[H.A.S.C. No. 111–129]

HEARING

ON

NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEAR 2011

AND

OVERSIGHT OF PREVIOUSLY AUTHORIZED PROGRAMS

BEFORE THE

COMMITTEE ON ARMED SERVICES
HOUSE OF REPRESENTATIVES
ONE HUNDRED ELEVENTH CONGRESS

SECOND SESSION

SEAPOWER AND EXPEDITIONARY FORCES
SUBCOMMITTEE HEARING

ON

BUDGET REQUEST FOR DEPARTMENT OF THE NAVY SHIPBUILDING ACQUISITION PROGRAMS

HEARING HELD
MARCH 3, 2010

U.S. GOVERNMENT PRINTING OFFICE
57–950 WASHINGTON : 2010

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
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HOUSE OF REPRESENTATIVES,
COMMITTEE ON ARMED SERVICES,
SEAPOWER AND EXPEDITIONARY FORCES SUBCOMMITTEE,
Washington, DC, Wednesday, March 3, 2010.

The subcommittee met, pursuant to call, at 2:35 p.m., in room HVC–210, Capitol Visitor Center, Hon. Gene Taylor (chairman of the subcommittee) presiding.

OPENING STATEMENT OF HON. GENE TAYLOR, A REPRESENTATIVE FROM MISSISSIPPI, CHAIRMAN, SEAPOWER AND EXPEDITIONARY FORCES SUBCOMMITTEE

Mr. TAYLOR. The hearing will come to order.

Good afternoon, and I want to thank you all for coming. I apologize for the delay in the start, but we had some votes on the House floor. Today the subcommittee meets in open session to receive testimony from the Department of the Navy's witnesses on the shipbuilding budget request for the fiscal year and the proposed shipbuilding plan for the next 30 years.

Because the shipbuilding plan has such a large effect on the shipbuilding industrial base, the subcommittee has requested that the leaders of our two largest shipyards appear to discuss how their plan in their view affects the industrial base and if they are willing to recommend changes to Congress on ways to achieve the goals of the shipbuilding plan in a more cost-effective manner.

First, I would like to make some observations on the shipbuilding plan. Some of you may remember a few years ago I referred to the shipbuilding plan of the Navy as pure fantasy. Shipbuilding plans in the past have been full of unrealistic assumptions about the cost of ships and unrealistic assumptions on the amount of money the Navy would receive from the Department of Defense to buy those ships.

Then realistic portions of the plan always started just beyond the five-year procurement plan because the Navy was not obligated to justify its assumptions on cost and budget in the past five years. Today I will make a slightly different observation.

The plan submitted by the Navy this year is not pure fantasy as in years past, but it is possibly overly optimistic. It is very optimistic. The plan as submitted by the Navy, if funded and if executed within that funding, would restore the Navy fleet above 300 ships by 2018; peak at 320 ships in the year 2024; but return to a fleet size in the 280s by the year 2032.

The plan would maintain aircraft carriers at levels of 11, in some years 12. The plan would not meet the Marine Corps requirement of 38 amphibious assault ships but would hover around the 33 ships the Navy and Marine Corps have stated is the minimum number of ships that would meet an acceptable level of risk. The attack submarine force goes below the requirement of 48 boats in the year 2024, and stays below that requirement through 2040, with a low of 39 boats in the year 2030.

Although it is very clear that the Navy has worked harder on removing fantasy from the plan, it does not build the number of ships at a satisfactory rate to restore our Navy to the full capability that I believe is necessary. The Navy was clearly limited in the development of this plan by the amount of funding for ship construction they were provided by the Department of Defense. Some relatively simple arithmetic indicates that the Navy really needed about $10 billion more per ship than was provided.

Leaving aside the issue of underfunding, the shipbuilding plan is troubling in a few areas. First, the procurement of amphibious assault ships is occurring in an inefficient manner. The ship construction starts are not spaced to optimize the workforce or its supply chain. You just cannot stop and start shipbuilding programs and expect any cost savings in quantity buys or in workforce familiarity. I know that the Navy knows this, and certainly the one official in the Navy who knows it best is sitting at our witness table today.

If the Navy has still decided to place amphibious ships in a plan in years which ensure extra cost due to inefficiency, this goes back to my previous point that the Navy really needed about $10 billion more per year. If that were the only issue with a long-term plan, it would probably be fixable, but the real issue facing the Navy is the cost to recapitalize the *Ohio*-class submarine. Billions in development costs followed by 12 years each costing anywhere from $6 billion to a high of $8.5 billion will crush the rest of the Navy shipbuilding account if the Navy is required to pay the bill.

The submitted plan assumes the Navy will pay all the costs for these boats and has a very optimistic assumption that extra funding will be available to cover some of the costs. During the years that these submarines are funded the rest of the Navy shipbuilding might be on life support. Minimal levels of shipbuilding construction will occur during these years according to this plan, and the Navy will lose over 30 ships from the overall force from 2024 to 2034, and that is optimistic.

I have been around here long enough to know that the reality is increased funding will likely not be available, and even more significant cuts in the surface fleet could occur.

On the positive side, the Navy 5-year plan is better than any plan that has been submitted in a long time. Fifty new ships, an average of 10 per year, is an achievable goal with projected funding. The problem is that the Navy is decommissioning ships as fast and, in the case of this year, faster than the Congress can fund them. And the overall numbers don't start to increase until 2016.

I expect our witnesses to discuss today why this has happened and provide this committee with options to retain some of these vessels in service while new ships are built to replace them.

Joining us today on our first panel, the Honorable Sean Stackley, Assistant Secretary of the Navy for Research, Development and Acquisition; Vice Admiral Terry Blake, Deputy Chief of Naval Operations for the Integration of Resources and Capabilities; Lieutenant General George Flynn, Commander, Marine Corps Combat Development Command, and Deputy Commandant for the Combat Development and Integration.

A second panel will consist of Mr. Mike Petters, Corporate Vice President and President of Northrop Grumman Shipbuilding; and Mr. Dave Heebner, Executive Vice President, Marine Systems, General Dynamics Corporation.

I want to thank our witnesses for attending. Again, I apologize for the delayed start.

I now turn to the gentleman from Missouri, Mr. Akin, for any opening statement he has.

[The prepared statement of Mr. Taylor can be found in the Appendix on page 55.]

STATEMENT OF HON. W. TODD AKIN, A REPRESENTATIVE FROM MISSOURI, RANKING MEMBER, SEAPOWER AND EXPEDITIONARY FORCES SUBCOMMITTEE

Mr. AKIN. Thank you, Mr. Chairman.

Secretary Stackley, Admiral Blake and General Flynn, good afternoon and welcome, and we look forward to your testimony today.

The President's fiscal year 2011 defense budget for the Department of the Navy represents $179 billion for discretionary and war funding. This represents an increase of $52 billion over fiscal year 2010 enactment levels. The news was even better for shipbuilding, which saw an increase of $1.9 billion over fiscal year 2010 enactment levels. This is clearly a sign that someone in the Department has gotten a message about the value that our maritime forces bring to our current and future security.

I congratulate you and thank you for your advocacy for Navy and the Marine Corps personnel and programs.

With that said, I wish all the news were positive. I have major concerns, particularly with the lack of future planning at the DOD [Department of Defense] level and our Navy's out-year budgets. The Navy's long-term shipbuilding plan is based on the 113-ship force structure originally set forth in the 2005 Naval Force Structure Assessment, as well as decisions made during the 2010 Quadrennial Defense Review [QDR], yet the 2005 Naval Force Structure Assessment did not anticipate the Navy would be given responsibility for regional ballistic missile defense, and the QDR appears to have largely focused on the capabilities required for the near to midterm, not on the capabilities required for the long term to deter and defeat a near-peer competitor.

Indeed, long-range shipbuilding plan explicitly states in summary, then, the QDR has resulted in revised mission priorities to better focus the Department on the war we are in. I am concerned that this emphasis on developing capabilities for today's conflicts and assessing risks based in today's operating environments puts our future force in jeopardy.

Lacking better guidance from the Office of the Secretary of Defense, the Navy and the Marine Corps have offered their best judgment about a reasonable ship construction profile in the form of this 30-year shipbuilding plan. It is superior to many previous plans in several ways, but the shipbuilding plan acknowledges that a new force structure assessment will have to be completed, which causes me to question whether or not we can rely on this latest plan as a yardstick for assessing the service's capital building requirements.

Furthermore, even though QDR states that U.S. forces must be able to deter, defend against and defeat aggression in anti-access environments, the long-term shipbuilding plan does not appear to be driven by this goal. Instead, in the period that the Navy considers most likely to be characterized by a near-peer competitor with anti-access capabilities, our forces fall to their lowest levels. We can't wait until that period to attempt to recapitalize our service combatants, attack and guided missile submarines and amphibious forces. If shipbuilding moves too slow, it will be too late.

On a related issue, I am not convinced that this shipbuilding plan adequately addresses the needs for ballistic missile defense capable ships. Supposedly this will be considered as part of the new force structure assessment. I hope that the assessment does not shortchange the other missions that our combatant commanders have for these ships or destroyers, particularly our BMD [Ballistic Missile Defense] destroyers, who are already in high demand, before the President announced his decision to use Navy assets to defend Europe rather than the ground-based system.

The Navy is being asked to support a new mission but has not been given new resources necessary to succeed. Today I will be interested in your perspectives on the hard choices that were made in preparing this shipbuilding plan and whether or not you believe the shipbuilding plan meets the Navy in a position of strength—puts the Navy in a position of strength to face a near-peer competitor in the far term.

On a separate note, I know our witnesses realize that I am keenly interested in our Strike Fighter programs. Normally I wouldn't raise this subject in a shipbuilding hearing, but today I hope you will have a chance to discuss your ship integration plans for the Joint Strike Fighter. Too often we overlook the requirements being levied on our ships by the introduction of this fifth-generation fighter.

Thank you again for being here today. I look forward to your testimony.

And I yield back Mr. Chairman.

[The prepared statement of Mr. Akin can be found in the Appendix on page 59.]

Mr. TAYLOR. The Chair thanks the gentleman from Missouri.

The Chair now recognizes Secretary Stackley.

