S. HRG. 110–201, PT. 2

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2008

HEARING

BEFORE THE

COMMITTEE ON ARMED SERVICES
UNITED STATES SENATE

ONE HUNDRED TENTH CONGRESS

FIRST SESSION

ON

S. 1547

TO AUTHORIZE APPROPRIATIONS FOR FISCAL YEAR 2008 FOR MILITARY ACTIVITIES OF THE DEPARTMENT OF DEFENSE, FOR MILITARY CONSTRUCTION, AND FOR DEFENSE ACTIVITIES OF THE DEPARTMENT OF ENERGY, TO PRESCRIBE PERSONNEL STRENGTHS FOR SUCH FISCAL YEAR FOR THE ARMED FORCES, AND FOR OTHER PURPOSES

PART 2
SEAPOWER

MAY 3, 2007

Printed for the use of the Committee on Armed Services

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DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2008

THURSDAY, MAY 3, 2007

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

NAVY FORCE STRUCTURE REQUIREMENTS AND PROGRAMS

The subcommittee met, pursuant to notice, at 3:35 p.m. in room SR–222, Russell Senate Office Building, Senator Joseph I. Lieberman (acting chairman of the subcommittee) presiding.

Committee members present: Senators Lieberman, Reed, Webb, Collins, and Thune.

Committee staff members present: Leah C. Brewer, nominations and hearings clerk; and John H. Quirk V, security clerk.

Majority staff members present: Creighton Greene, professional staff member; and William K. Sutey, professional staff member.

Minority staff members present: Michael V. Kostiw, Republican staff director; Gregory T. Kiley, professional staff member; and Sean G. Stackley, professional staff member.

Staff assistants present: Fletcher L. Cork and Micah H. Harris.

Committee members' assistants present: Frederick M. Downey and Colleen J. Shogan, assistants to Senator Lieberman; Jonathan Cooper, assistant to Senator Bill Nelson; Gordon I. Peterson, assistant to Senator Webb; Sandra Luff, assistant to Senator Warner; Jeremy Shull, assistant to Senator Inhofe; Jane Alonso, Patrick M. Hughes, and Mark J. Winter, assistants to Senator Collins; and Stuart C. Mallory, assistant to Senator Thune.

OPENING STATEMENT OF SENATOR JOSEPH I. LIEBERMAN

Senator LIEBERMAN. The hearing will come to order. I thank everybody for coming in. I thank our friends from the public and the media for their patience. We had reason to go into closed session for the first part. Of course, I thank Secretary Winter and Admiral Mullen for being here. We are grateful to you for your service to our country and to the extraordinarily skillful, professional, and courageous men and women under your command. I hope whenever you have the opportunity you will convey our gratitude and our pride to them.

I should announce in public session what I did in closed session. Apparently nobody was confused, but I am not Senator Kennedy, who usually chairs this subcommittee. Senator Kennedy is on the floor managing the legislation there and could not break for the hearing. He asked me, since I am next in seniority, to chair, and I am honored to do that.

Secretary Winter and Admiral Mullen, you are faced with a number of critical issues that confront the Department of the Navy as you attempt to balance modernization needs, based on threat assessments for the future, against the costs of supporting ongoing operations, particularly in Iraq and Afghanistan. There are several areas of concern for the subcommittee today and for me personally that I would like to mention. I know Senator Kennedy shares these concerns.

One is the prospects for meeting future force structure requirements. We are facing the prospect that the current Department of Navy program will lead to potentially large gaps between the forces that the Chief of Naval Operations (CNO) has said he needs and the forces that will be available to him and his successors. This is a matter of budget restraints and it is important for the public to understand that, though the absolute dollar number we are spending on defense now and will next year is large by any estimate, it still remains lower as a percentage of Gross Domestic Product than we have ever to my knowledge spent during wartime, which is what we are in.

It is forcing the various Services, in this case the Navy, to make decisions that I am concerned about. I mention first one case. The Navy now predicts that Navy and Marine Corps tactical aircraft forces are facing a shortfall of as many as 150 tactical fighters needed to outfit our 10 aircraft carrier air wings. With shortfalls that large, I worry, and I am sure you do, that we could be faced with reducing the number of aircraft available on short notice to the combatant commanders, either because we have deployed under-strength air wings or because we did not deploy the carrier at all because of the aircraft shortages. That is something none of us want.

In another case, the CNO has said that the Navy needs to have 48 attack submarines to meet the requirements of the combatant commanders. But we are faced with the risk now of falling well short of that goal, down to 40, for more than 10 years, starting some time during the next decade, that as other potential peer competitors continue to build submarines at a rapid rate.

Other challenges facing the Navy center on acquisition programs. I know that the members of this subcommittee have special concerns about the Littoral Combat Ship (LCS) program. This was intended to be a ship that the Navy could acquire relatively inexpensively and relatively quickly. As it turns out, unfortunately, it looks like the LCS program may in fact be neither. Once again we are presented with a program with significant cost growth, which at least in part is driven by the service changing requirements after the design and construction contract was signed.

The LCS situation raises significant questions about acquisition management within the Navy. This is not dissimilar from exactly the same questions raised about the other Services. So we want to

ask today in regard to the LCS program, why were not the Navy and contractor teams better able to see the problem sooner? How could we have gotten to the point that the program was just months away from running out of money, with no alarms being sounded up the acquisition chain of command?

I want to ask Secretary Winter about what actions he believes the Department of the Navy should take to strengthen acquisition oversight and restore confidence in the Navy's ability to manage these major acquisition programs.

The subject of Navy force structure and acquisition, therefore, is of concern to us, but not a new one for the subcommittee. Over many years and with several different individuals holding the chairmanship of this subcommittee, we have devoted significant attention and concern to these subjects, as we do today. Today's hearing, I think, continues the strong bipartisan interest in the broader naval force structure issues facing the Nation today. It is in that bipartisan spirit of shared interest and respect that I am glad to call on the ranking member of the Seapower Subcommittee, Senator Thune, new to this lofty position, I might say, and on Senator Kennedy's behalf to welcome him as ranking member and ask him if he would like to make an opening statement now.

STATEMENT OF SENATOR JOHN THUNE

Senator THUNE. Thank you, Mr. Chairman. It is a pleasure to be joining the Seapower Subcommittee. I look forward to working closely with you and our other colleagues on the committee on naval and other matters that come before us and to improving and building upon the naval assets that we have in the State of South Dakota.

I am also pleased to welcome Secretary Winter for our second panel. Admiral Mullen, I appreciate very much your testimony from earlier this afternoon. You have done an excellent job of articulating some of your challenges and of providing critical insights for this next discussion.

The committee, of course, has placed priority on meeting the demands of current operations in Iraq and Afghanistan, and the Navy has contributed in important ways to those operations. However, we must also maintain sight of the broader role of the fleet, half of which may be underway on any given day to perform vigilance, peacekeeping, and humanitarian relief around the world, and to provide a level of security made possible only through global presence and naval superiority.

This is an important backdrop for today's hearing, which is truly focused on the Navy's readiness, and by that, in many respects, I mean the Nation's readiness for future major conflict. A previous CNO, Admiral King, summed up the challenges of maintaining readiness in a memo to President Roosevelt, in which he stated: "The fundamental United States policy is to maintain the Navy in strength and readiness to uphold national policies and interests and to guard the United States and its overseas possessions."

In time of peace, when the threats to our national security change with the strength and attitude of other nations in the world, it is frequently difficult to translate our requirements into terms of ships and planes and trained men. It is one thing to say

that we must have and maintain a Navy adequate to uphold national policies and interests and to protect us against potential enemies, but it is another thing to decide what is and what is not the naval strength adequate for that purpose."

Clearly, much has changed in the world since Admiral King made these remarks some 60 years ago, but I think his insights capture the challenges that confront us today. While it is appropriate that we spend great efforts focusing on the details of how we buy the ships and aircraft for our fleet—and, Mr. Secretary, we look forward to your testimony in that area—I believe we all would agree that perhaps the greatest challenge before us, as Admiral King suggested, is to decide what is and what is not the naval strength in terms of ships and planes adequate to uphold our national policies and interests and to protect us against potential enemies.

While we enjoy the superiority of today's fleet, I share the strong concerns raised by this committee these past several years regarding the steady decline in the size of our fleet. Admiral Mullen, you deserve great credit for committing to a plan to reverse that trend. Your shipbuilding program appears to balance the competing elements of capability and affordability.

However, even this ambitious plan to build our Navy back to 313 ships has to cope with shortfalls in key warfighting areas while also confronting significant cost risk. It would be extremely valuable today to gain your assessment of these challenges and to approach a common understanding of the prudent actions that would help mitigate the risks.

It is also important to gain your assessment of progress on new ship programs. Clearly, Mr. Secretary, we look to learn from your recent experience with the Littoral Combat Ship and are interested in hearing of changes that you would propose to ensure other programs benefit by this experience. We need greater clarity on your plans to employ competition and balance industrial base factors for the Littoral Combat Ship and other major shipbuilding programs, including the guided missile (DDG)–1000 Destroyer.

As well, we need to explore important opportunities to close capability gaps as we approach the next *Virginia* submarine multiyear procurement and as we consider alternatives for supporting Marine Corps amphibious lift requirements.

Finally, the Navy's estimate for this shipbuilding program represents a 50-percent increase above investments of the past decade. I appreciate that you have met your commitment for 2008 and would be interested in hearing your practical assessment of the Navy's ability to continue to finance the plan in the face of ever-increasing budget pressures.

Thank you, gentlemen, for joining us. So, Mr. Chairman, again thank you for holding the hearing today. I look forward to the testimony from Mr. Secretary.

Senator LIEBERMAN. Thanks, Senator Thune.

Secretary Winter, thank you for being here. We welcome your testimony now.

STATEMENT OF HON. DONALD C. WINTER, SECRETARY OF THE NAVY

Secretary WINTER. Thank you very much, Senator Lieberman, Senator Thune, distinguished members of the subcommittee. Thank you for the opportunity to appear here this afternoon. I respectfully submit my statement for the record and I applaud Congress and this committee in particular for its increasing interest in shipbuilding. This is an area that needs attention from all sides and it is an area in which I have focused most of my time in working to improve our efforts. I have taken action to hold both contractors and the Navy responsible and accountable for our shipbuilding program.

At the same time, I am working hard to establish an attractive business environment for building naval ships. The Department of the Navy recognizes that we will fail to achieve our shipbuilding and thus force structure goals if we do not correct the number of serious deficiencies in our acquisition programs and processes. I am reviewing the Department's major shipbuilding programs and I am working to improve our overall processes.

I can assure you that I share your frustration and disquiet over the problems that we have encountered in many of our programs. I can also assure you that your Navy is leaning forward and beginning to build the ships and submarines that our country needs for the future.

Over the past years, we have executed a major shipbuilding research and development program that has set the stage for a major force transformation in the Navy's structure. We are in the early stages of development and production of more classes of new ships than we have produced in recent times. This will result in the transformation of the fleet and will position it to deal with a very uncertain future.

But, as you have seen, such a grand transformation will not be without problems. You have my promise and commitment to oversee the management of these programs and I request your continued support in helping me to get our Navy shipbuilding program in position to deliver on our requirements. Putting our shipbuilding programs on a more solid footing is an urgent priority. With your help, we can succeed in building the fleet we need in our Nation's defense.

Thank you very much and I look forward to answering your questions.

[The prepared statement of Secretary Winter follows:]

PREPARED STATEMENT BY HON. DONALD C. WINTER

Thank you for inviting me to appear before the Senate Armed Services Committee, Subcommittee on Seapower. The support that this committee provides to the Navy and Marine Corps is greatly appreciated.

A strong Navy is key to maritime dominance and is a critical aspect of our National Defense Strategy. We need a force structure of 313 ships. The process of acquiring new ships is challenging and the budget is tightly wound. Many of our past problems have resulted from constantly changing requirements and shipbuilding plans. If the Department of the Navy is to succeed in acquiring and maintaining the required numbers of ships, we need a plan, we need to stick to it, and we need to closely manage the execution of the plan. The 313-ship plan that was promulgated over the past 2 years is our goal. The force produced by this plan will satisfy our requirements for blue, green, and brown water capabilities.

The biggest challenge we face is acquisition of new ships. We cannot build the quantities or qualities of ships that are required unless we correct several shortfalls.

I have initiated a review of our major shipbuilding programs while simultaneously working to institutionalize key acquisition reform initiatives. The recent challenges associated with the Littoral Combat Ship (LCS) and other shipbuilding programs point to a number of issues that we are addressing. In the long-term, I am initiating the following actions:

- Re-assert Navy control over the entire shipbuilding acquisition process. Control over acquisitions also means decoupling decision points.
- Establish the Navy as the lead systems integrator to optimize the overall capability of the fleet.
- Use the shipbuilding contract process to incentivize contractors to design for production and sustainment.
- Use independent cost estimates for the trade-offs and decisions thus increasing reliability of the cost estimation process.
- Assure that detail design and construction contracts are supported by mature specifications.
- Develop an acquisition workforce capable of providing knowledgeable program oversight.

I am working to develop solutions that are in the best overall interest of the taxpayer, the Navy, and the industry that supports shipbuilding.

In reviewing specific programs, my focus thus far has been on LCS, LPD–17, T–AKE, and *Virginia* class submarines. In past discussions, I have noted our efforts to bring the production cost of *Virginia* class submarines down to $2 billion in fiscal year 2005 dollars. We are making considerable progress in this area and must achieve that goal by 2012, when we shift to two units per year.

The early experience with the LCS has been disappointing and must be corrected to assure that we construct these vitally needed ships in a timely and cost effective manner. I am restructuring the program to address cost and programmatic issues. This restructuring will result in the cancellation of one of the fiscal year 2006 ships and will require the funding allocated for the fiscal year 2007 ships to be used to offset cost and schedule issues associated with the fiscal year 2005 and other two fiscal year 2006 ships. I am redoubling efforts to manage for the success of the lead ship efforts. My proposal is to reduce buys for fiscal year 2008 and fiscal year 2009 from what was previously planned and position the program to down-select to a single design in fiscal year 2010. It is critical that the Department of the Navy take this action early to assure this vital program is technically sound and affordable.

With respect to DDG–1000, CVN–78, MPF(F), and LHA(R), I plan to conduct detailed reviews of each of these programs to address potential issues early in these programs. Each of these programs must be properly initiated and closely monitored to assure success.

To make our shipbuilding plan work, there are several areas where I need your help. I will need your support for the LCS restructuring plan I have noted previously. I will need your patience as we transform mine warfare shipboard capabilities to a LCS-centric structure. It is imperative that we move to this more capable force and retire less capable assets. A second area where we require your support is in modifying language regarding the number of aircraft carriers required. As we have noted, there will be a short period of time between the period when U.S.S. *Enterprise* (CVN–65) is retired and the *Gerald Ford* enters service when it will be necessary to reduce our carrier force from eleven to ten units. We will be able to meet operational requirements during this period with limited risk by carefully scheduling maintenance activities. A third challenge we are working through is getting amphibious lift right.

