain will continue to ensure our Nation's goals are met.

As the DOD Executive Agent for Space, the Under Secretary of the Air Force released a coordinated National Protection Framework in 2005. This framework will aid senior decision makers by stating how space systems will be expected to operate during and following an intentional attack. The framework supports senior leaders in creating a Total Force solution across the national security space community. Air Force satellite communications will ensure our Nation's leaders can communicate

globally through times of crisis while providing warfighters instant access to information. As evidenced by the hurricanes in the Gulf of Mexico, space environmental monitoring has become essential in saving lives and property as well as ensuring ground, sea and air forces prepare effectively for weather impacts.

In support of worldwide military operations, the Air Force launched eight DOD and National satellite systems in 2005 from Air Force-managed and maintained launch ranges at Cape Canaveral Air Force Station, Florida and Vandenberg Air Force Base, California. That number is expected to increase to 13 in 2006 as the Evolved Expendable Launch Vehicle (EELV) program takes over as the foundation for U.S. assured access to space.

We have seen the first challenges to U.S. advantages gained from space assets. During OIF, the Iraqis employed GPS jammers in an attempt to reduce the precision of U.S. and allied strikes. We defeated this threat through a variety of methods including space system design, munitions design and tactics development to operate in a GPS-hostile environment. As technology develops and becomes available to more countries, organizations and individuals, new types of threats to space capabilities will emerge. Preparation now using non-materiel and materiel solutions to address the variety of potential realistic threats will lead to continued success in the battlespace.

Comprehensive space situation awareness (SSA) and defensive and offensive counterspace capabilities are the foundational elements of our Space Superiority efforts. Enhanced ground-based and new space-based SSA assets will provide the necessary information to gain and maintain space superiority. With respect to defensive counterspace, we maintain a diversified ground-based C2 network, and we are developing increased protection for our satellites and space-based services to ensure the vital capabilities they provide are available when needed. We also recently fielded the Counter-Communications System to deny these same services to our adversaries. A well-balanced, multi-tiered architecture enables execution of a robust, effective space superiority strategy.

Even as the first challenges to our Space Superiority have arisen, the Air Force is already working toward responses to the next set of potential challenges. First, the United States would like to deter potential adversaries from attacking or exploiting our space capabilities. To accomplish this objective, worldwide space operations must be monitored, assessed and understood. SSA involves those capabilities that allow the interagency and Joint communities to find, fix, track, characterize and assess space operations on orbit and inside the various Combatant Commanders' areas of responsibility. SSA capabilities will allow the Air Force or other members of the Joint community to target, if necessary, our adversaries' space capabilities. As part of the C2 process, we will evaluate options ranging from diplomatic to economic to military actions to determine the best flexible option to achieve the desired outcome. By understanding how friendly and hostile actors are leveraging these space capabilities in their operations, senior decision makers can deter potential adversaries while preventing unnecessary escalation and allowing for a range of response options to meet national objectives.

The Air Force will protect space capabilities vital to the success of the Joint Force and the defense and prosperity of our great Nation. Some defensive measures will be integrated into new satellite designs. Other space systems, such as the Rapid Attack Identification Detection and Reporting System (RAIDRS) will be specifically designed to conduct defensive operations. We are also leaning forward on the development of new tactics, techniques and procedures to mitigate potential threats to Air Force space systems. Furthermore, experimentation has aided us immensely by facilitating risk reduction and providing interim defensive capabilities today—RAIDRS is an excellent example. The Air Force developed a prototype RAIDRS and demonstrated the capabilities of the system during Joint Expeditionary Force Experiment 2004 (JEFX 04). The inclusion of this prototype laid the groundwork for both tactics development and for design improvements for future development programs. As a result of JEFX 04, CENTCOM requested this prototype to support real-time Joint operations in theater. The results and lessons of this operational employment will certainly shape future capabilities by improving our understanding and providing further opportunities for innovation.

AIR AND SPACE POWER FOR TOMORROW—AIMING FOR THE UNLIMITED HORIZON

#### *Priorities*

##### *Developing and Caring for Our Airmen*

*Force Shaping.*—For the past 18 months, the Air Force has reduced our active duty end strength to Congressionally authorized levels taking action to relieve some of our most stressed career fields. The 2004–2005 Force Shaping Program allowed

officers and enlisted personnel to separate from active duty service earlier than they would otherwise have been eligible. In addition to voluntary force shaping measures, the Air Force significantly reduced enlisted accessions in 2005 to help meet our Congressional mandate.

While the Air Force met our 2005 end strength requirement, we began 2006 with a force imbalance: a shortage of enlisted personnel and an excess of officer personnel, principally among those officers commissioned from 2000 to 2004. This imbalance created several unacceptable operational and budgetary impacts. Consequently, the Air Force took several actions to ensure our force is correctly sized and shaped to meet future challenges and to reduce unprogrammed military pay costs. First, we increased our enlisted accession target for 2006 to address the enlisted imbalance. Second, we continued to encourage qualified officers, especially those commissioned in 2000 and later, to consider voluntary options to accept service in the Air National Guard, Air Force Reserve, civil service, or as an inter-service transfer to the Army.

Additionally, we are institutionalizing the force shaping authority granted in the 2005 National Defense Authorization Act to restructure our junior officer force. Only after exhausting all efforts to reduce officer end strength by voluntary means, the Air Force will convene a Force Shaping Board in 2006 to consider the performance and potential of all eligible officers commissioned in 2002 and 2003. This board will be held annually thereafter, as required, to properly shape and manage the officer corps to meet the emerging needs of the Air Force. Essentially, the Force Shaping Board will select officers for continued service in our Air Force. Current projections indicate that we need about 7,800 of these eligible officers (2002 and 2003 year groups) to continue on active duty. Approximately 1,900 officers will be subject to the force reduction. Exercising this authority is difficult, but our guiding principle is simple—we must manage our force to ensure the Air Force is properly sized, shaped and organized to meet the global challenges of today and tomorrow.

*Balancing the Total Force.*—In addition to maintaining and shaping the active duty force, we must continue to focus on the balance of forces and specialties between Regular, Air National Guard and Reserve components—the Total Force. We are diligently examining the capabilities we need to provide to the warfighter and to operate and train at home. We continue to realign manpower to our most stressed areas and are watchful for any new areas that show signs of strain.

As we look to the future in implementing Base Realignment and Closure (BRAC) and Quadrennial Defense Review (QDR) decisions, we must ensure a seamless transition to new structures and missions while preserving the unique capabilities resident in our Regular Air Force, Air National Guard and Reserve communities. Examining functions for Competitive Sourcing opportunities or conversion to civilian performance will continue to be one of our many tools for striking the correct balance of missions across the Total Force.

*Force Development.*—The Air Force's Force Development construct is a Total Force initiative that develops officers, enlisted and civilians from the Regular Air Force, the Air National Guard and the Air Force Reserve. The fundamental purpose of force development is to produce leaders at all levels with the right capabilities to meet the Air Force's operational needs by leveraging deliberate training, education and experience opportunities.

The Air Force Personnel Center created a division dedicated to supporting corporate and career field development team needs. Development teams have now been incorporated into the officer assignment process and they now guide assignment of all officer career fields. Additionally, development teams recommend officers for special selection boards and developmental education opportunities.

The Air Force is also deliberately developing our enlisted Airmen through a combined series of educational and training opportunities. We are exploring new and exciting avenues to expand our process beyond the current system in place today. Each tier of the enlisted force will see changes to enlisted development. Airmen (E-1 to E-4) will be introduced to the enlisted development plan, increasing their knowledge and solidifying future tactical leadership roles. The noncommissioned officer (NCO) tier will be encouraged and identified to explore career-broadening experiences and continuing with developmental education. Our Senior NCO tier will see the most dramatic changes as we explore the use of development teams in conjunction with assignment teams to give career vectoring and strategic level assignments. Institutionalizing the practice of development as a part of enlisted Air Force culture is paramount for supervisors, commanders and senior leaders.

On the civilian side, the Air Force is making significant progress in civilian force development as we align policy, processes and systems to deliberately develop and manage our civilian workforce. We have identified and mapped over 97 percent of all Air Force civilian positions to career fields and have 15 Career Field Manage-

ment Teams in place with three additional management teams forming this year. Additionally, we manage various civilian developmental opportunities and programs, with our career-broadening program providing several centrally funded positions, specifically tailored to provide career-broadening opportunities and professionally enriching experiences.

*Recruiting/Retention.*—After intentionally reducing total accessions in 2005, the Air Force is working to get the right mix of officer and enlisted Airmen as we move to a leaner, more lethal and more agile force. We will align the respective ranks to get the right person, in the right job, at the right time to meet the Air Force mission requirements in support of the GWOT, the Joint Force and the Air Force's expeditionary posture.

A key element for success is our ability to continue to offer bonuses and incentives where we have traditionally experienced shortfalls. Congressional support for these programs, along with increases in pay and benefits and quality-of-life initiatives, has greatly helped us retain the skilled Airmen we need to defend our Nation.

*Personnel Services Delivery.*—To achieve the Secretary of Defense's objective to shift resources "from bureaucracy to battlefield," we are overhauling Air Force personnel services. Our Personnel Services Delivery initiative dramatically modernizes the processes, organizations and technologies through which the Air Force supports our Airmen and their commanders.

Our goal is to deliver higher-quality personnel services with greater access, speed, accuracy, reliability and efficiency. The Air Force has been able to program the resulting manpower savings to other compelling needs over the next six years. This initiative enhances our ability to acquire, train, educate, deliver, employ and empower Airmen with the needed skills, knowledge and experience to accomplish Air Force missions.

*National Security Personnel System (NSPS).*—Our civilian workforce will undergo a significant transformation with implementation of the DOD NSPS. NSPS is a simplified and more flexible civilian personnel management system that will improve the way we hire, assign, compensate and reward our civilian employees. This modern and agile management system will be responsive to the national security environment, preserve employee protections and benefits, and maintain the core values of the civil service.

NSPS design and development has been a broad-based, participative process to include employees, supervisors and managers, unions, employee advocacy groups and various public interest groups. We plan to implement these human resource and performance management provisions in three phases called "spirals." The first spiral will include approximately 89,000 General Schedule and Acquisition Demonstration Project civilian employees in the Air Force. NSPS is the most comprehensive new federal personnel management system in more than 50 years, and it's a key component in the DOD's achievement of a performance-based, results-oriented Total Force.

*Caring for Airmen.*—Combat capability begins and ends with healthy, motivated, trained and equipped Airmen. We must remain committed to providing our entire Air Force team with world class programs, facilities and morale-enhancing activities. Our "Fit to Fight" program ensures Airmen remain ready to execute our expeditionary mission at a moment's notice, and our food service operations further complement an Air Force healthy lifestyle.

Through various investment strategies in both dormitories and military family housing, we are providing superior living spaces for our single Airmen and quality, affordable homes for our Airmen who support families. Our focus on providing quality childcare facilities and programs, on and off installations, enables our people to stay focused on the mission, confident that their children are receiving affordable, quality care. The Air Force is a family, and our clubs and recreation programs foster and strengthen those community bonds, promoting high morale and an esprit de corps vital to all our endeavors.

Additionally, we are equally committed to ensuring that all Airmen in every mission area operate with infrastructure that is modern, safe and efficient, no matter what the mission entails—from Depot Recapitalization to the bed down of new weapon systems. Moreover, we must ensure Airmen worldwide have the world class training, tools and developmental opportunities that best posture them to perform with excellence. We also continually strive to provide opportunities and support services that further enable them to serve their Nation in a way that leaves them personally fulfilled, contributes to family health, and provides America with a more stable, retained and capable fighting force.

*Housing and Military Construction [MILCON].*—One of the highlights in our emphasis on developing Airmen is our focus on housing investment. Through military construction and housing privatization, we are providing quality homes faster than ever before. Over the next two years, the Air Force will renovate or replace more

than 49,000 homes through privatization. At the same time, we will renovate or replace an additional 10,000 homes through military construction.

Investment in dormitories continues to accelerate in order to provide superior housing to our unaccompanied members—evidenced by nearly 8,600 dormitory rooms programmed for funding over the next six years. Approximately 75 percent of these initiatives will rectify currently inadequate dormitory conditions for permanent party members. Our new “Dorms-4-Airmen” standard is a concept designed to increase camaraderie, social interaction and accountability by providing four single occupancy bedroom/bathrooms with a common kitchen and living area in each module. Finally, the remaining dormitory program initiates modernization of inadequate “pipeline” dormitories—those dormitories that house young enlisted students during their initial technical training.

The Air Force has taken risk in facility and MILCON funding in order to support modernization and transformation. However, we continue to fund our most critical requirements to include new mission projects, depot transformation, dormitories, fitness centers and child care centers. The Air Force is committed to improving its infrastructure investment by meeting the DOD’s recapitalization goal through the Future Year’s Defense Plan [FYDP].

*Sustain, Restore, And Modernize Our Infrastructure.*—In order to maintain readiness, your Air Force remains committed to sustaining, restoring, and modernizing our infrastructure. Central to that commitment is our focus on both preserving our existing investment in facilities and infrastructure as well as optimizing our limited Restoration and Modernization (R&M) funding to fix critical facility deficiencies that impact our readiness. With the increased OPTEMPO of GWOT, these efforts are more important than ever.

Our sustainment program maximizes the life of our infrastructure and preserves our existing investment. With proper sustainment, we will prevent our infrastructure from wearing out under the strain of increased operations and activities. In addition, Commanders in the field use O&M accounts to address facility requirements that directly impact mission capabilities.

When facilities require restoration or modernization, we use a balanced program of O&M and MILCON funding to make them “mission ready.” Unfortunately, restoration and modernization requirements in past years have exceeded available O&M funding, forcing us to defer much-needed work. It is critical for us to steadily increase our R&M investment in order to halt the growth of this backlog. Simultaneously, it is important that we fully fund our sustainment efforts in order to maximize the life of our good infrastructure. The Air Force Total Force sustainment funding for fiscal year 2007 carefully balances infrastructure sustainment, R&M and MILCON programs to make the most effective use of available funding in support of the Air Force mission.

We must avoid separating the Sustainment, Restoration and Modernization (SRM) account from the Operations and Maintenance (O&M) appropriation. In past years, all O&M was funded from the Defense Appropriation. Commanders are afforded the necessary flexibility to effectively manage budget shortfalls and unexpected requirements such as utility rate increases, natural disasters, infrastructure failures, or mission-driven requirements. Without legislation that would permit the movement of funds between all O&M accounts, Commanders would face serious challenges addressing these emergent requirements.

*Basic Allowance For Housing [BAH].*—We must also avoid migration of BAH out of the Defense Appropriation Bill. Should emergent requirements create shortfalls during the year of execution, commanders will be unable to address them. Our hands will be tied. The Services will no longer have the ability to flexibly use the Military Personnel account. Furthermore, the Committee will have to create a new mechanism to ensure our Airmen are paid the housing allowance to which they are entitled.

*Common Airman Culture.*—An Airman Culture manifests the totality of our commonly transmitted behaviors, patterns and beliefs. Our Air Force clearly recognizes the relationship between mission capabilities and our Air Force Core Values. Integrity, Excellence and Service, remain critical guideposts to every Airman’s personal and professional flight path. Principles of dignity, self-worth, respect and diversity are firmly embedded elements of these values. Together, our Core Values are reflected in every Airman’s pride, dedication to mission, subordination of their own needs for those of their wingman, and devotion to duty and this great Nation. In this past year, we have made significant strides in our efforts to promote, reinforce and inculcate our Core Values across the Air Force and throughout the Total Force team—including our Regular, Guard, Reserve, Civilian and Contractor teammates. We expect and accept no less from everyone on the Air Force team.

Certain behaviors are absolutely incongruous with the Common Airman Culture and our Core Values. Among these is sexual assault. The Air Force has created the Sexual Assault Prevention and Response Program to ensure every Airman is provided the respect and dignity they deserve as their Nation's Air and Space warfighters. We have trained and fielded Sexual Assault Response Coordinators and Victim Advocates to ensure every Airman has access to immediate assistance, should it be required. We are rewriting our education and training curricula at every level to ensure Airmen understand how these crimes occur, how they are often unwittingly facilitated by bystanders and third-party witnesses and how we can better take care of our people by preventing sexual assault crimes from occurring to them, their wingmen, friends and family members.

Reflecting our belief that diversity adds strength to our organization, the Air Force has accepted the challenge to "create a diverse and an inclusive Total Force which reflects and leverages the talents of the American people to maximize the Air Force's combat capabilities." We created The Office of Air Force Strategic Diversity Integration in the summer of 2005 to lead the Air Force's Diversity efforts. This office provides leadership guidance and strategic support for the understanding, furtherance and advantage of diversity within the ranks of the Air Force.

Inherent in our Common Airman Culture is a belief in professional and personal dignity and a deep respect for individual religious beliefs. The protection of every Airman's freedom of religion, while also defending the Constitutional prohibition on official establishment of religion, is an area of significant emphasis. As Airmen, we take an oath to support and defend the Constitution. In that endeavor, we are striving to assist Air Force personnel, in the course of their official duties, to meet and balance their multiple Constitutional obligations and personal freedoms, regarding the free exercise of religion, avoidance of government establishment of religion, and defense of the Nation. This is an area of national debate. The balancing of these foundational American principles demands common sense, good judgment and respect for each Airman's right to hold to their own individual personal beliefs.

We also recognize our Airmen must have the ability to interact with coalition partners and local communities at home and abroad, and the Air Force is transforming how it engages friends and partners in the expeditionary environment. Operations in this dynamic setting necessitate extensive international insight to work effectively with existing and emerging coalition partners in a wide variety of activities. Through the AF International Affairs Specialist program, we are developing leaders who are regional experts with foreign language proficiency. Our focus is on building a cadre of officers with the skills needed to foster effective relationships with global partners in support of the Combatant Commanders and U.S. global interests.

Over the next year, the Air Force will continue to vigorously reinforce our Common Airmen Culture, our belief in professional and personal dignity and most importantly our enduring Core Values of Integrity First, Service Before Self and Excellence in All We Do.