STATEMENT OF HON. SEAN J. STACKLEY, ASSISTANT SECRETARY OF THE NAVY FOR RESEARCH, DEVELOPMENT AND ACQUISITION

Secretary STACKLEY. Thank you, Mr. Chairman, Representative Akin, distinguished members of the subcommittee. Thank you for

the opportunity to appear before you today to address Navy shipbuilding. And thank you for your steadfast support to provide and maintain the Navy and, more importantly, for your commitment to our sailors and Marines.

With the permission of the committee, I would propose to keep my opening remarks brief and submit a formal, more detailed statement for the record.

Mr. TAYLOR. Without objection.

Secretary STACKLEY. Today we are a battle force of 286 ships supporting global operations with arguably greater reach, greater command of the seas than any navies at any point in history. And while we take pride in knowing that our ships, aircraft and weapon systems are unmatched at sea, as formidable as our technology may be, it is the skill, dedication and resourcefulness of our sailors and Marines that gives us our asymmetric advantage. And it is our responsibility to place in the hands of these young men and women the tools that they need to conduct our Nation's business under the most stressing conditions imaginable to win the fight we are in. And two, it is our responsibility to provide the capabilities and capacities to win the next fight.

The Chief of Naval Operations [CNO] and the Commandant of the Marine Corps have outlined those capabilities and capacities in what has been referred to as the 313-ship Navy. And to this end, the fiscal year 2011 budget request includes funding for nine ships, a modest but important step towards meeting the CNO's and Commandant's requirements; important, because this year we increased *Virginia*-class fast-attack submarine procurement to two boats per year.

In 2005, then CNO Mullen challenged the program to put the Navy in a position to be able to buy two boats for $4 billion in 2012. And this year, with Congress's support, two for four in 2012 has become two for four in 2011. Important because we increased DDG–51 production to two ships in 2011, which alongside the Aegis Modernization Program, adds both capability and capacity to our fleet's sea-based missile defense. The success of the Aegis system against ballistic missiles, as demonstrated through at-sea testing, provides a solid foundation for this mission. Important because with a competitive down select to a single design for the Littoral Combat Ship [LCS] later this year, our 2011 budget request sustains an efficient build rate of two LCS ships per year for the winning shipyard.

Congress's support for this revised acquisition strategy has been critical to the Navy's efforts to bring much needed stability and to improve affordability on this vital program. Important, because this year's—with this year's request, we significantly increase our amphibious lift capability with procurement of an LHA–6 amphibious assault ship, and our logistics lift capability with procurement of a mobile landing platform and a joint high-speed vessel. Additionally, a second joint high-speed vessel has funded another procurement army for a total of 10 ships in fiscal year 2011.

As we look to the near term, the Navy shipbuilding plan averages 10 ships per year while balancing requirements, affordability and industrial-based considerations in the next decade. We have placed aircraft carrier procurement on a 5-year cycle, which will

ensure our ability to sustain an 11-carrier force from the delivery of *Gerald R. Ford* in 2015 through the year 2040. We sustain submarine construction at two boats per year.

We have cancelled the CGX [Next Generation Cruiser] program because of technical risk and affordability concerns, and we will continue DDG–51 construction, leveraging a stable and mature infrastructure while increasing the ship's air and missile defense capabilities through spiral upgrades to the weapons and sensor suites.

And we have restructured the Maritime Prepositioning Force to provide enhanced yet affordable sea-basing capabilities.

In the second half of this decade, we will need to proceed with the recapitalization of three major ship programs. We plan to commence procurement of the replacement for the LSD–41 class amphibious ships, following definition of lift requirements for this new class. We look to accelerate introduction of our next fleet oiler. T–AO(X) [cargo ship] will bring greater efficiency and modern commercial design to our refueling at sea capabilities while also providing critical stability to an important sector of our industrial base.

And most significantly, we will procure the lead ship of the *Ohio*-class replacement, SSBN(X), in 2019.

The Navy's long-range shipbuilding plan fairly outlines the challenges we confront today and for the long term in meeting our Navy's force structure requirements; operational, technical, manufacturing and fiscal challenges all come to bear as we impose upon the plan greater cost realism and budget realism. In the most pragmatic terms in balancing requirements, risk, and realistic budgets, affordability controls our numbers.

For different reasons, we face the same imperative that President Franklin Roosevelt faced when he addressed America as the arsenal of democracy. He stated, "All of our present efforts are not enough; we must have more ships, more guns, more planes, and this can be accomplished only if we discard the notion of business as usual."

The challenge in Roosevelt's time was to increase production at any cost. The challenge in our time is to increase production at an affordable cost. And to this end, we are focusing on bringing stability to the shipbuilding program, adjusting our sights to find the affordable 80 percent solution when 80 percent meets the needs, working across our systems commands to improve the quality of our cost and schedule estimates that inform our requirements decisions, placing greater emphasis on competition and fixed price contracts. We are continuing to improve our ability to affordably deliver combat capability to the fleet through open architecture. We are clamping down on contract design changes, and we have cancelled high-risk programs.

Our goals for modernizing today's force and recapitalizing the fleet affordably cannot be accomplished without strong performance by our industry partners. And so it is important that we have a clear understanding of the issues affecting industry's performance. So we will be building upon past studies this year to assess our shipyards, the vendor base and the design industrial base with an

eye towards capability, capacity and productivity requirements needed by our Navy near term and far term.

In the end, industry must perform. We will work to benchmark performance, to identify where improvements are necessary, to provide the necessary incentives for capital investments where warranted, and to reward sustained strong performance with favorable terms and conditions.

And finally, to meet our objectives, we must be smart buyers. We have gone far in the course of the past year to reverse the downsizing trend in the acquisition workforce. From supervisors of shipbuilding to the warfare centers to the SYSCOMs [System Commanders] and program executive offices, we have added professionals in the fields of systems engineering, manufacturing, program management contracts, and test and evaluation.

Of course, we have much farther to go. The objective is not merely to increase the workforce but to restore core competencies that have slipped loose over the course of a decade and a half of downsizing.

In sum, the Department is committed to building the fleet required to support the National Defense Strategy, to which the fiscal year 2011 budget request addresses the near-term capability needs while also laying the foundation for long-term requirements. Ultimately, we recognize that as we balance requirements, affordability and industrial-based considerations, it is vital that we, Navy and industry, improve affordability within our programs in order to achieve a balance that gives greater favor to requirements in the industrial base.

Mr. Chairman, thank you for the opportunity to appear before you today, and I look forward to your questions.

[The joint prepared statement of Secretary Stackley, Admiral Blake, and General Flynn can be found in the Appendix on page 61.]

Mr. TAYLOR. The Chair thanks the Secretary. I read your statement last night. I thought it was one of the best I have ever seen.

The Chair now recognizes Vice Admiral Blake.

STATEMENT OF VICE ADM. JOHN TERENCE BLAKE, USN, DEPUTY CHIEF OF NAVAL OPERATIONS FOR INTEGRATION OF CAPABILITIES AND RESOURCES

Admiral BLAKE. Chairman Taylor, Congressman Akin, members of the committee, it is my honor to appear before you today with Mr. Stackley and General Flynn to discuss the Navy force structure and shipbuilding.

Forty-three percent of our fleet is deployed today carrying out our maritime strategy. They are projecting power into Afghanistan, building partnerships in Africa, delivering relief in Haiti and providing ballistic missile defense in the Arabian Gulf, Western Pacific and Eastern Mediterranean.

We are a maritime nation, and our national security depends upon a Navy that can keep the sea lanes free, deter aggression, safeguard our sources of energy, protect the interest of our citizens at home and abroad and reassure our friends and allies. To do this, our Navy must maintain its global reach and persistent presence

while always being ready to answer the call for our warfighting capacity wherever and whenever it is needed.

With this budget, the Navy will continue to maintain the maritime security of our forces, sustain a strong American shipbuilding base and ensure our capacity for rapid global response. In this year's budget, we plan to procure 9 ships and an average of 10 ships per year across the FYDP [Future Years Defense Plan].

To achieve this shipbuilding level, hard choices are required across the Navy program. These choices reflect our commitment to a fleet that is shaped and sized to deal with current and future threats. The fiscal year 2011 shipbuilding program is based upon the most cost-effective decisions to achieve the most capable force. Across the next 5 years, the Navy is committed to an average of $14.5 billion per year to build an average of 10 ships a year. The challenge for us is in procuring the required mix of ships with the right warfighting capabilities for an affordable cost. To meet this challenge, our shipbuilding rate will depend upon aggressive cost control which will require both the Navy and the shipbuilding industry to work together in partnership.

Demand for the ballistic missile defense, or BMD, capable ships continues to increase globally. To support this demand, we will continue to modernize the *Arleigh Burke*-class guided missile destroyers to gain BMD capability commencing in fiscal year 2010. After exhaustive analysis, we intend to spiral the DDG–51 program to the DDG–51 Flight III. This will allow us to develop air and missile defense radar and install it on a DDG–51 hull. The upgraded destroyer is envisioned to be procured in fiscal year 2016. The DDG–51 Flight IIA procurement will restart the award for the contract with DDG–113 this summer. New construction of DDG–51 IIA destroyers will deliver integrated air and missile defense capabilities in new construction ships for the first time, providing critical BMD capacity for the fleet. Our amphibious warfare ships are key enablers in providing forward distributed presence to support missions ranging from theater security cooperation and humanitarian assistance to conventional deterrence in assuring access for the Joint Force.

The Chief of Naval Operations and the Commandant of the Marine Corps have determined that with risk a minimum of 33 assault echelon amphibious ships are necessary to support Marine Corps lift requirements for forceable entry operations. The Navy remains committed to procure 55 Littoral Combat Ships.

The LCS fills warfighter gaps in support of maintaining dominance in the littorals and strategic chokepoints around the world. USS *Freedom* LCS–1 is currently deployed. Last week the ship, outfitted with the surface warfare mission package, achieved its first drug seizure, recovering more than a quarter ton of cocaine. I am convinced that both the LCS ship types—that both the LCS ship types meet our warfighting requirements and fully support the decision to down select to a single hull. The *Ohio*-class ballistic missile submarines will start retiring in 2027 after 40 years of service life. To ensure there is no gap in our strategic deterrent capability we will need to start procuring the *Ohio*-class replacement in 2019. We are making the appropriate investment in research and development now which is essential for the delivery of our reli-

able survivable and adaptable ballistic missile submarine intended to operate until around 2080. The *Virginia*-class submarine is a multi-mission platform that fulfills a full spectrum of requirements. Now in its 13th year of construction, the *Virginia*-class program is demonstrating that this critical capability can be delivered affordably and on time. In fiscal year 2011 we will increase our build rate to two submarines per year.