I applaud Congress and this committee in particular for its increasing interest in shipbuilding. I acknowledge the desire of many Members to increase force structure at a faster rate than the Department of the Navy can afford to execute. My biggest concerns regarding changes to our annual shipbuilding plan relate to the budget and to the shipbuilding industrial base. Any additions to the shipbuilding budget that have unfunded out year liabilities will disrupt our delicate plan to achieve the desired long-term force structure. With respect to the shipbuilding industrial base, Hurricane Katrina has complicated the ability of the industrial base to surge, thus reducing flexibility to execute increased procurement rates. I am exploring opportunities to work with our industrial partners to restore our shipbuilding industrial base flexibility.

In summary, your Navy is leaning forward and building the ships and submarines our country needs for the future. Over the past years we have executed a major shipbuilding research and development program that has set the stage for a major

transformation in the Navy's force structure. We are in the early stages of development and production of more classes of new ships than we have produced in recent times. This will result in a transformation of the fleet and position it to deal with a very uncertain future. But, as you have seen, such a grand transformation will not be without problems. You have my promise to actively manage these programs and I request your support in helping me to get our Navy's shipbuilding program in position to deliver the fleet it needs.

Senator LIEBERMAN. Thank you, Secretary Winter.

Admiral Mullen, do you have an opening statement for this open session?

STATEMENT OF ADM MICHAEL G. MULLEN, USN, CHIEF OF NAVAL OPERATIONS

Admiral MULLEN. No, sir.

[The prepared statement of Admiral Mullen follows:]

PREPARED STATEMENT BY ADM MICHAEL G. MULLEN, USN

Chairman Kennedy, Senator Thune, and distinguished members of the Seapower Subcommittee, it is a privilege to appear before you representing the brave men and women, sailors and civilians of the United States Navy. We appreciate the long standing support we have received from your subcommittee.

INTRODUCTION

We are a maritime nation involved in a long, irregular and global war that extends far beyond Iraq and Afghanistan. The threat we face breeds within failing states and the undergoverned spaces of the world and preys upon those weakened by poverty, disease, and hatred. It thrives where there is no rule of law and spreads through cyberspace and the vast maritime commons in this age of globalization.

We are also confronted by nation-states determined to develop sophisticated weapons systems, including nuclear arms. We cannot allow ourselves to be fixated on one threat alone. Our national security is dependent upon a strong Navy that can keep the sea lanes free, deter aggression, safeguard our sources of energy, protect the interests of our citizens at home and reassure our friends abroad. We must never relinquish overmatching capability and capacity.

While our ground forces are engaged in Iraq and Afghanistan, Navy's ability to deliver two unique attributes—global reach and persistent presence—continues to support our worldwide responsibilities and provide a powerful deterrent force in day-to-day operations and as our Nation's "Strategic Reserve." As we face the rapidly changing security environment, there is no alternative to a well-balanced fleet.

As I testified before Congress last year and earlier this year, I identified three priorities addressed by our fiscal year 2007 budget: Sustain Combat Readiness, Build a Fleet for the Future, and Develop 21st Century Leaders. We have made progress in all three and our fiscal year 2008 budget reaffirms our commitment to these priorities. In today's testimony, I will focus on building a fleet for the future, placing particular emphasis on strengthening our core warfighting capabilities and increasing our military capacity.

FORCE STRUCTURE

In 2005, the Navy conducted extensive analysis to determine the minimum required force structure needed to meet the security demands of the 21st century with an acceptable level of risk. In February 2006, Navy submitted a 30-year shipbuilding plan that would provide approximately 313 ships by 2020 with warfighting capacity and capability to meet the expected threat and security demands. Our recently submitted fiscal year 2008 Annual Long Range Plan for Construction of Naval Vessels (30-year shipbuilding plan), essentially unchanged from our 2007 submission, is intended to provide the shipbuilding industry with sufficient predictability to maintain critical skills and to make business decisions that increase efficiency and productivity in order to meet the Navy's projected shipbuilding requirements.

Navy's force structure requirement was developed and validated through detailed joint campaign and mission level analysis, optimized through innovative sourcing initiatives (e.g. Fleet Response Plan (FRP)), adaptive force packaging) that increase platform operational availability. Importantly, the future battle force was measured against the anticipated threats for the 2020 timeframe.

The future Navy will remain sea based, with global speed and persistent presence provided by forward deployed and surge-ready forces through the FRP. To maximize return on investment, the Navy must be balanced to fight an asymmetric war against the evil of terrorism, to help secure the maritime commons through strong partnerships and Maritime Security Operations, to deter would-be aggressors and, when necessary, to fight and win Major Combat Operations (MCO). This capabilities-based battle force can be disaggregated and distributed worldwide to support the operational demands of our combatant commanders.

Our force structure strategy is balanced between new construction and modernization for ships, and recapitalization and sustainment for aircraft. It is critical to our strategy for us to have vigorous modernization and sustainment programs to achieve the expected service life of our ships and aircraft in the face of rapidly escalating global threats using advanced technologies. Modernization and sustainment optimizes our capital investments.

With 38 ships currently under contract for construction, we can see the future fleet taking shape. In 2006, we christened the first *Freedom* Class littoral combat ship, amphibious assault ship *Makin Island,* amphibious transport dock ship *Green Bay,* guided-missile destroyers *Gridley* and *Sampson,* nuclear attack submarine (SSN) *Hawaii,* auxiliary dry cargo ships *Alan Shepard* and *Sacagawea,* and the aircraft carrier *George H.W. Bush.* We commissioned the SSN *Texas* and the guided-missile destroyer *Farragut.* We also rolled out the first EA–18G *Growler.* By the end of fiscal year 2007, our fleet's net size will have grown from a low of 274 ships in March 2007 to 279, including 5 newly commissioned ships.

Navy is in the process of evaluating the impact global developments have had on our risk assumptions in our force plan and ultimately whether or not this should affect our future Battle Force. We are further evaluating lessons learned from the recently identified Littoral Combat Ship (LCS) cost overruns. Whatever the outcome of these evaluations, we will work closely with our partners in industry to control requirements and costs, and provide the industrial base the stability it needs to become more productive.

Future platforms and combat systems must be designed and built with the knowledge that we plan to continually upgrade them over their lifetime. An Open Architecture approach to software acquisition and development of integrated weapons systems is a critical part of this business model. Free and open competition in which the best ideas win is the goal.

To facilitate the stability required to achieve reduced costs in this constrained industrial sector, the fiscal year 2008 President's budget submission made no changes in ship acquisitions in fiscal year 2008 from PB07 to PB08. Navy has a long-range vision to maximize reuse of ship designs and components, and to employ a business model that encourages the use of open architecture and mission systems modularity.

The next major challenge in building a fleet for the future is to deliver a long range aviation procurement plan. Much work has been done analyzing joint warfighting capabilities and capacity based on threat and risk assessments driven by Defense Planning Guidance. Consideration has also been given to affordability, industrial capacity and production times associated with next generation aviation warfare. The Navy will work to deliver a stable aviation build plan that transforms and balances aviation capabilities with respect to conventional and irregular warfare, reduces excess capacity, and achieves technological superiority through cost-wise investments in recapitalization, sustainment and modernization programs.

Resourcing critical maritime and joint effects, the President's budget procures 188 aircraft in fiscal year 2008, with a goal of eventually reducing average aircraft age from 74 percent to 50 percent of expected service life. The plan is structured to support required economic order quantity (EOQ) investments and facilitate Multi-Year Procurement (MYP) contracts.

BUILD A FLEET FOR THE FUTURE

As we adapt to asymmetric threats and the challenges of irregular warfare, we cannot lose sight of Navy's core warfighting competencies. We must continue to improve performance in anti-submarine and mine warfare, anti-surface warfare, anti-air warfare, strike warfare, ballistic missile defense, and other core maritime superiority missions. We will continue to mature our FRP to ensure combat ready, surge-capable forces are available to meet any contingency.

We have worked hard with Congress and industry to start to create stability between our shipbuilding plans and industrial base. We must continue to fund and build a balanced, effective Battle Force of about 313 ships . . . the minimum force required to guarantee the long-term strength and viability of U.S. naval sea and air power with acceptable risk. We recognize the need to control requirements, main-

tain program stability, curb costs, and encourage best business practices. We need support for sustained funding of our shipbuilding account—consistent with the 30-year plan—that is critical to provide our partners in industry the stability they need to curb cost growth and sustain our vital shipbuilding industrial base.

To build a fleet for the future and ensure the superiority of our future fleet, we seek congressional support in the following areas:

- 11 Carrier Force. The 30-year shipbuilding plan recognizes that as a result of the retirement of U.S.S. *Enterprise* in fiscal year 2013, the number of aircraft carriers will drop to 10 for a period of approximately 33 months, until the U.S.S. *Gerald Ford* enters active service. Legislative relief is required from the National Defense Authorization Act for Fiscal Year 2007 requiring a carrier force of 11. In developing the 30-year shipbuilding plan, Navy conducted extensive analysis that concluded the temporary drop to a carrier force of 10 for 33 months, from fiscal year 2013 through fiscal year 2015, is an acceptable short-term risk.
- Littoral Combat Ship. The LCS program remains of critical importance to our Navy providing mine warfare, anti-submarine and anti-surface warfare capabilities. Extensive force structure analysis, as reflected in the 30-year shipbuilding plan, establishes a requirement for 55 LCS. Navy is committed to satisfying this valid requirement.

  Current cost estimates exceed established thresholds for detail design and construction of LCS–1, the lead Lockheed Martin hull. This recent cost growth (to some extent the result of unrealistic schedule and cost constraints, unstable specifications at time of contract award, design-build concurrency, subcontractor performance delays impacting critical path, rework due to design changes, and Engineering Change Proposal scope increases) has provided an opportunity to reinforce the Navy's commitment to providing warfighting capability through affordability. The Navy executed a pause in the construction of LCS–3, the second Lockheed Martin hull, to conduct a thorough review of the program, and to examine both internal and external factors relating to the acquisition and contracting processes, practices, and oversight and the related impact on cost. Negotiations failed to achieve a proper balancing of risk at an executable price for the Navy, which has led to the termination of construction of LCS Hull #3.

  On 12 April 2007, Navy terminated the contract with Lockheed Martin for construction of LCS Hull #3 since the cost-to-risk balance was considered unaffordable. The Navy remains committed to bringing LCS capability into the fleet to address emerging Long War and MCO capability requirements. Our LCS acquisition strategy is executable, affordable, and in the best interests of the Navy.
- *Virginia* Class MYP. The Navy remains committed to reduce *Virginia* acquisition costs to $2 billion (fiscal year 2005 dollars) per hull concurrent with a build rate of two ships per year starting in fiscal year 2012. Two items requested this year are critical to achieving this goal. The first is authority in the National Defense Authorization Act for Fiscal Year 2008 to enter into a MYP contract with EOQ in fiscal year 2009. This would provide the Navy a significant negotiating advantage, send a clear signal to industry regarding the Navy's commitment to future submarine procurement, and reduce risk. The Navy anticipates $2.9 billion (13 percent) of savings compared to annual (single ship) procurement contracts by using a 5-year/7-ship MYP contract for *Virginia* class submarines starting in fiscal year 2009.

  The second item critical to achieving cost reduction and an increased build rate of two submarines per year is the *Virginia* class cost reduction investment contained in the fiscal year 2008 budget request. As detailed in the recently delivered Report to Congress on *Virginia* Class Cost Reduction, the Navy plans to achieve its cost goal for the program through construction performance improvements, design changes that reduce cost, and by increasing the procurement rate under a MYP contract with EOQ authority. The cost reduction investment funds are vital to implementing the needed construction performance improvements and design changes.

  As identified in the 30-year shipbuilding plan, even with a build rate of two *Virginia* class submarines per year commencing in 2012, the number of nuclear attack submarines will fall below the desired 48 submarine fleet identified in the 30-year shipbuilding plan from about 2020 through 2034. This apparent shortfall, however, can be managed through several risk mitigation efforts. First, stationing 60 percent of our attack submarines in the Pacific, as recommended in the 2006 Quadrennial Defense Review, will

reduce critical response times in the Pacific. Second, by adjusting patrol times of our attack submarines, we can ensure greater operational availability without significantly impacting our sailors and their families. Finally, by pursuing an integrated approach to undersea warfare queuing through multiple sensors (e.g. Unmanned Undersea Vehicles, the P–8A Multi-Mission Aircraft, SH–60R/S helicopters), we can improve critical target detection, tracking, and sensor-to-shooter response times to fully support the requirements of our combatant commanders for attack submarine presence worldwide. Other initiatives under review include reducing build time of the *Virginia* class SSN from 72 to 60 months and considering modest hull-life extensions on a small number of SSNs.

• Split Funding for *Zumwalt* class DDG. The DDG–1000 *Zumwalt* class destroyer brings much needed stealth, counter air, and surface fire support to the fight. The Tumblehome hull provides a reduced radar cross section and acoustic signature while its Dual Band Radar represents a significant increase in air defense capability in the cluttered littoral environment. With the Advanced Gun System and associated Long Range Land Attack Projectile (LRLAP) DDG–1000 will provide volume and precision fires in support of Joint forces ashore. A Global Positioning System-guided, 155 millimeter round, LRLAP will provide all-weather fires capability out to 83 nautical miles. Open architecture and reduced manning will provide the Navy life cycle cost savings and technology that can be retrofit to legacy ships. DDG–1000 is the harbinger of our future fleet, taking major steps in advanced warfighting, reduced manning, a fully integrated power/propulsion system, and an open architecture design.

The support of Congress for last year's split funding request is greatly appreciated. This year Navy requests the second half of split year funding for dual lead ships of the *Zumwalt* class destroyer to maximize competitive efficiencies and focus design efforts. Split funding will also lend stability to the shipbuilding industrial base. This funding strategy supports the current budget structure, enhances future competitive opportunities, and limits liability for appropriations in future years.

• Joint Strike Fighter. The F–35 Joint Strike Fighter (JSF) remains the cornerstone of Navy's continuing superiority in air warfare. Although risk associated with the recent 2 year slip in the carrier variant of the F–35 will be mitigated by a modest increased buy of F/A–18E,F variants, there should be no doubt that JSF is a much more capable aircraft to which the Navy is fully committed. I encourage your continued strong support of this program to guard against further delays in production.

• Legacy Aircraft Replacement. As our aging, legacy aircraft reach the end of the service lives, funding for follow-on programs becomes critical. Among these programs are the P–8A Multi-mission Maritime Aircraft (MMA), the F/A–18E/F and JSF, the EA–18G airborne electronic attack aircraft, the V–22 tilt-rotor aircraft, and the MH–60R/S and CH–53K helicopters. Navy's RDT&E program is also vital to this effort.