*Training at Keesler AFB Following Hurricane Katrina.*—In August 2005, Hurricane Katrina struck the Gulf Coast of the United States. Keesler Air Force Base (AFB), Mississippi lay in its direct path. The Air Force is attempting to rapidly reestablish Keesler's critical training missions. Of 56 enlisted initial skills training "pipelines," 90 percent have already resumed operation. Additional pipelines have been temporarily reestablished at other locations. Significant challenges remain ahead, but training and developing our expeditionary Airmen remains one of our highest priorities. We take exceptional pride in the work our Airmen have done, and continue to do, in restoring Keesler AFB's training capability.

#### *Maintenance, Modernization and Recapitalization*

Our Airmen are the best in the world. However, they can only be as effective as the tools we give them. Within today's fiscal constraints, we must fight the GWOT and protect the homeland while transforming the force and maintaining an appropriate level of risk. The Air Force is committed to the modernization and recapitalization necessary to maintain the health of the force and bridge our current capabilities to systems and capabilities required in the future.

*Aircraft.*—Our primary fighter modernization and recapitalization program is the F-22A Raptor. The F-22A is a 5th generation fighter aircraft that delivers Joint Air Dominance to counter persistent and emerging national security challenges. Given its vast improvements in every aspect—air-to-air, air-to-ground, all-aspect stealth, and an open, adaptable architecture—the F-22A is an insurance policy against future threats to Joint Air Dominance and represents the absolute best value for the American taxpayer. The F-22A is the only fighter currently produced that will de-

feat conceivable threats to Joint Air Dominance in anti-access environments over the next 20–30 years.

The F–22A is flying today and is in full rate production. Its performance continues to meet or exceed key performance parameters and spiral modernization will enhance its air-to-air and air-to-ground target engagement capability.

The F–35 Joint Strike Fighter (JSF), also a 5th generation fighter, will complement the tremendous capabilities of the F–22A. The JSF will recapitalize combat capabilities currently provided by the F–16 and A–10. Optimized for all-weather performance, JSF will specifically provide affordable precision engagement and global attack capabilities. In 2005, the JSF program continued to address design challenges to develop three aircraft variants and coordinate the requirements of the Air Force, Navy and Marines, along with our international partners.

The C–17 continues to be a success story for the Joint warfighter, deploying troops and cargo to Iraq and Afghanistan, as well as numerous locations around the world. The Air Force is on schedule for delivery of the next 40 aircraft through 2008—for a total of 180. During the past year, C–17s flew over 63,000 sorties, bringing the total number of OEF and OIF missions to over 109,000. Additionally, the C–17 flew over 100 humanitarian and disaster relief missions following Hurricanes Katrina and Rita, as well as the October 2005 earthquake in Pakistan. The C–17, in concert with C–5 modernization programs, is critical to meeting our U.S. inter-theater airlift requirements.

To meet continuing intra-theater airlift demands, we have a two-pronged approach to modernize our C–130s. First, but most problematic, we are striving to replace our oldest aircraft with new C–130Js. Second, the remaining C–130s are being standardized and modernized via the C–130 Avionics Modernization Program and center-wing box replacement programs. C–130s have been the workhorse for intra-theater airlift during numerous contingencies. C–130Js have supported GWOT and humanitarian operations since December 2004 and have proven to be a force enhancer as they deliver more cargo in a shorter time than older C–130s. C–130 modernization, coupled with the wing-box modification, reduces operation and sustainment costs and improves combat capability.

The Air Force is developing the next generation combat search and rescue (CSAR) recovery vehicle, called CSAR–X. We are planning to replace the current and aging CSAR inventory of “low-density, high-demand” (LD/HD) HH–60G Pave Hawk helicopters with 141 CSAR–X aircraft. The CSAR–X will address deficiencies of the current HH–60G by providing increased capabilities in speed, range, survivability, cabin size and high altitude hover operations. The CSAR–X will provide personnel recovery forces with a medium-lift vertical take-off and landing aircraft that is quickly deployable and capable of main base and austere location operations for worldwide recovery missions. The CSAR–X will be capable of operating day or night, during adverse weather conditions, and in all environments including Nuclear, Biological and Chemical conditions. On-board defensive capabilities will permit the CSAR–X to operate in an increased threat environment, and in-flight refueling capability will provide an airborne alert capability and extend its combat mission range.

*UAVs.*—UAVs are demonstrating their combat value in the GWOT. The Air Force rapidly delivered operational UAV capabilities to the Joint warfighter and is continuing to mature and enhance those capabilities.

Predator is transforming the way we fight, providing a persistent ISR, target acquisition and strike capability against critical time sensitive targets (TSTs) in direct response to warfighters’ needs. Today, by controlling combat operations remotely from the United States, Predator provides a truly revolutionary leap in how we provide persistent military capability to the warfighter.

The Air Force will continue to enhance Predator’s ability to support the Joint warfighter. We are developing the ability to operate multiple aircraft by a single pilot, which will increase our overall combat effectiveness. We demonstrated this capability in August 2005. We are also developing and deploying the Predator B, a larger, more capable, more lethal variant. In its role as a “hunter-killer,” Predator B will be capable of automatically finding, fixing, tracking and rapidly prosecuting critical emerging TSTs.

Global Hawk is a high-altitude, long endurance RPA providing robust surveillance and reconnaissance capabilities. Despite being a developmental prototype system, Global Hawk has flown over 4,900 combat hours. This year the Air Force moved beyond the proven capability of the Global Hawk prototypes by deploying two production aircraft to support GWOT operations.

*Airborne ISR.*—E–8C Joint Surveillance Target Attack Radar System (J–STARS) continues to be a high-demand asset. J–STARS aircraft provide wide theater surveillance of ground moving targets. Crews from the 116th Air Control Wing at Robins AFB, Georgia, the first-ever “blended wing” of Regular Air Force, Air National

Guard and Army, operate these aircraft. Modernizing these aircraft while maintaining the current high OPSTEMPO in combat theaters will be ongoing challenges. The recent installation of the Force XXI Battle Command Brigade and Below module, the reduced vertical separation minima module, and the Airborne Battlefield Command and Control Center are some of the latest capability upgrades. The most urgent modernization needs for J-STARs include re-engining, radar upgrades, installation of the Traffic Alert Collision Avoidance System and integration of a self-protection suite.

The E-10A program will highlight the advanced capabilities of the Multi-Platform Radar Technology Insertion Program (MP-RTIP) sensor by demonstrating advanced cruise missile defense, interleaved ground tracking, and ground imaging capabilities in 2010 and 2011. A smaller variant of the MP-RTIP sensor, developed within the E-10A program, will be integrated into the Global Hawk in 2008 to begin developmental and operational testing. These demonstrations will advance critical sensor technology and provide vital warfighting capabilities.

*Space and Nuclear Forces.*—Air Force modernization and recapitalization efforts also continue for space systems. The Air Force is modernizing critical capabilities across the spectrum of global strike, navigation, weather, communication, missile warning, launch, surveillance, counterspace and ground-based space systems.

The Minuteman Intercontinental Ballistic Missile (ICBM) was originally designed in the late 1950s and deployed operationally in October 1962. Modernization programs have been crucial to this system originally designed to last just ten years. Service life extension programs are underway to ensure the Minuteman III remains mission capable through 2020. These programs, nine in all, will replace obsolete, failing and environmentally unsound materials while maintaining missile reliability, survivability, security and sustainability. These efforts are critical in sustaining the ICBM force until a follow-on system can be fielded.

The Air Force is also addressing the need for a follow-on ICBM system. This system will address future warfighter needs, reduce ownership costs and continue to provide policy makers the critical capabilities provided by the ICBM. The effort to modernize the ICBM force is vital to the United States for the foreseeable future.

Continued, unhindered access to space is vital to U.S. interests. As the Air Force continues programs to upgrade and modernize America's launch ranges, the EELV program will continue to provide the United States with assured access to space for both DOD and National space assets. The EELV program includes two launch vehicle designs—Delta-IV and Atlas-V—with each design comprising a family of scalable, tailorable launch vehicle variants.

The TSAT program will employ Internet Protocol networks, on-board routing and high-bandwidth laser communications relays in space to dramatically increase warfighter communications connectivity. TSAT capability enables the realization and success of all DOD and Joint visions of future network-centric operations, such as the Army's Communications-on-the-Move (COTM) and Future Combat System (FCS) concepts and the Navy's Sea Power 21 vision and Fleet FORCEnet/FORCEview concepts.

Global Positioning System (GPS) modernization and development of the next-generation GPS-III will enhance navigation capability and improve resistance to jamming.

In partnership with NASA and the Department of Commerce, the National Polar-orbiting Operational Environmental Satellite System (NPOESS) will accurately calculate surface winds over the oceans and gather meteorological data for our forces deployed overseas.

The Space Based Infrared System (SBIRS) will provide a transformational leap in capability over our aging Defense Support Program satellites. Complementing the space-based system are ground-based missile warning radars, being upgraded to support the missile defense mission.

Another future transformational space-based ISR program is the Space Radar (SR) system. SR's day-night and all-weather capabilities will include Synthetic Aperture Radar (SAR) imagery, High-Resolution Terrain Information (HRTI), Surface Moving Target Indication (SMTI), Geospatial Intelligence (GEOINT) and Open Ocean Surveillance (OOS), and rapid revisit. It will support a broad range of missions for the Joint warfighter, the Intelligence Community, and domestic users. SR will be integrated with other surface, air and space ISR capabilities to improve overall collection persistence and architecture effectiveness.

Modernization of our ground-based space systems will provide new capabilities to keep pace with the satellites they support and will continue to provide assured C2 for our satellites and space-based capabilities. This effort includes the modernization of ground-based radars, some of which are over 25 years old. Through programs like the Family of Advanced Beyond Line of Sight Terminals (FAB-T) and the Ground

Multi-band Terminal, the Air Force is modernizing its ground-based space capabilities with satellite communications terminals that consolidate logistics support, provide increased satellite throughput and laser communications and ensure seamless command and control. Additionally, enhanced ground-based and new space-based SSA assets will provide the necessary information to gain and maintain Space Superiority.

As part of the broader Space Control mission, the ground-based, theater-deployable Counter Communications System (CCS) has achieved Initial Operational Capability (IOC) and provides the Combatant Commander with a non-destructive, reversible capability to deny space-based communication services to our adversaries. Incremental upgrades to the CCS will continue to enhance our Offensive Counterspace capabilities. Overall counterspace enhancements also include ongoing RAIDRS development, which is a Defensive Counterspace system designed to assist in the protection of our space assets. RAIDRS will provide a capability to detect and geolocate satellite communications interference via fixed and deployable ground systems. Future developments will automate data access analysis and data fusion and provide decision support tools.

*Operational Infrastructure and Support Modernization (OSM).*—Finally, the Air Force is pursuing to modernize its operational infrastructure and the tools we use to manage operational support to our Airmen and Joint warfighters. The Air Force's ongoing Operational Support Modernization (OSM) program will improve operational support processes, consolidate personnel and financial service centers, and eliminate inefficiencies in the delivery of services, support and information to our Airmen and the Combatant Commanders. Realizing these economies, OSM will improve Air Force-wide enterprise efficiency and provide a resources shift from business and combat support systems, thereby returning resources to Air Force operations, equipment modernization and long-term investments.

Air Force efforts also continue in the development of an effective, holistic asset management strategy for the restoration and modernization of operational infrastructure—facilities, utilities and natural resource assets—throughout their useful life cycles. Operational infrastructure is critical to the development and testing of new weapon systems, the training and development of our Airmen, and the conduct of Joint military exercises.

#### *Acquisition Reform*

The Air Force will meet the challenges of the 21st century, including asymmetric threats, through continued exploitation of our technological leadership and with our ability to respond quickly to the demands of a rapidly changing world. Effective leadership in research and development, procurement and sustainment of current and future weapons systems depends upon the integrated actions of professionals in the acquisition, as well as the requirements generation, resource and oversight processes. Everything we do in Air Force acquisition drives toward the goal of getting an operationally safe, suitable and effective product of best value to the warfighter in the least amount of time.

Program cost and schedule growth have drawn widespread criticism and undermined confidence in the defense acquisition process. A recent Government Accounting Office (GAO) study of 26 DOD weapon systems reports average unit costs have grown by 50 percent and schedules have stretched an average of 20 percent, to nearly 15 years, despite numerous attempts at reform.

In an effort to address these concerns, the Air Force formed the Acquisition Transformation Action Council in December 2004. This group is comprised of general officer and senior executive service representatives from the Air Force product centers, labs, air logistics centers and headquarters. The group continues to lead the transformation of Air Force acquisition from its present state into that of an Agile Acquisition Enterprise. The goals of Agile Acquisition include shortened acquisition process time and improved credibility with both internal and external stakeholders. Achieving these goals will be critical to making the delivery of war-winning capabilities faster, more efficient and more responsive.

The Acquisition Transformation Action Council's short-term focus is on incremental improvements and eliminating non-value-added processes in areas such as conducting Acquisition Strategy Panels, meeting immediate warfighter needs and effectively incentivizing contractors. A more comprehensive strategic plan for acquisition transformation, due later this year, will detail not only where the near-term changes fit into the big picture of acquisition reform, but also the longer-term actions needed to achieve the goals of Agile Acquisition.

The Air Force is also pursuing initiatives aimed at improving the Air Force's cost analysis capability. Among these initiatives are efforts to strengthen the Air Force Cost Analyst career field, improve the quality, quantity and utilization of program

cost and technical data and estimating methods, and establish new policy requiring robust independent cost estimates for programs—earlier and more often. These improvements will promote realistic program cost and technical baselines as well as strengthen the Air Force’s capacity to produce accurate, unbiased cost information for Air Force, DOD and Congressional decision-makers.

The Air Force is on a bold, ambitious, yet necessary journey to provide our Commanders and decisions-makers with accurate, reliable real-time business and financial management information that is validated by a “clean audit” opinion. Basic building blocks for this effort include a revitalized emphasis on transparency in our business processes and an enterprise-wide financial management capability that is modern, comprehensive and responsive to the warfighter. Sound financial management and improved accountability are at the core of our financial management transformation.

Initiatives in Air Force contracting include development and implementation of the Enterprise Architecture for Procurement, consolidation of Major Command (MAJCOM) Federal Acquisition Regulation Supplements, standardization of the strategic sourcing process and assessment of current contracting organizational alignments.

The Air Force will continue to promote small business participation in our acquisitions. Partnering with small businesses—including Historically Underutilized Business Zones; Women Owned Small Businesses; Service Disabled Veteran Owned Small Businesses; Small Disadvantaged Businesses; and Historically Black Colleges, Universities and Minority Institutions—helps ensure we maintain a strong defense industrial base and have the widest range of products and services available to support the Joint warfighter.

The Air Force is also working with OSD to understand the demand on our acquisition personnel and to appropriately size our workforce. Our objective is to have the right mix of military and civil service acquisition professionals with the appropriate education, experience and training.

#### *Focus Areas*

##### *Total Force Integration*

The Chairman of the Joint Chiefs of Staff, General Pace stated, “We must transform if we are to meet future challenges.” One of the Air Force’s more significant commitments to long-term transformation is the creation of the Total Force Integration Directorate. This new directorate is responsible for future force structure, emerging-mission beddown and development of Total Force organizational constructs. Working with our partners in the Air National Guard and Air Force Reserve, the Air Force is maximizing our overall Joint combat capability. Our efforts will enable the Air Force to meet the challenges of a shrinking budget, an aging aircraft inventory and new and emerging missions.

The Air Force plans to shift investment from “traditional” combat forces, with single-mission capabilities, to multi-role forces by aggressively divesting itself of older systems. The result will be a force structure with expanded capability to combat conventional threats while continuing to wage the GWOT. Simply stated, the Air Force will become a smaller, yet more capable force through modernization and recapitalization of selected weapon systems with a commitment to networked and integrated Joint systems.

Our Total Force initiatives will maximize efficiencies and enhance combat capability through innovative organizational constructs. We have developed an organizational construct based on the success of an associate model in use by the Regular Air Force and Air Force Reserve since 1968. Associate units are comprised of two or more components operationally integrated, but whose chains of command remain separate. This model capitalizes on inherent strengths of the Air Force’s three components, ensuring partnership in virtually every facet of Air Force operations, while preserving each component’s unique heraldry and history. Increased integration allows Regular Air Force personnel to capitalize on experience levels inherent in the Guard and Reserve, while building vital relationships necessary to sustain successful combat operations.

Air National Guard and Air Force Reserve members will continue to support the Air Force’s global commitments and conduct vital Homeland Defense and Security missions. Total Force initiatives will integrate Air Force components into missions critical to future warfighting: ISR, UAV operations and space operations. These missions are ideally suited for the Guard and Reserve since many provide direct support to the Joint warfighter from U.S. locations. Using this approach will improve our operational effectiveness, reduce our overseas footprint, reduce reliance on involuntary mobilization and provide more stability for our Airmen and their civilian employers.

Ongoing Total Force transformation benefits from a robust, dynamic, cross-functional coordination process, involving the headquarters, all regular component MAJCOMs, the National Guard Bureau and Air Force Reserve Command.

The Air Force continues to make significant progress on Total Force initiatives such as the Richmond-Langley F-22A integration in Virginia; community basing in Vermont; F-16 Integration at Hill AFB, Utah; new Predator missions in Texas, Arizona, New York, North Dakota, California and at the Air Force Warfare Center in Nevada; and C-17 associate units in Alaska and Hawaii. We are also working additional initiatives such as C-130 Active Associate units in Colorado and Wyoming; a C-5 Flight Training Unit in Texas; C-40 Integration in Illinois; and Centralized Intermediate Repair Facilities in Illinois, Connecticut, Louisiana, Utah, South Carolina, Georgia, North Carolina and Florida.

The Air Force, through its Total Force Integration Directorate, is continuing a broad effort to ensure that new Total Force concepts are embedded in our doctrine, policy directives, instructions and training. We are creating procedures to ensure resource and other decisions related to Total Force initiatives become routine parts of the planning and programming processes. The goal is clear, albeit ambitious: take greater advantage of Total Force elements and capabilities in the way the Air Force does business.