Navy remains committed to an 11-carrier force for the next three decades, which is necessary to ensure that we can respond to national crisis within the current prescribed timeframes. Our carrier force provides the Nation a unique ability to overcome political and geographic barriers for all missions and project power ashore without the need for host nation ports and airfields. The Navy's fiscal year 2011 long-range shipbuilding plan addresses the requirements to support the National Defense Strategy, the maritime strategy and the 2010 Quadrennial Defense Review [QDR].

I ask for your support for our fiscal year 2011 budget request and thank you for all you do to make the United States Navy a global force for today and the future.

That concludes my remarks, sir.

[The joint prepared statement of Admiral Blake, Secretary Stackley, and General Flynn can be found in the Appendix on page 61.]

Mr. TAYLOR. Thank you, Vice Admiral Blake.

The Chair now recognizes Lieutenant General Flynn.

STATEMENT OF LT. GEN. GEORGE J. FLYNN, USMC, DEPUTY COMMANDANT, COMBAT DEVELOPMENT AND INTEGRATION, AND COMMANDING GENERAL, MARINE CORPS COMBAT DEVELOPMENT COMMAND

General FLYNN. Chairman Taylor, Representative Akin and distinguished members of the subcommittee, first, thank you for your support of all our service men and women and, in particular, for your support of our Marines and sailors.

I appreciate the opportunity to appear today to address how the Nation's sea-based expeditionary force views its role within the Joint Force and the requirements needed to bring these unique and essential capabilities to the warfighter.

I am also honored to be here today with the rest of the Naval team, Secretary Stackley and Vice Admiral Blake.

As a maritime nation, naval forces, Navy and Marine Corps forces working together, use the sea as maneuver space and are a key component of our Nation's capability to protect and advance our interests around the globe. Today the key characteristics of military forces most valued in this ever-changing security environment are versatility and adaptability. Since the beginning of this Nation, the Navy and Marine Corps have demonstrated these key attributes. In recent times, the amphibious withdrawal from Somalia in 1995; the projection of power from the sea to Afghanistan in 2001; several responses to natural disasters; and the Lebanon noncombat evacuation operation of 2006 have proven the value of our investment in these forces and their wide-ranging utility.

Today your Marine Corps is once again demonstrating its versatility and adaptability. From Haiti to the Helmand province

in Afghanistan, we are demonstrating our ability to respond across the full range of military operations and proving that we are truly no better friend and, if the situation requires, an adversary's worst enemy.

As soldiers of the sea, our unique capabilities are enabled by the Navy's ability to provide force protection and amphibious and preposition lift. The linchpin of our ability to operate from the sea is our amphibious fleet. The requirement for amphibious ships that has been agreed to within the Department of the Navy is 38 ships. And in order to have a balanced and affordable shipbuilding program, we must be willing to accept risk down to 33 ships. This number gives you the capability needed for both steady state operations and the minimum number of ships needed to provide the Nation with a credible sea-based power projection capability of two brigades at an acceptable level of risk.

The recent deployment of amphibious ships shows the utility of these platforms and their utilization. In January of this year, of the 31 amphibious ships in the current inventory, 9 were conducting steady state operations; 7 responded to the disaster in Haiti; 9 were in maintenance; and 6 were available to respond to other missions.

The key to the utility of our amphibious fleet is the versatility and flexibility built into the mix and design of the ships. We believe this is achieved by a balanced mix of platforms and integrated command and control, stalwart survivability and both air-and-surface connector capabilities. This is why we believe it is important to put the well deck back into our largest platform at the earliest opportunity. We also believe that adequately defining the requirement for the LSD(X), both as a ship and as part of the overall amphibious capability, is of vital importance to the overall flexibility and utility of the amphibious fleet.

In an era of increasing access challenges, the ability to operate our expeditionary forces from a sea base is a required and valued tool in a joint warfighting tool kit. The minimum sea base requirements that are needed now are the ability to operate without a port, the ability to conduct selective offload, and the ability to conduct at-sea transfer of equipment. The original Maritime Prepositioning Force Program (Future) was to provide these capabilities along with organic command-and-control connectors, medical maintenance and building.

The Maritime Prepositioning Force (Future) program in current vision is not affordable at present. Working with the Department and Navy leadership, we found a way to provide some of these capabilities at an affordable cost and thus capitalized on the investments already made in our legacy MPS [Maritime Prepositioning Ship] squadrons. Accordingly, we are going to add a mobile logistics platform and T–AKE platform to each of our squadrons. This will give us the capability to do the first three of these and envision capabilities of the sea base at an affordable cost.

Again thank you for the opportunity to be here. I look forward to answering your questions.

[The joint prepared statement of General Flynn, Secretary Stackley, and Admiral Blake can be found in the Appendix on page 61.]

Mr. TAYLOR. The Chair thanks you very much, gentlemen.

The Chair now recognizes the ranking member, Mr. Akin.

Mr. AKIN. Thank you, Mr. Chairman.

I had a couple of different questions here. One was the result of a trip I took just a week or so ago. And I think that we had talked about being sensitive to the workforce and smoothing the workforce and trying to buy our ships in the most strategic way to keep our costs effective. I guess the question that came up was, particularly, we have I think a plan for building three MLPs [Maritime Landing Platforms] on, I believe, a 2-year set of centers, that would be 2011, 2013 and 2015. As we talked to people in the shipyard, they were saying it would be much, much better from a demanding of the work load, so you could keep an equal level of manning for building these ships, if they could be built on 1-year as opposed to 2-year centers. So I guess my first question is, is that something that throws the whole budget into chaos to do that, or is that something that, if we could get some reduction in cost, that that might be a possibility?

Secretary STACKLEY. Let me first describe, we have the ability to move right into the first MLP in 2011 because of the advance work that had been done by NASSCO, the shipyard that has that contract. And so we have a nice dovetailed production plan following the T–AKE production moving into MLP.

Traditionally—more than traditionally—the Navy has strived to provide a gap year between a lead ship and a first follow ship so that as you are building your first of class, if you run into design technical issues that need to be resolved, that you have more time to incorporate those corrections into the first follow ship. You described the one, I believe you described it as 1, 3, 5, one every other year. So, in fact, we do have another gap between the first follow ship and the third MLP. And that is, frankly, a concern with regards to the stability of the workforce at NASSCO.

Of our major shipyards, NASSCO is the one that is having to manage the greatest gap in workload. We look at the MLP as providing a base workload for the shipyard, but we recognize that MLP alone is not sufficient workload for NASSCO to be able to maintain the level of performance that we are seeing today. So step one is, establish a base; step two is establish opportunities for NASSCO to compete for additional work.

Mr. AKIN. I guess my question was, if you took the ships scheduled in 2015 and moved it over to the 2012 spot, so you would have 2011, 2012, 2013 instead of 2011, 2013, 2015. That is assuming that they could do that without having to have a lot of modifications between 2011 and 2012 on the ship, I understand that.

Secretary STACKLEY. Yes, sir. That becomes a trade between what is affordable inside of the budget in 2012, closing that gap year, which we do prefer to have a gap just to ensure that production—design is stable, production is off to a smooth run before you immediately start to bring in the first follow ship. And those are the competing considerations.

Mr. AKIN. From a finance point of view, does it throw the budgeting requirements off though as well by moving that? Is it something you have to pay for earlier in the plan?

Secretary STACKLEY. It is about a half a billion dollar ship with certain assumptions, and the assumptions include that there is other work in the shipyard, and the three MLPs don't stand by themselves in that regard. So moving it from 2015 to 2012 would be about half a billion dollars added in fiscal year 2012.

Mr. AKIN. Thank you. That was the first question.

The second is a little bit more general. And that is, as we take a look at the potential of near-peer competitor and a denial to access, as I took a look at specific areas of where our access would be denied, that is a ballistic kind of threat, a cruise type of threat or submarine kinds of threats, my concern was that it seemed that we had at least potentially some significant challenges in all three of those areas.

And I guess my question, with large surface combatant force levels decreasing from a high of 96 down to a 60s and 70s kind of range; attack submarines from a high of 55 down to 39, with maybe sustained levels of 40; cruise missile submarines would be disappearing entirely. Recognizing those kinds of threats I guess I am curious whether, are we confident that this force could deter or defeat at low or moderate risk a near-peer competitor with that anti-access capability? I am thinking—I suppose you know what I am talking about. I am thinking of those charts of solid fuel missiles that we are not too good at stopping and certain wave skimmers that can dodge and weave a bit and increased range on submarines and things like that. Does it seem like there is a window here where we have to be a little concerned?

Admiral BLAKE. Sir, if you look at it, several of the reasons which you just articulated are the reason why we went to two submarines per year for the *Virginia* class. It is also why we are accelerating our ballistic missile defense piece, not only on the Navy side, but General O'Reilly is also doing that on the ballistic missile agency side of the equation. And additionally, if you look at the entire spectrum——

Mr. AKIN. By the way, do they work on that IIA, or is that a Navy, or is that the air project?

Admiral BLAKE. It is a IIA, sir. I deal with General O'Reilly from the BMD perspective on the Navy side, but then he also has his funding which he does.

Mr. AKIN. So do you do the IIA, or does he do the IIA, Standard Missile Block IIA?

Admiral BLAKE. We do Standard Missiles Block II and Block III and the SM–3, sir. But they also do them. It is a shared line, if you will.

Mr. AKIN. Okay thank you.

Admiral BLAKE. But to go back to the point, that was one of the reasons, as we truncated the DDG–1000 and went to the DDG–51, was the fact that we wanted to get that ballistic missile defense [BMD] capability out there. And as I mentioned in my statement, with the 2016 ship, we are going to be putting out the first ship built from the ground up if you will that is going to be BMD capable. So our ships are, as you know, multi-mission ships, and the idea was that we were going to deal with the anti-access piece, as you mentioned ASW [anti-submarine warfare] and BMW, and that is exactly how we are approaching it.