• Anti-submarine warfare (ASW). Submarines with improving stealth and attack capability—particularly modern diesel attack submarines—are proliferating worldwide at an alarming rate. Locating these relatively inexpensive but extremely quiet boats presents our Navy with a formidable challenge. Navy is pursuing a distributed and netted approach to ASW. Some of the key ASW programs we must continue to develop and field as quickly as possible include: Surface Ship Torpedo Defense System; High Altitude ASW Weapon Concept; Deployable Distributed Autonomous system; Reliable Acoustic Path Vertical Line Array, and Aircraft Carrier Periscope Detection Radar.

• SONAR Restrictions. ASW is a very complex and challenging warfighting competency in which to achieve and sustain the required level of expertise. Therefore every opportunity we have to gain and maintain proficiency at the ship/unit level, and every opportunity we have to integrate units in complex scenarios is crucial to our readiness. Unfortunately, our ability to train in the same manner in which we fight is under attack in public forums, including the courts. Thus far, we have seen little scientific basis for the claims lodged against the Navy. However, these allegations present the potential for severe restrictions on our continued ability to train effectively, as we saw in RIMPAC 2006 wherein we lost 3 days of valuable ASW training with active sonar because of a court restraining order. Navy is currently executing a comprehensive plan of action to cover all our at-sea training areas with environmental compliance documents by the end of 2009. We are

committed to maintaining an open dialogue, continuing to advance our scientific understanding of the impacts of sonar on marine mammals, and complying with the relevant statutes. We have consistently made this clear as an organization in our debate on this issue. Maintaining proficiency in ASW is a daily challenge, and while our long-term compliance documents are being developed, we cannot afford to stop training. We owe it to our sailors to ensure they receive the training they need to fight and win.

The Marine Mammal Protection Act (MMPA) requires permits for activities that may affect marine mammals. This includes military activities, including certain Navy activities at sea. The National Defense Authorization Act of 2004 included a provision that authorizes the Secretary of Defense to grant exemptions to the MMPA for certain military activities critical to our national defense. On 23 January 2007, the Deputy Secretary of Defense granted Navy a National Defense Exemption (NDE) for 2 years covering mid-frequency active (MFA) sonar activities for major exercises and in major operating areas, as well as the use of Improved Explosive Echo Ranging sonobuoys. The NDE will help Navy continue to conduct the sonar training necessary for our national defense while protecting marine mammals through established mitigation measures.

• Naval Expeditionary Combat Command (NECC). NECC is developing into a true force of choice in phase zero (pre-conflict) and phase V (reconstruction) operations, and is a vital part of our Nation's Long War against terrorism. All new forces—Riverine, Expeditionary Training Group, Maritime Civil Affairs and Maritime Expeditionary Security Force—will meet full IOC objectives in fiscal year 2007. Riverine deployed its first squadron to Iraq in March to provide area security at Haditha dam and interdiction operations on the Euphrates River. Your continued support of our Riverine capability and capacity is vital. Our second Riverine Squadron was established on 2 February 2007 and our third Squadron will be stood up this June.

• Sea Basing and Expeditionary Warfare. It would be difficult to consider any future expeditionary missions without recognizing the need for a sea base from which to employ Joint/Multinational Capabilities across the full Range of Military Operations. Seabasing provides operational maneuver and assured access to the Joint/Multinational forces while significantly reducing our footprint ashore, thereby minimizing the need to obtain host nation permission and/or support. These operational characteristics will prove increasingly vital in the post-Operation Iraqi Freedom/Operation Enduring Freedom political-military security environment. Navy is exploring innovative operational concepts combining seabasing with adaptive force packaging that will further support national security policy and the combatant commanders' objectives worldwide. Our 30-year shipbuilding plan provides for seabasing that covers the spectrum of warfare from Joint Forcible Entry to persistent and cooperative Theater Security Cooperation.

Over the last several years, my staff and that of the Commandant's Marine Corps Combat Development Center, and Marine Corps Headquarters, have worked diligently to develop a strategy for amphibious warfare that is relevant to the myriad challenges we face in the complex security environment of the 21st century. The investment strategy we have embarked upon represents the Navy-Marine Corps shared vision of the future and a significant investment of time and resources for both our Services. This vision was further validated by the Naval Operating Concept signed by the Commandant of the Marine Corps, General Hagee, and me last summer.

Based on a foundation built upon well-defined analytical underpinnings, our staffs agreed on an investment program that would provide a capable, agile, and affordable response force. Specifically, our investments in tomorrow's Navy reflect a commitment to build the fleet of the future, with the capability and capacity to fight and win the Nation's wars, including amphibious operations from the sea. This commitment supports the operational forces in the assault echelon and provides protection for the Maritime Prepositioning Force—Future (MPF(F)) to ensure its survivability in any hostile environment.

The ability of our future fleet to meet the demand signal for amphibious forces must be viewed in the aggregate. Given the cost of ships today, we cannot discount the value of ships procured to support prepositioned equipment. Prepositioned assets must be included in the overall force availability equation—ignoring MPF(F) as the lift component of an additional Marine Expeditionary Battalion (MEB) would be incongruous with today's fiscal en-

vironment. The capabilities provided by the MPF(F) mitigate concerns regarding the operational availability of the assault echelon force required to deliver 2.0 MEB lift, vehicle square footage, and passenger requirements. As reflected in our 30-year shipbuilding plan, we believe 30 amphibious ships will meet these requirements, when supported by, and supporting, the MPF(F).

• Ballistic Missile Defense. Missile tests on the Korean Peninsula and by Iran, along with the proliferation of ballistic missile technology, underscore the growing need for a robust, sea-borne ballistic missile defense system. Last year, the Navy made further progress on our Aegis Ballistic Missile Defense (BMD), the sea-based component of the Missile Defense Agency's (MDA) Ballistic Missile Defense System (BMDS). It enables surface combatants to support ground-based sensors and provides a capability to intercept short- and medium-range ballistic missiles with ship-based interceptors (SM–3). The Sea-Based Terminal effort will provide the ability to engage Short Range Ballistic Missiles (SRBMs) with modified SM–2 Blk IV missiles from Aegis BMD capable ships.

In May, 2006, U.S.S. *Lake Erie* (CG 70) successfully engaged and intercepted a LANCE short-range test target with a modified SM–2 Block IV missile in a Navy-sponsored BMD demonstration. As a result, the Navy is modifying the remaining inventory of 100 SM–2 Block IV missiles, and MDA is modifying the Aegis BMD program to support sea-based terminal engagements. In June, 2006, Navy successfully achieved a second engagement of a separating SRBM target with the AEGIS BMD system.

Last week, the Navy successfully engaged and destroyed a non-separating exo-atmospheric short-range ballistic missile, while simultaneously engaging a low altitude cruise missile. This successful engagement brings the tally to 8 successful intercepts in 10 flight tests and underscores the value of this sea-borne ballistic missile defense capability in an era of rapidly proliferating ballistic missile hardware and technology.

• Research and Development. To achieve the speed of war Navy is pursuing Innovative Naval Prototypes—revolutionary "game changers" for future naval warfare. These initiatives have resulted in the development of an electromagnetic rail-gun prototype; new concepts for persistent, netted, littoral anti-submarine warfare; technologies to enable seabasing; and the naval tactical utilization of space.

• Public Shipyard Loading. As we work with industry on shipbuilding cost reduction, we must ensure legislation and policy support best business practices and efficiencies. Apportioning work based upon funding quotas to drive workloading in public naval shipyards potentially diverts efficiency opportunities away from the private sector. Public yards provide vital services for nuclear propulsion and submarine work, and these critical competencies must be maintained. However, our first priorities in shipyard loading should be quality, efficiency, and cost savings. We seek your assistance in removing restrictions on our workloading flexibility.

Additional information on some of Navy's priority warfighting programs is offered in the attached Annex I.

CONCLUSION

Our Navy is truly a bargain, costing the taxpayers less than 1 percent of GDP. But as we strive to sustain combat readiness, build a fleet for the future and develop 21st century leaders, we cannot allow ourselves to take this for granted. We must be mindful of the need to maintain a strong Navy now, and after our ground forces return home.

It has been just over 20 years since Congress passed the Goldwater-Nichols Department of Defense Reorganization Act of 1986, subsequently signed into law by President Reagan. While this landmark legislation established a clean chain of command running from the President through the Secretary of Defense and Chairman of the Joint Chiefs directly to the unified combatant commanders, and increased synergy among services by providing for shared procurement and development of technologies, it also precluded Service Chiefs from participating in the acquisition process beyond the identification of requirements.

Without direct involvement in the entire acquisition cycle, Service Chiefs have little control over the mechanisms that drive efficiencies and best business practice in our major acquisition programs. Yet, the chiefs bear the responsibility of providing the right capabilities and capacity to meet the demands of our combatant commanders. I believe we should explore putting the Service Chiefs, and their mili-

tary expertise, back into the acquisition chain of command and to hold them accountable for their procurement programs.

Our Nation depends upon a strong Navy with the global reach and persistent presence needed to provide deterrence, access, and assurance, while delivering lethal warfighting capacity whenever and wherever it is needed. Our Navy is fighting the global war on terror while at the same time providing a Strategic Reserve worldwide for the President and our unified and combatant commanders. As we assess the risks associated with the dynamic security challenges that face us, we must ensure we have the Battle Force, the people, and the combat readiness we need to win our Nation's wars.

Simply reacting to change is no longer an acceptable course of action if our Navy is to successfully wage asymmetric warfare and simultaneously deter regional and transnational threats: Two Challenges, One Fleet. Our Nation's security and prosperity depend upon keeping our shores safe and the world's maritime highways open and free.

ANNEX I

Programs and Initiatives to Achieve CNO Priority to Build a Fleet for the Future

Programs and practices of particular interest include (listed in order of FY 2008 dollar value):

RDT&E Development and Demonstration Funds

Navy's $15.9 billion investment in various technology, component, and system development funds, as well as our operational development and testing programs provide a balanced portfolio. Not only do they ensure successful development of programs for our Fleet for the Future, they also leverage the Fleet, Systems Commands, warfare centers, and others to align wargaming, experimentation, and exercises in developing supporting concepts and technologies.

DDG 1000

This multi-mission surface combatant, tailored for land attack and littoral dominance, will provide independent forward presence and deterrence and operate as an integral part of joint and combined expeditionary forces. DDG 1000 will capitalize on reduced signatures and enhanced survivability to maintain persistent presence in the littoral. The program provides the baseline for spiral development to support future surface ships. Our FY 2008 request is for $3.3 billion in shipbuilding and research funds.

CVN 21

The CVN 21 Program is designing the next generation aircraft carrier to replace USS ENTERPRISE (CVN 65) and NIMITZ-class aircraft carriers. CVN 78-class ships will provide improved warfighting capability and increased quality of life for our Sailors at reduced acquisition and life cycle costs. $2.8 billion in Shipbuilding funds for FY 2008 supports acquisition of USS GERALD R. FORD (CVN 78), the lead ship of the class, scheduled for delivery in late FY 2015. Additionally, the program has $232 million in research and development supporting work

on the Electromagnetic Aircraft Launch System and other warfighting capability improvements.

Although multi-year (four years) funding for CVN 21 was authorized in the FY 2007 Budget, none of these funds was executed in FY 2008. As the Navy better defines procurement requirements, we anticipate executing multi-year funds in FY 2009.

F-35 Joint Strike Fighter (JSF)

F-35 is a joint cooperative program to develop and field family of affordable multi-mission strike fighter aircraft using mature/demonstrated 21st century technology to meet warfighter needs of the Navy, Marines, Air Force, and international partners including the U.K., Italy, Netherlands, Denmark, Turkey, Norway, Australia, and Canada. Navy's FY 2008 $1.2 billion in procurement buys 6 short take-off and landing variants. An additional $1.7 billion in research and development continues aircraft and engine development.

VIRGINIA Class Fast Attack Nuclear Submarine (SSN)

The VIRGINIA Class attack submarine is a multi-mission weapons platform that emphasizes affordability and optimizes performance for undersea superiority in both littoral and open ocean missions. In March 2007 USS VIRGINIA (SSN 774) completed its post-shakedown availability and the class achieved Initial Operating Capability (IOC). The FY 2008 President's Budget contains $2.5 billion dollars for the procurement of one VIRGINIA Class submarine and advanced procurement of long-lead items for the submarines in FY 2009 and 2010.

Lead ship operational performance exceeded expectations. Follow-on submarine performance has been even better:

- USS TEXAS (SSN 775) INSURV trial was best performance by the second SSN of any class.
- Third ship (HAWAII, SSN 776) was the most complete submarine ever at launch (greater than 90 percent complete), had the best INSURV trial of the class, and was delivered on the original contract delivery date.

F/A-18E/F Super Hornet

The Navy's next generation, multi-mission Strike Fighter replaces retired F-14s, older model F/A-18s, and assumes the S-3 aircraft carrier-based aerial refueling role. F/A-18E/F provides a 40 percent increase in combat radius, 50 percent increase in endurance, 25 percent greater weapons payload, three times more ordnance bring-back, and is five times more survivable than F/A-18C models. Approximately 55 percent of the total procurement objective has been delivered (254 of 460). F/A-18E/F is in full rate production under a second five-year multi-year contract (Fiscal Years 2005-2009). $2.1 billion in FY 2008 procures 24 aircraft as part of this contract.

EA-18G Growler

The Growler is the Navy's replacement for the EA-6B. Inventory objective is 84 aircraft for test, Fleet Replacement Squadron, attrition, pipeline and 10 operational carrier airwing squadrons to provide the Navy's carrier-based Airborne Electronic Attack (AEA) capability. The program is on schedule and budget. All Key Performance Parameter (KPP) and Technical Performance Measure (TPM) thresholds are being met or exceeded. Program achieved first flight in August 2006; one month ahead of schedule. $1.6 billion supports development and procurement of 18 aircraft in FY 2008.

MH-60R/S Multi-Mission Helicopter

The MH-60R is a cornerstone of the Navy's Helicopter Concept of Operations (CONOPS), which reduces from six to two the helicopter variants in use today. The MH-60R Multi-Mission Helicopter program will replace the surface combatant-based SH-60B, carrier-based SH-60F, and anti-surface capabilities of the S-3 with a newly manufactured airframe and enhanced mission systems. Sea control missions include Undersea and Surface Warfare. The MH-60R provides forward-deployed capabilities to defeat area-denial strategies, allowing joint forces to project and sustain power. Full Rate Production was approved in March 2006. $998 million in FY 2008 procures 27 aircraft.

The MH-60S is designed to support Carrier and Expeditionary Strike Groups in Combat Logistics, Search and Rescue, Vertical Replenishment, Anti-Surface Warfare, Airborne Mine Countermeasures, Combat Search and Rescue, and Naval Special Warfare mission areas. This program is in production. This fiscal year, Block 2 of the program will see the IOC of the first of five Organic Airborne Mine Countermeasures (OAMCM) systems (AQS-20). The remaining four airborne mine countermeasure systems will IOC between Fiscal Years 2008-2010. An Armed Helicopter capability is also expected to enter IOC this year. $504 million in FY 2008 procures 18 aircraft.