The Air Force is transforming from a Cold War force posture to a structure that supports expeditionary warfare and leverages Total Force capabilities. More efficient use of our Regular Air Force, Air National Guard and Air Force Reserve assets increases our flexibility and capacity to be a more agile and lethal combat force and a more vigilant homeland defender.

#### *Science and Technology (S&T)*

The Air Force develops and exploits new technologies to meet a wide range of conventional and asymmetric threats. To achieve required future capabilities, we continue to support S&T investments for the major tasks the Air Force must accomplish to support the Combatant Commanders.

Air Force S&T is focused on high payoff technologies that could provide current and future warfighting capabilities to address not only conventional threats, but also those threats encountered in the GWOT. The Air Force has embraced a new technology vision to guide our S&T Program—"Anticipate, Find, Fix, Track, Target, Engage, Assess . . . Anytime, Anywhere." We are integrating this vision into our annual planning activities to ensure we develop and transition relevant technology to the Joint warfighter.

Air Force technological advantages and superior warfighting capabilities are the direct result of decades of Air Force investment in S&T. Similarly, today's investment in S&T will produce future warfighting capabilities as we adapt to continually changing threats. The Air Force continues to seek ways to create a significantly greater advantage over these threats. Investment in technologies such as nanotechnology could provide stronger and lighter air vehicle structures, while investment in hypersonic research could provide on-demand access to space and reduced time-to-target for conventional weapons. New information assurance technologies should allow real-time automatic detection and reaction to network attacks, enabling us to automatically isolate the attack and collect forensic evidence, all while continuing uninterrupted network operations. Research in sensor and information technologies should provide increased battlefield situational awareness, which will provide unprecedented insight and understanding of events in the battlespace. These are but a few examples of developing technologies that could lead to operational systems that are smaller, lighter, smarter, faster, stronger and more effective, affordable and maintainable than they are today.

The Air Force Directed Energy (DE) Master Plan is on track and some DE applications are already being fielded, especially for defensive purposes. For example, the Large Aircraft Infrared Counter Measures has now been used extensively and successfully in OIF and OEF on C-17s. Also, the Airborne Laser program continues to move DE technology forward. The capabilities possible through DE hold the potential to profoundly transform how we fly, fight and defend ourselves.

Impressive as our technological advances have been, maintaining an advantage relies, in part, on our commitment to future S&T investments. These investments also clearly highlight that air and space power is an asymmetric advantage for the Joint warfighter and the Nation.

#### *Air Force Smart Operations for the 21st Century [AFSO21]*

To meet the challenges of the road ahead, we have embarked on an Air Force-wide journey embracing Continuous Process Improvement, Lean Thinking and Six Sigma Quality. This major initiative is called AFSO21. Achieving excellence in all

that we do requires us to institutionalize the precepts of AFSSO21 throughout all of our operations, across the Total Force, and in our daily lives as Airmen. The Air Force is stepping up to the challenge and making the commitment necessary to achieve true process excellence. AFSSO21 focuses on the identification and elimination of activities, actions and policies that do not contribute to the efficient and effective operation of the Air Force. We will seek out and discontinue any activity not ultimately contributing to creating military utility and mission capability. Continuous identification and systematic elimination of so-called "non-value added" activities are the keys to improving service, reducing costs and enriching the lives of our Airmen.

We are seeking three outcomes from this approach. First, we want Airmen who are fully aware of the importance of their work and how it contributes to the mission; Airmen must look to improve what they do every day. We want Airmen to see their role in a fundamentally different way: by focusing on increasing value and eliminating waste. Second, we want to make the most of our existing budgets and free resources for future modernization by systematically identifying and eliminating the waste in our day-to-day processes. Finally, we want to enhance our ability to accomplish our mission and provide greater agility in response to rapidly changing demands.

Institutionalizing this new way of thinking and operating will allow the Air Force to meet the enormous challenges of the next decade and ultimately to sustain and modernize the world's best air and space force.

#### *Fuel Conservation and Efficiency*

The Air Force is the largest renewable energy power purchaser in the United States and is set to continue making large buys that will not only greatly reduce reliance on petroleum-based fuels but, over time, will reduce utility costs.

The Air Force is pursuing an aggressive energy conservation strategy and is committed to meeting and surpassing the energy goals mandated by the Energy Policy Act of 2005 and other overarching policies and mandates. We have been successful at reducing our energy consumption in accordance with past legislation and will continue to use a variety of programs aimed at reducing our use of petroleum-based fuels.

Our overall ground fuel conservation efforts in accordance with mandates and guidance have yielded some notable reductions. Specifically, Air Force motor vehicle gas and diesel consumption has fallen significantly alongside a corresponding increase in Air Force use of alternative fuels. Air Force progress in these areas will be driven largely by commercial research and funding, since we do not substantially drive alternative fuels technology and infrastructure changes. The Air Force is partnering with the Army to develop and use a hybrid electric-diesel engine for the High Mobility Multi-purpose Wheeled Vehicle (HMMWV) with a planned delivery starting in 2008. Other alternative fuel-technology is still in the development stage.

Michigan's Selfridge Air National Guard Base (ANGB) will become the demonstration center for the latest fuel-efficient and environmentally compliant technologies for use in Air Force support equipment to include Basic Expeditionary Airfield Resources (BEAR) and ground vehicle inventories. Tests at Selfridge ANGB, Michigan will look at fuel cell powered vehicles, hydrogen fuel infrastructure requirements and will ultimately provide models for future Air Force/DOD procurement.

Our use of energy from renewable sources and construction and infrastructure improvement programs are designed to create cost effective energy efficiencies in new and existing facilities. In addition, our aggressive pursuit of on-base renewable power generation is rapidly increasing. We have bases where power is being produced from wind, solar, geothermal and biomass, and we have projects planned, in design or under construction to greatly expand this capability. Some of our bases are already using 100 percent renewable power from purchases and on-site production. With our combined purchase/production strategy, the Air Force is poised to surpass the renewable goals set by the Energy Policy Act.

We realize our reliance on petroleum-based fuels must be curtailed and it will take a concerted and coordinated effort to meet the energy reduction needs of the Air Force. We use the tools available to improve infrastructure while we continue to strive to instill an energy conservation mindset in our Airmen.

#### *C4ISR*

Future transformational C4ISR capabilities will provide all-weather, persistent surveillance to the Joint warfighter and the Intelligence Community, and they will be tightly integrated with space, air and land assets to deliver even more precise and responsive situational awareness in support of national security objectives.

The Air Force's biggest challenge with its world-class C4ISR systems remains the proper integration of these systems. The goal of our technology improvements is to integrate intelligence and operations capabilities. An integrated enterprise solution will enhance Joint, multi-agency and multi-national C4ISR collection and dissemination capabilities and will eliminate information seams among air, ground and space based assets. It will also expand information superiority and accelerate decision-making. This integration allows us to achieve decision dominance, leading to knowledge-enabled operations and supporting the development and execution of sovereign options using air, space and cyberspace capabilities.

Knowledge-based operations are critical to closing the seams between Joint Forces. We anticipate a future in which each force element, no matter how small, is constantly collecting data and "publishing" it to a Joint warfighter network. Information will flow from every corner and element of the Joint Force, from ISR collectors to the warfighters. A key aspect of future C4ISR capabilities will involve replacing time-consuming human interfaces with machine-to-machine digital integration to ensure commanders have ready access to the information they need to execute their missions.

The concepts of intelligence fusion and streamlined sensor-to-shooter processes imply a high level of system interoperability at many levels. Information technology increases the ability to send ISR information to any point on the globe in near-real time. The Air Force is adapting doctrine, tactics, techniques and procedures to manage this ever-changing growth in C4ISR capabilities.

To maximize our C4ISR capabilities, the Air Force is eliminating organizational restrictions that inhibit the flow of information between these systems. Advances in information technology are removing historical limitations inherent in legacy systems, such as line-of-sight data links, incompatible C2 systems and manual collection-management processes. Our goal is to increasingly "share" rather than "own" information.

Overcoming past shortfalls through improvements in the timeliness, accuracy and completeness of battlespace knowledge will also bring tactical-level information to command functions that previously had access to only the operational or strategic levels of war. The AOC is the focal point for operational C2 of air and space assets delivering combat effects to the warfighter. To make this capability more effective, we made it a weapon system—the Air Force provides manpower and training as it does for every other weapons system—standardized, certified and lethal. We injected the technology necessary to increase machine-to-machine connectivity. Through both technical and procedural improvements, we have increased the system's capacity for information fusion and accelerated the decision-to-shooter loop. All five of our full-function AOC weapon systems (Falconers) should be fully operational in 2006.

In support of DOD and the Joint community's broader efforts to adopt and transition to network centric warfare, the Air Force is aggressively integrating existing C4ISR platforms across a distributed processing environment. The Network Centric Collaborative Targeting Program (NCCTP) will initially integrate capabilities that include airborne C2, ground surveillance, signals intelligence and operational C2 at the AOC. The Air Force will expand NCCTP into a broader Airborne Networking capability that will support the full and expanding range of future Joint air and space operations.

The Air Force is actively pursuing the extension of Global Information Grid (GIG) networked capabilities out to the extreme edge of tactical air operations. Programs like Family of Advanced Beyond-Line-of-Sight Terminals (FAB-T), the Joint Tactical Radio System (JTRS), Tactical Targeting Network Technology (TTNT), the Battlefield Airborne Communications Node (BACN), and, eventually, the TSAT constellation will provide rich connectivity and interoperability for Joint air operations as well as tactical users and warfighters.

The Air Force is working closely with the other Services and Agencies to define new doctrine and organizational structures to optimize Joint warfighting operations. Consequently, we are developing the necessary technical capabilities, refined processes and trained personnel to achieve desired effects.

#### *Warfighting Headquarters (WFHQs)*

The Air Force is transforming our C2 structure by establishing new WFHQs. These will be positioned globally, replacing our old Cold War structures and providing the Joint Force Commander (JFC) with the most effective means to lead air and space forces in support of National Security objectives. These forces will be organized and resourced to plan and deliver air and space power in support of Combatant Commanders, enabling a seamless transition from peacetime to wartime operations. WFHQs will maximize usage of C4ISR technology and reachback to minimize required manpower. The WFHQs are also designed to act as the Combined/

Joint Force Air Component Commander Headquarters, or Joint Task Force Headquarters.

#### *Joint Warfighting Space (JWS)*

The JWS concept is an outgrowth of Air Force efforts to develop Operationally Responsive Space (ORS) capabilities. JWS and ORS will enable rapid deployment and employment of communication, ISR and other vital space capabilities and services. JWS will emphasize agility, decisiveness and integration to provide dedicated, responsive space and near-space capabilities and effects to the JFC.

In 2005, the Air Force successfully conducted the first JWS demonstration. By capitalizing on an existing commercial communications capability using free-floating platforms, the Air Force was able to extend line-of-sight communications for ground forces from 5–7 miles to over 300 miles. This demonstration was the initial step in exploiting existing off-the-shelf technologies in a long loiter environment.

In 2006, the Air Force will team with our sister Services to conduct the first in a series of small (1,000 pounds or less) satellite experiments. These demonstrations are designed to enhance and incorporate space capabilities in Joint training and exercises, increase space integration and allow the Joint Force to take advantage of the many synergies multi-service space professionals provide. Lessons learned from these activities have the potential to further evolve and improve space doctrine and help the Joint community in developing innovative space-derived effects.

JWS and ORS demonstrations will continue to explore ways of achieving new, more effective ways of providing space capabilities to the Joint warfighter. As technologies mature, JWS will bring the Joint Force more persistent, responsive and dedicated capabilities.

#### *Long Range Strike*

To further refine its rapid strike capabilities, the Air Force is transitioning its Long-Range Strike strategy to focus on effects instead of platforms. We view long-range strike as the capability to achieve desired effects rapidly and persistently on any target set in any operational environment.

Our forces must be simultaneously responsive to multiple Combatant Commanders and be able to strike any point on the planet. Today, we provide deep strike capabilities through a variety of platforms and weapons. Future capabilities must continue to enhance the effectiveness of the system. Responsive capabilities will combine speed, stealth and payload to strike hardened, deeply buried, or mobile targets, deep in enemy territory, in adverse weather and with survivable persistence.

#### *Improving CAS*

Detailed integration of each air mission with the fire and movement of supported Joint Forces is the trademark of CAS. In the past, aircrews and ground forces shared information through lengthy voice descriptions. When providing CAS or time-critical-targeting, this dialogue often took several minutes and occasionally resulted in missed opportunities. To increase integration and lethality, the Air Force has developed new equipment and training to increase situational awareness in CAS operations. We also continue to sustain and modernize the A–10, the only Air Force aircraft dedicated to the CAS mission.

With video downlinks, Battlefield Airmen can share time-sensitive information instantaneously and complete target coordination in mere seconds. Most JTACs are already equipped with ROVER III receivers to display video feeds from most UAVs and ATPs.

In 2006, the Air Force will begin operational fielding of the Precision Engagement modification that integrates ATPs and data links and enhances employment of GPS-aided munitions. This modification will greatly enhance the pilot's situational awareness and improve both the responsiveness and accuracy of A–10 targeting. This will increase the A–10's lethality while reducing the probability of fratricide incidents. The Air Force will also improve the sustainability of its A–10s by continuing a SLEP that doubles the flight hour life of the A–10, helping to ensure the A–10 can remain in service for as long as the warfighter requires.

In 2006, the A–10 Propulsion Upgrade Program will enter the system design and demonstration phase. This program will upgrade the A–10's current TF34–100A engines to provide approximately 30 percent more thrust. This will help overcome some limitations that the A–10 faces when operating from expeditionary airfields at high field elevations and temperatures. It will also improve the A–10 performance at medium altitudes and increase its weapon load, thus improving survivability and more fully leveraging the capabilities of the Precision Engagement modification and ATPs.

*Special Operations Forces (SOF)*

Air Force Special Operations Command (AFSOC) offers Combatant Commanders specialized airpower and ground forces to conduct and support special operations and personnel recovery missions. These forces offer a unique combination of capabilities and personnel that the United States can call upon for the GWOT, Homeland Defense and disaster response missions.

To meet operational requirements, we will add four AC-130U Gunships to the force structure in 2006, followed by ten MC-130H Combat Talon IIs by 2010. The first CV-22 Osprey combat unit anticipates IOC in 2009. The Osprey will add a long-range, self-deployable, vertical lift mobility aircraft to sustain SOF in remote environments.

We will support expanding our SOF Combat Aviation Advisory forces so they can assess, train, advise, assist and integrate more nations' Air Forces into the GWOT and other combined operations and contingencies. We have begun the CSAR-X program in an effort to provide a fast, long-range, all-weather aircraft to achieve IOC in 2010 and replace the HH-60 CSAR aircraft.

The Air Force is also developing the Persistent Surface Attack System of Systems as the follow-on to the current AC-130 Gunship. This gunship follow-on will provide responsive, survivable, persistent and precise fire support in the low-threat to selected high-threat engagements in the 2015 timeframe.

*BRAC*

BRAC 2005 will transform the Air Force for the next 20 years to meet new challenges as a Total Force. The BRAC results improve Air Force warfighting effectiveness, realign Cold War era infrastructure to meet future defense strategy, maximize operational capability by eliminating excess physical infrastructure, and capitalize on opportunities for Joint teaming with our sister Services. We will continue the excellent record established in prior BRAC rounds by closing bases as quickly as possible so savings are realized and properties expeditiously turned over for viable reuse, in concert with community plans for development and economic revitalization.

## SUMMARY—HERITAGE TO HORIZON

We have received a proud heritage forged through the ingenuity, courage and strength of the Airmen who preceded us. Our duty today is to deliver their Air Force to the limitless horizon ahead of us. The mission of the Air Force remains to fly, fight and win whether we are delivering lethal effects against insurgents in Iraq, protecting the skies of the United States against terrorist attacks, providing a Global Positioning System that is essential to our modern military and the global economy, or providing relief to victims of natural disasters both at home and abroad.

The Air Force of today and of the future will strengthen the entire Joint and Coalition team. Dominance of air, space and cyberspace paves the way to overall success. In keeping with the current emphasis on innovation and transformation, our future Air Force will be a more capable yet smaller force. As such, the future Air Force will increase the capability and flexibility of the Joint Force and, subsequently, will increase the depth and breadth of options available to the President and the Secretary of Defense. These military options will be crucial to the defense of the Nation as the United States continues to wage the GWOT while transforming and strengthening the Joint Force for any future contingency.

The Air Force offers an unparalleled set of combat capabilities to directly influence any Joint, Coalition or interagency operation, as well as the enabling capabilities to improve Joint warfighting in conjunction with our partners on the ground, on or under the sea and through the air, space and cyberspace. Recognizing that no Service, or even DOD, can achieve success by itself, the Air Force has focused on increasing the integration and effectiveness of the Joint Force and interagency team.

To achieve new levels of integration and effectiveness, the Air Force will take advantage of our Nation's long-held command of the global commons—air, space, sea and cyberspace. The Air Force will extend its current air and space power advantage. As part of the Joint Force, the Air Force is positioned to leverage its persistent C4ISR, global mobility and rapid strike capabilities to help win the GWOT, strengthen Joint warfighting capabilities and transform the Joint Force—while maintaining good stewardship of public resources.

The Air Force faces the broadest set of mission requirements across the entire spectrum of warfare. We will bolster our Nation's ability to respond swiftly, flexibly and decisively to asymmetric, irregular and emerging threats. We have embarked on AFSO21 as a means to best allocate our resources to meet this increasing set of challenges.

To accomplish this requires continued focused investment in our people, science and technology and the maintenance, sustainment, modernization and recapitalization, and, where it makes sense, retirement of our aging aircraft and weapon systems.

We are America's Airmen. Our heritage is innovation. Our culture is Expeditionary. Our attitude is Joint. Our mission is clear. As threats change and America's interests evolve, we will continue to adapt, evolve and remain the world's premier air and space force. Together with our fellow Services, we stand resolute, committed to defending the United States and defeating our enemies.

Senator STEVENS. General Moseley, do you have a statement?

General MOSELEY. Mr. Chairman, thank you, sir. If you would allow me to put my statement in the record, I would like to take my time and introduce four American heroes and great airmen to you, sir, and the distinguished members of the subcommittee.