Mr. AKIN. I hear what you are saying. What you are saying is, you are wrapping up the submarines, and you are trying to wrap up the destroyers.

Admiral BLAKE. Yes, sir. And we are.

Mr. AKIN. Right. The only thing is that your destroyer doesn't do you much good until you get that new higher-powered missile on it pretty much.

Admiral BLAKE. Well, actually, sir, we are taking, if you will, sort of a three-pronged approach. We have got the Aegis system at sea, and we currently have 21 ships in the inventory that are capable of doing BMD. By the end of the FYDP, we will have 27 out there capable of doing it.

So we are approaching it not only from new construction; we are also approaching it from ship sets. We are buying, if you will, BMD-capable ship sets which we then put on those—put on the ships that are currently in the fleet in order to make them BMD-capable. There are two varieties. One is called the 3.6; one is called the 4.0. And they give us varying capabilities. And the idea—and the third piece of it is that we are going to push out in fiscal year 2015 what we are calling Aegis Ashore. So we are going to have a piece out there, so it is going to be, if you will, a three-pronged approach. You will have Aegis Ashore; you will have the BMD piece on the ships that we currently have in the fleet, we will be upgrading them; and then you will start to deliver the new ships from the ground up starting in 2016.

Mr. AKIN. Okay. Thank you.

At last, I couldn't resist this last little question here, Secretary Stackley. It is a little off topic maybe. But could you update me on the status of the F/A–18 multi-year effort? Do you think the 10 percent savings offered by Boeing was a good deal, first? And what is the timeline for entering into a multi-year contract? That is assuming that there is one. And why is it that the Secretary of Defense is not more eager to enter into the multi-year when it meets that 10 percent threshold that he mentioned in HASC [House Armed Services Committee]?

Secretary STACKLEY. Let me start with the 10 percent savings, the question there. We do not have a priced proposal from Boeing that we can state with clarity that is 10 percent savings. What we have is a letter of commitment for a not-to-exceed value that we will use to commence negotiations with a contractor. So we are starting off with a not-to-exceed value that is based on Boeing's estimate for single-year procurements level of savings. The Secretary of Defense is supporting us going forward with this because there is promise here. And so the Cost Assessment Program Evaluation Office is going to go through the required cost analysis to validate that in fact we can achieve at least the 10 percent savings that we have established here as the benchmark while we in parallel proceed with negotiation of the contract.

So we are pushing both efforts in parallel, and the front end of those activities are common in terms of fact finding and pricing data, working closely with Boeing. And so I think we have got a lot of momentum in this area. We are working at an aggressive time line, but we are giving it our full emphasis and putting the first team on this.

Mr. AKIN. That is encouraging because it seemed like the last week or two ago, I heard that we were going to be fine for the March deadline, and all of a sudden that slides, and they are kind of going, what in the world is going on?

Secretary STACKLEY. Well, we received the letter of commitment on the 22nd of February. And in order for the CAPE [Cost Assessment and Program Evaluation], the cost assessment group, to do a valid cost analysis to meet, frankly, the multi-year statute, they need more than that amount of time to complete the analysis.

Mr. AKIN. I wish they had said that a couple weeks ago, but thank you. That is very straightforward.

Thank you, Mr. Chairman.

Mr. TAYLOR. The Chair thanks the gentleman from Missouri and now recognizes the gentleman from Washington State, Mr. Larsen.

Mr. LARSEN. Thank you, Mr. Chairman.

Either for the Secretary or Admiral Blake, I want to give you a quick short tale of two populations of Boomers. In 2019, the Baby Boomers come flooding into the Social Security and Medicare systems. As a result of that, without other changes made in the structural budget of the Federal Government, we are going to see a large expansion of cost in the Social Security and Medicare system, again absent of any changes, that will consume, begin to consume over time larger and larger percentages of the entire Federal budget.

That may sound very familiar to you, because it seems in 2019, there is another tale of another set of boomers that come into the Navy's shipbuilding budget, and it will begin to consume larger and larger percentages of the Navy's shipbuilding budget at the expense, potentially, of other shipbuilding alternatives. I am on the Budget Committee, so I won't ask you to address what we are going to do about the first set of Boomers.

The second set of boomers, I am very interested in hearing your opinions on how we are going to address this cost, marginal additional cost, in 2019, of this new class to replace the *Ohio*, given—now, I know you have a plan for it, but I am curious if you actually have received commitments from OSD [Office of the Secretary of Defense] and OMB [Office of Management and Budget] to advocate for the level of funding that you need, starting in 2015 and then eventually into 2019, to do what we want to do on destroyers and on aircraft and all the other lines in the Navy and on the *Ohio*-class replacements. And if we haven't received those commitments, how realistic can we assume the shipbuilding plan with regards to the *Ohio*-class replacement is going to be?

Mr. Secretary.

Secretary STACKLEY. Let me start with the construction of the 30-year plan that brings the boomer into the picture. In the past, in the past, the Navy had not included the cost for that program inside of the 30-year plan. This year, in doing that, it does a couple of things. It brings the problem front and center in terms of the pressures and the challenges that that program places on the total shipbuilding account. And we work very closely with OSD in determining, the best I can describe it is a notional top line because this is well beyond the FYDP, a notional top line for our shipbuilding account, as we start to march towards those years.

And so what you see with regards to the total funding level for shipbuilding beyond the FYDP, that was coordinated with OSD, and it will continue to be revisited in each budget cycle as those years move inside the FYDP, while, in parallel, we also work the process of going from what we have today, which is an AOA [Analysis of Alternatives] under review at OSD, come through the nuclear posture review to continue to inform the requirements and then get into the actual requirements definition, the R&D [Research and Development] efforts that go from requirements to design and then ultimately to construction.

Mr. LARSEN. Admiral Blake, anything to add on that?

Admiral BLAKE. I would just say, sir, the Department recognized the fact that, when we went into the budget, there were two assumptions made. The first is that it would be fiscally informed. So if you look at the 30-year shipbuilding plan, over the entire 30 years, it is at a $15.9 billion level. You absolutely point out the area where the high point occurs, when the SSBN(X) buy starts, and you will see that that goes up to $17.9 billion. That was recognized by the Department, and the position taken was that we would again continue to visit this.

And as Mr. Stackley pointed out, in the past, we have put the SSBN(X) above the top line. It just sat there. This year, when we put the plan together, we brought it within the top line.

Mr. LARSEN. Thank you.

So Secretary Stackley, the AOA, are you suggesting that there are other alternatives we are considering with regards to that element of the triad within the context of the nuclear posture review? Is that what I gather you are saying?

Secretary STACKLEY. Within the AOA, if you assume the boomer is part of the triad, you still have a wide range of alternatives that you want to evaluate under the definition of a boomer in terms of everything from the size of the missile tubes to the number of missile tubes; you want to see what technologies you can leverage from the existing platforms, as well as bring to bear what we know today regarding threats, obsolescence and new technologies.

Mr. LARSEN. Well, my time is done. I appreciate your answers.

And Mr. Chairman, I just suggest maybe this is something we can explore further as we are going through the budget.

Mr. TAYLOR. Mr. Larsen, it is an excellent line of questioning. We do intend to pursue your line of questioning, hopefully in a separate hearing. Because of the sticker shock of the *Ohio*-class replacement, maybe it would make sense to do something with the *Virginia* class. But we are going to pursue that. That was an excellent line of questioning.

The Chair now recognizes the gentleman from Virginia, Mr. Wittman.

Mr. WITTMAN. Thank you, Mr. Chairman.

Secretary Stackley, Admiral Blake, General Flynn, thank you so much for joining us today and thank you for your service to our Nation.

In looking at the Navy's budget, I am generally pleased. I think it is a good start down the road of where we need to go. I guess that I still have some concerns about the budget in the QDR [Quadrennial Defense Review], in looking at where does it leave

our force structure out into the future. It seems like to me that our Navy five years down the road is going to look almost exactly like it does today, and I am concerned that those folks that wish to do us harm, their navies are not going to look the same five years from now. So I am concerned about, where does that leave us?

In addition to the near-term focus, I think there are some further strains on our naval forces in adding the ballistic missile defense mission to our fleet in trying to figure out, how are we going to make sure that we have the ships to do the regular missions plus the BMD mission? And if the shipbuilding budget itself doesn't increase, I don't see a 313-ship Navy. I see more like, and that is 30 years down the road, I don't see a 313-ship Navy; I see more like a 275-ship Navy.

So I am concerned about the funding aspects of that and where it leaves us in the long term. I think the plan that the Navy has laid out is a good one in some aspects, but I am also concerned about the resources necessary to get to that 313 within a reasonable period of time. And that leads me to this line of questioning.

In developing the future year's defense plan, can you tell me what consideration was given to the impact on the core shipbuilding industrial base? And specifically, why do we seem to be pushing funding off for the more expensive ships into future years into the later portion of the 30-year shipbuilding plan.

Secretary STACKLEY. Let me start with the second question first. In developing the shipbuilding plan, we have done some serious restructuring in terms of, what was the program on record? I described in my opening remarks that we have determined that the CGX, which was planned for 2011, it was not feasible in 2011. That was going to be an extraordinarily expensive ship based on technologies that are simply not mature in 2011. And so we moved to a more affordable approach spiraling through the DDG–51 class. Now, we ultimately have to go beyond today's level of missile defense capability that is in the 51 class, which is why we have continued to move forward on development of the air and missile defense radar technology. So that is an ongoing development. And those two intercept in about 2016 in terms of maturity of that technology and spiraling of the 51.

So I believe Admiral Blake referred to a Flight III DDG in the 2016 timeframe. That simply reflects when that technology is available. We, frankly, would like to get there sooner. The Maritime Prepositioning Force (Future), we described restructuring that program for a more affordable enhanced sea-basing capability, building off of our MPS today. That, again, was driven by affordability and looking for that solution that balances the requirement, cost and, frankly, looking for what they call a sweet spot or knee in the curve, and that is how we have arrived at today's construct for the Maritime Prepositioning Force.

The next two programs that I touched on in my opening remarks, the replacement for the LSD–41 class, the LSD–41 class will be with us until the mid-2020s. So, in fact, when we look at that program starting up in 2017 in a 30-year plan, that is ahead of need. And so we are struggling between recognizing that we are going to have the challenges going through the period in which the *Ohio*-class replacement is being built, and that is why you see a build

plan that is earlier than required and stretches out, trying to work within our top line constraints but yet not allow the amphibious force structure to dip too low. So it is looking for that balance.