LPD 17

LPD 17 functionally replaces LPD 4, LSD 36, LKA 113, and LST 1179 classes of amphibious ships for embarking, transporting and landing elements of a Marine landing force in an assault by helicopters, landing craft, amphibious vehicles, or a combination of these methods. $1.4 billion in this budget's shipbuilding request procures LPD 25.

LHA(R)

LHA(R) replaces five aging LHA Class ships which are reaching the end of their administratively extended service lives. LHA(R) Flight 0 is a modified LHD 1 Class variant designed to accommodate aircraft in the future USMC Aircraft Combat Element (ACE) including JSF and MV-22. The FY 2008 request for $1.4 billion represents the second year of split funding to support completion of the lead ship in the class.

Littoral Combat Ship (LCS)

Designed to be fast and agile, LCS will be a networked surface combatant with capabilities optimized to assure naval and joint force access into contested littoral regions. LCS will operate with focused-mission packages that deploy manned and unmanned vehicles to execute a variety of missions, including littoral anti-submarine warfare (ASW), anti-surface warfare (SUW) and mine countermeasures (MCM). LCS will possess inherent capabilities including homeland defense, Maritime Interception Operations (MIO) and Special Operation Forces support. LCS will employ a Blue-Gold multi-

crewing concept for the early ships. The crews will be at a "trained to qualify" level before reporting to the ship, reducing qualification time compared to other ships.

After an in-depth study, the Navy has revalidated the warfighting requirement and developed a restructured program plan for the LCS that improves management oversight, implements more strict cost controls, incorporates selective contract restructuring, and ensures delivery within a realistic schedule.

P-8A Multi-mission Maritime Aircraft (MMA)

The P-8A replaces the P-3C Orion on a less than 1:1 basis. This aircraft provides lethality against submarine threats, broad area maritime and littoral armed Anti-Submarine Warfare patrol, Anti-Surface Warfare, and Intelligence Surveillance Reconnaissance. The P-8A is the only platform with this operationally agile capability set. It fills Combatant Commander requirements in major combat and shaping operations, as well as the War on Terror and homeland defense. The program has been executed on time and on budget. Preliminary Design Review has successfully completed and is now in the detailed design phase. $880 million in research and development funds are included in the FY 2008 budget. Initial Operational Capability (IOC) is planned in FY 2013.

E-2D Advanced Hawkeye

The E-2D Advanced Hawkeye (AHE) program will modernize the current E-2C weapons system by replacing the radar and other aircraft system components to improve nearly every facet of tactical air operations. The modernized weapons system will be designed to maintain open ocean capability while adding transformational littoral surveillance and Theater Air and Missile Defense capabilities against emerging air threats in the high clutter, electro-magnetic interference, and jamming environments. $866 million in FY 2008 continues development work and procures three Pilot Production Aircraft. The AHE will be one of the four pillars contributing to Naval Integrated Fire Control-Counter Air. The AHE program plans to build 75 new aircraft.

ASW Programs

The Navy continues to pursue research and development of Distributed Netted Sensors (DNS); low-cost, rapidly deployable, autonomous sensors that can be fielded in sufficient numbers to provide the cueing and detection of adversary submarines far from the Sea Base. Examples of our FY 2008 request of $24 million in these technologies include:

- Reliable Acoustic Path, Vertical Line Array (RAP VLA). A passive-only distributed system exploiting the deep water propagation phenomena. In essence, a towed array vertically suspended in the water column.

- Deep Water Active Distributed System (DWADS). An active sonar distributed system optimized for use in deep water.

- Deployable Autonomous Distributed System (DADS). A shallow water array, using both acoustic and non-acoustic sensors to detect passing submarines. DADS will test at sea in FY 2008.

Further developing the Undersea Warfare Decision Support System (USW-DSS) will leverage existing data-links, networks, and sensor data from air, surface, and sub-surface platforms and integrate them into a common ASW operating picture with tactical decision aids to better plan, conduct, and coordinate ASW operations. We are requesting $23 million in FY 2008 towards this system.

To engage the threat, our forces must have the means to attack effectively the first time, every time. The Navy has continued a robust weapons development investment plan including $293 million requested in the FY 2008 on such capabilities as:

- High-Altitude ASW Weapons Concept (HAAWC). Current maritime patrol aircraft must descend to very low altitude to place ASW weapons on target, often losing communications with the sonobuoy (or distributed sensor) field. This allows the aircraft to remain at high altitude and conduct an effective attack while simultaneously enabling the crew to

maintain and exploit the full sensor field in the process. This capability will be particularly important in concert with the new jet-powered P-8A MMA. A test is scheduled for May 2007.

- Common Very Lightweight Torpedo (CVLWT). The Navy is developing a 6.75" torpedo suitable for use in the surface ship and submarine anti-torpedo torpedo defense, and the offensive Compact Rapid Attack Weapon (CRAW) intended for the developing manned and unmanned aerial vehicles.

Finally, to defend our forces, key defensive technologies being pursued include:

- Surface Ship Torpedo Defense (SSTD). Program delivers near term and far term torpedo defense. The planned FY 2008 $16 million R&D investment supports ongoing development of the 6 ¾ inch Common Very Lightweight Torpedo (CVLWT) which supports both the Anti-Torpedo Torpedo (ATT) and the Compact Rapid Attack Weapon (CRAW). Also, several capability upgrades to the AN/SLQ-25A (NIXIE) are being incorporated to improve both acoustic and non-acoustic system performance to counter current threat torpedoes. These enhancements also support their use in the littorals and are scheduled to complete in FY 2009. The AN/WSQ-11 System uses active and passive acoustic sensors for an improved torpedo Detection Classification and Localization (DCL) capability, and a hard kill Anti-Torpedo Torpedo (ATT) to produce an effective, automated and layered system to counter future torpedo threats. DCL improvements include lower false alarm rates and better range determination.

- Aircraft Carrier Periscope Detection Radar (CVN PDR). An automated periscope detection and discrimination system aboard aircraft carriers. System moves from a laboratory model, currently installed on USS KITTY HAWK, to 12 units (1 per carrier, 1 ashore) by FY 2012. FY 2008 funds of $7 million support this effort.

Platform Sensor Improvements. Against the quieter, modern diesel-electric submarines, work continues on both

towed arrays and hull mounted sonars. Our $410 million request in FY 2008 includes work on the following:

- TB-33 thin-line towed array upgrades to forward deployed SSN's provides near term improvement in submarine towed array reliability over existing TB-29 arrays. TB-33 upgrades are being accelerated to Guam based SSN's.

- Continued development of twin-line thin line (TLTL) and vector-sensor towed arrays (VSTA) are under development for mid-far term capability gaps. TLTL enables longer detection ranges/contact holding times, improves localization, and classification of contacts. VSTA is an Office of Naval Research project that would provide TLTL capability on a single array while still obviating the bearing ambiguity issue inherent in traditional single line arrays.

Modernization

Achieving full service life from the fleet is imperative. Modernization of the existing force is a critical enabler for a balanced fleet. Platforms must remain tactically capable and structurally sound for the duration of their designed service life.

Cruiser (Mod)

AEGIS Cruiser Modernization is key to achieving the 313 ship force structure. A large portion of surface force modernization (including industrial base stability) is resident in this modernization program. $403 million across several appropriations in FY 2008 supports this program.

A comprehensive Mission Life Extension (MLE) will achieve the ship's expected service life of 35+ years and includes the All Electric Modification (replacing steam systems), SMARTSHIP technologies, Hull Mechanical & Electrical (HM&E) system upgrades, and a series of alterations designed to restore displacement and stability margins, correct hull and deck house cracking and improve quality of life and service on board.

Destroyer (Mod)

The DDG 51 modernization program is a comprehensive 62 ship program designed to modernize HM&E and Combat Systems. These upgrades support reductions in manpower and operating costs, achieve 35+ year service life, and allows the class to pace the projected threat well into the 21st century. Our FY 2008 request contains $159 million for this effort.

Key upgrades to the DDG 51 AEGIS Weapon System (AWS) include an Open Architecture computing environment, along with an upgrade of the SPY Radar signal processor, addition of BMD capability, Evolved Sea Sparrow Missile (ESSM), improved USW sensor, Naval Integrated Fire Control-Counter Air (NIFC-CA) and additional other combat systems upgrades.

LEWIS & CLARK Dry Cargo/Ammunition Ship (T-AKE)

T-AKE is intended to replace aging combat stores (T-AFS) and ammunition (T-AE) ships. Working in concert with an oiler (T-AO), the team can perform a "substitute" station ship mission to allow the retirement of four fast combat support ships (AOE 1 Class). $456 million in FY 2008 supports funding the 11th T-AKE (final price will be determined through negotiations expected to be completed during the summer 2007). Lead ship was delivered in June 2006 and has completed operational evaluation (OPEVAL).

Tomahawk/Tactical Tomahawk (TACTOM)

Tomahawk and Tactical Tomahawk missiles provide precision, all weather, and deep strike capabilities. Tactical Tomahawk provides more flexibility and responsiveness at a significantly reduced life cycle cost than previous versions and includes flex-targeting, in-flight retargeting, and 2-way communications with the missile.

Our $383 million in this years request sustains the Tomahawk Block IV full-rate, multi-year procurement contract for Fiscal Years 2004-2008, yielding approximately 2,100 missiles. The projected inventory will accommodate campaign analysis requirements given historical usage data and acceptable risk.

F/A-18A/B/C/D Hornet

The F/A-18 Hornet is Naval Aviation's principal strike-fighter. This state-of-the-art, multi-mission aircraft serves the Navy and Marine Corps, as well as the armed forces of seven allied countries. Its reliability and precision weapons delivery capability are documented frequently in news reports from the front lines. $331 million in FY 2008 funds improvements to the original Hornet A/B/C/D variants providing significant warfighting enhancements to the fleet. These improvements include the Global Positioning System (GPS), Multi-functional Information Distribution System (MIDS), AIM-9X Sidewinder Missile/Joint Helmet-Mounted Cueing System (JHMCS), Combined Interrogator Transponder, Joint Direct Attack Munition/Joint Stand-Off Weapon delivery capability, and a Digital Communication System (DCS) for close-air support. Through these improvement and upgrades, the aircraft's weapons, communications, navigation, and defensive electronic countermeasure systems have been kept combat relevant.

Although the F/A-18A/B/C/D are out of production, the existing inventory of 667 Navy and Marine Corps aircraft will continue to comprise half of the carrier strike force until 2013, and are scheduled to remain in the Naval Aviation inventory through 2022.

CG(X)

CG(X) is envisioned to be a highly capable surface combatant tailored for Joint Air and Missile Defense and Joint Air Control Operations. CG(X) will provide airspace dominance and protection to all joint forces operating in the Sea Base. Initial Operational Capability (IOC) is anticipated in about 2019. $227 million in research and development for FY 2008 supports CG(X) development. The ongoing analysis of alternatives is considering various propulsion options. CG(X) will replace the CG-47 Aegis class and improve the fleet's air and missile defense capabilities against an advancing threat - particularly ballistic missiles.

Standard Missile-6 (SM-6)

The Navy's next-generation Extended Range, Anti-Air Warfare interceptor is the SM-6. Supporting both legacy and future ships, SM-6 with its active-seeker technology will defeat anticipated theater air and missile defense warfare threats well into the next decade. The combined SM-6 Design Readiness Review / Critical Design Review was completed three months ahead of schedule with SM-6 successfully meeting all entrance and exit criteria. Ahead of schedule and on cost targets, our FY 2008 budget plan of $207 million will keep this development effort on track for Initial Operational Capability in FY 2010.

Conventional TRIDENT Modification (CTM)

CTM transforms the submarine launched, nuclear armed TRIDENT II (D5) missile system into a conventional offensive precision strike weapon with global range. This new capability is required to defeat a diverse set of unpredictable threats, such as Weapons of Mass Destruction (WMD), at short notice, without the requirement for a forward-deployed or visible presence, without risk to U.S. forces, and with little or no warning prior to strike. $175 million is included in the FY 2008 request. The program and related policy issues are currently under review by the Office of the Secretary of Defense as part of the New Strategic Triad capability package.

Navy Unmanned Combat Air System (UCAS)

The former J-UCAS program transferred from Air Force to Navy lead. The Navy UCAS will develop and demonstrate low observable (LO), unmanned, air vehicle suitability to operate from aircraft carriers in support of persistent, penetrating surveillance, and strike capability in high threat areas. $162 million in FY 2008 research and development funds advance the programs objectives.

Joint Standoff Weapon (JSOW)

JSOW is a low-cost, survivable, air-to-ground glide weapon designed to attack a variety of targets in day/night and adverse weather conditions from ranges up to 63 nautical miles. All variants employ a

kinematically efficient, low-signature airframe with GPS/INS guidance capability. JSOW is additionally equipped with an imaging-infrared seeker, Autonomous Targeting Acquisition (ATA) software, and a multi-stage Broach warhead to attack both hard and soft targets with precision accuracy. The $156 million in FY 2008 funding continues production to build to our inventory requirements. A Block III improvement effort will add anti-ship and moving target capability in FY 2009.

OHIO-Class SSGN

OHIO-Class SSGN is a key transformational capability that can covertly employ both strike and Special Operations Forces (SOF) capabilities. OHIO(SSGN 726), FLORIDA (SSGN 728), and MICHIGAN (SSGN 727) were delivered from conversion in December 2005, April 2006, and November 2006 respectively and are conducting modernization, certification, and acceptance evaluation testing prior to deployment. GEORGIA (SSGN 729) is in conversion at Norfolk Naval Shipyard with delivery scheduled for September 2007. OHIO will be ready to deploy in November 2007, achieving Initial Operational Capability (IOC) for the SSGN Class. The $134 million in the FY 2008 budget request is primarily for testing, minor engineering changes, and to procure the final replacement reactor core.

Broad Area Maritime Surveillance (BAMS)
Unmanned Aircraft System (UAS)

BAMS is a post-9/11, Secretary of the Navy directed transformational initiative. $117 million in research and development funding continues Navy's commitment to provide a persistent (24 hours/day, 7 days/week), multi-sensor (radar, Electro-Optical/Infra Red, Electronic Support Measures) maritime intelligence, surveillance, and reconnaissance capability with worldwide access. Along with Multi-Mission Aircraft, BAMS is integral to the Navy's airborne intelligence, surveillance, and reconnaissance (ISR) recapitalization strategy. BAMS is envisioned to be forward deployed, land-based, autonomously operated and unarmed. It will sustain the maritime Common Operational Picture (COP) and operate under the cognizance of the Maritime Patrol and Reconnaissance Force.