When I call their name, if they would please stand up.

Let me start with Senior Airman Polly-Jan Bobseine. She's had three deployments to Iraq so far. She's due to rotate back in June. Senator Burns, this is one of these airmen that are on the ground in close combat alongside our joint partners, the Coast Guard, Navy, Marines, and Army. She's a fire team member with the 820th Security Forces Group. She's participated in numerous offensive operations and offensive ground operations in Iraq, to include 100 combat patrols and 45 offensive missions. She's participated in 30 ambushes and five direct action missions against Iraqi insurgents herself. She's earned U.S. Jump Wings and the Army's Big Red One has given her a combat patch for sustained combat operations alongside the 1st Infantry Division. Again, she's going back in June.

Our second American hero is Technical Sergeant Brad Reilly. He goes back in July. He's had four deployments. He's wearing a Silver Star and a Purple Heart that he earned while assigned to forces in Afghanistan. This particular mission, he was part of a quick-reaction force that was moving to reinforce an ambushed Afghan security force. Upon their arrival, the helicopter received heavy fire. His detachment, upon landing, overran the enemy position and then began to receive hostile fire from three different directions. Technical Sergeant Reilly was wounded in this action, as was another member of his team, Master Sergeant Cooper, who was critically wounded in the upper thigh. Technical Sergeant Reilly provided life-saving skills to save Master Sergeant Cooper's life, controlled close air support fires, provided continual suppressive fire himself with close combat against Afghan hostiles for over 2 hours, while wounded. Sir, again, he goes back in July. This will be his fifth deployment when he goes back.

Lieutenant Colonel Ann Konnath, she is an expert in Air Force space operations. She commands our Weapons School squadron at Nellis Air Force Base. She is the expert teaching experts about space operations. She is a distinguished Reserve Officer Training Corps (ROTC) graduate. She's a graduate of the Air Force Weapons School. She is an expert orbital analyst with operations in Cheyenne Mountain. She has, herself, operated several space control systems. She's been a space weapons officer both at 8th Air Force in the Operations Center and in U.S. Pacific Command, alongside our other joint partners. She is the expert in doing this business of space operations.

Finally, Lieutenant Colonel Trey Turner. He's had three combat deployments. He commands the 17th Reconnaissance Squadron, which is our—one of our Unmanned Aerial Vehicle Squadrons. And, Mr. Chairman, I think you had a chance to visit with them last week out at Nellis Air Force Base. He was a naval officer in a previous life, Top Gun graduate of the Navy Weapons School in 1992, and an interservice transfer to the Air Force in 2003. He's a command pilot with over 4,000 hours in the Predator, the F-18, the F-14, the A-4, and has 376 carrier landings. He's been deployed to Iraq and Afghanistan three times. And he is involved in our reachback operations, flying combat missions now out of Indian Springs and out of Nellis, over Afghanistan and Iraq. He is the leading expert in unmanned aerial vehicle (UAV) combat operations in the U.S. Central Command Area of Operations. Last night, he delivered ordnance against hostiles in Afghanistan.

Mr. Chairman, thank you for the time and for allowing me to be a proud chief and bring four great Americans and four great airmen before this subcommittee, and allowing me to introduce them to you.

Senator STEVENS. Well, thank you very much, General. I really did enjoy the visit to Nellis. I wish the whole subcommittee had been along, because this—the unfolding of the manpower and timing requirements of unmanned aircraft, and how they're being utilized in combat—in a 24 hour/7 day/365 days a year basis is—really, a very interesting scenario to learn about and to witness. So, I thank you very much for the visit there. And we're delighted to have these young heroes join us here today. There's no question about that.

General MOSELEY. Thank you, sir. You can see why I'm a proud chief, with folks like this in America's Air Force.

Senator STEVENS. They are the coming greatest generation, no question about it.

We have been considering—now if there's no objection, we'll go on a 7-minute basis for questions now. I assume there will be other members to join us here. We are in session, gentlemen, and the problem is, we expect votes within about 40 minutes.

We've been told there's an Air Force structure change that'll change command relationships. The net result would be to eliminate the three-star commands in the various areas now. Is this a definite plan now, Mr. Secretary? Is it underway?

Mr. WYNNE. What I would say, sir, is that we are intending to reduce our force by about 40,000 people—full-time equivalents—over the next 6 years, fiscal year 2006 to fiscal year 2011. As a part of that, General Moseley has determined that the Active Air Force should not only lead from, but should lead from the top, and has determined that he can excise approximately 30 general officer slots, of which some of those are, in fact, three star slots. We are actually organizing more around warfighting headquarters to support combatant commanders and relieving ourselves of some of the administrative headquarters that these slots would occupy.

We think that this will actually streamline the Air Force from top to bottom. And I have congratulated him on this action, because it would make sure that we do not have, if you will, all of

the 40,000 coming from the bottom of the pyramid, but from along the sides of the pyramid.

Senator STEVENS. Well, let me tell you a little history, and then—I'll probably take too much of my time right now, but—when I was a very young Senator, the Senator in charge of this subcommittee, Senator Stennis, and I had some conversations with the then-President, President Nixon. President Nixon decided to eliminate some of the command structures. And one of them was the Alaska Command. I was visited by a whole series of former—retired officers, former chiefs, who said, you know, “You must remember World War II.” When World War II happened, there was only a one-star general in the whole of Alaska, and people came up—had never served in Alaska, and there were a few snafus, because the people didn't understand the distance or the climate or the terrain, the whole problem. So, we negotiated an agreement with the President that the Alaska Command would be disestablished, but there would always be a three star in that area who would be in charge of the task force. There was presidential order somewhere that says immediately upon such an emergency, there is reestablished a task force for Alaska, and that person is in charge.

Now, that three star has been there since that time. If I understand what you're doing, you're going to take it away, and take the one away from Hawaii, too. If that happens, you're going to have war up here.

Mr. WYNNE. I would only ask for General Moseley's sage words on that, because I've left the organization of the combatant commands to his wisdom.

Senator STEVENS. General Moseley.

General MOSELEY. Senator, there is no intent in this to take down 11th Air Force of the lieutenant general in Alaska or the lieutenant general on the peninsula. And we've stood up a warfighting headquarters in Hawaii, with a lieutenant general there, to be the combined force air component commander for U.S. Pacific Command. So, we'll have three numbered Air Force equivalents and three lieutenant generals to fight those fights. And the Alaska commander, as you know, is also the North American Air Defense guy.

Senator STEVENS. Right.

General MOSELEY. He is triple hatted as Alaska Command under U.S. Pacific Command, and in his North American Air Defense hat, under Admiral Tim Keating, at U.S. Northern Command. And he's the 11th Air Force commander. So, he is that task force commander that you are talking about.

Senator STEVENS. That will not be changed, will it?

General MOSELEY. No, sir.

Senator STEVENS. Well, I thank you for that.

It now appears that—and we discussed this, before—the F-22 is to be incrementally funded. I think the subcommittee here should understand, that is financing in increments rather than on a total basis. Now, in general, the subcommittees have opposed incremental funding for long-term procurement programs such as fighters, bombers, ships. And it is—the changes, I think, require an explanation on the record. I've got to tell the subcommittee, I don't

oppose the proposal, but I think it's going to be hard to sell. So I'd like you to explain it to the subcommittee, if you would.

Mr. WYNNE. Yes, sir. Thank you for that opportunity.

We successfully, if you will, negotiated with the Office of the Secretary of Defense under the theme that we needed to make sure that we had a hot fighter line as an option for the President until we got—especially for a fifth generation fighter—until we got another fifth generation forward fighter. The F-22 is that fifth generation fighter. It was started in the 1980s and finalized as a quest of stealth, speed, and precision, all wrapped up in one airplane. The successor airplane, the next fifth generation fighter airplane is the F-35, which is currently under development. We felt that the 2-year extension to the program would, in fact, benefit America, giving us that option to make sure we had a hot fighter line.

This came wrapped in a package that decreased the quantity that we had asked for, from 27 airplanes to 20, each year, but it did extend the program by 2 years. It did add four airplanes to it. But it came wrapped, also, in a package of funding that, in fact, bought piece parts in the first advanced procurement, and then subsystems in the second advanced procurement, which to, I think, budgeting purists, looks a lot like incremental funding. It can be wrapped in several packages, but it certainly is peculiar, relative to the program.

The program is mature enough to do a multiyear. We absolutely need to have a multiyear in order to cope with the increased costs due to the lower volume. The question, to my basis, is whether or not we have hedged it full enough, if you will, to allow the F-35 to truly mature.

This leads me to a dilemma, the dilemma that you, the subcommittee here, can help me resolve. One is, I either need a waiver for the program against this relatively peculiar approach to funding the aircraft, so that when I get—and I want to add, if you will, another year, if that is deemed prudent—I don't have, essentially, a double obligation in an out-year, in fiscal year 2010. Either that, or I humbly ask the subcommittee to work with us to fix, if you will, the fiscal year 2007 submittal, so we can offset what is now a shortfall in funding and represented by the zero that you see in fiscal year 2007, which essentially defers, on a one-time basis, the obligation flow.

So, those are the two alternatives that I would ask you to help me with.

Senator STEVENS. Well, that will be a difficult thing to resolve. And I think we're going to have to have a subcommittee session on that so our members will understand it.

I would prefer the latter result, but I'm not sure we can do it, budgetwise. If we can't, then I think we'll have to do it in the basic bill, in the law, set forth a waiver so it's not—that cannot be changed in the future without congressional approval. It can't be just a 1-year waiver, in other words; it has to be a long-term waiver to be effective, as I understand it. Is that correct?

Mr. WYNNE. Yes, sir, that is correct.

Senator STEVENS. Thank you.

Senator Burns.

Senator BURNS. My questions this morning are more along the line of deterrence and strategic posture. And the QDR has changed the focus of our strategy toward these irregular threats that were mentioned in your report. These are the same threats that caused us to rethink our nuclear posture in 2002. The Nuclear Posture Review (NPR) was released in the wake of 9/11, when our forces were engaged on the ground in Afghanistan. The irregular threats that we faced in the war on terror had become very real for the American people during the winter of 2001 and 2002, and perhaps many have already forgotten how real those threats are.

In face of the changing reality, the Nuclear Posture Review was a complete change in strategic doctrine. And, I might add, the NPR was a policy document that was mandated by Congress. We told you to do it. That policy document did two major things. It reduced the number of operationally deployed nuclear warheads from 6,000 to 2,000, it expanded the role of nuclear deterrent to consider it an effective countermeasure against possible use of weapons of mass destruction by a rogue state.

Now, the NPR both expanded the role of nuclear deterrence and decreased the number of warheads, setting the intercontinental ballistic missile (ICBM) number at 500. I would ask—you might remark to this—what has changed since 2000—since January 2002 to necessitate a further reduction in our ICBM force? And am I correct in concluding that this simply is a budget decision that is driving this strategy?

Mr. WYNNE. Thank you very much, Senator.

This goes back to the “sovereign options” comment that you had made in the mission of the Air Force.

Senator BURNS. I’m still trying to figure that one out.

Mr. WYNNE. The aim is to hold hostage other governments’ intentions and to allow for humanitarian relief and nonkinetic action, as well as kinetic action. It’s to make sure that the President is made aware, fully, through our information and surveillance and reconnaissance activity, of his options, and then allowing the National Command Authority to use the Air Force to fly and fight, if that is, in fact, the determined option they want to examine.

This is also an option that the President has, in the sense of responding in a nuclear fashion and talking about the Nuclear Posture Review that we’re all discussing about here. The U.S. Strategic Command commander, which is based in Nebraska, has made a determination that he can have a lower reduced target set for hostile response. That is a requirement that he then lays upon the U.S. Air Force as to how to cope with this reduced response. We have done an analysis and determined that we can accommodate that with, if you will, fewer ballistic missiles, and, frankly, fewer B-52 aircraft. He is endorsing this approach.

As to whether or not it changes the actual determination of the number of nuclear warheads, has not been adjudicated; as to where the reduction in missiles will be taken, has not been adjudicated. Those things are, in fact, all under study. So far, the only thing I know is that the requirements we have been issued have been reduced.

Senator BURNS. Well, let’s further investigate the B-52 situation. As you know, we’re taking another reduction, from 94 to 56. I think

that's the correct number. And that's the only long-distance horse that we've got. And when I made mention, a while ago, of our support of the ground troops on the ground, it has always been our carrier to reduce some of the challenges that we face on the ground. It's always been a very—very effective, with the addition of the global positioning system (GPS). And, also, it's been, sort of, our Iowa-class battleship, so to speak, whenever we go into an area.

Now, that being said, if there is no long-range strike capability on the drawing board until 2016, why would we cut the most versatile long-range bomber from our fleet now, without anything on the drawing board, now, or, it seems like, in the near future?

Mr. WYNNE. In fact, we are very, very pleased that the QDR has endorsed, if you will, the long-range strike option and allowed us to proceed. We intend to come forward, in the fiscal year 2008 President's budget, with a hard plan to essentially offer a fly-before-buy option, so that we can, in fact, lock in a 2018 initial operational capability and try to make sure that is accurate.

While looking at those requirements that we need, I appreciate the fact that the B-52 has been a very versatile weapons system—in fact, when I was out to look at it, I looked into the airplane and asked the commander, "Is this the way it goes into combat?" He said, "No sir." He said, "We"—as you correctly said—"We add a GPS antennae, we add a ground communications antennae, we add two laptops and a central cable right down the middle of the airplane, and turn it into a fairly versatile war machine." Having examined that, we think that we have an adequate supply of B-52s, with the reduced number. I think we're talking about reducing 38 of these over the course of the next 6 years.

This is also, by the way, adjuncted by the B-1 and adjuncted by the B-2, which are also more modern weapons systems that we have. We feel like that we can go through the B-52 fleet and essentially pick out the best of the rest and use those well into the future. There's no intention to essentially stop using them.

General MOSELEY. Sir, if I could add on, the B-1 is also the Iowa-class battleship. They're imperceptible in our employment difference. We operate them out of Diego Garcia. We've operated them—each of them out of expeditionary airfields. The B-52 is a valuable airplane. Last night, we dropped eight satellite-guided weapons off of it against hostiles in Afghanistan. But it could have been a B-1, depending on the rotation of the bombers at Diego Garcia.

We've got, over the future years defense plan (FYDP), we've got \$6.37 billion in bomber modifications and bomber improvements. We have a phase I, which we put about \$4.5 billion into the B-1, the B-2, and the B-52 for upgrades and modernization. We have about \$1.6 billion in for the new bomber, with a 2018 initial operating capability (IOC), as mandated by the QDR. And then, we have a phase III, with about \$275,000, that's looking at technologies beyond 2025 or 2035.

Senator Burns, we take long-range strike very serious. The soul of an air force is range and payload and ability to access targets on a global scale. That's what we do different than an army or a navy. And so, a bomber is a very important tool in a combatant

commander or a President's quiver, relative to those sovereign options.

We have to be able to penetrate airspace. We have to be able to survive the penetrated airspace and maintain persistence coverage. And so, our desire to field a new striking bomber by 2018 is to leverage on the existing technologies that we have out of the joint unmanned combat air systems (JUCAS) program, and out of the things that we've learned with the unmanned aerial vehicles and the things we've learned in 15 years of combat, to be able to look at this new bomber.

#### BOMBER MODERNIZATION

But, sir, we've got \$1.13 billion in the B-52 for upgrade, \$1.3 billion in the B-1 for upgrade, and \$2.05 billion in the B-2 for upgrade, just in the future years defense plan alone.

Senator BURNS. Well, I would—just looking at—just looking at our threats and what we have to—and the capability of meeting some of those challenges, I look at the B-52 with great marvel and curiosity. One could say, about your fleet, you look at that airplane and says, "They just don't make them like that anymore," because it has been a workhorse, and it continues to be a workhorse, and probably has outlived anybody's estimate of its longevity. So, I'm just sort of concerned along those areas.

I've got a couple of other questions, Mr. Chairman. We've added more people to the subcommittee, and I know they have important questions. I've got a couple more. But thank you very much.

Senator STEVENS. Senator Feinstein.

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

Welcome, Mr. Secretary and General. And I want to thank you, General, for bringing your stellar people here, and introducing them. And I can't resist saying, I was delighted to see two women as part of four people acknowledged for very special service to our country, and surprised one is so very young. But—

General MOSELEY. Senator, that very young one has had multiple combat tours.

Senator FEINSTEIN. That's what I understand. Is this her fifth deployment?

General MOSELEY. It will be—

Sergeant BOBSEINE. It will be my fourth.

General MOSELEY. It will be her fourth. She's had three.

Senator FEINSTEIN. Fourth—

General MOSELEY. She goes back in June.

Senator FEINSTEIN. That's amazing. Would it embarrass you if I asked how old you are?

Sergeant BOBSEINE. I just turned 21, ma'am.

Senator FEINSTEIN. You just turned?

Sergeant BOBSEINE. Twenty-one.

Senator FEINSTEIN. Twenty-one, oh. Well, now that you've finally reached maturity, let me—

Senator STEVENS. Why don't you ask her how she can carry that pack? Have you seen that pack they take with them, when they go out in those combat activities?

Senator FEINSTEIN. No.

Senator STEVENS. Tell her. Tell her how heavy your pack is.

Sergeant BOBSEINE. It's about 90 pounds, ma'am, when it's fully loaded.

Senator FEINSTEIN. How long can you carry it before you get tired?

Sergeant BOBSEINE. It depends, ma'am. As long as I have to.

Senator FEINSTEIN. Yeah, I guess you do pretty well.

As long as you have to. Okay. All right.

I wanted to, if I can, ask my questions on the C-17, General. Obviously, the C-17 is a very important program for California. It employs 6,500 people in Long Beach. It's got 400 suppliers. It's a \$3.7 billion asset to the State. But you have termed it a "Golden Plane." And it certainly has provided its service in many different ways.