T–AO(X) was the other program that is just beyond the FYDP. Again, that is ahead of need. The existing T–AOs start retiring about 2026, and so this is trying to pull T–AO to the left, looking again at industrial base consideration for that sector of our industrial base and also looking at an opportunity to modernize that force, some efficiencies that we can gain there.

And the other major new start, of course, is the *Ohio*-class replacement which stands by itself in terms of 2019, need to start procuring then to support 2017 retirement.

Mr. WITTMAN. Thank you.

Mr. TAYLOR. The Chair now recognizes the gentleman from Connecticut, Mr. Courtney.

Mr. COURTNEY. Thank you, Mr. Chairman.

I just want to follow up a little bit on what Mr. Larsen was probing. And I know the chairman is planning a hearing specifically on the issue of the *Ohio*-class replacement. It is pretty clear that is going to be a topic of focus for this subcommittee for this year and years to follow.

But just sort of moving back from the long-range question, which Mr. Larsen asked, sort of right to the immediate future. The language that accompanied the budget document about the proposed spending for *Ohio* design work was pretty strong and emphatic that there is no leeway in this plan to allow a later start or delay in the procurement plan. And I guess the one question I wanted to ask is, of that $672 million which was put in the budget, I mean, is that going to potentially give us some flexibility or some options for this program as it moves along? And why the urgency?

Secretary STACKLEY. Let me start; 2019, I think everyone understands the urgency there. With the first retirement in 2027, we have to deliver the *Ohio*-class replacement in the 2027 timeframe to have her on station 2029. So we view that as a national priority; 2019 then is a well-defined procurement year.

The R&D stream that precedes that covers several aspects. One, we have to go from defining a requirement to not just the technology or capability that will meet the requirement, but we also have to look at some of the manufacturing challenges that we have to work our way through because *Ohio* was built a quarter century ago. And so there are a lot of unique aspects associated with *Ohio* that you don't see in other submarine design and construction that we have to recreate those capabilities. And so that is very much on the front end, so that, by the time we get to the procurement years, those manufacturing processes and facilities that have to deliver these pieces of hardware for the boat are mature enough that we have retired the risk.

So there is a manufacturing design piece. There is a technology piece, and then there is the reactor piece. So we have reactor design activities; we call it rest-of-ship design activities, manufacturing and technology activities ongoing today to retire risk so that when we get into 2019 procurement, we do not suffer first-of-class issues, but in fact, we have got a reliable schedule so that the SSBN(X) can replace the *Ohio* on station.

Mr. COURTNEY. And I guess the question of—I mean, there is no—I think it is pretty clear that there are Members here that are sort of asking about whether or not we need to do it exactly the way it is sort of being proposed. I mean, will that early start of design give us some at least answers to that question about whether there are other alternatives?

Secretary STACKLEY. Yes, sir.

In the near term, I described the AOA that is under review, the analysis of alternatives. We have what is referred to as a milestone A with OSD later in the spring. And so between now and milestone A, we will continue to work the details inside of the AOA, as well as work the, I will call it the spend plan, associated with the R&D that supports that long-term schedule. This is—you know, the significance of this investment requires that more than just a program office, more than the SSP [Strategic Systems Program] office are involved in the decisions associated with these design details. So there is going to be significant amount of oversight to ensure that we are investing the right dollars for the right capability at the right time to meet that mission.

Mr. COURTNEY. Thank you.

Actually some people argue that even deserves its own special line item in the budget, but that, again, may be a discussion later.

Secretary STACKLEY. I will let Admiral Blake take that one.

Mr. COURTNEY. I have a few seconds left, and this is something completely different.

Admiral Roughead, when he was before the full committee, actually made a pretty powerful statement about the issue of alternate engines and whether or not it is feasible to have two different types of engines on aircraft carriers for the F–35. And I wondered if you wanted to expand or maybe the Admiral did in terms of the Navy's position regarding that issue.

Admiral BLAKE. If you go to the alternative engine, what you end up with is two complete infrastructures on board a single unit and then you have—if you have those two systems there, then what you are dealing with is you are dealing with two complete lines, if you will. And so that would be one of the concerns that you would have if you had an alternate engine out there. And therefore, it would not be considered prudent, if you will, and I think the CNO brought that up during his remarks and that is why he took the position he did.

Mr. COURTNEY. Thank you. Thank you, Mr. Chairman.

Mr. TAYLOR. The Chair now recognizes the former chairman of this committee, the gentleman from Maryland, Mr. Bartlett.

Mr. BARTLETT. Thank you very much.

Mr. Secretary, I understand that the 1000 has now breached the Nunn-McCurdy rules for per-unit cost growth?

Secretary STACKLEY. That is correct, sir.

Mr. BARTLETT. The Weapon Acquisition Reform Act of just last year sets a very high bar for proceeding with a program rather than terminating it following this kind of breach. As you may remember, the 1000 was originally going to be a 32-ship class, and then its cost went up. Then it went to a seven-ship class, and then it ended up as a three-ship class. And we were told that the 1000 program was truncated because the requirements had changed and

the DDG–51 with upgrades could better provide capability against this changed requirement.

In light of this, what is the correct path forward relative to the 1000?

Secretary STACKLEY. Let me start with the reduction from the program from 78 ships to 3 ships. The decision to truncate the program was made last year and was announced by Secretary Gates with his budget statement in April of 2009. It was after careful consideration of not whether the 51 could meet the DDG–1000 requirements, but careful consideration of competing requirements between the need for increased air and missile defense and the capabilities that DDG–1000 brings which is more closely associated with surface fires and operations in the littorals.

So the decision was made that the priority for the Department is to go towards increased air and missile defense and that the DDG–1000 program then, the land attack requirement, that would be truncated to a three-ship program. So the requirement for DDG–1000 did not go away, but the priorities were placed on air and missile defense.

So when we decided to truncate the DDG–1000 at three ships, we continued to consider the platform to be a platform to meet the future surface combatant requirements for missile defense. Admiral Blake referred to the study that was conducted in the course of the past year. As we evaluated that platform, we determined that the best alternative was to spiral the 51 program in the mission area.

So as the budget came forward, having decided to truncate the DDG–1000 to three ships and to not use that platform for air and missile defense, then it became clear that there would be a Nunn-McCurdy for each, which was driven not by cost increases to the program associated with performance, but rather by costs that have been incurred in the program predominantly through research and development that when you divide those costs over three ships as opposed to over seven ships, now mathematically, in fact, you do have a breach.

So this does not reflect having to increase investment in the program to continue it. In fact, what we have done is we have reduced investment in the program through the truncation and the balance of funding is to complete the three ships in the budget.

Mr. BARTLETT. Our shipbuilding plan acknowledges that we will be building just enough ships to sustain our industrial base. If the cost of these ships go up—and that may very well be true of the SSBN—then we will be building fewer ships. What confidence do you have that we will continue to keep six major shipyards viable?

Secretary STACKLEY. Let me first address the part of the question referring to the costs going up.

We have——

Mr. BARTLETT. Assuming, sir, the costs as they always may go up in the future and if we are now building just enough ships to barely maintain the industrial base, if the cost goes up, obviously unless the top line goes up, we will be yielding less ships. And my question is, what kind of confidence do you have that we would be able to keep six major shipyards viable?

Secretary STACKLEY. Yes, sir.

Let me first describe that as we put together a shipbuilding plan, we take a close look at what we refer to as workload curves that show the projected workload across not just the six major shipyards, but also other shipyards that are building ships for the Navy. And clearly certain shipyards have a very healthy workload looking into the future.

We do have a couple of yards that we are quite concerned with. We talked earlier about NASSCO and its projected workload. We keep a close eye on our surface combatant builders. We have our nuclear yards that frankly are very solid workload going forward, and our amphib and auxiliary yards.

Nuclear yards are in good shape in terms of workload. Surface combatants we are keeping a close eye. We look at completing the three DDG–1000s, go to the DDG–51s and ultimately getting back to a status on the 51 program where we can reengage in a multiyear which helps provide stability for those yards. Amphibs and auxiliaries, we have three yards that historically have built amphibs and auxiliaries. And between those three yards, two yards, the work yard is of concern.

I described in my opening remarks that we are going to engage in a shipbuilding industrial-base study and a significant part of that industrial-base study is to get to the heart of your question exactly, so that as we go forward in POM 12 [Program Objective Memorandum for fiscal year 2012] and we revisit the shipbuilding program as we do each year, we can have most current information with regards to not just the impact of the Navy program, but other work at those shipyards and what that means in not just their viability, but also our costs.

Mr. BARTLETT. Thank you, Mr. Chairman.

Mr. TAYLOR. The Chair now recognizes the gentlewoman from Maine, Ms. Pingree.

Ms. PINGREE. Thank you very much, Chairman Taylor. First, I would like to start by thanking all of you for your service to the country, and Secretary Stackley, it is good to see you again, although I prefer seeing you at the shipyard in my district, Bath Iron Works, and you are welcome back any time for a visit and, of course, a lobster.

I want to go on with—actually you were talking about this a little bit, and I know in your written testimony, even though I came late, said capable ships supported by effective industrial base have been the decisive element during war, crisis response, and peacetime operations for more than two centuries. Several Navy reports have agreed with this statement and have gone on to say that in order to maintain the two major surface combatant shipyards a minimum of three DDG–51s must be procured each year along with additional work.

So my question goes back to this workload industrial capacity one. If the DDG–51 procurement rate is on average 1½ per year, what impact will it have on this decisive element? And I am certainly thinking of our yard and the challenges that we face.

Secretary STACKLEY. Yes, ma'am.

Not to repeat the discussion I just had with Representative Bartlett, but the surface combatant build rate is something that we are keeping a very close eye on. It involves not just the shipbuilders,

but also the combat systems suppliers because that industrial base is much broader than just the shipyards.

We do not have an acquisition strategy that addresses going beyond the ships that are currently budgeted and requested in 2011. We do have a plan to deliver that acquisition strategy this summer as we work it through OSD, and we widen the aperture beyond the two-one-two-one-two-type profile that you see in the 30-year shipbuilding plan; and by widening the aperture, we are looking at beyond just the continuation of the 51 construction at those two yards to determine what are the critical skills, what are the capabilities and capacities that we need to preserve to ensure that we have this unique capability at these two shipyards.