Long Range Land Attack Projectile (LRLAP)

Long Range Land Attack Projectile (LRLAP) is the primary munition for the DDG 1000 Advanced Gun System (AGS). AGS and LRLAP will provide Naval Surface Fire Support (NSFS) to forces ashore during all phases of the land battle. All program flight test objectives have been met. Six of nine guided test flights have been successfully completed. Test failures have been isolated and corrective actions implemented with successful re-tests fired. $74 million in FY 2008 supports continued development. Current ammunition inventory estimates are based on conventional ammunition calculation methods. A pending ammo study will account for increased LRLAP range and precision to better inform decisions regarding procurement schedule and total inventory objective.

MQ-8B Fire Scout Vertical Takeoff UAV (VTUAV)

Navy Vertical Takeoff and Landing Tactical UAV (VTUAV) is designed to operate from all air capable ships, carry modular mission payloads, and operate using the Tactical Control System (TCS) and Tactical Common Data Link (TCDL). VTUAV will provide day/night real time reconnaissance, surveillance and target acquisition capabilities as well as communications relay and battlefield management to support the Littoral Combat Ship (LCS) core mission areas of Anti-Submarine, Mine, and Anti-Surface Warfare. It will be part of the LCS mission module packages supporting these warfare missions. $71 million in development and procurement funding supports engineering manufacturing development, operational testing and achievement of initial operational capability in FY 2008.

Maritime Prepositioning Force (MPF) (Future)

MPF(F) provides a scalable, joint sea based capability for the closure, arrival, assembly, and employment of up to the Marine Expeditionary Brigade sized force of 2015. It will also support the sustainment and reconstitution of forces when required. MPF(F) is envisioned to have utility in lesser contingency operations, and when coupled with Carrier or Expeditionary Strike Groups, will provide the nation a rapid response capability in anti-access or denial situations. $68 million in research and

development in FY 2008 supports technology maturation required by our Sea Basing requirements.

Direct Attack (DA) Munitions: JDAM, LGB, Dual Mode LGB, and Direct Attack Moving Target

Inventories of direct attack munitions include Laser Guided Bombs (LGB) and Joint Direct Attack Munitions (JDAM) weapons; both are guidance kits for General Purpose bombs and strike fixed targets only. The LGB guides on a laser spot which provides precise accuracy in clear weather. JDAM provides Global Positioning / Inertial Guidance Systems (GPS/INS) giving accurate adverse weather capability ($34 million in FY 2008). The Dual Mode LGB retrofit to LGB kits, procured in Fiscal Years 2006-2007, increases flexibility by combining laser and GPS/INS capabilities in a single weapon. The next evolutionary upgrade, Moving Target Weapon (MTW), will combine laser and GPS/INS guidance with moving target capability. Procurement is planned via a capability-based competition, with MTW upgrading existing JDAM and/or LGB kit inventories. $29 million supports this on-going MTW effort in FY 2008.

Harpoon Block III Missile

Harpoon Block III represents the only long range, all weather, precise, ship and air launched, Surface Warfare anti-ship capability. $44 million in FY 2008 supports development of a kit upgrade to existing Harpoon Block IC, the addition of a data link and GPS that will provide increased target selectivity and performance in the cluttered littorals.

Pioneer Tactical Unmanned Aircraft Sensor (UAS)

The Pioneer UAS System is a transportable Intelligence, Surveillance, and Reconnaissance (ISR) asset capable of providing tactical commanders with day and night, battlefield, and maritime reconnaissance in support of Marine expeditionary warfare and maritime control operations. The FY 2008 budget requests $38 million in operations and maintenance sustainment and $90 million in procurement for the Army's Shadow RQ-7B UAS as an interim replacement for the currently fielded Pioneer.

Extended Range Munition (ERM)

The concept for expeditionary operations relies on sea-based surface fire support to aid in destruction and suppression of enemy forces. The Extended Range Munition (ERM) is a 5-inch rocket assisted guided projectile providing range and accuracy superior to that of conventional ammunition. The projectile uses a coupled GPS/INS Guidance System and unitary warhead with a height-of-burst fuze. $30 million in FY 2008 research and development funding includes a 20-reliability demonstration before land-based flight and qualification testing. The program includes modifications to existing 5 inch guns and fire control systems. ERM will utilize the Naval Fires Control System as the mission planning tool.

Global Hawk Maritime Demonstration (GHMD)

Using an existing Air Force production contract, the Navy procured two GHMD Unmanned Aerial Vehicles (UAV) and associated ground control equipment. GHMD will be used for developing Concept of Operations and Tactics, Training and Procedures for a persistent ISR maritime capability in conjunction with the manned P-3 aircraft. The GHMD return on investment will be risk reduction for the BAMS UAS Program. GHMD provides a limited, high altitude, endurance UAV platform capability 8 years before the planned FY 2014 IOC of BAMS. $18 million in operations and maintenance and $6 million in procurement of spares sustains the program in FY 2008.

Remote Minehunting System (RMS)

RMS utilizes a diesel-powered, high endurance, off-board, semi-submersible vehicle to tow the Navy's most advanced mine hunting sonar, the AN/AQS-20A. The system will be launched, operated, and recovered from surface ships. RMS will provide mine reconnaissance, detection, classification, localization, and identification of moored and bottom mines. $23 million in FY 2008 supports the fielding plan commencing this year providing limited systems for use on select DDGs, 48 RMSs for the Littoral Combat Ship (LCS) Mine Warfare Mission Packages, and an additional 16 vehicles as part of the LCS Anti-submarine Warfare Mission Packages.

Joint High Speed Vessel (JHSV)

Navy, along with the Army, SOCOM and Marine Corps, is working to acquire a Joint High Speed Vessel (JHSV) that provides the required intra-theater lift capability necessary to meet each service's requirements. The acquisition of JHSV will address high-speed, intra-theater surface lift capability gaps identified to implement Sea Power 21, the Army Future Force operational concepts and SOCOM future operational plans. Additionally, it will improve Intra-theater lift currently provided by WESTPAC EXPRESS and other leased vessels. JHSV is currently in the Technology Development Phase with Joint Requirements Oversight Council (JROC) approval of the Capabilities Development Document (CDD) anticipated soon. Navy's research and development contribution in FY 2008 is $19 million. Ultimate delivery of the first vessel is anticipated in 2010.

Aerial Common Sensor (ACS) - Future EPX (EP-3E Replacement)

Navy is on a path to recapitalize the EP-3 airborne electronic surveillance aircraft, and our $17 million in FY 2008 research and development funding contributes to this effort. ACS is the Navy's premier manned Airborne Intelligence, Surveillance, Reconnaissance (AISR) platform tailored to the maritime environment. ACS will provide data fusion and a robust reach-back capability allowing onboard operators to push intelligence to tactical commanders and operators in mission support centers. With a network-centric approach, ACS represents a significant capability in the Maritime Patrol and Reconnaissance Force Family of Systems including MMA and BAMS UAS.

Aegis Ballistic Missile Defense (BMD)

Aegis Ballistic Missile Defense is the sea based component of the Missile Defense Agency's (MDA) Ballistic Missile Defense System (BMDS). It enables surface combatants to support ground-based sensors and provides a capability to intercept Short and Medium Range Ballistic Missiles with ship-based interceptors (SM-3 missiles). The recently started Gap Filler Sea-Based Terminal Program will provide the ability to engage Short Range

Ballistic Missiles (SRBMs) with modified SM-2 Block IV missiles from Aegis BMD capable ships. While all development funding is covered under the MDA budget, Navy has committed $13 million in FY 2008 for operations and sustainment of Aegis BMD systems as Navy assumes operational responsibility.

Aegis BMD has been installed on three Cruisers and 13 Destroyers. All the Cruisers and three Destroyers are engagement capable. The balance of the Destroyers are Long Range Surveillance and Track (LRS&T) capable. Additional installations are planned for 2007.

In actual operations last July, U.S. and Japanese Aegis radar-equipped Destroyers successfully monitored North Korea's ballistic missile tests.

21" Mission Reconfigurable Unmanned Underwater Vehicle System (MRUUVS)

21" MRUUVS is a submarine launched and recovered, reconfigurable UUV system that will improve current capabilities in enabling assured access. It will provide a robust capability to conduct clandestine minefield reconnaissance and general Intelligence, Surveillance, and Reconnaissance (ISR) in denied or inaccessible areas. The MRUUVS program has been restructured, moving Initial Operational Capability (IOC) from Fiscal Year 2013 to 2016 when clandestine mine countermeasure capability from LOS ANGLES Class submarines will be delivered. Accordingly, the FY 2008 funding request has been adjusted to $13 million. ISR capability and VIRGINIA Class host compatibility could arrive in follow-on increments approximately two years after IOC.

Senator LIEBERMAN. Thank you. I will proceed.

I want to get back to some of the questions I raised in my opening statement here about the stress on the capital programs of the Navy. I mentioned we are in danger of falling below the Navy's own requirement of having 48 attack submarines for a 14-year period beginning in 2020. It sounds a long way away, but it is not that long away, and unless we start to act on it it is going to be a problem for us.

In 2028, the number of attack submarines is expected to fall to 40 under the current shipbuilding plan, not only below the Navy's current requirement, but also far below the historically estimated need of submarines. In fact, in 1999, just 8 years ago, the Joint Chiefs of Staff (JCS) concluded that the Navy needed to have 55 attack submarines in the near-term and 68 to 72 subs by the middle of the next decade. So we are obviously far short of that estimate.

I say parenthetically what you know because you live with it. Namely, that the current 30-year shipbuilding plan calls for main-

taining a 313-ship fleet as a minimum. In recent years, the estimates of the necessary fleet size from respected people have gone as high as 380. Meanwhile, the current Navy stands at about 279 ships.

So I say all this to just say again that we have a problem and in my opinion we are not spending enough. The recent incident, which has been publicly described, with China and a sub coming into the area where the *Kitty Hawk* Battle Group was and public reports that China is producing as many as two and a half subs per year and is rapidly closing the overall fleet strength gap, seems to indicate to me anyway that we need a much greater number of ships and subs than we are currently procuring.

Admiral, I wanted to ask you to respond to this question. The Navy has repeatedly testified that it needs 2 years of advance procurement funding before construction in a given sub in order to have the parts that require a long lead time. However, the Congressional Research Service has said that the 2-year advance procurement is not necessary, that Congress can fund the entire sub construction program in a single year, which means that the finished product would take 2 years longer at the back end. In fact, that was done in 1988 when Congress funded the construction of two aircraft carriers in a single year, including advance procurement.

So, acknowledging both the budget pressure you are under and the need in my opinion to accelerate to 2009 the date by which we start building two subs a year, provided we enter into a multi-year contract to save costs, why should Congress not begin to fund two subs a year in 2009?

Admiral MULLEN. Senator, the basis for this, as you indicated, is the 313-ship future force structure plan. We are 275 ships today. By the end of the year, I actually hope in the commissioning, one of which is later this week, to head north in terms of stopping the free fall. We talked earlier about, or I have talked consistently about having a balanced fleet. The 48 submarines was the warfighting analysis that we went through extensively and I am very comfortable with that number and very comfortable with that number against the 1999 JCS study.

That said, the plan you speak to, we do fall to 40 submarines. We have looked in the last year at ways to mitigate that and we are looking at possibilities of extending some hull life for a deployment, for an additional deployment. The hull lives of our nuclear attack submarines have gone from 30 years to 33 and now it looks as though there is a possibility some of them could be extended as one way.

We want to reduce the time it takes to construct the *Virginia* class submarine from 72 months to 60 months. That makes more submarines available. I also have the option of keeping them deployed longer for a period of time to mitigate that.

With reasonable assumptions about those three specific possibilities, I can mitigate that eight submarine gap that you described in that timeframe down to about three submarines. We will continue to work that. So as I indicated, we would look to mitigate this. We are working very hard on that and we certainly intend to do that.

But I share your concern in your opening statement about the pressure. I have been doing these budgets since the mid-1990s and we are, the Navy now, I am under extraordinary pressure across my people accounts, my operations accounts, as well as my procurement accounts, and the heart of those procurement accounts are ships, submarines, and airplanes, and balancing that in the environment in which I am finding myself right now is a real challenge.

The cost growth we cannot tolerate or we are not going to be able to build the ships, the cost growth you speak to in LCS; we are not going to be able to meet this plan. We have to control that. So we are working hard in a very constrained environment to get there, and I am comfortable that we have worked hard in these mitigation areas, but it is early and it is still a concern.

Senator LIEBERMAN. I appreciate that we share that concern. I do want to say that the very mitigating circumstances, the program to mitigate the impact of a gap where we fall substantially below the 48 submarines, is really a pressure that we ought not to be putting you under, and frankly the submarine force. I worry about whether we are pushing the subs structurally beyond what they can handle. I am certainly worried if one of the mitigating policies is to extend deployments, what that will do to the morale of the submarine force because, as you well know, they already deploy at a pretty good rate.

Admiral MULLEN. Well, Senator, they would not be major extensions. This is a month or 2. It is not an exceptional period of time. We certainly would never take the risk, if there was any concern with material failure, would not do that.

I did not answer your question about can we buy it all in 1 year. The 3-year buy is basically a function of, obviously, affordability in a given year and also what I can execute to build the submarine. Clearly, that has been how a submarine has been built and the time line that we have had it. Could you appropriate all the money to do that or could we, could the Hill do that? Yes, absolutely. But the challenge will be executing that money in a meaningful way, and so it has been that, again it has been that balance.

We have done that with other programs, but that has been it, the way we have built submarines.

Senator LIEBERMAN. My time is up and I thank you. We will continue on this exchange. We have been going at it for a few years already.

But I do want to say with some pride, and also to express my appreciation to the Navy, that the submarine building program has been going forward at a very good cost control, on a cost control basis, and the speed of delivery. Everything is relative, but when we start to talk about getting the cost of a submarine down to $2 billion, which it looks like we can do, that is a lot of money. But compared to some of the other shipbuilding programs, it is not so bad.

Admiral MULLEN. Senator, the other thing, and I will try not to fill this up, but if I buy a $2 billion submarine in 2009, get to two a year, I have nothing in 2010 and 2011. I have no resources applied against that. So the program comes back to me to fill that up. Again, we are in a plan right now to get to two in 2012. That is

several billion dollars, $4 to $5 billion that I currently do not have in the program.

Senator LIEBERMAN. Well, if you and I and a few others can get to two subs in 2009, we will take care of 2010 and 2011.

Admiral MULLEN. Yes, sir.

Senator LIEBERMAN. That is an expression of faith.

Admiral MULLEN. Yes, sir.

Senator LIEBERMAN. Senator Thune.

Senator THUNE. I have a feeling submarines are going to be really well-covered on this subcommittee.

A question for you, Admiral, or for Secretary Winter, and that has to do with affordability of the LCS. It is critical in order to achieve the large numbers—55 ships, I think, is the goal that the Navy has determined it needs—that we start making some headway here. I harken back, I guess, to what the plan was for affordability was. One, keep it simple in its design; do not change the requirements; maximize competition; and leverage the smaller shipyards, which would be more efficient, building smaller, simple ships, and speed up the process to avoid the cost growth that often comes with time.