It's my understanding that the Air Force requests funding for both advanced procurement of additional C-17s, along with money for shutting down the line in 2008. However, recently, it's my understanding, the position has changed slightly, requesting funding for seven additional C-17s as part of your number one priority on the unfunded list. Now, this request has had an impact on the high rate of attribution, as it continues to fly, I gather, 70 percent of the missions in anticipated use in both Iraq and Afghanistan. Some Air Force officials have suggested publicly that there might be a need to procure up to 20 additional C-17s.

I'd like to receive your very candid assessment of the capabilities of the C-17, and the Secretary's, as well, along with an explanation of why you chose to make the procurement of seven additional C-17s your top priority on the unfunded list.

General MOSELEY. Senator, thank you for the opportunity to talk about the C-17.

It is worth its weight in gold. It's a great design, and it's proven itself useful as an intertheater airlifter, as well as an intratheater airlifter. We've been able to use this airplane in areas that we've never used a strategic airlifter before, because it is reliable, and it is very capable to get in and out of shorter airfields. In fact, we were able to fly it directly from Charleston Air Force Base, North Carolina and McChord Air Force Base, Washington, to places in the United States and Europe, or fly it straight into Baghdad or straight into Balad or straight into Bagram in Afghanistan, without having to stop somewhere and transfer the cargo or the people to a smaller airplane. So, its been worth its weight in gold. And we have been flying it in rates in excess of what we programmed.

The good news about this airplane is, we have the airplane instrumented, so we understand where the stresses are on the wings, in the fuselage, and on the structure. And as we look at that analysis, we see that we are stressing the airplane with multiple take-offs and landings, and multiple operations in these shorter fields.

Now, we have, out of the mobility capability study, 112 C-5s that is the bookend of the strategic airlifters. And, as the Secretary mentioned, we have congressional language that precludes retirement of the C-5A's. So, we have 112 C-5's. Out of the mobility capability study, the program of record of 180 C-17s matched with 112 C-5s gives us sufficient airlift.

But, ma'am, remember, in the mobility capability study, it also addresses even rail shipment, fast sealift, sealift pre-positioning

ships, wartime reserve material pre-positioning. So, it's a bigger picture than just airlift.

So, 180 is the program of record. But now that we have the ability to look at the data, we see that we are burning the airplanes up at a higher rate. So, our analysis tells us that the seven that we asked for in the unfunded priority list, along with the combat losses in the C-130 and our center wing-box issues with C-130s, will be sufficient.

Now, we also have partnered with the Australians, and we understand that they have asked to buy four C-17s. The British are looking at an additional buy. General Jones—and his world is U.S. Supreme Allied Commander, Europe (SACEUR), and North Atlantic Treaty Organization (NATO)—have expressed in additional C-17s. The world, I think, understands how valuable this airplane really is.

Mr. WYNNE. I can add to that, Senator, that, on page 1 yesterday in the USA Today, you saw another illustration of the utility of the C-17, which was essentially a flying intensive care unit (ICU), made up for the medical evacuation of our soldiers and airmen and marines out of Balad into Landstuhl, Germany. This is a scheduled run using the versatility of this airplane. And we recognize that it is essentially being used at a little higher rate than we had anticipated it would be used at all in this war effort to support, as Senator Burns said, the ground warfare.

The miracle of Iraq is actually in medical evacuation, and the fact that we can get people from the front lines into Balad and into Landstuhl and then back to Walter Reed Army Medical Center in very short order. And that is saving lives in a dramatic way.

The C-17 is the workhorse of this engagement, without a doubt. The C-130 also works very hard during this time. Our assets are essentially wearing out, and we would like to make sure we have enough in reserve, if you will, to recapitalize.

I would tell you that the next tanker is actually more valuable than the next C-17, because while the soul of the Air Force is, in fact, delivering power at long range, long-range strike, our expeditionary and agility forces require tanker operations, without a doubt.

That having been said, we see that right now, because of the wear that they're getting—to get an equivalent of 180 units, we may have to buy up to an additional 7 units to essentially meet the capacity requirements laid down in the mobility capability study. You asked, why did it show up as our number one unfunded priority? And that was the reason it showed up as our number one unfunded priority. We just see that wear and tear on this fleet, meeting the capacity requirements of the Mobility Capability Study would actually require up to seven additional airplanes.

The addition to the international sales, I think, is very fulfilling. It almost ratifies, if you will, our look at the C-17 as an excellent airplane. Were NATO and the United Kingdom and Australia to buy this airplane, it would further relieve us of some of the missions we, in fact, are accomplishing today.

General MOSELEY. Ma'am, two other—

Senator FEINSTEIN. Yes, General?

General MOSELEY. Two other bits for you. When I was blessed to be the U.S. Central Command air component commander for Afghanistan and Iraq, we used the C-17 to make the largest humanitarian airdrop in the history of combat aviation. Those early drops were made to Afghanistan and flown out of Germany.

We also used the C-17 for the largest airdrop of soldiers since the Korean War carrying the 173d to northern Iraq. So, the airplane is not only the finest flying hospital, it is also the finest deliverer of humanitarian assistance, as well as paratroopers. And you can fly it in and out of small airfields. So, that's how I've assessed this as being worth its weight in gold.

Senator FEINSTEIN. I thank you both for that.

I'd like to just add one other thing. Some of us have really fought the reopening of the nuclear door, and the development of new nuclear weapons, for a number of reasons I won't go into here. So far, we have won. We won on the low-yield nuclear weapons. We won on the robust nuclear earth penetrator. The fiscal year 2006 authorized \$4 million to conduct sled tests and to better understand the physics of penetrating geologic media. The 2006 appropriations conference report provided \$4 million for this. And I've been in communication with the Secretary of Energy. I want to just read his response to a letter I wrote. His—well, the response came from Linton Brooks—

Senator STEVENS. Senator, could we make it a little short, please—

Senator FEINSTEIN. Yeah, I'll make it as—

Senator STEVENS [continuing]. If you will?

Senator FEINSTEIN [continuing]. Short as I can, Mr. Chairman.

Senator STEVENS. Well, the time has expired.

Senator FEINSTEIN. Could I just—

Senator STEVENS. Yes.

Senator FEINSTEIN [continuing]. Finish?—saying that no sled test would be conducted at Sandia or any other facility. He says that if the Department of Defense (DOD) chose to conduct a test at a DOD facility, he believed that would be fully consistent.

My question was going to be, what kind of sled tests can you inform the subcommittee are being conducted, and what guarantee is there that this will not be a nuclear subterfuge?

Mr. WYNNE. I guess, very quickly, we need the statistics and the physics just to make sure that we, in fact, have the right kind of arguments for the use of conventional warheads at that kind of speed. We really don't even know whether or not any projectile will penetrate at those kinds of velocities. It may actually always become a surface issue. So, this is really about determination of physics. But I think the agreement is actually that the concept of the robust nuclear Earth penetrator (RNEP) is not at issue any longer. We're talking about just penetrators and penetrator tests.

Senator FEINSTEIN. Thank you, Mr. Secretary.

Senator STEVENS. Thank you, Senator.

Senator FEINSTEIN. I appreciate it. Thank you.

Senator STEVENS. Senator Shelby.

Senator SHELBY. Thank you, Mr. Chairman.

Mr. Secretary, General Moseley, I want to get into the area of fleet—a fleet of aging refueling tankers, that we're experiencing

problems and have great challenges. I don't believe, Mr. Secretary, that we can wait 35 years to replace our tankers. The President's budget, as I understand it, calls for retiring 114 KC-135Es in fiscal year 2007 and 2008. Clearly, we will not have replacements available, even by the end of the fiscal year, 2008, General Moseley. What assurances can you give us, if any, that a replacement aircraft will be identified and in production before the risk of retiring the KC-135s becomes untenable?

General MOSELEY. Senator, thanks for that question because this is an important issue. And let me echo my boss and say that the first tanker is more important to me right now than the 181st C-17. Even with the seven that we've included in the unfunded priority list, the tanker program is exceptionally important to us, because it provides those airlift legs.

Senator SHELBY. Without them, you have no legs, do you?

General MOSELEY. Sir, not just us, this is for the joint team. The Navy has no legs, the marines operate at much shorter distances. But there is no range without the American tanker.

The 114 KC-135Es that we're talking about, there is still congressional language that precludes us from retiring any of those airplanes. Our preference would be to retire the KC-135Es—

Senator SHELBY. Yeah.

General MOSELEY [continuing]. The 114 aircraft have crews across the total force—Guard, Active, and Reserve. We want to bring the KC-135R model crews up, so we can generate sorties with the more reliable R model.

General Handy, before he left U.S. Transportation Command, and General Schwartz and General McNabb, out at Scott Air Force Base, now believe there's only going to be a 9 percent decrease in total offload by retiring the E models sooner and increasing the crew ratios on the R models so we can fly those aircraft.

Senator, the other reality is, we don't deploy the E models into the U.S. Central Command Area of Operations. When I was the air component commander, I wouldn't take them. They're less reliable. You carry less of a load. The engines are such that you can't lift the weight. You have to download the fuel on them. You're much better off with the—

Senator SHELBY. We've got to retire them, haven't we?

General MOSELEY. What's that, sir?

Senator SHELBY. We have to retire them.

General MOSELEY. Sir, our proposal would be to retire those—

Senator SHELBY. Sure.

General MOSELEY. We need to take them off the books, take the crews, put them in the R model, and let's get on with the new program. And we have all that in play now.

Senator SHELBY. I know you don't have an exact date—if you do, you keep it to yourself, which you should—do you have any ballpark idea when we would start?—first, you've got to identify, you know, the aircraft, and then start procuring the aircraft. I know this is down the road, but you've got—you think down the road.

Mr. Secretary.

Mr. WYNNE. We do try to think down the road. Thank you, Senator, for that. We hope to get release from the Deputy Secretary to start this procurement in the very, very near future. I have tried

to hold the team, if you will, to a September release of a request for proposal, a near-term release of a request for information, to turn that information into a request for proposal in September, which would lead to a mid-year next-year potential award. These are our targets right now. They are looking forward. If that happens, then you've probably got 24 to 36 months beyond that before you begin to receive the tanker fleet.

Since the basic platform we have seen right now is becoming available across the world, we are hopeful that these companies can accelerate their deliveries to us.

Senator SHELBY. That would help.

Mr. Secretary, we hear a lot of stuff, and sometimes you've got to throw it away, but we've been hearing that some senior leaders in the Air Force are on record stating that the next-generation tanker we're talking about must do more than just air refueling. In other words, it could have multiple—multipurposes, such as air transportation capability for passengers, cargo, aeromedical evacuation, and so forth. Could you elaborate on that?

Mr. WYNNE. Yes, sir, I can. Even our current fleet of KC-135s, in fact, performs medical evacuations from the Pacific, because of the legs that we get out of those tanker aircraft. We can also carry a limited amount of cargo on KC-10s, because they have floors in them, and adequate doors to get things in and out of that airplane.

General Moseley and I are very concerned about people piling on excess requirements, driving the cost of this tanker up. We are committed—

Senator SHELBY. We certainly don't need that, do we?

Mr. WYNNE. We are committed, throughout our acquisition program, to try to get baseline utility, instead of having people pile on excess requirements. Modern technology and modern manufacturing techniques can, if you will, square the circle by giving us something we might not have specifically specified. But our desire is to keep things to a minimum; hence, the F-22A; hence, in the transformational satellite (TSAT), we are trying to keep that to a technically mature product; the space-based radar, all of our programs, we are committed to taking a very hard line to essentially piling on requirements.

Senator SHELBY. Yeah, you don't need to buy something you don't need, or foresee that you need, do you?

Mr. WYNNE. Well, I would say that I hate to forego options, but, at the same time, I have a very severe cost constraint in the future. It is not going away. I think, as Senator Stevens has indicated, this is something we're going to have to be very careful with in the future.

Senator SHELBY. Thank you.

General Moseley.

General MOSELEY. Senator, let me add on to that, also. In the request for information (RFI), when we get that out—and hopefully that'll come out soon—it puts everything on the table, as far as options for the airplane.

Senator SHELBY. Okay.

General MOSELEY. It's a good piece of work, and it opens the door for anybody with good ideas.

At the end of the day, when we build this thing, it has to be an A model. We have to be able to get the lowest cost, most basic airplane, and get it to the field to address these deficiencies that we've got. And, sir, I think you would appreciate that we won't be able to buy these airplanes a hundred a year. I suspect we'll buy these airplanes at the same rate that we bought the other big airplanes, which will be \$15 to \$20 billion, which—you take the 417 R models, divide that into \$15 to \$20 billion, and you've come close to a 30-year program to buy this airplane out, which means the R model will be around that long. So, this has to be an A model. We can reduce any turbulence in the system and build the most simple airplane and keep the cost down.

Senator SHELBY. But you've got to do it, haven't you?

Mr. WYNNE. Well, sir, we have to do it, absolutely. And what I want to do is make sure that we use a Microsoft-like model, where we can plug-and-play—

Senator SHELBY. Sure.

Mr. WYNNE [continuing]. Into the future. We hope that our contractors are very aware of the impact on modularity.

Senator SHELBY. Thank you.

Thank you, Mr. Chairman.

Senator STEVENS. Thank you.

Senator Dorgan.

Senator DORGAN. Mr. Chairman, thank you.

General and Mr. Secretary, thank you very much. We—here in the Senate and over in the Pentagon, we've got some people that, at times, get pretty puffed up and wear starched shirts. We all understand that. But I've dealt a lot with both of you, and you, I think, do great credit to this country and are terrific in the jobs that you hold. I appreciate your work.

I want to make a couple of comments about the B-52s, following on Senator Burns' comments, and then have you respond to it. And then I want to ask you about the Happy Hooligans, if you—

First of all, the B-52s, my understanding is that the official estimates of the Air Force is, that 21-year-old airman behind you will be 55 years old by the time you estimate that the B-52s will have no life left. So, think about that, 35 additional years of life, according to the official estimates of the Air Force. She'd be 55 years of age at the time we say the Air Force has now flown the B-52s beyond its time.

Number two, you mentioned that there were precision-guided weapons dropped last evening by B-52s. I assume, in Afghanistan, there's no anti-aircraft batteries, or very few, so it was probably not standoff, you could fly into the theater. But if it were standoff, a precision-guided weapon dropped on a standoff capability, then you would—you used a bomb truck. The B-52 is a bomb truck. You could have used a different truck. You could have used a B-1, B-2. The B-52, as a bomb truck, is one-third the cost of operation of a B-2, and one-half the cost of operation of a B-1. When you are desperately short of funding—and I don't see the Air Force budget growing the way some of the other areas grow—when you're desperately short of funding, I wonder about the advisability of going from 93 down to 56 of the least expensive bomber we have, espe-

cially when we are moving more and more towards precision-guided weapons. And so, I think we should talk a bit about that.

My understanding is, General, that there were 42 B-52s deployed during the Afghanistan and Iraq War, but it took 80 airplanes—82 to 84 B-52s, really, to move in and out, in a rotational capability, to satisfy that requirement. In the future, we couldn't do that. I believe we used 140 B-52s in the first gulf war. I think we've now used 80 to—82 to 84 B-52s to circle in and out of the second. And we're proposing that we go down to 56 B-52s, which is the least-cost operation of a bomber fleet, by one-third or one-half. And, once again—I didn't mean to single you out, young lady, but, by the time you reach 55, they say we can keep using that B-52 all of these years. I think it's a bargain for the taxpayers.

So, let me ask you to respond to that. And then, if you can, let me also have just a moment to respond to the B-52s—or to the Happy Hooligans, rather.

General MOSELEY. Sir, the range that we're operating these airplanes, from Diego Garcia to targets in Afghanistan, are the same distance—and this gets at Senator Burns' question—it's the same distance from Tampa, Florida, to Juneau, Alaska. So, our crews are flying the same distances on these missions from Florida to Alaska every day, and delivering ordnance. So, that's the benefit of the tanker, and that's the benefit of the bomber.

Sir, in the future, in this unknown future, we have to be able to operate in opposed airspace, and we have to be able to deliver these effects. With the F-22, we can maintain the dominance to get the bomber to the target. Some of the worst lessons learned in Air Force history were the lessons of 1942 and 1943, where we lost 30 to 40 to 50 percent of the bomber fleets on missions at Schweinfurt and Ploesti and Regensburg, et cetera. The bomber has to survive to be able to deliver that ordnance. When you have no air defenses, then the truck will do. When you have air defenses, you have to beat them down, suppress them, so you can get the heavy lifter to the targets. And so, that's the dilemma that we face against fifth generation surface-to-air missiles and fifth generation fighters, which is why the F-22 is important to us.

But, sir, we used every bomber that we could get once we got them in theater. But, sir, remember, we also redeployed them back to home station to minimize the time away on the people. So, there were a lot of the bombers that we did not just park at Thumrait or at places—other expeditionary airfields. We rotated the aircraft and the crews out to try to maintain some rotation time-away-from-home normalcy for the crews.

Sir, another way to do that would be to have all of the 50-plus bombers combat-capable with the \$1.3 billion spent on all of the upgrades, and you could deploy the airplanes, and then rotate the crews, instead of the other way around.

So, sir, if you're asking me, do I love the B-52? I do. Have I used it a lot in combat? I have. Have I dropped a lot of bombs off of it? I have. Have I shot a lot of cruise missiles off of it? I have.

Senator DORGAN. If you had your druthers, would you like more than 56—if you had your druthers and had the money to—

General MOSELEY. Sir, I know your attachment to the B-52, but, let me say, if I had my druthers, I would build a new bomber. I

would build new bombers so I could penetrate airspace and maintain persistence, and I can deliver this effect, whether it's opposed or unopposed airspace. And that's the cruncher, and with the money.

Senator DORGAN. I understand, yeah.

Let me just quickly—thank you for your answer, General.

General MOSELEY. Yes, sir.

Senator DORGAN. There's obviously room for a lot of discussion in that answer. But I appreciate your work on these issues.

Let me ask you about the Happy Hooligans, in Fargo. We're now scheduled for unmanned aerial vehicles and some discussion about some interim C-130s and the light cargo plan. Can you tell me what the approach is for that unit?