Ms. PINGREE. I appreciate you are looking into that, and I certainly will look forward to your further study.

Going back to another question you talked about a little bit on the DDG–1000, can you comment a little bit on the importance of leveraging the DDG–1000 technologies for other future Navy platforms once the DDG–1000s are operational?

Secretary STACKLEY. Yes, ma'am. The DDG–1000 frankly broke a lot of ground with engineering development models, new technologies that it is bringing to the surface fleet. Perhaps most significantly, I would highlight reduced manning concepts that—not just the technology but how we will operate a ship at those manning levels. We will be looking to bring those concepts forward to the extent practical. With reduced manning comes a lot of technologies to reduce workload for the crew. So that has high interest for further applicability.

A very clear crossover is in the combat systems arena where the dual band radar for the DDG–1000 is also the dual band radar that is going to go on the CVN 78 class. So that has direct applicability. And when we look at the Flight III DDG–51 and the studies that we performed there where we took a look at the threat and the requirements, we looked very closely at the MFR [Multi-Function Radar] radar on the DDG–1000, and we believe that that will be the best solution for the DDG Flight III when we consider future threats.

So as we move forward with the air and missile defense radar, we are also looking at something like a dual band radar capability with an MFR or what is referred to as a SPY–3 radar for the future DDG–51.

Ms. PINGREE. Just to follow up on that a little more, Admiral Blake.

Despite the fact that as we talked about earlier, the DDG–1000 program has been truncated to three ships, can you talk a little bit about the operational importance of having these three ships in the fleet and what valuable technological lessons the Navy will gain from having these ships?

Admiral BLAKE. Absolutely. One of the principal seams this ship is going to fill is the 155 gun which it carries is going to be a critical seam-filler for the naval surface fire support. It has a long-range land attack projectile, and it will be used to engage targets deep inland in order to be able to support Marine operations. And that is a critical piece.

If you look at our DDG–51s, they have a 13-mile gun. And so this is going to give us a significant force multiplier out there. It is going to give us precision fires, volume fires at a longer range. So it is an absolutely critical piece for naval surface fire support. Naval surface fire support is made up of a triangle, and three elements in it are naval surface fire support, tactical air, close air support, and then organic fires which come from the Marine Corps piece of the puzzle.

So those three together give us a significant force multiplier when we are doing forcible injury.

Ms. PINGREE. Thank you. Thank you, Mr. Chair.

Mr. TAYLOR. The Chair thanks the gentlewoman.

The Chair now recognizes the gentleman from Virginia, Mr. Forbes, for 5 minutes.

Mr. FORBES. Thank you, Mr. Chairman. I hear bells going off for some votes. I will try to be brief.

General Flynn, I saw you in a hallway a little bit earlier coming down here and I was wondering why you were here so early. And after I left, I looked at my watch and realized it was time for our hearing.

The chairman mentioned earlier about the fact that he did not think that this 30-year shipbuilding plan was a fantasy, and I have enormous respect for him and hope he is right. But when Secretary Gates testified, that is exactly the word he used to describe the money set forth in the 30-year plan. He said it was a fantasy.

And I am looking, Mr. Secretary, at your statement, and I know you were briefed so that you could put your statement in the record, but in the summary, you say the Navy's long-range plan for the construction of Naval vessels addresses the requirements in support of the national defense strategy, the maritime strategy, and the new 2010 Quadrennial Defense Review.

And my first question is: is the shipbuilding plan and the QDR based upon the June 2008 National Defense Strategy or is it a more recent version?

Secretary STACKLEY. I think we need to take that for the record.

[The information referred to was not available at the time of printing.]

Mr. FORBES. Let me tell you why I am concerned about that.

First of all, I think we should know. Secondly, according to the National Security Act, the administration had 150 days from the time they came in office, I think—you can check this too and confirm—to have that national security strategy and the national defense strategy. I haven't seen it. So if perhaps it has been sent to Congress and it is over here, we appreciate that.

I would just love for you to get me a copy because we have been asking for it and haven't seen it, and I think it is important to know if we are going to make statements that it is based on that national defense strategy, what year it was based on. The last one that I know of was the 2008 one.

The second thing I would ask you, Mr. Secretary, is this: I look at the plan that we have that has been laid out, and we look over the last 30 years, and I think everybody would agree the last 30-year average has been about $15 billion that we have had for ship-

building. I think we would agree with that, Admiral. I think that was some of your testimony as well.

You heard Mr. Larsen talk about earlier in 2019, we have got huge problems with Social Security because of the baby boomer situation. We hear the White House talking about the fact that we could have these high unemployment rates hitting us as long as the next decade. And I look at the CBO [Congressional Budget Office] analysis of this 30-year plan, and according to their analysis, which is an independent analysis, a bipartisan analysis, they think it is going to take $20 billion a year to reach this plan. That is a $5 billion difference between the 30-year average and what they think to reach this plan.

Where are you going to get the $5 billion from? If you look at what Mr. Bartlett talked about costs going up, if you look at the fact that we don't have any realistic projections that the budget is going to get better any time soon, where are we going to get that $5 billion per year to make up that shortfall?

Secretary STACKLEY. Let me start by saying that the pricing we have laid into the 30-year plan is, I will call it the best estimates that we have today for what these ships will cost in the future. Now, that does not mean that they don't carry risk. Certainly they do.

What we have to put in place is better governance of our requirements definition, our design, and our procurement so that as we confront these risks, we don't roll into programs that bring continued cost growth that end up eating away at the force structure.

Mr. FORBES. I don't want to interrupt you. Please do whatever you need to in terms of the record, but I have got 40 seconds left.

CBO is looking at your costs. They are not taking into account, as I understand it, cost projections, and still they say it is a $5 billion shortfall. Assuming we don't have these cost increases, where are you going to make up that $5 billion a year?

Secretary STACKLEY. I don't see the added $5 billion per year for the ships that we have laid into the budget.

Mr. FORBES. Do you disagree with the CBO's estimates? Is that what you are saying?

Secretary STACKLEY. I haven't had the opportunity to go through the shipbuilding plan that we have submitted to Congress with CBO, but I do know the estimates that we have laid into our plan and the basis for those estimates.

Mr. FORBES. Mr. Chairman, thank you.

Mr. TAYLOR. We believe that we have enough time for Mr. Langevin from Rhode Island.

Mr. LANGEVIN. Gentlemen, thank you for your testimony today and for your service to our Nation.

If I could, Secretary Stackley, talking about—you mentioned in your testimony the issue of missile defense. You talked about that a little already. I was wondering if you could elaborate a little further on how the Navy plans on achieving both its missile defense and ship defense requirements on this platform and what challenges does the Navy face using one platform, but for both roles?

Secretary STACKLEY. Yes, sir. Let me start with the baseline. The baseline is, Admiral Blake referred to 321 Aegis ships today that have a degree of ballistic missile defense capability, and those are

in service. That capability was backfit, brought to the ship in terms of adjunct processors that provide the missile defense capability working side by side with the AAW [anti-air warfare] capability that the Aegis system provides. And then, of course, you have got the missile load-up that works in conjunction with the AAW and missile defense capability.

As we move forward and get into the later capability builds for the Aegis program, we come to what is referred to as a multi-mission signal processor that brings together both the air and missile defense capability so that the single system provides that capability without having to change modes. That is currently in the program. Again, it will be coming in through backfit as well as being introduced on the DDG–113. That gives us processing capability.

And then we continue to step up capability in terms of sensor system as we move to the AMDR, the Air and Missile Defense Radar to be introduced in the 2016 timeframe.

So we need to move from today's capability, build upon that to expand the integrated air and missile defense capability as well as sensor power so that we can more than keep pace with the threat as we move forward.

Mr. LANGEVIN. Thank you.

Do you have anything to add on that?

Admiral BLAKE. I would only say that following the decision to increase our BMD capability at sea, both the Navy and the Ballistic Missile Defense Office took the action to accelerate the procurement of the ship kits in order to be able to push those ship sets out there so that we would increase over the fit-up in order to meet up the demand signal of the COCOMs [combatant commanders].

One of the concerns that we had was we wanted to ensure that we were also taking care of the ships when we put them out there so that we wanted to push as many sets out as we could so that we wouldn't have sustained deployment times out there. We would keep them within the windows that we currently have. That was one of our priorities.

So as we built the budget, we ended up putting additional dollars and sets in during what we call endgame in order to make sure we were meeting the COCOM demand signals.

Mr. LANGEVIN. As I see technology changes and improves, one of the challenges is also meeting the power requirements. Particularly, we talked about new technology developments in radar. One of the advantages of the DDG–1000, it is a larger platform and could expand—you could easily incorporate expansions of things like add power requirements on the platform, and the DDG–1000 obviously doesn't easily expand to accommodate those expansions.

Can you talk a little bit how we plan to meet the power requirements of the radar of the DDG–51?

Secretary STACKLEY. Right now the DDG–51 class is equipped with three 3,000 KW generators. And as we look at the power requirements with the added radar capabilities that we bring to the ship, in order to restore further margin, we are looking at adding a fourth generator to the DDG–51, and preliminary design studies have identified location and ship impacts. That is important and that gives us a baseline.

But we are also separately working a development effort towards what is referred to as hybrid electric drive. We have an ongoing technology program where we are going to take an in-service ship, bring effectively a motor that couples to the reduction gear of a 51 giving us the ability to drive the ship through the electric plant. And then the next step will be to reverse that so you generate power from the propulsion plant giving—this is where the term "hybrid electric drive" comes from. Very promising technology. We have it in a demonstration mode today.

We are going to look at that in conjunction with the fiscal year 2016 Flight III destroyer, with the hopes of being able to mature that technology and actually increase the ship's power generation capability.

I would like to be able to come back and give you further information as we move down that development time line, give you a greater sense whether in fact we are driving to adding a generator or whether this alternate technology that doesn't just provide power, also provides much greater fuel efficiency, can mature enough to arrive in 2016.

Mr. LANGEVIN. Are you completely banking on that hybrid technology to meet the requirements of the power generation of the radar?