I think the full committee and this subcommittee in particular has been in your corner on affordability. But we appear to be on a path that doubles the $220 million estimate for these ships. Mr. Secretary, I appreciate your efforts to stabilize this program, but I would like to have you explain, if you could, how the Navy and the industry's original estimates ran so far askew. Second, since the Navy's estimates indicate cost growth for both industry teams building their first ship, why has the Navy only taken corrective action on one contract and how do you intend to control cost for the remaining ships under both contracts?

Secretary WINTER. Sir, let me address both questions there. First of all, relative to the reasons that we are in a cost overrun situation, I think it really is due to the over optimism that was created at the beginning of the program. I believe that as we look backwards we were not as realistic as perhaps we should have been relative to the cost estimates, in particular the cost estimates for the lead ships. We are now having to deal with that and one of the unfortunate aspects of initiating a contract which is underfunded is that often things are not done as well as they should be in the beginning, and it is at the early stages of the program where much can be done to reduce the overall cost of a ship.

I do believe, though, that with a total buy on the magnitude of 55 ships, which is the current program, there is huge opportunity out there to be able to motivate the type of business case, to provide the rewards that industry would be looking for, for a significant investment in a modern production capability, and in fact we may be able to afford two production capabilities. That would enable us to work through a leader-follower arrangement and be able to maintain competition in the long run.

Working through the issues that we are going through right now, developing a competitive base, and being able to leverage the quantity buys that we are talking about in the future, all will hopefully lead us to a more affordable cost position on this particular vessel.

Relative to the General Dynamics (GD) position and compared to the Lockheed position, we have established formal tripwires, if you will, associated with the performance parameters that GD is engaged in right now and Lockheed has already worked through. Should GD exceed any of those tripwires, it is our intention to pursue the same remedies that we sought with Lockheed Martin relative to containing their costs and seeking a renegotiation of the contract.

At this point in time, GD has not exceeded any of those tripwires. I will note that we have kept those tripwires, the specifics there, confidential and have not shared them with the contractor, specifically to ensure that we have an honest and open assessment and there is no opportunity or motivation for gaming any of the particular parameters associated with that.

Senator THUNE. The contracts for both industry teams place the Navy in the position of financing 100 percent of the cost overrun. How do you balance the risk on future major programs to avoid finding ourselves in a similar position?

Secretary WINTER. I believe, sir, in future major programs, in the production phase at least, we very much need to go to cost structures, fixed-price incentive type structures, which enable us to share the cost risk appropriately between the contractor and the Navy. When we are talking about initial development phases, where there are very high uncertainties and it is difficult to obtain a fixed-price bid from a contractor, we will probably still have to go with cost reimbursable contracts. But even there, there are mechanisms that are available to us to provide cost and schedule incentives that share that risk with the contractor.

Senator THUNE. Given the cost pressures on the shipbuilding program, what impact do the increased cost and delays in the LCS program have on the balance of the Navy's plan?

Secretary WINTER. Well, the significant impact that it has had is the need to reprogram or request reprogramming authority for the fiscal year 2007 funding to be able to be used for the completion of the vessels that still are under contract. In the out years, we are hopeful that the cost reductions associated with the strategy we are going to with the selected configuration and the quantity buy that will enable the cost efficiencies associated with a modern production facility, that those mechanisms will enable us to minimize the cost impact to the overall shipbuilding program.

We need to go through that, though. We need to understand exactly how much we are going to be able to get by way of investment in those facilities and the leverage that that will provide us. But I am very hopeful that we will be able to recoup a significant amount of the increase in cost.

Senator THUNE. I want to jump to one other subject here quickly and that is the Joint Strike Fighter (JSF) gap. The Government Accountability Office recently released a study titled "Tactical Aircraft: DOD Needs a Joint Integrated Investment Strategy." It made several conclusions: One, the Department of Defense (DOD) does not have a single integrated investment plan for recapitalizing and modernizing its tactical air forces; and that without a joint integrated investment strategy it is difficult to evaluate the severity of capability gaps or, alternatively, areas of redundancy.

In light of the Navy's concerns over a strike fighter gap, how do you respond to those findings? Given the Navy's additional competing need to recapitalize its fleet of ships, how would you assess affordability of the Navy's aviation procurement plans?

Admiral MULLEN. One of the things that came out of the shipbuilding effort that we put forth was to try to stabilize it. One of the results of that was the desire on the part of many senior leaders in the Navy to stabilize the aviation plan as well, because it too had seen instability in recent years. So we are about there right now, this year and next year, to basically figure out how many aircraft we need and how we can stabilize it, with the same underpinning philosophy, so that industry can plan, not have significant changes every year, and then produce what we need at best cost and in a timely way.

Specifically for me, for the Navy, the strike fighter shortfall—and I think your initial number was on the order of 110 planes. I have seen numbers as low as 40 or 50 and as high as over 200. The numbers I am very comfortable with is a shortfall starting in about 8 to 10 years of 47 to 71 planes, depending on whether we buy 40 or 50 a year at a certain price. The highest numbers are at a very low production rate, at a very high price.

From the standpoint of the programs that I need, I need the JSF. I need it for its range, its payload, its stealth, its sustainability. So I am committed to that. Where I find myself is in the middle here, because I find myself buying more F–18 Es and Fs, and they are great airplanes, but they are not the planes I need to populate the entirety of my air wings in the future. I have to get to JSF and that is the plan right now.

I will not talk about the DOD strategy, but I can tell you within the Navy the strategy is to get to JSF as quickly as we can, and yet there are some acquisition challenges we want to be mindful of with where this program is as well.

I also have a challenge, a very clear challenge, with Jim Conway and I, the Commandant of the Marine Corps, because I basically fund Marine Corps aviation, and how we balance that inside the requirements that we both have is also a significant challenge. He and I are committed to working through that, and that is part of this shortfall as well.

So I recognize the shortfall is there. I know we have to stabilize this plan in the very near future. But it is going to take a significant amount of additional procurement investment to get there and really mitigate that shortfall.

Senator THUNE. Thank you.

Thank you, Mr. Chairman.

Senator LIEBERMAN. Thanks, Senator Thune.

Senator Reed.

Senator REED. Thank you very much, Mr. Chairman. Senator Lieberman has asked these wonderful questions about submarines. He has grasped the mettle of naval policy, the submarine. It is the most key element, so thank you.

Senator LIEBERMAN. We stand together.

Senator REED. We stand together.

Mr. Secretary and Admiral Mullen, thank you not only for being here today, but for your great service to the Nation. Following on

this issue of submarines, we have talked a lot in this open session about force structure, but there is also the industrial base issue, which is absolutely critical, not just to submarine construction, but to all naval shipbuilding programs.

One of the areas of concern is that this is the first time in many, many years we have not had an active design program for a submarine. The recent RAND report suggested the that design for the new Trident, the new ballistic missile submarine, be accelerated. Mr. Secretary and Admiral, could you comment on that?

Secretary WINTER. Yes, Senator, pleased to. We have recently been going through several iterations of a plan to create the next generation strategic deterrent for the Navy. One of the things that I have been fairly insistent on is ensuring that that is a complete integrated strategic plan, going through everything from the warhead to the missile to the boat itself. I think we now have a good laydown of a plan. We have worked through the aspects with United States Strategic Command in terms of ensuring that we have a current set of requirements and a good forecast of where those requirements may evolve in the future, both on the nuclear and the non-nuclear side. That will be factored into the overall design study activities for the future, the *Ohio* class replacement, if you will, activities.

Initially, those will be mostly design studies as we go through the overall assessment of alternatives that can provide the basis for that strategic deterrent, and it will later on evolve into preliminary design efforts for the replacement activity. We do want to focus on getting to the right objective in the long-term and making sure that we have a good systems engineering process that we are factoring through. With that, we will phase in the individual design activities as the requirements support.

Senator REED. Thank you, Mr. Secretary.

Admiral, do you have any comments?

Admiral MULLEN. Well, I would only echo that and say we recognize the criticality of this industry base or the design base. We are very committed, and Secretary Winter has led this effort, to really understand where we are and how we sustain it, which includes, could include various options. It is underpinned by the belief that if we lose it we cannot get it back, and the Nation cannot afford that.

Senator REED. Thank you.

Senator Lieberman pointed out that there has been some significant advances in lowering the cost of submarine construction. In fact, the selected acquisition report estimated a reduction of about 3 percent of the total *Virginia* class submarine program. That I think is significant and I hope you share that feeling.

But second, there are also opportunities within that cost reduction for additional research and design work to further accelerate reductions. Is that something that you are considering, Mr. Secretary or Admiral?

Secretary WINTER. Yes, sir, we are considering both additional research and development activity. As you are probably aware, we have a number of efforts going on right now in terms of design modifications for the *Virginia* class, which are principally oriented towards reduction of costs, design for production, enhancements for

that vessel. We are also engaged in a number of activities in terms of advanced submarine design and construction, including some promising activities in coordination with the Defense Advanced Research Projects Agency.

Senator REED. Thank you, Mr. Secretary.

Admiral, let me ask another question. That is, as we both understand, our colleagues in the House adopted a measure that I believe would fund an additional set of *Virginia* class components, not specific to a hull.

Secretary WINTER. Yes, sir.

Admiral Mullen, is that an approach you think has merit?

Admiral MULLEN. I do. I think it does have merit. As you said, it is not tied to a specific hull. In terms of—and it really gets to the issue that both you and Senator Lieberman are raising, which is to get the cost of the business down. It will allow us to continue to reduce risk over the long-term.

I think it is an investment in long-term cost reduction here, both in this program and—one group I would really like to pat on the back is Electric Boat has done incredible work to help us reduce this cost. It is very clear when you go there that they are aboard to try to make this happen enthusiastically and as partners, and it is part of that strategic partnership I think we need to make to sustain, to have an outstanding industrial base for the future.

Senator REED. Thank you.

Mr. Secretary, any further comments?

Secretary WINTER. I would just add that in shipbuilding in general, and in particular in submarine construction, maintaining the pace of work is very critical to efficient production. This is not a business where just-in-time inventory works. Having long lead items worked in advance so as to ensure that the pace of production is able to be maintained is a very good way of reducing the risk of program execution.

Senator REED. Thank you.

One final question, Admiral Mullen, is that the Marine Corps stated a requirement for a minimum of 30 operational amphibious ships.

Admiral MULLEN. Right.

Senator REED. You are actually planning, as I understand it, to reduce the inventory of these ships. But your rationale I think for being able to meet the Marine Corps needs is that you can provide 100 percent readiness of these ships. Can I understand your rationale and is it feasible?

Admiral MULLEN. Yes, sir. General Conway and I certainly have agreed that the requirement is for the availability of 30 ships. Based on historic availability, doing the math, you need 33 to do that. Now, that is how we have done it historically. What I have committed to him is to provide him the lift he needs.

We have 31 ships, amphibious ships, in the 30-year shipbuilding plan and we have to look at how we are going to fight in the future and specifically how we are going to move this 2.0 Marine Expeditionary Brigade into the fight. General Conway and I have agreed to figure out a way together to make that work. It could include higher availability of ships. Some of it depends on, obviously, the warning time you would have and that kind of thing.

We are also building the Maritime Preposition Force Future ships, a significant investment there, which also has the potential to help us move marines to the fight. So there is an awful lot. It is a very complex set of variables and it is also a very important part of how we build the sea base for the future, which I think is going to become more and more important in terms of availability of footprint ashore and the requirement, not just from the Navy and Marine side but from a joint perspective, to be able to flow combat power through a sea base.

Senator REED. Thank you very much.

Thank you, Mr. Chairman.

Senator LIEBERMAN. Thank you.

Senator Collins.

Senator COLLINS. Mr. Chairman, I would be remiss if I did not welcome our new ranking member. Perhaps the Senator from South Dakota will be more dispassionate on the Navy's budget than the rest of us around this table. But I hope that our new ranking member will take a great deal of guidance from the Senator from Connecticut, the Senator from Rhode Island, the Senator from Virginia, and the Senator from Maine on such issues as submarines, aircraft carriers, destroyers. I just want to offer you all the guidance in the world on those important issues, as we welcome you to your new and very important position.

It is amazing to me that our last ranking Republican was from Missouri and now we have one from South Dakota. There seems to be a pattern here.

Mr. Secretary, thank you so much for being here today. Last year we approved the funding for the dual lead ship design for the DDG–1000 and also funding for construction. This ship is obviously critical to the 313-ship plan that the CNO has put out. I am concerned that, although the design contracts were awarded to both yards in August of 2006, that the construction contracts have yet to be awarded.

My concern is that this delay will begin to have an impact on the shipyard employees, on the vendor and subcontractor base. There is a lead time in getting the necessary subcontractor contracts in place and we cannot proceed with that until the contract is awarded. So this is a concern to me.

I am also concerned that any further delays in the award of the construction contract will have an impact on overall cost and could well drive up costs.

Could you update us on the status of the award of the construction contract?

Secretary WINTER. Yes, Senator. I asked for a short hold be placed on the award and contracting there to ensure that the lessons learned from LCS were properly factored into the DDG–1000 contract. I have now been satisfied that that has been done and I recently authorized the Assistant Secretary of the Navy for Research, Development, and Acquisition to proceed to the finalization and definitization of those contracts.

Senator COLLINS. Thank you. That is good news indeed. Do you have a timetable for going forward on the contract?

Secretary WINTER. I believe we are very close, in a matter of weeks hopefully. I would hesitate to give you a definitive schedule, but I would be happy to get you an update as soon as possible.

Senator COLLINS. Thank you.

[The information referred to follows:]

On September 25, 2007, the Navy decided to resequence delivery of the first ship set of DDG–1000 mission systems government-furnished equipment (GFE) to General Dynamics Bath Iron Works (BIW) vice Northrop Grumman Ship Systems (NGSS). The Navy has received cost proposals from both BIW and NGSS reflecting the GFE resequencing and is entering negotiations with the two shipyards for lead ship production. The Navy anticipates completing negotiations no later than January 2008.

Senator COLLINS. Admiral Mullen, we have talked many times about the reduced life cycle costs of the new DDG–1000 because of the reduced crew size and other efficiencies. We also have a challenge as far as extending the life, the useful life of the DDG–51 class and making sure that we get the full number of years originally envisioned in order to achieve your goal of the 313-ship fleet.

Could you comment on the importance of modernizing that class of ships in order to achieve your goal?

Admiral MULLEN. Yes, ma'am. Absolutely vital. We have in the 2008 program both modernization money for the cruisers, the Aegis cruisers, as well as the Aegis destroyers. We do not have a good history here of modernizing our ships, and we cannot afford to do that. So it is vital that these programs be supported.