General MOSELEY. Sir, we're working hard to get the UAV presence right. We have North Dakota, New York, California, Nevada, Arizona, Texas, and we're working hard to get the 21 orbits, which is a euphemism for 21 separate customers, to be able to deliver the effect, whether it's surveillance or whether it's strike. And so, to get the airplanes to North Dakota which is our desire, we have to get crews trained and operations up and going to conduct combat operations.

The National Guard Bureau—having talked to Lieutenant General Steve Blum a bit, the National Guard Bureau has talked to the Adjutant General in North Dakota about four or more C-130s as an interim bridge until we can get some fidelity on the joint cargo aircraft. We've had no opposition to that, for sure. I don't know many of the details, other than there's been some discussion. And, sir, we're not opposed to that. That's not a bad way to go.

We're working the joint cargo aircraft issue with the Army, to determine the number of these aircraft, how best to employ them in theater, conduct homeland security and homeland defense with them, and upgrade some of these systems.

An aircraft of that type would have been very useful in the early stages of Afghanistan and in the early stages of Iraq. And it would be very useful today, to be able to move things in and out of those smaller airfields.

And so, we're focused on that, sir, and we're working that with the Army.

Senator DORGAN. Going back, just briefly, to the bomber issue, I understand the 2017 timeframe and so on. I have also watched the tanker, the new tanker issue languish. And, you know, I don't know when we'll have a new bomber. I understand the need for it, but I still think we need to rethink the cost of deploying these bombers. And I might say that with—particularly with standoff precision weapons, these bombers all become trucks when you're using standoff precision weapons, because they're not part of the battlefield, at that point. But I just—I hope we can continue the discussion about B-52s.

General MOSELEY. Yes, sir.

Senator DORGAN. I thank you very much for your stewardship of the Air Force, Mr. Secretary and General Moseley.

General MOSELEY. Thank you, sir.

Senator STEVENS. Thank you very much, Senator. I think the two co-chairmen remember when President Truman tried to stop the

B-52. It was built during President Truman's day. It's been around a long time. We'll have to discuss that.

Senator Inouye, if you have—your opening statement, space in the record has been reserved for you, my friend. You're up.

Senator INOUE. First, my apologies for being late. We had another function.

Mr. Secretary, General, I'd like to take this opportunity to remind some of my colleagues of the great work you've done in Enduring Freedom, in Iraqi Freedom, and Noble Eagle. I find that the media and my colleagues at times focus too much on the land forces, the marines and the Army. There's much justification for that, but I'm certain those men and women on the ground would be the first to tell all of us that without the Air Force, they're really in a fix. And so, I wish to thank you and the members of your command, and men and women who have done so much for us with all their sacrifices.

Mr. Chairman, I'd like to have my full statement made part of the record.

Senator STEVENS. Yes, sir.

Senator INOUE. I just have one question, sir. This is on your transformation. And I would like to just touch on one aspect of transformation. You speak of efficiency and consolidating redundant activities. While I think all of us support efficiencies, I do not want to be part of a group that would send a signal to certain geographic regions suggesting that maybe they're not that important. I think it is critical that a major command retain the ability to manage its people and its resources.

Now, for example, the Air Force is exploring the alteration of chain of command for operational units. And units that are currently reporting to Pacific Air Forces (PACAF) would communicate directly with the Air Combat Command. Now, that would seem to me—I'm not an Air Force general, but it would seem to me that you would make a four-star general a figurehead. He has the troops, but somebody else has command and control over them. So, I would hope that our forces in Europe and our forces in the Pacific are provided the importance that I think they deserve.

What are your comments, sir?

Mr. WYNNE. Well, one of the things is that I'm very proud to have a partner like General Moseley to work with. And when we talked about trying to husband our resources and understanding the increasing costs of our personnel, and concluded that we would take a 40,000 full-time equivalent reduction in our service, he stepped right up and said that the active should lead from the front, and the active should lead from the top, and has looked into ways to economize on 30 general officer slots, which really gets at your question, I think, in a very direct way.

That having been said, I have left all of the command relationships, if you will, to my partner in his regard to the military operation, as I think I should, and I'd like for him to take on that question very well.

General MOSELEY. Senator Inouye, thank you for the chance to answer that, because there are some misunderstandings out there.

Our desire is not for PACAF, for the U.S. Air Forces in Europe (USAFE), to become subordinate to Air Combat Command or Air

Mobility Command or Air Force Space Command or Air Force Materiel Command or Air Education and Training Command. They are major commands, with representational responsibilities and command responsibilities to U.S. Pacific Command and U.S. European Command. And we take that very seriously, as a part of the joint team.

What we have looked at, though, is using the numbered air forces in the Pacific, 11th in Alaska, 5th in Japan, 7th on the Korean peninsula, in the new Kinney Warfighting Center, on Hickam Air Force Base, which may or may not become 13th Air Force, as the fighting forces for the Pacific, which they have historically been, and to look, if there are not management oversight things within all of the major commands, the functional areas of personnel, civil engineering, communications, that we can streamline to look at saving management oversight, not command oversight.

General Paul Hester still has command of Pacific Air Forces, and he is responsible to Admiral Fox Fallon as his senior airman in theater—same with 11th, 5th, 7th, and what may become 13th on Hickam Air Force Base, which is now the Kinney Warfighting Headquarters.

So, sir, we intend, in no way, to break the command structure down, and we are looking for efficiencies in those functional areas where it makes sense such as personnel activities or civil engineering or communications. And I think you would want us to look at that to see if there's not some inefficiencies there. But there is no intent to have the Continental United States major command headquarters having anything to do with the command prerogatives or responsibilities of Europe and the Pacific.

Senator INOUE. Well, I thank you very much.

In closing, I'd just like to reiterate what my chairman has said time and again. The two aircrafts that are most important at this moment in our history, F-22 and the C-17, take good care of them, please.

The other matter that concerns me is the fact that our bomber fleet seems to get smaller and smaller. And I believe the time should come when serious consideration should be made in developing a new bomber, penetration bomber. I would assume that that is in your minds or your planning.

I thank you, sir.

General MOSELEY. Sir, it is in our minds, and out of the QDR, we have a date on the wall of 2018 for the initial operational capability of a long-range strike platform, which I believe is a bomber. And we're working hard to begin to set the stage for that acquisition program, and to go through all of the right processes to be able to get at something that we could field by 2018.

The bomber is a critical tool. And, sir, I think you would agree, the soul of an air force is just that, range and payload. And in today's uncertain world, to be able to range those targets with that B-52 at those distances, which are from Tampa, Florida, to Juneau, Alaska, every day with those crews, that's a powerful tool for General John Abizaid and the air forces in the Central Command region.

Senator INOUE. That's a good answer.

General MOSELEY. Yes, sir.

Senator INOUE. Thank you very much.

Senator STEVENS. Senator Domenici, do you have questions?

Senator DOMENICI. Do you have somebody else, so that I could have a minute?

Senator STEVENS. I have some questions I'd like to ask.

Senator DOMENICI. Please do.

Senator STEVENS. Senator Dorgan has talked about the aging fleet of bombers. Matter of fact, it's my understanding that our total aircraft inventory is the oldest in history now. We have—the average age of aircraft is—all aircraft—is 23 years. Tanker fleet's over 41 years, in average. C-130's average is over 25 years. I don't know what the average age of the B-52 is. It's got to be 50.

General MOSELEY. Forty-four.

Senator STEVENS. Forty-four? And you're now making reductions in your end strength. And we understand that. You have to capitalize your aircraft. But I think people are inclined to look at the number of Air Force personnel that are in the war zone. They're not as high as the others, the Army. But if you look at the overall activity of the air bridge, the maintaining of, you know, the constant air patrol over other areas of the world, it's still got enormous demands on your end strength. Now, last year, when the Air Force appeared, the Air Force was over its end strength. Now it looks like, in terms of applying your end-strength reductions, you're going to have an imbalance between officers and enlisted men. Is that right?

General MOSELEY. Sir, if I could try the context of the question, which is, one of the things about our aging fleet that I think you and Senator Inouye have highlighted back to us on occasion is that if we get everything that we want in our future years defense program which is debatable—and, of course, we propose, and you dispose—the age of our fleet will go from 23 years to almost 25 years. We are right on the tipping point of being behind the investment bow wave, instead of in front of it. And the U.S. Air Force has never in its life stood down an airplane because of age. And we are now on the cusp of trying to set up an Air Fleet Viability Board, because we now are on the fourth step of our 12-step program, realizing we are going to be operating an aging fleet. So, we need to understand better how our airplanes age.

We have to get ahead of this investment curve at some point into the future. We cannot keep pushing this bow wave out, and every 5 years we lose 5 years of our life, which is why we really want to start to invest in our long-range strike aircraft and begin to divest ourselves of some of our aging air fleet.

That having been said, we are looking at better ways of employing our manpower, and we find ourselves with almost an iceberg, where we have a presence very similar to the Navy. We must maintain the presence in the Pacific, in the area of North Korea, the Korean Peninsula, in Japan, and yet, yes, some of the people at Kadena. For example, when I was there, just last week, I found that 500 of those folks are, in fact, cross-deployed into supporting Iraq. So, we are managing our force deployment across the world, trying to maintain, if you will, both presence and activity within the context of the theater.

We have a little bit of a problem, because our C-17 pilots are, in fact, not in the theater long enough to be recognized as combatants, although they get shot at quite a bit, and they would, of course, argue about that. Many times, our B-52 pilots, who do not get based, if you will, into a theater, are, in fact, flying out of Diego Garcia or Guam, do not get credit for being participants in the war. Nonetheless, we know that they have dropped ordnance—in fact, just last night—and yet, they are not seen as performing combatant activities. Nor do our reachback activities—people flying the Predator out of Nellis Air Force Base, or if we do get UAV squadrons distributed through the National Guard, we haven't quite come culturally to what to call those folks. In a very similar way, we do have several people tied down in the missile fields, using and guiding our space assets.

And so, you are right, sir, we have about 179,000 people that are right now reporting to combatant commanders.

Senator STEVENS. I have, several times, suggested to this administration and past administrations that we have some defense bonds. We have to bind some way to finance a follow-on bomber, and we have to have some way to get to the Joint Strike Fighter. And part of us—I think I speak for my co-chairman—as far as our watch is concerned, we don't want to leave without knowing that there will be a follow-on bomber, there will be a follow-on joint fighter like the Joint Strike Fighter. I don't see it right now. We're putting those off. Joint Strike Fighter seems to be slipping and any concept of a new bomber is slipping. And my friend from North Dakota and I had a little discussion about it. I think we've got to stop supporting some of these ancient planes and start putting that money into getting us into another generation, as far as Joint Strike Fighter and the bomber, or we have to go to some defense bonds and get the money now—I think the public would buy them—for the defense force of the third decade of this century. You can't get there without money now. And we can't keep up the old ones and ever hope to start getting the replacements that are necessary.

So, I hope we can have a dialogue with the administration and with you about finding some way to finance it. It's not dissimilar from the other committee that Senator Inouye and I serve on, in terms of the airways. We have to have a new airway system. We've got an analog system out there, but we're flying digital airplanes, and we've got to have a new system. But the only way to do it is to find some way to fund it now and have that money paid back over a period of years. Same thing here. We have to fund these things now. Within this next decade, we have to start a follow-on bomber, and we have to be assured that the Joint Strike Fighter is coming. But I don't see it yet.

Senator Domenici.

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

And, General, a pleasure to be with you again. And——

General MOSELEY. Yes, sir.

Senator DOMENICI [continuing]. Secretary, it's good to see you.

I only have three or four questions. We talk a lot about these, you and I and others. We have the two bases in New Mexico that have come into focus now, by coincidence—Cannon, one located at

Clovis—is on your radar screen, because it fell upon that base to get a very special denomination in the BRAC inclusions when it was set up as a—what was the word used, the favored word to describe it, what would it be?

Mr. WYNNE. Well, they asked us to go for a follow-on mission, I believe, to try to ensure the continuity of the base.

Senator DOMENICI. But it was called an “enclave.”

Mr. WYNNE. An enclave, I think is the unique term of art. Yes, sir.

Senator DOMENICI. And it remains an enclave for a substantial period of time, by definition of the BRAC Commission. It’s now in—only had that status for months, but it can remain that way for years. It has been everybody’s desire that that not remain an enclave for a long time—is that correct?—that it be done—the enclave be determined—

Mr. WYNNE. I think it’s a little bit unfair to leave a community on edge.

Senator DOMENICI. Correct.

Mr. WYNNE. I want to resolve this within the context of this year, if it’s possible. I have kind of set targets out there for a June or July resolution.

Senator DOMENICI. Now, much has been going on, by way of background determinations, following certain practices and procedures, to make sure everybody knows what’s going on. And—

Mr. WYNNE. Yes, sir.

Senator DOMENICI. And just recently—

Mr. WYNNE [continuing]. We have worked very hard with the local community.

Senator DOMENICI. Correct.

Mr. WYNNE. We are working other agencies to try to identify the maximum number of opportunities for that base.

Senator DOMENICI. And, in the meantime, things are in a status quo.

Mr. WYNNE. Yes, sir. In the meantime, things are in a status quo. We hope to bring this to a resolution by mid-year.

Senator DOMENICI. For which we are very grateful to all concerned, including Congress for putting it in that status following the BRAC determination. Now, as you know, just recently there has been a workshop regarding Cannon to provide Federal agencies with opportunities to consider potential uses. Can either of you, or both of you, describe, in whatever way is appropriate, how the workshops went? And can you update us on the Department’s long-term plan, if there is one, or if it is shaping up, however you might describe it?

Mr. WYNNE. I guess I would describe it in the latter condition. It is shaping up. We have had, I thought, a positive workshop, but we have had a relatively few respondents, some of whom have been very positive, however. And so, we are hoping to continue this, if you will, missionary work, together with the community, describing the positive attributes that are available at Cannon Air Force Base. As you know, we have a lot of our Air Force officers who, in fact, have been there. We were very sad to hear of the death of one of the leading town citizens and sponsors, and recognize that we, in his legacy, need to continue this work to resolve this issue.

Senator DOMENICI. Well, this won't go on for long—you know, indefinitely, will it, Mr. Secretary or General?

Mr. WYNNE. No, sir. We are trying to draw this to a conclusion. I would, on the outside, because every process we've ever done seems to slow down, say it's this year, but I am trying to get it done this summer.

Senator DOMENICI. Thank you very much.

General Moseley, do you have anything to add on that? And I'll move over to Holloman for a moment.

General MOSELEY. No, sir. I would just add that the community has been great to work with. It has been very open about the varieties of teams that have come out and looked, and the variety of opportunities. Doc is going to be missed by all of us. Randy is doing a great job, and the community has been very supportive of those folks that are out there to look at options. We, along with the Secretary, we get weekly progress reports. The staff understands that there is a motivation to do this sooner, versus later.

Senator DOMENICI. What does the Air Force need from moving over there, now, to the other side of the State—White Sands Missile Range, Alamogordo, and New Mexico—to make sure that joint training becomes a reality? Fort Bliss is becoming a training area of major proportions. And so, the question is, clearly, how will White Sands Missile Range and—Holloman fit into that, if you know?

General MOSELEY. Sir, let me address that one, because it gets into ranges and training space. It would be no surprise for you to hear an Air Force chief say, "Big ranges, supersonic airspace, ranges that we can drop bombs on are premium commodities for us these days." The ranges that we have in New Mexico, the ranges that we have in Alaska, the ranges that we have in Utah, Arizona, and Nevada, cannot be replicated anywhere. We have to hang onto those ranges and avoid encroachment.

The footprint of the weapons that we have now require larger airspace. The speed of the aircraft require bigger spaces. And the ability to instrument these ranges, and the ability to do this jointly, is critical to all of us.

Senator DOMENICI. All right.

General MOSELEY. You know very well what Red Flag is. Red Flag is now in two parts, one in Alaska and one in Nevada. But the size of the ranges and the airspace are critical for us. Having spent a tour or so in Alamogordo, the White Sands Missile Range, the McGregor airspace, and the ability to partner with operations out of Fort Bliss are very important for us in the future as we look at marrying systems, airborne UAVs and weapons with our Army brothers and sisters. So, sir, that range is important to us.

Senator DOMENICI. Well, I want to thank both of you for your continued cooperation. And I think I speak for the entire community, I don't think there is a more cooperative community in all of the United States than that one. And it has been reciprocal on the part of the Defense Department. It's obvious that the mission at Cannon is changing. It is clearly not going to be the same kind of Air Force base it was before, a single purpose. Clearly, it's being looked at at a much—in a much broader way. And I think that's good for the country, in terms of what I see as this joint operation

concept, which it may end up taking the lead in. And, for that, we're grateful.

Mr. Chairman and co-chairman, you have helped us get to where we are, and we're very appreciative. We will always be appreciative for it. Thank you.

Senator STEVENS. Thank you.

Senator Dorgan, you said you had another question?

Senator DORGAN. Mr. Chairman, I didn't want the term "ancient" to hang out there until the next hearing. "Ancient aircraft." I wanted to make a point, if I can.

I think your comments and the comments by Senator Inouye about modernization are really important. There's no question that we have to move to a new bomber at some point, support the C-17, support the F-22, and so on. But I do want to point out, with respect to the F-52 flight—or B-52 airplanes, these are not ancient planes. It is true the airframe has some time on them. But they are low-hour airplanes. When you get on an airplane at the airport out here, you're probably, in most cases, going to fly a commercial airliner that has three and four times the hours the average B-52 has on it.

Number two, most of that B-52 is new, and we've spent a great deal of money to modernize it.

And, number three, finally and importantly, it costs one-third the cost to fly that, versus a B-2, and one-half the cost to fly it, versus a B-1.

We will need a new penetrating bomber, but we're also going to need bomb trucks. The least expensive bomb truck, and one that is still modern inside, in my judgment, is the B-52. And we always ought to look for the least-cost opportunity. And, as I said, it'll last 35 years, until that young lady's 55 years old.

Mr. Chairman, thank you.

Senator STEVENS. That's a discussion for another time.

I'd like to ask one question about satellites. We have really emphasized, in this subcommittee, the development, deployment, and protection of the military satellites. They're very important, not only for the GPS system, but we have lots of other involvement—some, highly classified. But in the last few years, there's been significant cost overruns, in terms of the satellite programs. And that includes the space-based infrared system (SBIRS) high and the national polar orbiting operational environmental satellite system. We are really looking now at trying to find some way to improve the program management and to really ensure that these technologies are matured.