Secretary STACKLEY. No, sir. The baseline is adding a fourth generator.

In parallel with that, we see this hybrid electric drive as a promising alternative that more than adding the generating capacity to the ship would also provide a more fuel-efficient way of driving the ship.

Mr. LANGEVIN. Thank you. I yield back.

Mr. TAYLOR. There is a vote on the House floor in about 2 minutes.

When we get back, we are going to recognize Mr. Coffman and Mr. Hunter in that order.

Again, I want to thank our witnesses first for the delay in getting started and the delay now. We should be back in 20 minutes or less. Thank you very much.

[Recess.]

Mr. TAYLOR. The committee will come to order.

Again, I apologize for the delay.

The Chair now recognizes the gentleman from Colorado, Mr. Coffman, for 5 minutes.

Mr. COFFMAN. Thank you, Mr. Chairman.

General Flynn, speaking recently to the Service Navy Association, the Commandant of the United States Marine Corps stated that during the Quadrennial Defense Review deliberations, that amphibious forces were stressed in every scenario. However, in looking at the 30-year shipbuilding plan, it does not meet the Marine Corps' stated requirement of 38 ships in the amphibious assault force.

Could you please comment on the risk the Nation is taking by not planning for a 38-ship amphibious assault force?

General FLYNN. On the requirement of 38 ships, we also agree that the minimum number with the degree of risk that is acceptable is 33, that is both for our forcible entry capability and our

steady stream operation. The way that risk has to be mitigated is you increase your OpTempo [operational tempo]. So that means your ships have to be out at sea more and also compresses some of your maintenance requirements, which also probably adds to your O&M [operation and maintenance] costs.

So we believe that 38 is the requirement, but we can do it at 33, and the cost is deployment tempo and also operations and maintenance funding, sir.

Mr. COFFMAN. Thank you.

Mr. Secretary or Admiral Blake, 6 amphibious ships—2 LHAs, 4 LPDs [Amphibious Transport Ship, Dock]—will be decommissioned in the next 3 years, at the same time that our amphibious force falls to 30 ships and below. This is 10 percent below the level the Navy and the Marine Corps characterize the limit of acceptable risk and 22 percent below that requirement.

Understanding that the Navy plans to retain these vessels in the inactive fleet rather than selling or dismantling them, what would be the cost of continuing to operate these vessels given the significant level of risk we are assuming? What prevents the Navy from retaining these ships?

Admiral BLAKE. Sir, to the first part of your question, you were absolutely right. The number is going to come down. We are going to be decommissioning those ships in the years as indicated. And it should also be noted that they will be in the inactive force and that if there were a national emergency, that those ships could be brought back out on line in order to support whatever the event happened to be.

If we had to, if you will, determine what it would require to take the ships that are currently being decommissioned in that year we did a couple of excursions, it would require at least we estimate $1.3 billion, and that is a ROM number, Rough Order Magnitude. And the concern we had, it is never easy for the Navy as we are balancing priorities and we are looking within the fiscal boundaries that we are operating in, it is never easy to come to the decision that we have to decomission ships.

However, in the case of the LPDs, they are at the end of their service lives, and one of the concerns that we would have is if we had to bring those ships back on line, there are probably, in addition to the number I mentioned, there would probably be some unforeseen costs as we kept those on line. I would also tell you if you look at our budget, basically we operate in five pots or colors of money.

First, we have got the manpower account, and if we had to keep those ships in service, we would have to pressurize that account. So we wouldn't be able to go there to cover the cost.

You have your R&D account, and that is where we are trying to build a force for the future and determine how we are going to meet the future threats.

You have your infrastructure account, which has got a number of high priority items, everything in it from family housing to quality for our sailors and Marines.

And then you have got the O&M account, the operation and maintenance account, and the procurement account.

So there would be no easy place to go, if you will, when you look at that account if we were to, in fact, go back if we had to bring those ships out.

General FLYNN. One of the key things that I think you have to be considering when you look at the decommissioning, even though it may be budget driven, there still needs to be an operational assessment by all of the key stakeholders as to what that does. And when you make that decision, that is driven sometimes by fiscal realities. It also has to be informed of the operational realities and capabilities you are going to have or not have by doing it.

Mr. COFFMAN. Thank you.

Mr. Chairman, I yield back.

Mr. TAYLOR. I thank the gentleman for a really great line of questioning.

The chair recognizes Mr. Hunter.

Mr. HUNTER. Gentlemen, I thank you all for your service.

Secretary Stackley, when it comes to the NASSCO, you have been asked about the MLP [Mobile Landing Platform], you have been asked about the amphibs. One last question here. When it comes to the actual T–AKE hull and propulsion system, do you have any thoughts about putting that into the next fleet oiler double hull T–AO(X) using that hull in that propulsion plant in that ship?

Secretary STACKLEY. Yes. We have looked at concept designs where you leverage the existing design and take a look at what the capacities are for T–AKE-type hull versus what a T–AO(X) would need to provide.

So there are concept studies and feasibility looks that indicate that T–AKE hull would be a viable platform for the T–AO(X).

Mr. HUNTER. Would you say it is a pressing matter right now to get a double hulled oiler fleet out there right now?

Secretary STACKLEY. Right now—in terms of the force requirements for oilers, we meet all of our requirements. And as I described earlier, service life for the T–AO classes go out to the mid-2020s.

So when we, in a 30-year plan, look at pulling T–AO(X) forward into the 2017 timeframe, it is looking at both the industrial base as well as getting to that more modern refueling-at-sea capability that would bring the double hull. So that was an important consideration as we moved it to the left.

Our forces have a waiver or an exemption from the MARPOL [Maritime Pollution Act] requirements for double hulling, but we do see the benefit of getting there sooner rather than later.

Mr. HUNTER. Moving them left up against the actual T–AKE production line would probably save a lot of money because they could keep going from there with that hull, the materials and everything else. But that is not going to happen? There is for sure going to be a gap in between if it was chosen to use that hull and that propulsion plant for the T–AO(X)? There is no way that it can be backed up to save money?

Secretary STACKLEY. We took a hard look at the timing for the T–AO(X) and the plan, and across the alternatives when we tried to look at the feasibility of building T–AO(X) that much earlier, then we are starting to trade off other higher priorities inside of

our requirements to fill this other requirement ahead of need. So that is how we ended up in the 2017 timeframe.

And the other thing I have to caution is when we talk about a T–AO(X), new ship class, there would be time devoted to that design but then we would also compete that new ship class so that it is not a given that T–AO(X), if it were on a T–AKE hull form would be going right behind T–AKE. There is a design piece and a competition piece that would intercede.

Mr. HUNTER. So even if you took that hull form, you wouldn't necessarily give it to the people who had been making those ships. It is going to be competed?

Secretary STACKLEY. We would be competing.

Mr. HUNTER. So you would compete it with other shipbuilders that hadn't built that ship instead of having the folks having the expertise in building that ship carry it on?

Secretary STACKLEY. We would be taking the requirements for the T–AO(X), we would be looking at detailed design and construction, determine what the proper hull form is, and we would be looking—from day one our intent would be to compete T–AO(X).

Mr. HUNTER. Even if that T–AKE hull form was chosen to be the model?

Secretary STACKLEY. Yes, sir. At this time, I don't have any compelling justification to go to the sole source for T–AO(X).

Mr. HUNTER. Thank you, Mr. Chairman.

Mr. TAYLOR. The Chair will recognize the gentleman from Virginia for an additional 5 minutes.

Mr. WITTMAN. I want to follow up a question earlier about amphibious ship capacity.

Can you articulate for the committee what impact the availability of amphibious ships has on the Marine Corps? And let me ask you a little bit further.

Have Marines and sailors been subject to back-to-back or unscheduled deployments because of the lack of depth in our amphibious inventory? And what difficulty does the Marine Corps face when, for instance, a ship fails to pass its end serve or breaks immediately upon its acceptance? I just want to put that in perspective to understand some of the nuances on amphibious capacity and what it means to the current Marine Corps.

General FLYNN. I can honestly tell you upfront we haven't missed a deployment because of amphibious ships. But what we have had to do is what was in the planned availability and what was actually deployed has sometimes had to be modified at the last minute. And what you lose then is the training time that you spent together working up prior to the deployment so there is a measure of effectiveness. That has happened recently on some of the deployments that we have had to substitute an LPD for one that couldn't deploy, and in another case, we had to look at another deck to do that.

So I don't think we have missed the point. I know we haven't missed a deployment. But you do then lose that work-up time prior to deployment.

It hasn't really affected the Marines that deploy on the ships, but I do think if you are the ship that was not scheduled to deploy and

then you were put in at the last minute, I think it would affect the sailors that were doing that.

But I think the recent deployments that you saw in January when we had Haiti and our other operations going on just show how much the fleet is used and how valuable it is to what we do every day, and the more flexibility you could have the better. That is why we went with the 11–11–11 mix of 11 big decks, 11 LPDs and 11 LSDs to give you that overall capacity and flexibility.

Mr. WITTMAN. I yield back, Mr. Chairman.

Mr. TAYLOR. The former chairman, Mr. Bartlett.

Mr. BARTLETT. Just one short question.

Admiral, in your testimony, you said that one of the missions of your Navy was to protect our sources of energy. As you may know, the Chinese have been very aggressively buying up oil all over the world. In today's world, that doesn't make much sense because those who come to the auction with dollars get the oil. We have only two percent of the world's oil. We use 25 percent of the world's oil.

Do you think that the Chinese anti-ship missile may be relevant to their buying up oil all over the world?

Admiral BLAKE. I am not sure there is a connection there, sir. I will tell you that we take their anti-ship missile seriously and that we are definitely considering ways to position ourselves so that we would be allowed access in an anti-access scenario. But other than that, sir, I don't think—I don't know of a connection between oil buyout and the access missile.

Mr. BARTLETT. It makes no sense in today's world why they are buying oil. I think the time may come, since oil is finite, that they will say, Gee, guys, I am sorry. But the oil is ours and we can't share it.

To make that a reality, they have to be able to protect the sea lanes for the shipment of oil. And if our ships can get there, they can't protect them, can they? That is why I think this new anti-ship missile may be relevant to their buying up oil all over the world. Because if they are going to protect their sea lanes, they can't have us near them, can they?