I am not talking about just over here. Clearly that is important, but that is internal to the Navy. Historically, we do not have a good record of doing that. So we recognize that and I recognize that as part of this 313-ship plan, that we have to do that and get these ships to their hull life. Typically, it is when we decommission ships, it is not because—surface ships—it is not because their hulls are worn out; it is because their combat systems are not modernized. That is what we have to invest in and that is what this program is all about.

Senator COLLINS. Thank you.

Secretary Winter, in February, the Commander of Naval Sea Systems Command, Vice Admiral Paul Sullivan, briefed the Maine and New Hampshire delegations on the Navy's latest Naval Shipyard Business Plan for 2008 through 2013. I know this is an issue that you have put a great deal of time and effort into and that you have emphasized to Naval Sea Systems Command (NAVSEA) the need to use all four of the Navy's public shipyards as efficiently as possible. I am grateful for the personal effort that you have put into this plan.

Now, obviously NAVSEA faces certain constraints in distributing workload among the four shipyards. But I am concerned upon reviewing the plan that the Navy's plan may not fully acknowledge the specializations that each of the shipyards has. For example, Portsmouth Naval Shipyard in Kittery, ME, its expertise is with attack submarines. It was also called the gold standard during the Base Realignment and Closures Commission. We are very proud of that.

Puget Sound specializes in ballistic missile submarines. The Senator from Virginia's shipyard focuses on aircraft carriers. So there are different expertises that are available. Does the Navy intend to

try to optimize the specific and unusual skill sets that each shipyard has so as to ensure that we get the best value as we allocate the work among the four shipyards?

Secretary WINTER. Thank you for the question, Senator. As you noted, I put a bit of personal time into this. I do feel a level of stewardship responsibility regarding all four of the yards.

As you noted, we have requested that the Navy look at this from an optimization perspective and the overall objective here is to optimize the operational availability of the various ships in the most cost effective manner. Major consideration of that is the most effective utilization of the skills that are resident at each of the facilities. So that will be a very significant factor in terms of the allocation of availabilities to the individual yards, as well as the timing to be able to take maximum advantage of the work force that is resident at the individual yards.

Senator COLLINS. Thank you. I look forward to continuing to work with you on all of these issues.

Secretary WINTER. I would be pleased to.

Senator COLLINS. Thank you both.

Senator LIEBERMAN. Thank you, Senator Collins.

Senator Webb, welcome.

Senator WEBB. Nice to be here, Mr. Chairman.

Senator LIEBERMAN. I note that, following the exchange between Senator Collins and Senator Thune, I never really stopped to notice this before, that all of us on this Subcommittee, both parties—this is a bipartisan inclination—except for Senator Ensign and Senator Thune are coastal Senators.

Senator COLLINS. I do not think that is a coincidence.

Senator LIEBERMAN. We are not running your time, Jim.

Senator WEBB. I would not be so optimistic about the Senator from South Dakota. I think there are rivers in South Dakota.

Senator THUNE. Thank you very much.

Senator WEBB. We are going to soon see the Riverine Warfare Center in Sioux City. I can remember when I was Secretary of the Navy 20 years ago we spent a lot of time talking to Senator Stevens about strategic homeporting in Alaska.

Senator THUNE. Mr. Chairman, I would show great deference to all my colleagues, coastal state colleagues here, on shipbuilding issues and only ask in exchange that you show deference to me when it comes to farm programs. [Laughter.]

Senator LIEBERMAN. It is a deal.

Senator Webb's time should start now.

Senator WEBB. Thank you, Mr. Chairman.

Mr. Secretary, first I would like to congratulate you and express my appreciation for the work you have done on trying to tighten up the business side of this. We cannot increase the force structure in the way that many of us would like without having the efficiencies built into it. I think that what you have done over the past couple of months is very commendable.

Secretary WINTER. Thank you, sir.

Senator WEBB. As a starting point on these force structure issues, I have to look back to the time when Admiral Mullen and I graduated from the Naval Academy 39 years ago. We had 932, I think, ships in the United States Navy. It went down to 479 in

the post-Vietnam drawdown. We got it up to 568 when I was Secretary of the Navy. We are down to 270——

Admiral MULLEN. '5.

Senator WEBB.—275 Navy ships, which is roughly half that, now. There are different eras and different national requirements. But I think truly today when you look at what has happened, we have a number of budget restraints that are based on the inevitable strategic mousetrap, from the ground forces being burned up in Iraq, weapons system, force structure, replenishment, all those sorts of things. Inevitably when this happened, our strategic forces tend to pay.

I would like to ask, Admiral Mullen, in an ideal strategic world, not in a budgetary sense but in an ideal strategic world, looking at the responsibilities of the United States around the world, where would you see the Navy force structure?

Admiral MULLEN. Certainly north of 313 Navy ships. Senator Lieberman or—I am sorry, Senator Thune I think talked about 380 as well, and that was one of the estimates that was out there 3 or 4 years ago. I think you hit at one of the most vital parts of how we have these discussions in the world that we are living in right now, which is what is the strategic appetite and how are we going to resource it.

I am extremely concerned about the long-term ability of naval forces, Navy and Marine Corps, to be out and about in the ways that we need to be in the unpredictable world that we have. That said, back to the point the Secretary made, our operational availability right now is a whole lot better than it used to be. We have invested an awful lot of money and resources. So today 40 percent of the ships that we have are deployed, which is a very high number and they are doing exceptionally well.

313 Navy ships was really minimum risk. I have not done any current analysis, sort of unbounded, to say without those bounds what should it be. But I would describe it more as the maximum acceptable risk is where we are right now, and I am very comfortable saying that.

Senator WEBB. What was the end result of the experiment I was reading about that was in the papers a year or 2 ago with rotating ships' crews and keeping ships themselves on station?

Admiral MULLEN. We call that Sea Swap, and we just finished the second phase of that, the second series of three ships. There are many lessons that came out of that. Probably the most significant is that it does pretty well on cruisers, destroyers, and smaller ships. Trying to scale it up to the big ships is going to be a difficult problem.

But I think in the manning constructs, we are in the middle of changing sea-shore rotation. I think in manning constructs in the future that there will be pieces of that that we will roll into. I talked about availability of ships, even availability of submarines. Would we consider rotating a crew as opposed to bringing a submarine back off a deployment, for example, or a cruiser or a destroyer? I think those are things that come out of the lessons that we learned there to make these incredibly important platforms and large capital investments mean more to what we are doing in terms of our overall country's security.

Senator WEBB. Potentially be a force structure multiplier.

Admiral MULLEN. Yes, sir, absolutely.

Senator WEBB. Secretary Winter, you used two phrases which I think were pretty important in terms of how we are making these decisions. One is that we are all fiduciaries here, because so much of this procurement cycle is beyond the next, say, 5 years, et cetera.

The other is "pace of work." I have a question relating to keeping this pace of work from falling into the bath tub and coming back out again when we lose so many good people. We have been told that the Newport News Shipyard, which is the largest employer in the entire Commonwealth of Virginia, that there is going to be one of these dips between 2009 and 2012 when a great percentage of work is done and before we pick up I believe on two submarine projects starting in fiscal year 2012.

Is there a way for the Navy to take steps in conjunction with the business community to prevent that sort of hiatus?

Secretary WINTER. Well, sir, we have been working that in several aspects. First of all, I think the plan and the profile there of work has been pretty well understood and has been very stable for the last at least year. So there has been a basis of planning.

Second of all, we are trying to utilize the one yard construct, which enables a sharing of personnel between the public and private yards in particular down in the Tidewater region.

Thirdly, we will be looking very carefully at emergent opportunities for additional work availabilities that may come up within this time period and will see what we can do in terms of being able to use those to help retain the critical skills that are available at Newport News.

Senator WEBB. Thank you.

Admiral Mullen, I would like to associate myself with the views of Senator Warner on this Oceana problem. He would have been here, but he is down with the Queen of England today.

Senator LIEBERMAN. That is what senior Senators get to do. I speak as a junior Senator.

Senator WEBB. He actually said he did this during the Bicentennial as well, so I guess he deserves a return visit.

Senator LIEBERMAN. But not during the Centennial.

Senator WEBB. That is right.

Senator Warner mentioned his belief that the facility at Fort Pickett might be an acceptable alternative and it has the advantage of already being a government-owned facility with respect to clearances and that sort of thing. I know you have stated your views that this is outside of the tactical radius or the training radius that has been heretofore defined.

But I am just wondering if you could clarify for us what your thoughts are on the different options that are available since that one site in North Carolina apparently is not going to work.

Admiral MULLEN. Yes, sir, and I appreciate the question. I was asked that—actually, I was down in Norfolk on Tuesday and I was asked that question. Clearly, we are—the requirement for the outlying field is a very significant one. I appreciate Senator Warner both making that offer and that we have—what I said was tied to the requirement at the time, which was we had drawn a line at 50

miles and obviously Fort Pickett is further away than that specifically.

But what I also said in my statement and it did not necessarily register in all the quotes was that my lens is wide open on this. The Secretary has indicated in discussions with Senator Warner, we are willing to look at other options and certainly include Fort Pickett, and that is really where I am.

The criteria that Fort Pickett was excluded from was back when we first considered outlying fields. We are having challenges clearly in North Carolina. We want to get this right. We are trying to balance it between two bases, Cherry Point and Oceana, which is what constrained us to some degree. But we are willing to look at all options at this point in time, and be consistent with the process that we have used today.

Senator WEBB. I appreciate your clarification.

Admiral MULLEN. Thank you, sir.

Senator WEBB. Thank you, Mr. Chairman.

Senator LIEBERMAN. Thank you very much, Senator Webb.

Gentlemen, I think Senator Thune and I will go one or two more questions and then let you depart. I appreciate it very much.

This is to Admiral Mullen. Just when I thought I got the pronunciation right as "Litt-OR-al," you said "LITT-or-al" just a while back, and I want you to clarify for me which is the preferred pronunciation of the LCS.

Secretary WINTER. We disagree, sir. [Laughter.]

Admiral MULLEN. I actually use both terms.

Senator LIEBERMAN. We have noticed.

Admiral MULLEN. How about a waffle answer?

Senator LIEBERMAN. But you do not waffle on anything else, so that is all right.

Anyway, we talked about the concerns about the escalation in cost of the LCS program, heading up to close to two times, am I right, what we originally hoped it would be? We have some very big acquisition programs, carriers and destroyers, actually multibillion dollar programs, and of course the subs, which we talked about.

Admiral, I appreciate very much what you said about Electric Boat (EB). That will mean a lot to the workers up there. That is appreciated.

Secretary Winter, let me ask you more generally considering this, and particularly the problems on the LCS. I have great regard for your management abilities. What steps are you taking or are you planning to take to improve the Navy's ability to acquire these major systems on time and on cost? In some sense, I am not looking for compliments for EB, but what—if you care to—you do not have to answer. But I am curious, what worked there and what lessons can you draw from that to the others?

Secretary WINTER. Well, sir, I think there are a number of factors. First of all, we have to have a very firm understanding of what it is that we are buying. That to a great extent has to be defined by the Navy at the outset and eventually handed over to the industrial team for the final definitization of design compatible with the construction facilities.

Second of all, we have to have an agreed to, realistic cost and schedule basis for the program. I think we have gone a long way to doing that on the *Virginia* class.

Lastly, I think we need to have an acquisition force that is properly sized and skilled, with the right backgrounds to engage in the oversight of the activity. In particular, I believe that on the naval reactor side with the submarine efforts we have a very stable and mature acquisition organization and it has been able to provide that type of oversight. You couple that in with established and well understood relationships between the Navy and the contractor team and I think you have all the possibilities of a very efficient and effective acquisition program.

Senator LIEBERMAN. That is interesting. So part of it is the experience of the acquisition force?

Secretary WINTER. Most definitely, sir. I think that we have seen that, not only in the Navy, but I think we have seen that in other services as well.

Senator LIEBERMAN. We have for sure. So what do you do to try to make sure you improve the acquisition force across the board?

Secretary WINTER. Well, sir, I think it is going to take a while to do this, but I believe that we have to emphasize and accelerate the process of training individuals in acquisition. I think we have to make sure that the individuals who are selected for that have the basic engineering and experience in the development of ships from an operator's perspective before they get involved in the acquisition side.

I think we have to recognize that it is a multi-year investment, that we have to take the individuals, give them the various opportunities in programs which are ongoing, and give them the opportunity to build up the experience base before they take responsibility for either an existing program or in particular a new program.

In that regard, sir, if I could, I think we have to recognize that when we start new programs there are additional demands that are placed on the acquisition team, and in particular in those circumstances we have to make sure that we provide some of our best and most experienced individuals to be able to lead that from the Navy perspective.

Senator LIEBERMAN. Thanks. Well, we are going to keep in touch with you on that and urge you to be as demanding as you have to be to have this be what you want it to be.

I have one more sort of open-ended question, but I am going to save it until the end for Admiral Mullen and yield to Senator Thune at this time.

Senator THUNE. Thank you, Mr. Chairman.

Senator Warner, who could not be here today, had asked that there be two letters included in the record. The first is a letter from him to the Secretary dated April 19, 2007, which urges the Navy to consider existing military locations in Virginia, including Fort Pickett, for a new outlying landing field (OLF). The second is a letter from Senator Warner to the Secretary dated April 20, 2007, which thanks the Secretary for his time in a phone conversation where the Secretary confirmed that the Navy would consider loca-

tions in Virginia, including Fort Pickett, as a viable option for an OLF.

[The information referred to follows:]

JOHN WARNER
VIRGINIA

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ARMED SERVICES
ENVIRONMENT AND PUBLIC WORKS
SELECT COMMITTEE ON INTELLIGENCE
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April 19, 2007

The Honorable Donald Winter
Secretary of the Navy
1000 Navy Pentagon
Washington, DC 20350-1000

Dear Secretary Winter:

I learned today of Senator Elizabeth Dole's letter to you stating her opinion that "the Navy's proposal to build an [Outlying Landing Field (OLF)] in Washington County [North Carolina] is simply not feasible." Further, Senator Dole declared her willingness to work with the Navy to identify "operationally viable sites [for an OLF] in North Carolina where environmental and other problems are very limited, and where residents are more receptive to such a facility and its potential for long-term economic development."

I have also read your Department's response to Senator Dole stating, "Washington County has been, and remains the Navy's preferred site." Additionally, the Department stated that, "The Navy welcomes any effort that would identify new locations that meet the Navy's operational and environmental criteria."

I have long supported the Navy's decision to build an OLF in Washington County, since this location was identified as supporting the Navy's critical requirements for training carrier aviation squadrons based at NAS Oceana and MCAS Cherry Point. I am prepared to maintain my support for the Department in the event you choose to continue plans for the development of the OLF in Washington County, N.C.

However, if the Department decides to consider new locations for the OLF, I strongly urge you to expand your review of possibilities to include existing military areas in Virginia, that may offer the Navy the capabilities and land that you require. I encourage you to specifically review the many advantages that would be provided by locating the OLF at Fort Pickett, Virginia.