Can you tell us, what are you doing to follow on that process?

Mr. WYNNE. Well, thank you very much, Senator, for that.

We are really taking this to heart. We have, I think, reduced our acquisition force in the space area way too much. It is now showing and telling, as a result, in cost overruns, due to requirements growth and/or, frankly, just bad engineering quality has affected us on a couple of occasions.

We think that the first opportunity we have is to increase our talent pool, and manage it better, so we get the best talent on all these hard problems. The second thing we are doing is to make sure that we go with a baseline technology-mature craft. It is a

part of our configuration freeze routine that we are trying to make sure that we have the right level of technology, not more, going up on our rockets. We have successfully gotten our rockets to the point where they are very efficient launch vehicles. However, we now have to work on our satellites so they, if you will, can fly on a schedule.

We are committed to bringing to your attention the reduced technology risk for the transformational satellite, for space-based radar, as well as what we have done to mitigate the space-based infrared and the national polar orbiting operational environmental satellite system (NPOES) satellites.

This is a very difficult area. I think it's one that merits your attention. And we are giving it that.

Senator STEVENS. General Moseley, our conference report last year highlighted this and asked the Air Force to really monitor the space radar and transformational satellite communications program. Can you tell us what steps have been taken to follow up on that urgency?

General MOSELEY. Sir, as we've talked about the F-22 and the tanker, to build an A model, or to build an initial block satellite is what Secretary Wynne and I have pressed on the staff. Instead of attempting to upgrade this thing as it is being built, our desire is to freeze the configuration, whether it is TSAT or whether it is space radar or whether it is any of our new satellites, so that we don't continue to add things to it and increase cost and risk to the program. Because by doing that, the contractor, the user, and the end result is, it takes longer, it costs more money, and there's more risk.

We have also focused on the known technologies. Space radar is a good example of what's out there, as far as the modules and the sensors to build the plan or array that exists today, instead of trying to leap out 10 or 15 or 20 years into the new technology.

So, sir, the two of us have been taking this very seriously since our assumption of these jobs to try to get the cost down on the satellites, the cost down on space operation, and a lot more visibility into the acquisition process and the contracting process, to be able to deliver these things on time and on schedule.

Senator STEVENS. Well, thank you very much.

For the benefit of Senator Domenici and our co-chairman, I want to make sure they have met these young men and women you've brought to this—to the hearing today. Senators, let me introduce to you Polly-Jan Bobseine—is that right?

Sergeant BOBSEINE. That's right, thank you.

Senator STEVENS. And Tec Sergeant Brad Reilly—

Sergeant REILLY. Yes, sir.

Senator STEVENS [continuing]. And Lieutenant Colonel Ann Konnath—is that right, Colonel?—and Lieutenant Colonel Trey Turner. We're delighted to have you with us today. They've all had repeated assignments to the war zone, and deployments, and I guess that Polly-Jan is going back again soon. She's just turned 21.

General MOSELEY. Sir, Sergeant Reilly is going back in July. Senior Airman Bobseine is going back in June. So, this'll be five deployments for him, after July, and four for her, after June.

Senator STEVENS. We appreciate your commitment to our country. We're proud to have you here with us.

ADDITIONAL COMMITTEE QUESTIONS

We thank the General and the Secretary for appearing here today. And we also, obviously, thank those who have accompanied you.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED TO MICHAEL W. WYNNE

QUESTIONS SUBMITTED BY SENATOR TED STEVENS

JOINT STRIKE FIGHTER

*Question.* The Joint Strike Fighter will incorporate advanced technologies in a number of areas. How can you be assured that JSF is ready for production when so little of the test program has been completed?

*Answer.* The Joint Strike Fighter (JSF) acquisition strategy includes clear entry and exit criteria for critical milestones to ensure that technologies are mature, and required incremental test objectives are achieved before obligating funds for production. The Department conducts acquisition reviews via Integrating Integrated Product Teams and Overarching Integrated Product Teams, which support Defense Acquisition Board Reviews. Configuration Steering Boards and Service Acquisition Executive reviews are conducted quarterly to assess program performance, including test objectives, ensuring associated program risks are understood and appropriately mitigated. The JSF acquisition strategy provides the most effective balance of technical risk, financial resources, and the Services' operational needs.

ALTERNATE ENGINE PROGRAM

*Question.* The Department had supported the cost-benefit advantages of the alternate engine program until this budget submission. What has changed leading the Air Force to drop this program? Are you concerned about the potential loss of competition in the engine program?

*Answer.* During the fiscal year 2007 budget deliberations, the Department of Defense considered the investment cost of developing a second engine, the maturity of the F-135 primary engine, and the findings of past engine assessments. The Department of Defense concluded that while there are benefits to having a second engine source, a single engine source provides the best balance of risk and cost. The Air Force supports this difficult choice and remains committed to an F-35 that is lethal, supportable, survivable, and affordable.

QUESTIONS SUBMITTED BY SENATOR THAD COCHRAN

SUPPLEMENTAL FUNDING

*Question.* It would be helpful if you could explain how soon you need the Supplemental funds requested for the Global War on Terrorism, which were requested in mid-February. Also, could you share with the committee what impact there would be from any delay in receipt of the requested funds?

*Answer.* To date, we have received \$2.5 billion in Operations and Maintenance Bridge funding to support our day-to-day requirements in the Global War on Terrorism. This bridge funding lasted four months and we began to cash flow the war from our peacetime program in February 2006. Any extended delay in receipt of fiscal year 2006 Supplemental funding jeopardizes Air Force readiness, taxes our peacetime programs to cash flow the war, and further exacerbates what already promises to be a challenging year. Without additional fiscal year 2006 Operations and Maintenance supplemental funding, we will exhaust currently available funding in August 2006.

## KEESLER TRAINING PIPELINE

*Question.* I would like to thank you for your support in helping with hurricane recovery efforts to include reestablishing Keesler's critical training mission. As I understand it, of the 56 enlisted initial skills training "pipelines," 90 percent are now operational. Can you please give us an update on the status of Keesler Air Force Base?

*Answer.* Senator Cochran, it gives us great pleasure to share with you the good news concerning the on-going reconstitution endeavors at Keesler Air Force Base. The diligent and dedicated efforts of the men and women of Air Education and Training Command, 2nd Air Force, and the 81st Training Wing partnered together to ensure critical training would resume in an expedient timeframe at Keesler Air Force Base in the aftermath of Hurricane Katrina.

All of the enlisted and officer initial skills taught at Keesler Air Force Base are 100 percent fully operational. In addition, 86 percent (74 of 85) of the additional courses taught at Keesler are fully operational. These courses are currently conducted at alternate locations; however, they will be returned to Keesler Air Force Base by July 2006.

We are proud of our Airmen who tirelessly reflect the strength, tenacity, and dedication necessary to recover our training due to one of the worst natural disasters in the history of the United States.

Thank you and the great citizens of Mississippi for their continued support in rebuilding Keesler Air Force Base.

## JSF COMPETITIVE PROCUREMENT

*Question.* As I understand it, because of fiscal reasons, the Department intends to pursue a sole source contract for the Joint Strike Fighter aircraft. Secretary Wynne, it would appear there would be far greater benefits, such as improved performance, reduced risk, increased readiness, and lower costs, resulting from contract competition. As long as there is no delay in fielding the Joint Strike Fighter, are you supportive of using a competitive procurement process?

*Answer.* There are currently three primary F-35 (JSF) program contracts. Lockheed Martin is the sole source provider for the Air Vehicle and Air Systems component piece of the aircraft. Pratt and Whitney (P&W) F135 and General Electric (GE)/Rolls Royce (RR) Fighter Engine Team (FET) F136 are the two contracted engine suppliers.

During the fiscal year 2007 budget deliberations, the Department of Defense considered the investment cost of developing a second engine, the maturity of the P&W F135 primary engine, and the findings of past engine assessments. The Department of Defense concluded that while there are benefits to having a second engine source [F136 alternate engine], a single engine source [P&W F135] provides the best balance of risk and cost. The Air Force supports the difficult choice to cancel the F136 alternate engine and remains committed to an F-35 that is lethal, supportable, survivable, and affordable.

## SPACED-BASED INFRARED SYSTEMS HIGH PROGRAM

*Question.* We have been monitoring the progress on the Space-based Infrared Systems High program to ensure the Nation maintains its early warning capability. I understand the Air Force had to seek recertification of the Space-based Infrared Systems program in December after the latest Nunn-McCurdy breach for the program. Mr. Secretary, what is the status of this program, and when will it be completed?

*Answer.* The Defense Acquisition Executive (DAE) certified a restructured Space-based Infrared System (SBIRS) program to the Congress on December 12, 2005. The restructured program will include completion of the development program (two Geosynchronous Earth Orbit (GEO) satellites, two Highly Elliptical Orbit payloads, and associated ground system) and procurement of one geosynchronous satellite. The contract for the procurement satellite shall not be awarded until there is confidence in the first developmental GEO satellite. An Acquisition Decision Memorandum restructuring the SBIRS program and providing specific tasking was signed by the DAE on December 15, 2005.

GEO payload/spacecraft bus mate is scheduled for July 2007, leading to a GEO 1 launch date of October 2008.

GEO Early On-orbit Test (GEOT) software has made significant progress. Prior planning combined the first three software releases into a single block, GEOT-C. This software block is being used for the initial GEO Systems Integration Tests.

When complete, the GEOT-D software block will serve as the initial launch baseline. The restructured SBIRS program should be completed by fiscal year 2013.

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QUESTIONS SUBMITTED BY SENATOR CONRAD BURNS

500 MISSILES

*Question.* The QDR has changed the focus of our strategy toward these irregular threats. These are the same threats that caused us to re-think our Nuclear Posture in 2002. The Nuclear Posture Review was released in the wake of 9/11 when our forces were engaged on the ground in Afghanistan. The irregular threats that we face in the war on terror had become very real for the American people during the winter of 2001 and 2002; perhaps many have already forgotten how real those threats are. In the face of that changing reality the Nuclear Posture Review was a complete change in strategic doctrine. If I might add, the NPR was a policy document that was mandated by Congress. That policy document did two major things:

—It reduced the number of operationally deployed nuclear warheads from over 6,000 to around 2,000.

—It expanded the role of nuclear deterrent to consider it as an effective countermeasure against the possible use of Weapons of Mass Destruction by a rogue state.

—The Nuclear Posture review both expanded the role of nuclear deterrence, and decreased the number of warheads, setting the number of ICBMs around 500.

What has changed since January 2006, to necessitate a further reduction in our ICBM force? Am I correct in concluding that this is simply a budget decision that is driving strategy?

*Answer.* The Quadrennial Defense Review (QDR) allowed us to test our assumptions about the continuously changing nature of the world. The QDR reevaluated our strategic nuclear force posture and determined that with minimal and acceptable risk we can make further modest reductions and retire 50 Minuteman IIIs. This represents a 10 percent reduction in the size of the Minuteman III force as envisioned by the NPR from 2001. The ICBM reduction maintains an effective, balanced nuclear force for worldwide deterrence.

This reduction also provides us with additional test assets to ensure the viability of the system for years to come.

ICBM FORCE REDUCTION

*Question.* Nuclear weapons technology continues to proliferate. Right now we are seeing great advances in missile technology in Iran and North Korea, and we are seeing a concerted effort to acquire nuclear weapons from both of these states which are openly hostile to the civilized world.

Considering this proliferation, why would we consider reducing our ICBM fleet further when the NPR numbers were based on “having the smallest nuclear fleet possible?” In other words, the target set of nuclear capable, WMD capable, and rogue states seems to have remained constant, so why the change?

*Answer.* The Quadrennial Defense Review (QDR) allowed us to test our assumptions about the continuously changing nature of the world. The QDR reevaluated our strategic nuclear force posture and determined that with minimal and acceptable risk we can make further modest reductions and retire 50 Minuteman IIIs. This represents a 10 percent reduction in the size of the Minuteman III force as envisioned by the NPR from 2001. The ICBM reduction maintains an effective, balanced nuclear force for worldwide deterrence.

B-52 CUTS

*Question.* Another example of questionable budget driven decisions is your decision to cut the B-52 fleet in half (from 94 to 56). The B-52 has proven itself time and time again as a work horse and a force multiplier over the battlefield. With the addition of GPS guided bombs, the B-52s over Iraq have become the modern day “Iowa class battleship”. They were able to stay on station for five hours or longer, while tactical attack aircraft had less than an hour. They carried more than ten times the bomb load of fighters, and provided precision strike every bit as good.

If there is no new long-range strike capability on the drawing board until at least 2016, why would you cut the most versatile long-range bomber in the fleet without anything on the drawing board any time in the near future?

*Answer.* The proposed reduction in B-52 aircraft is from the Air Force program of record, 76 total aircraft, down to 56 total aircraft resulting in a 27 percent reduc-

tion. The 94 total aircraft in testimony includes the Congressionally-restricted 18 excess attrition reserve jets kept in the inventory since 1995.

The imperatives for transformation, recapitalization and modernization levy requirements on the Air Force in excess of available resources. The fiscal year 2007 President's budget request successfully balances the imperatives of transformation and recapitalization against the sustainment and modernization of the legacy Air Force fleet. A reduction in the number of B-52H aircraft is possible given the enhanced conventional capabilities across the Air Force since 2003. The B-1, B-2 and B-52 bombers all carry similar satellite-guided conventional weapons though each offers unique capabilities. The Air Force assessed the operational risk associated with the drawdown and concluded the proposed bomber force meets any Combatant Commander operational war plan or major contingency operation plan. The modernized bomber fleet will be more lethal, responsive and survivable as a result of planned investments in advanced weapons, increased accuracy, integrated data links, improved connectivity, improved threat awareness systems, low observability upgrades and improved electronic protection.

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QUESTIONS SUBMITTED BY SENATOR DIANNE FEINSTEIN

ROBUST NUCLEAR EARTH PENETRATOR

*Question.* What assurances can you give us that RNEP is dead? Are you aware of plans to re-start the RNEP program at a future date?

Many, including myself, who fought to eliminate funding for RNEP, urged the Administration to consider conventional bunker buster alternatives. The fiscal year 2006 Defense Appropriations Conference report provided \$4 million for such a purpose.

*Answer.* The Nuclear Weapons Council officially terminated the joint Air Force-National Nuclear Security Administration (AF-NNSA) Robust Nuclear Earth Penetrator (RNEP) Concept Feasibility Study on 25 January 2006. The Air Force terminated all RNEP-related activities at the start of fiscal year 2006. The Air Force has not requested any funding for RNEP in the fiscal year 2007 President's budget request and does not plan to ask for funding in the future.

SLED TEST STATUS

*Question.* What is the status of the sled test? I understand the sled test will take place at Holloman Air Force Base in New Mexico. True? What assurances can you give us that the test is not a back door to resume the Robust Nuclear Earth Penetrator study?

*Answer.* The Secretary of Defense has elected to have the Defense Threat Reduction Agency (DTRA) plan and conduct the penetrator sled test. Further, the \$4 million appropriated in fiscal year 2006 to the Air Force for the sled test has been transferred to DTRA for execution. The Air Force has not committed any additional funds other than those appropriated to the sled test. The Air Force is participating in the test planning process at DTRA's request, but has only a limited role. Questions concerning penetrator sled test specifics should respectfully be addressed to DTRA.

SLED TEST ASSISTANCE FROM SANDIA

*Question.* In response to December 21, 2005 letter to the Secretary of Energy Samuel Bodman expressing concern that the sled test would imply continued research on RNEP, Ambassador Linton Brooks of the National Nuclear Security Administration responded that no sled test would be conducted at Sandia or any other facility. However, he did say that "[i]f DOD chooses to conduct the test at a DOD facility, we believe it is fully consistent with the intent of Congress for Sandia to provide equipment and technical expertise in support of a DOD study of conventional earth penetrators."

Has the Air Force requested assistance and technical expertise from Sandia? What specifically has been requested? Could any of the assistance provided be useful for a nuclear bunker buster study?

*Answer.* The Air Force has not requested any assistance or technical expertise from the Department of Energy national laboratories. The Secretary of Defense has elected to have the Defense Threat Reduction Agency (DTRA) plan and conduct the penetrator sled test. The Air Force is participating in the test planning process at DTRA's request, but has only a limited role. Questions concerning penetrator sled test specifics should respectfully be addressed to DTRA.

## QUESTIONS SUBMITTED TO GENERAL T. MICHAEL MOSELEY

## QUESTIONS SUBMITTED BY SENATOR THAD COCHRAN

## PERSONNEL END STRENGTH REDUCTIONS

*Question.* General Moseley, in reviewing the Air Force transformation efforts, I noticed your proposal to reduce personnel end strength by approximately 40,000 over the next five years. General, what functions are we giving up with these reductions and are we balancing needed capabilities with this transformation?

*Answer.* The Air Force is committed to developing and caring for our Airmen in order to maintain their competitive advantage in both war and peace. We must balance the needs of our current force to fight today's wars with the need to prepare our future force to meet the challenges of the future. We must transform our Airmen as we transform our force structure, organizations, and processes. Through the savings generated by transformation, we will recapitalize our force to prepare for the future.

Although we are reducing in number our most valuable resource, we are carefully shaping the future force by identifying capabilities our force will need in addition to the training and professional development our Airmen will need to prevail in any environment. We have established Air Force Smart Operations 21, an organization dedicated to inculcating, organizing and training our Airmen to identify process efficiency improvements in accomplishing their mission. By achieving an operating style of continuous improvement in the Air Force—focused on our core mission—the Air Force will better prepare for and participate in the joint fight, develop, maintain and sustain the warfighter edge, prepare motivated and accountable warriors and improve our ability to meet the ever-changing demands of the world, our enemies and fiscal constraints. This approach has already yielded results across the Air Force and will continue well beyond the timeframe of the manpower reductions. Although we recognize that much efficiencies may not be realized for a few years, the value of installing this approach now will yield some early benefits and savings.