Fort Pickett has 20,000 acres of controlled access land, restricted airspace up to 18,000 feet, and two runways each in excess of 4,000 feet in length. One of these runways was upgraded in the mid-1990's and additional opportunities exist for significant runway expansions in the controlled area of the base without encroachment concerns. Fort Pickett is located in rural part of the Commonwealth, which would offer the characteristics desired by the Navy for night carrier landing training.

Most importantly, the citizens of the Commonwealth have a long history and proud tradition of embracing new military missions, and the military personnel and families that serve our nation. I have no doubt that the Navy would find a welcoming community should it decide to consider locating the OLF at Fort Pickett, or at an appropriate location elsewhere in Virginia.

I look forward to discussing this important matter with you personally at your earliest convenience.

With kind regards, I am,

Sincerely,

John Warner

John Warner

JOHN WARNER
VIRGINIA

COMMITTEES:
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April 20, 2007

The Honorable Donald C. Winter
Secretary of the Navy
1000 Navy Pentagon
Washington, D.C. 20350-1000

Dear Secretary Winter:

Thank you for your time today and our phone conversation confirming that you will consider Fort Pickett, Virginia as a location for an Outlying Landing Field (OLF) to support Naval aviation training and operations. I was pleased to hear that you and your staff will once again study Fort Pickett as a viable option. I would appreciate the Navy clarifying its earlier statements to the media to this effect, and look forward to hearing from you on your further review of locating an OLF at Fort Pickett.

Thank you as always for your service to our nation.

With kind regards, I am

Sincerely,

John Warner

JW/sel

Senator THUNE. I would like to ask a question. Admiral Mullen, the ongoing operations in Iraq and the demand for ground forces has resulted in the deployment of thousands of sailors and individual augmentees to United States Central Command (CENTCOM). You have pointed to the contributions of these individuals with pride, noting that there are more sailors supporting operations in the ground in the CENTCOM area of responsibility (AOR), over 12,000, than the Navy has at sea in that AOR.

We have seen reports from General Mosely, however, expressing concern that ongoing demand for these augmentees is hurting morale and retention in the Air Force. Similar concerns could be expressed by Navy personnel who do not feel that they signed up for ground duty. Are the demands being placed on the Navy for individual augmentees excessive or becoming difficult to meet?

Admiral MULLEN. No, sir, they are not. In fact, I was with many of them over the holidays in both Iraq and Afghanistan and they are making a huge difference. They know they are making a difference and they are very proud of what they are doing. I have tried to keep a very close eye on what I would call the red lines that would give me concern, and we are just not there yet.

Senator THUNE. Do you see any negative impact on morale and retention as a result of ongoing operations?

Admiral MULLEN. No, sir. In fact, our recruiting numbers are good, our retention numbers are good. I think it was at actually the Senate hearing I did last time where I indicated for the first time I had seen first-term retention this year dip below 50 percent. That is our goal. That really got my attention. I am happy to report that the monthly that just came in a couple days ago, it is back above 50 percent for this year.

So we paid a lot of attention to that, and I just have not seen the kind of impact. In fact, the individual augmentees that I have spoken to, whether they are in Guantanamo Bay, the Horn of Africa, Bahrain, Iraq, Afghanistan, have been incredibly positive. It is almost 13,000; it is over 13,000 right now today.

Senator THUNE. Given that number, do you consider a maximum number of sailors that can be assigned to Army and Marine Corps units in CENTCOM without harmful effects on the readiness of the Navy? Do you have a threshold or a maximum number?

Admiral MULLEN. We work pretty hard to try to predict how many more there will be and there has been a gradual increase. But I do not see anything in the future over the next 2 or 3 years as I am able to predict that requirement that is going to raise this level dramatically higher so that it would have that kind of impact.

Senator THUNE. Thank you, Mr. Chairman.

Senator LIEBERMAN. Thanks, Senator Thune. Thanks very much.

I have a question that is not the particular purview of this subcommittee, but rather of our Personnel Subcommittee. You are still reducing Navy personnel, are you not?

Admiral MULLEN. Yes, sir.

Senator LIEBERMAN. What numbers are you at now?

Admiral MULLEN. At the end of 2007, I will be at about 340,000. We are actually asking for another 12,000 to come down in the 2008 budget. That gets me to about 328,000. I am going to settle out at about, between 320 and 325, is the plan, and we have a plan to do that.

Senator LIEBERMAN. You are confident that you can handle what we are asking you to do with those numbers?

Admiral MULLEN. Yes, sir. But I am at that point, I have gotten to a point where that is enough. You are hitting at what I believe is as big an issue as we have in the Department, is how we are going to compensate and how we resource that aspect. Our most vital part of our overall Navy—actually, it is all the services—are people, and the costs continue to go up. Adequately making sure we have the resources to do that in the future is really going to be critical.

Senator LIEBERMAN. Absolutely.

Let me just ask you this final open-ended question. It is about the future. Here we are very focused on Iraq, Afghanistan, the threat of the global war on terrorism and al Qaeda. We are investing in a lot of programs—and I am speaking about the Navy now, of course—that, they have some real significant relevance, of course, to the global war on terrorism. But some of these I know are also against a hedge of a future peer competitor. Even now, in the global war on terrorism, we have increasing worries about Iran.

I wonder if you would talk a little about what you see as the kind of future geopolitical, geostrategic environment that you are

asking us to fund the Navy to meet, and specifically, to the extent that you are able in open session, talk a little bit about China and Iran?

Admiral MULLEN. I believe without, obviously, getting into the very, very, getting into the middle of the political debate about Iraq—and I believed this for years—that there will be a time when we come out of Iraq and out of Afghanistan. I think it is—and I have talked to Jim Conway about this and my open-ended—I mean, my open arms to him is welcome aboard, let us get under way, because I think it is really vital for the country to be out and about, which is what the Navy and Marine Corps can do, and it does it obviously with a very strong Navy.

Very difficult to predict, just based on what our predictions have been in recent years, what is going to happen and where the difficulties might be. It gets back to this, one of the concepts that I talk about is this 1,000-ship Navy, global partnerships in a very dangerous world, where you have weapons, weapons of mass destruction, drugs, immigration challenges, fishing violations, etcetera, and 90 percent of what moves in and out of most countries in the world goes by sea. So secure sea lanes to afford the opportunity for those economies to thrive are vital.

Navies do that and we know how to do that. Then specifically, the western Pacific is a vital region. Obviously you have both China and India, thriving new economies, and there is going to continue to be a global adjustment associated with those economic engines and the transparency of China's intent is not clear.

You indicated earlier they are building 2 submarines a year or more than that, they are building 10 surface combatant ships a year or more than that. It has been very difficult to understand exactly why. They are building a Navy that is certainly more capable than the challenge they might have with Taiwan if we had a problem with the situation up near her, off the coast in Taiwan or near Taiwan.

So it is the strategic intent specifically with her. I was recently in India and the focus there is very much on a more regional, broader—focus of the Indian Navy is a broader, regional focus, and they also share those kinds of concerns. So it is the transparency piece. China is buying technology, developing weapons, and creating challenges for us in other domains that I could not talk to in an open forum, that we are all very concerned about.

That said, what Admiral Fallon did out there when he was United States Pacific Command, engaging military to military, I think is vital.

With Iran, Iran sits at the heart of, obviously, the sea lane through which 60 percent of the world's oil resources travel. It is a vital, critical sea lane. We have been there, the United States Navy has been there since the late 1940s. We are going to be there a long time. Preserving that sea lane and preserving it so that a global economy can thrive is key as well.

I am concerned about what Iran is speaking about, what they are doing. Their taking these 13 British sailors and marines recently is just another example. Their rhetoric is strong. Clearly they could—they have the capability to shut down that strait for a period of time.

[Additional information follows:]

During my testimony, I indicated concern about Iran's recent capture of the 13 British sailors and marines. I would like to correct the record to show that there were 15 British sailors and marines recently captured by Iran, not 13.

I worry a lot about the Middle East, quite frankly, just the broader Middle East, outside of a discussion about Iraq and Afghanistan. Stability there is really critical. Naval forces as they are today, we have two carriers that are there today. Naval forces are a really important part of that stability.

That does not even speak to what may happen in other parts of the world. We are engaged in Africa, east and west coast, as a Navy. We are engaged down in South America in a positive way, to prevent and deter. A strong Navy has always been a great deterrent and a great strength of this country, and that is why I am concerned about building the Navy that we need for the future.

Senator LIEBERMAN. Thanks for that very thoughtful answer. We are concerned, too, and we want to keep the Navy as strong as we possibly can.

I thank you, Secretary Winter, for your testimony, for your service. Admiral Mullen, obviously the same to you.

We are going to keep the record of the hearing open for 10 days in case you want to add anything or we want to ask you a few more questions.

Senator Thune, do you want to make any conclusion?

Senator THUNE. Just to also express my appreciation for your outstanding service, Admiral and Mr. Secretary. We thank you for all that you do and for those that serve under you. Please convey our deepest appreciation to them for their service.

Secretary WINTER. Thank you very much.

Admiral MULLEN. Thank you, sir.

Senator LIEBERMAN. Thank you. The hearing is adjourned.

[Questions for the record with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR SAXBY CHAMBLISS

SURFACE SHIP TORPEDO DEFENSE AND ANTI-TORPEDO TORPEDO DEFENSE SYSTEMS

1. Senator CHAMBLISS. Admiral Mullen, the Navy has previously responded to a prior congressional inquiry that torpedo defense is an important ship survivability capability, and included Surface Ship Torpedo Defense (SSTD) in the recent CNO unfunded priority submission. Recent Navy budget submissions and congressional staffer briefs indicate that the Navy has decremented the fiscal year 2008 SSTD Anti-Torpedo Torpedo (ATT) developmental funding by half ($15 million) and that the AN/WSQ–11 torpedo defense system intended for high value units is no longer funded for development. Please explain the Navy's intent with respect to expeditiously fielding an improved torpedo defense capability for Navy ships, particularly high value ships most susceptible to a torpedo attack.

Admiral MULLEN. The Navy recognizes that improved SSTD capability using ATT is a funded requirement and is working to expeditiously deliver this capability in accordance with technology maturity and available resources. The Navy's intent is to initially integrate ATT capability on *Ticonderoga* class guided missile cruisers and *Arleigh Burke* class guided missile destroyers that are equipped with the SQQ–89A(V)15 Combat System. These cruisers and destroyers (CRUDES) have fire control and launcher systems that are modifiable for the ATT application, and the SQQ–89A(V)15 configuration provides threat torpedo detection, classification, and localization (DCL) capability. Improvements to CRUDES DCL capability were planned for testing in fiscal year 2007, but this testing has been deferred to fiscal year 2008 due to the unavailability of ships. Integration of the SSTD and its subsystems in CRUDES ships is a first step toward fielding an effective SSTD on high value, large deck ships. The Navy plans to leverage technologies developed and test-

ed for CRUDES platforms to improve high value ship torpedo defense. The fiscal year 2008 budget submission reduced ATT development in favor of higher priority Navy programs and while evaluating DCL technology maturity. The impact of this reduction will be a 2-year delay to ATT initial operating capability. The Navy is willing to accept this risk in order to fund higher priority programs.

2. Senator CHAMBLISS. Admiral Mullen, Congress has continued to support development of the ATT capability. In light of recent funding decrements, please explain the Navy's intent and plan to field the ATT capability for SSTD protection.

Admiral MULLEN. The Navy's intent is to initially integrate ATT capability on *Ticonderoga* class guided missile cruisers and *Arleigh Burke* class guided missile destroyers that are equipped with the SQQ–89A(V)15 Combat System. These CRUDES have fire control and launcher systems that are modifiable for the ATT application, and the SQQ–89A(V)15 configuration provides threat torpedo detection, classification, and localization capability. The Navy plans to leverage technologies developed and tested for CRUDES platforms to make future improvements to other ship classes, including aircraft carriers.

The Navy's plan is to utilize an evolutionary acquisition approach to deliver increments of ATT capability to the warfighters. Increment I plans to field the multimission hardware baseline and the first ATT software spiral to prosecute salvos of threat torpedoes. Increment II plans to field the software for enhanced salvo capability. Increment III plans to field the weapon and software for offensive Anti-Submarine Warfare capability. The Navy is drafting a capability development document and planning for an ATT Milestone B review in fiscal year 2008.

3. Senator CHAMBLISS. Admiral Mullen, Congress has expressed concern regarding the increasing capability of threat torpedoes to engage surface ships, as well as the increased potential of the Chinese Navy's ability to engage surface ships with anti-ship torpedoes. The Navy has indicated that new construction ships (CVN, DDG–1000, LCS, etc.) will be outfitted with standard and effective torpedo countermeasures. However, recent Navy actions to reduce the SSTD developmental funding line and not fund the proposed AN/WSQ–11 system for Navy high value units appear counterproductive to enhancing the capability of Navy ships to defend themselves against a torpedo attack. Please explain the Navy's plan to provide each new construction class ship with a robust torpedo defense system.

Admiral MULLEN. The Navy intends to utilize the appropriate torpedo defenses to meet the unique requirements for each new construction ship class within available resources. As with other mission areas, the Navy will maximize the undersea defense capabilities of the Carrier Strike Group (CSG) by utilizing joint integrated operations.

The Littoral Combat Ship (LCS) baseline design has space and weight reserved for a torpedo detection, classification, and localization (DCL) system that is compatible with the class's sprint speed as well as its space and weight requirements. The LCS Concept of Operations (CONOPS) minimizes time in submarine danger areas. Unmanned surface and subsurface vehicles are planned for threat submarine detection. Anti-Submarine Warfare (ASW) helicopters will be used for threat submarine detection and prosecution prior to engagement with LCS in its mission areas. If LCS is alerted to a nearby threat submarine, it will exploit its high sprint speed and maneuverability to move to an area out of torpedo range. The Navy plans to leverage current and future development efforts to provide LCS with torpedo DCL and countermeasure capabilities.

DDG–1000 will incorporate the Integrated Undersea Warfare (IUSW) suite with the AN/SLQ–25D (NIXIE), AN/SQQ–89A(V)15, and Launched Expendable Acoustic Decoy System (LEADS) for its baseline torpedo defense. Further, DDG–1000 is designed with space and weight reserve to accommodate the Anti-Torpedo Torpedo (ATT). These systems, incorporated into DDG–1000's Total Ship Computing Environment (TSCE), will integrate Undersea Warfare combat management, fire control, command and control, and defensive countermeasures, enabling DDG–1000 to engage undersea threats in both littoral and open ocean environments.

Aircraft carrier (CVN) protection uses an integrated CSG approach for torpedo defense that includes early detection and prosecution of undersea threats by maritime

patrol aircraft, submarines, and CRUDES ships. CVN defensive capability is provided by the AN/SLQ–25C NIXIE system. To further improve high value ship torpedo defense in the future, the Navy plans to leverage technologies developed and tested for CRUDES platforms, including ATT.

[Whereupon, at 4:48 p.m., the subcommittee adjourned.]