## JOINT CARGO AIRCRAFT AND MULTINATIONAL OPERATIONS

*Question.* General Moseley, I understand the Air Force and the Army recently completed the acquisition strategy for the new Joint Cargo Aircraft and a joint program office charter, with the Army as the lead agency. I commend the Air Force and Army for the cooperative spirit exemplified in the Joint Cargo Aircraft program. General, you have stated publicly that the Joint Cargo Aircraft would make it easier to operate with coalition partners during multinational operations. General, can you expound on the reasoning behind this statement and also provide this subcommittee with an update on the status of the program?

*Answer.* The Joint Cargo Aircraft (JCA) provides valuable niche capabilities to nations with advanced Air Forces, and lower cost airlift options for nations that cannot afford larger airlift platforms. In addition, future JCA security cooperation efforts would support the Quadrennial Defense Review objectives of building partnership capacity and enabling partners to do more for themselves. These airlift capabilities are essential across the range of combat, stability, and humanitarian operations.

The Acquisition Strategy Report has been signed by Under Secretary of Defense for Acquisition, Technology and Logistics and the Request for Proposal was released on March 17, 2006. We expect the source selection process to be completed and a contract to be awarded in January 2007. Additionally, we are drafting a Memorandum of Agreement between the Army and Air Force to clarify the roles and responsibilities on this joint program. We are also pressing forward on establishing a Joint Program Office (JPO). The JPO Charter providing guidance for the operation of the JPO should be completed in May and the JPO is still scheduled to standup on October 1, 2006.

## JOINT CARGO AIRCRAFT PROGRAM ALLIED PARTICIPATION

*Question.* General Moseley, will the Joint Cargo Aircraft program office explore having U.S. allies join the program in the developmental phase—as a number of allies have done with the Joint Strike Fighter program?

*Answer.* There are no plans to have our allies join the program at this time. The Joint Cargo Aircraft is being procured as a non-developmental item; therefore, the Army does not envision a developmental phase. The Air Force, however, may pursue a small developmental period to address any potential mission unique requirements after source selection.

## QUESTIONS SUBMITTED BY SENATOR CONRAD BURNS

## AIR FORCE PERSONNEL CUTS

*Question.* Another budget decision that doesn't make sense is your decision to cut as many as 57,000 Active, Guard and Reserve Airmen from the force. The Air Force posture statement is right on target when it states our Airmen are the Air Force's most valuable resource. These young men and women are all heroes. They are heroes because they have volunteered to serve in a time of war. They have come forward because they believe in what this country stands for, and we in the Senate will stop at nothing to ensure that their needs are taken care of.

Pushing these Airmen out of the Service on their return from combat deployments just isn't right. Sacrificing you people on the altar of future weapons systems is not the way we want our Nation's Armed Forces to be managed. This seems to be a budget driven decision that makes cuts based on "efficiencies" which have yet to be realized.

How has the Air Force already achieved the efficiency gains necessary to allow these cuts?

*Answer.* The Air Force is committed to developing and caring for our Airmen in order to maintain their competitive advantage in both war and peace. We must balance the needs of our current force to fight today's war with the need to prepare our future force to meet the challenges of the future. We must transform our Airmen as we transform our force structure, organizations, and processes. Through the savings generated by transformation, we will recapitalize our force to prepare for the future.

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## COMPETITOR STATES

*Question.* In your posture statement you refer to "competitor states, that are developing air and air defense systems that could threaten our ability to maintain Air and Space Dominance."

What "competitor states" are you talking about that are hostile to the foreign policy objectives of the United States?

As a follow-up: Are you telling us that the United States Air Force cannot hold its own with China? Or are you saying that we should be prepared to face a military threat from India? If so, why are we considering selling top of the line military hardware to India, and why are joining then in a landmark nuclear agreement?

*Answer.* Specifically, we were referring to China and Russia which are developing air and air defense systems that could threaten our ability to maintain Air and Space dominance, especially when exported to nations of concern. In addition, several nations build advanced subcomponents or upgrade older systems to modern standards, increasing the capability of so-called legacy weapon systems. Although several of these technological competitor states are not hostile to the foreign policy objectives of the United States, they often export to nations that can threaten American interests or are politically unstable.

We are not trying to imply that we are unable to hold our own against China or any other nation nor are we saying India represents a military threat. We used India as an example of a nation that is producing advanced fighters, adding to the already sizable fleet across the globe.

## AGING AIRCRAFT

*Question.* You've talked quite a lot about the age of your aircraft, and that the average age of your fleet is 23 years. I am concerned that in the drive to retire old aircraft we risk short changing our efforts to maintain those aircraft for the long term. Last June I sent a letter to your office in regard to this effort. I was given

a response last week. I have three questions that were not answered in a long delayed response letter.

Is the Air Force canceling and delaying Aging Aircraft Structures technology programs and if so, why, when the USAF is currently grounding aircraft due to excessive cracking and corrosion?

Answer. The Air Force is not canceling its aging aircraft structures technology efforts and is committed to ensuring the viability of aircraft weapon systems throughout their life cycles to encompass the full spectrum of aging aircraft issues including, but not limited to, aircraft structures, wiring, aerospace electronics, airborne subsystems, aircraft coatings, depot technologies, etc. The Air Force aircraft structural integrity program works to reduce the risk of structural failures, while individual inventory assessments by the Air Force Fleet Viability Board focus on identifying technical issues and the cost of continued ownership.

*Question.* Are other weapons systems and avionics upgrade programs continuing for aircraft which have had their aging aircraft structures programs cut? Why are we modernizing aircraft that are not being maintained?

Answer. While it was necessary for the Air Force to reduce core aging aircraft funding to support higher Air Force priorities, the shift in focus resulting from this action does put increased emphasis on avionics upgrades in an effort to best position our aging aircraft fleet to support current Air Force mission objectives. The Air Force strives to maximize military utility from our legacy systems, while working to better and more efficiently meet warfighter requirements through recapitalization and modernization. The Air Force remains committed to ensuring the viability of aircraft weapon systems throughout their life cycles and continues to invest the resources necessary to maintain these aircraft.

*Question.* With the clear recognition that corrosion related costs are continuing to escalate, why would the Air Force's aging aircraft office drop virtually all work in this area?

Answer. Aging aircraft funding augments ongoing corrosion efforts, but is not the primary source of funding for these efforts. While it was necessary to reduce core aging aircraft funding to support higher Air Force priorities, the Warner Robins Air Logistics Center continues to lead the way in corrosion-related efforts for the Air Force. Further, as the Air Force has shifted the focus of its aging aircraft program to those efforts that will best position its aging aircraft fleet to support current Air Force mission objectives, this is not at the expense of aircraft structures. The Air Force will continue to manage the structural viability of our fleet today and in the future to include corrosion-related efforts.

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QUESTIONS SUBMITTED BY SENATOR DIANNE FEINSTEIN

C-17 TRANSPORT—GENERAL ISSUES

*Question.* I understand that the C-17 is performing remarkable well in Iraq and Afghanistan as a medevac, personnel, and cargo transport.

Could you describe the current intra-theater utilization rate of the C-17 in support of contingency operations?

Answer. We currently have approximately 20 C-17s supporting U.S. Central Command's intra-theater airlift requirement. The intra-theater lift supports cargo and passenger movements within the U.S. Central Command's area of responsibility (AOR). Over the past three months, Mobility Air Forces (MAF) C-17s have flown an average of 2,385 hours per month in this role. The C-17 also continues to support U.S. Central Command's inter-theater airlift requirements as well, moving passengers and cargo between combatant commander AORs. An example of this mission is the deployment of an Army unit from Fort Bragg, NC, to an operating location in Iraq or Afghanistan. Additionally, MAF C-17s play a critical role in the airlift, both intra- and inter-theater, of our wounded service men and women from Central Command's AOR to the United States. The most recent 3-month average for C-17 flying hours in this role is 1,712 hours. All in all, the C-17s have proven to be an absolutely critical warfighting resource servicing both inter- and intra-theater airlift requirements. As the land forces Concept of Operations continue to evolve, we believe the intra-theater airlift role of the C-17 will only continue to grow.

*Question.* Assuming these rates remain generally consistent over the next several years, what affect do you believe attrition could have on the Air Force's projected strategic airlift requirements?

Answer. The C-17 has been accumulating flying hours beyond service life projections during the Global War on Terrorism; in other words, we have been "over-consuming" our C-17 fleet. If these rates continue, C-17s will reach the end of their

service life more quickly, necessitating the need to recapitalize sooner. Any reduction, either by use in secondary role or non-availability due to over-consumption, results in increased risk as outlined in the Mobility Capabilities Study.

#### C-17 TRANSPORT AND STRATEGIC AIRLIFT REQUIREMENTS

*Question.* Up until November 2005, the Air Force had consistently stated its requirement for a total of 222 C-17s, but following a budget rescission directive from the Secretary, announced that it would end its procurement of C-17s after purchasing just 180, and terminate the line after 2008.

To support the change in its position from a requirement of 222 C-17s to 180 C-17s, the Air Force cited an internal Mobility Capabilities Study (MCS) that concurred with the view that 180 C-17s could meet the Air Force's airlift requirements.

However, this pre-9/11 commissioned MSC analysis failed to consider the increased use of the C-17, particularly intra-theater needs in Iraq and Afghanistan. The study also did not take into account the shifting of a number of heavy brigade combat teams back to the United States from overseas stations, along with the Army's requirements for additional aircraft as it transitions to a modular, rapid deploying force.

Could you explain to the Committee why, over a matter of just a few months, your airlift requirement changed so dramatically?

*Answer.* The MCS study began in the Spring of 2004 and completed its analysis in the Summer of 2005 with formal release of the study results by the Deputy Defense Secretary in December 2005. The MCS found that the current inter-theater airlift program—180 C-17s and 112 modernized C-5s—would support DOD warfighting demands with acceptable risk. The Quadrennial Defense Review echoed and supported those findings. “The analysis conducted within the MCS analysis was based on current, approved Defense Planning Scenarios and recent (post 9/11) operational experience.” (MCS Executive Summary)

The MCS study solicited inputs from the Services describing their projected force structure and Concepts of Operation for the 2012 timeframe modeled in the study. The MCS assumptions included the most current version (July 2004) of the Integrated Global Presence and Basing Strategy position.

The Air Force program of record reflected in the fiscal year 2007 President's budget request is 180 C-17s. Although advocates have pressed for 222 C-17s, the Air Force has never requested greater than 180 C-17s in budget submissions. We are, however, reviewing the impact of increased C-17 utilization to support the Global War on Terrorism. The C-17 has been increasingly used in the intra-theater role in Southwest Asia to backfill demobilizing ARC (Air Reserve Component) C-130s. This has increased the wear and tear on the C-17 fleet due to increased operations in an austere tactical environment and a higher than planned use rate. Because of this, the Air Force's number one unfunded priority list item is National Defense Airlift Fund Capability Upgrades to reset forces due to combat losses and increased utilization. This item includes a request for 7 additional C-17s to maintain capacity as C-17s are used up in the Global War on Terrorism. Additionally, the impact of the recent C-5 mishap is being reviewed, although no determination has been made yet on how to replace the lost capacity.

*Question.* As you know, General Handy—the U.S. TRANSCOM Combatant Commander until mid-2005—repeatedly and publicly stated that a minimum of 42 additional C-17s were necessary to meet the Air Force's mobility needs.

Outside of the findings of the Mobility Capabilities Study (MCS)—a study that many believe fails to consider a number of critical factors related to airlift requirements post-9/11—what evidence do you have that 180 C-17s will be sufficient to meet our military's future airlift requirements?

*Answer.* The MCS study released in December 2005 by the Deputy Secretary of Defense is the most authoritative and current document describing our mobility capabilities. The MCS looked at the full range of the Defense Strategy to determine the demands placed on the defense mobility system to include the strategic airlift fleet. The study analyzed the 2012 force structures and Concepts of Operation provided by each of the Services and completed a detailed look at future mobility requirements.

The MCS concluded that the programmed fleet of 292 strategic airlift aircraft (180 C-17s and 112 modernized C-5s) provided a capability sufficient to meet the warfighting demands of the defense strategy with acceptable risk. While recognizing the programmed fleet as sufficient, it caveated this finding by identifying the need for continued investment in the mobility system, in line with current priorities, in order to maintain that sufficiency.

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*Question.* Based on what you know today—considering the changes over the past few years in operational requirements and airlift missions—are you able to confidently tell the Committee that the Mobility Capabilities Study (MCS) projections will adequately meet our military's airlift requirements for the so-called “long war.”

*Answer.* The MCS looked at the full range of the Defense Strategy to determine the demands placed on the entire defense mobility system to include our airlift fleet. The study analyzed the 2012 force structures and Concepts of Operation provided by each of the Services. This methodology provided an analysis of capabilities required out to 2012 using the approved Defense Planning Scenarios for that time-frame.

The study was completed with the participation of all of the Services, the Joint Chiefs of Staff, and the Office of the Secretary of Defense and provides the most complete assessment of future mobility requirements currently available to Department of Defense decision makers.

The MCS concluded that the programmed fleet of 292 strategic airlift aircraft (180 C-17s and 112 modernized C-5s) provided a capability sufficient to meet the warfighting demands of the defense strategy with acceptable risk. The study considered the impact of current operations and a protracted Global War on Terrorism campaign along with other issues affecting demands on the mobility system in determining its findings. While recognizing the programmed fleet as sufficient, it caveated this finding by identifying the need for continued investment in the mobility system, in line with current priorities, in order to maintain that sufficiency.

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*Question.* The Mobility Capabilities Study (MCS) validated a program of record to procure 180 C-17s. However, the MCS assumed that 112 of the older C-5 transports would remain in the fleet, due to Congressional restrictions barring the retirement of those aircraft.

If Congress eased the retirement restrictions placed on the 112 C-5s, how might you manage the strategic airlift fleet differently?

*Answer.* The Department of Defense (DOD) is committed through the Quadrennial Defense Review (QDR) to modernize the C-5 fleet and complete the C-17 multiyear contract. The QDR, informed by the MCS, confirmed the current inter-theater airlift program—180 C-17s and 112 modernized C-5s—will support DOD warfighting demands with acceptable risk. A fleet of 180 C-17s and 112 modernized C-5s provides lowest life cycle cost (LCC) through 2025 to maintain same total airlift capacity. For example, there is a \$28 billion LCC increase if the C-5As are retired and the capacity replaced with C-17s. C-5 modernization is also more cost effective than purchasing additional C-17s to achieve same capability—and it pays for itself by 2029. Even with the recent C-5 flight mishap, a modernized C-5 fleet of 111 aircraft enables the Air Force to leverage the full range of both inter-theater airlifters to support the Combatant Commanders.

*Question.* Additionally, to what extent are you concerned about the estimated two-year gap between the proposed termination of the C-17 line, and the completion of the C-5 modernization program?

*Answer.* The C-5 Reliability Enhancement and Re-Engining Program, whose reliability improvements are predominately based on a commercial engine (CF6) with a well-established track record, is considered to be a low technical risk program. We have relatively high confidence that it will meet our expectations for overall reliability improvements.

*Question.* What if the C-5 modernization program is unsuccessful and you've already proceeded with closing the C-17 line? What would the Air Force do at that point?

*Answer.* Based on low technical risk associated with the C-5 Reliability Enhancement and Re-Engining Program, we expect the modernization program to succeed.

*Question.* Doesn't it make the most sense to preserve the C-17 line until you can unequivocally confirm that upgrading the C-5 is a viable option?

*Answer.* Keeping the C-17 line open until C-5 modernization improvements are unequivocally confirmed would be an expensive option. Given the low technical risk associated with C-5 Reliability Enhancement and Re-Engining Program, the Air Force is applying our limited resources to higher priority recapitalization efforts, including replacing an aging tanker fleet.

#### C-17 TRANSPORT AND ARMY MOBILITY

*Question.* Reports suggest that the Mobility Capabilities Study (MCS)—which was supposed to provide the Pentagon an accurate projection of future strategic airlift requirements—neither takes into account (1) the Army's transition to a modular brigade force structure nor (2) the Future Combat Systems (FCS) program.

Consequently it is my understanding that the Pentagon has commissioned a new study (MCS-06) to address these and other areas that the previous MCS study failed to consider in regard to the military's future air mobility needs.

With this being the case, has the Army ever articulated to you or provided some estimate of the airlift requirements that will be connected to the mobilization of the 15 FCS brigade combat teams?

*Answer.* The U.S. Army will be able to provide the Air Force a realistic projection of its future airlift requirements when the Future Combat System program is more mature. Both the Air Force and the Army are engaged in a series of functional analysis studies that may help provide additional insight into the airlift requirements of the Army's brigade-centric force.

*Question.* If not, when do you anticipate that the Army will be able to provide the Air Force a Realistic projection of its airlift requirements based on its transition from a division-centric to brigade-centric force?

*Answer.* The U.S. Army will be able to provide the Air Force a realistic projection of its future airlift requirements when the Future Combat System program is more mature. Both the Air Force and the Army are engaged in a series of functional analysis studies that may help provide additional insight into the airlift requirements of the Army's brigade-centric force.

*Question.* To the best of your knowledge, do you believe that the Army's transformation efforts centered around the Future Combat System brigade combat teams will increase the need for flexible and versatile cargo aircraft like the C-17, which according to the Army's own projections, has the capacity to transport 3 of its next-generation tactical ground vehicles?

*Answer.* There will be an increased requirement for more flexible and versatile cargo aircraft if the U.S. Army transformation employs the Future Combat Systems (FCS) Brigade Combat Teams using their "vertical maneuver" concept. The Army concept of "vertical maneuver" is essentially the operational and tactical movement of multiple FCS manned ground vehicle units by air to unimproved locations where they can immediately fight. A possible solution would be use of C-17s or the Advanced Mobility Capability Concept.

#### SUBCOMMITTEE RECESS

Senator STEVENS. And then, our next hearing will be a closed session, in our closed session room, S-407, to discuss the budget request for intelligence, on April 5.

And the subcommittee will stand recessed until that time. Thank you very much.

[Whereupon, at 11:32 a.m., Wednesday, April 29, the subcommittee was recessed, to reconvene subject to the call of the Chair.]