Admiral BLAKE. Well, sir, I would say that we, as I previously said, we do take the anti-ship capability seriously and that the issue for us is to evolve our ballistic missile defense systems so that we are able to counter that capability and I think we are doing that.

Mr. BARTLETT. It comes close to being a gamechanger, doesn't it?

Admiral BLAKE. I think it is a serious threat, and I think we need to be able to address it.

Mr. BARTLETT. I thank the gentleman.

Mr. TAYLOR. Secretary Stackley, I appreciate you sticking around as long as you have.

One question that comes to mind is the affordability of the LCS [Littoral Combat Ship] and what you expect to see pricewise. My question is, is it your intention to award a contract of 10 to the first vendor or 5 separate 2-ship contracts? And do you think that there would be any merit to giving you the legal authority to make that an award of 10 for multi-year, if it is not the case already?

Secretary STACKLEY. Yes, sir. We do not have multi-year authority. What we have structured is what has been referred to as is a block buy where we would be awarding two firm ships, fiscal year 2010 ships, with options for eight additional ships. And we have requested in the 2011 budget request economic order of quantity [EOQ] advance procurement funding that would allow the winner to combine the two ships with select material buys for the eight additional ships to gain some savings on the material side.

And what we structure is competition for those EOQ dollars so that the winner has the ability to go out to his vendor base and compete, who gets the multi-ship material buys as a part of his bid.

So it is not a multi-year but within the authorization that we received in 2010, it attempts to achieve much of the benefit of a multi-year when it comes to stability, savings through material procurement and then planning, if you will, on the part of the winner.

Mr. TAYLOR. Given that I am certainly disappointed in the price of that platform, I am curious if either of the vendors has expressed any interest in making a better deal if given a multi-year? Has that subject ever been broached by them?

Secretary STACKLEY. I don't remember getting into a multi-year discussion with this solicitation. We have talked about getting to a multi-year, and in fact, the acquisition strategy that we have structured, the next procurement, in fact, would be a multi-year procurement. But at this stage given the turbulence at the front end of the program, we did not anticipate that we would be able to move directly into a multi-year with this buy.

Mr. TAYLOR. Shifting gears. Given the critical importance of the EMALS [Electromagnetic Aircraft Launch System] system being delivered in a timely, cost-effective manner, where does that stand on the fourth-class carriers?

Secretary STACKLEY. Let me break that out into a couple of pieces.

One is the development, what is referred to as a system development and demonstration, SDD. We have several activities going on there. We have what is referred to as highly accelerated life testing taking place in Tupelo where system components are being tested and run through and accelerated alive to get learning in terms of the system's ability to meet the 50-year lifecycle that it was designed for.

We have high-cycle testing, which takes critical components through—we are up to 30,000 cycles, which is about a 16-year lifetime of the equipment looking for information on fatigue and performance at those high ends of the system's performance.

But most importantly is we have got the system, one catapult in the ground at Lakehurst where we bring together hardware, software, power system and are ramping our way up through what we refer to as no load tests, ultimately leading to aircraft launches in the end of the summer.

So the SDD program is scheduled to complete around the second quarter of 2012 of the development at Lakehurst. I still have to get you up there, sir, when we can coordinate schedules, but we are learning greatly there. We have identified software issues that set us back in a test program. It came through those software issues

and are continuing to march forward. So the SDD continues to support the CVN 78.

Secondly, we have production. And the production we have the total system broken down into a half a dozen subsystems that we are tracking closely. For all but two major pieces of equipment, we are looking at significant float in the production schedule on the order of about 4 months.

Two pieces of equipment. It is actually one piece of equipment, two of, and that is motor generator sets. We are closely managing that production schedule. There is no float in that schedule so we have to be careful that we don't incur any interruptions on the production side. But today we support the CVN 78 schedule in both SDD and production, and we have got a pretty strong team managing this day-in-day-out to keep it that way.

Mr. TAYLOR. Secretary Stackley, the Navy has pointed out the need for surface combatants. The general has done an excellent job of pointing out the need for large-deck amphibs. This Congress has been good enough to authorize and appropriate funds for two DDGs, two LPDs and one LHA, and yet the Navy has not signed the contract. And quite honestly, we have delivered identical letters to both Northrop Grumman and the Navy reminding both of you that these are a finite amount of funds for a fleet that needs to grow. And I want to do everything I can from this end to encourage you to sign those contracts.

Secretary STACKLEY. Yes, sir. Can I give you a status on where we are and how we are attacking this.

In shipbuilding, what you just described is frankly the most significant issue that I am dealing with on a day-to-day basis—that is the significant amount of shipbuilding that is pending at Northrop Grumman on the gulf coast.

In terms of those five ships, we, in fact, have advanced procurement contracts in place for the DDGs, and we have received proposals for the advanced procurement contract on LPD–26—I am sorry. We have advanced procurement contract in place for LPD–26. We have received proposals for construction for LPD–26 and proposals for construction of DDG–113. We received those proposals about a month ago, a little bit over a month ago. We are evaluating those proposals. But more importantly, we are engaging in direct and intensifying discussions with the shipbuilder to come through the differences between their position and our position.

It is a collaborative but hard effort to get there. It is our priority, and I know it is Northrop Grumman's priority, and we understand and agree with your sense of urgency.

What we have to do on the government side is ensure that we arrive at a contract that meets our requirements and is in the best interest of the taxpayer. We will keep you informed as we continue to move through these negotiations. They will be difficult. But we are, both Navy and industry, very committed to getting these completed successfully.

Mr. TAYLOR. Lastly, and I do want to thank you for what I consider to be your strong efforts to turn the LCS program around, your good work on the *Virginia* program. There are a number of programs going in the right direction.

The thing that continues to trouble me is that this is, to my knowledge, the third Chief of Naval Operations that has come before the committee and says we need a 313-ship fleet. We finally hit bottom and started growing the fleet until this year. This year the Navy wishes to commission 7 ships but wishes to decommission 10 ships. That is going the wrong way. And I think you have heard up and down this panel our desire, as Members of Congress, who have the responsibility to provide for the Navy, to grow the Navy.

I think the most sensible way to do that—and I am going to let you tell me why not—would be to SLEP [Service Life Extension Program]—at least until the LCS's start being delivered in sufficient quantities—to SLEP the FFGs [guided missile frigates]. Now, the first thing that was thrown back at me was, Well, we don't have the manpower. I can't see where one-quarter of 1 percent of the 330 men and women in the United States Navy is really going to kill you. So I think you are going to have to come back with a better argument than that.

The cost of some of these vessels—and again, I want to work with you on this. If we are going to SLEP them, should we SLEP the best, start with the best, or should we start with the five worst that we know need generators and other things.

But I don't think anyone wanted the LCS program to drag out as long as it has. I don't think anyone wanted the fleet to shrink as much as it has, but we do have an alternative to a shrinking fleet and that is to SLEP the FFGs, so we will be sending you some questions in the near future, and I hope you will get back to me in a timely manner.

Thank all of you for a very long day here and for your service to our Nation. The panel is dismissed.

Mr. TAYLOR. We now call to the witness stand Mr. Mike Petters, the corporate vice president and president of Northrop Grumman Shipbuilding; and Mr. Dave Heebner, executive vice president, Marine Systems, General Dynamics Corporation.

Mr. Petters, I have been told you have been on the job longer, if that is the case, we are going to allow you to go first.

STATEMENT OF C. MICHAEL PETTERS, CORPORATE VICE PRESIDENT AND PRESIDENT, NORTHROP GRUMMAN SHIPBUILDING

Mr. PETTERS. Thank you, Mr. Chairman.

Chairman Taylor, Ranking Member Akin, distinguished members of the Seapower and Expeditionary Forces Subcommittee. I really appreciate this opportunity to be here today and I appreciate the invitation.

Mr. Chairman, your invitation asked for my opinion of the Navy's 30-year shipbuilding plan, and I will limit my remarks to a summary of my written testimony which I request be submitted for the record.

First, I think the Navy has presented a courageous plan with the budget discussion taking center stage across America today. The Navy has stood up and said, This is what we need to be effective, and they have not allowed today's fiscal restraints to overwhelm what they believe are the mission requirements. But having said

that, there is something important to understand about this plan from my perspective.

It presumes that there will be a smaller industrial base required to support the plan, and it presumes that that base will be healthy. I think these are very bold presumptions. Our industrial base today, albeit with some minor adjustments over the years, has been established to support a 600-ship Navy, and yet this plan presumes even greater adjustments are to come.

And when we do our planning at Northrop Grumman Shipbuilding, we always start with the assumption that the Navy's 30-year plan is the best case. Now, if any industry were to go through this kind of rationalization there would be a lot of turmoil and uncertainty. The Navy's plan doesn't really appear to consider that part of the issue.

These kinds of adjustments would require significant collaboration with the Navy, the Congress, and the industry to enable this transition and minimize a lot of uncertainty. I believe that the major work areas that will be affected would be workforce, the facilities and the supply chain. And building these complex ships, as you know, requires very uniquely skilled craftsmen.

At Northrop Grumman, our demographics have shifted to a workforce of employees with less than 5 years, coupled with a large population of shipbuilders with more than 25 years experience nearing their retirement eligibility, and that experience is not easily replaced. We have addressed this by investing in our people through leadership training, workforce development and apprenticeship programs. However, should some sort of rationalization occur, it is probable that the very same people that we are investing in today would be the very first ones we would be forced to let go. That combined with the projected retirement levels would jeopardize our productivity in the future.

A rationalization would also be challenging in terms of our facilities. Shipbuilding is not like the hotel industry, where the solution for two hotels with 40 percent occupancy is closing one to reach 80 percent in the other. Each of our facilities are tailored for specific applications and support of particular missions. A great degree of thoughtfulness would be needed to answer the question, how would we move from where we are today to where we would need to be in the future? And yet the choices associated with facility rationalization, like redeployment, face capital investment and environmental challenges just to name two. In other words, one size solution would not fit all cases.

The issue of the supply chain would be how to create a sustainable consistent volume of demand, which is the same issue we have today. Today's low volumes are eliminating competition. We have 80 percent sole-source in many programs, and 60 percent sole-source across all of our programs. Even with 80 percent sole-sourcing, we can still manage our costs, as long as we have consistent demand. And without consistent demand, even with competition, we struggle with managing that cost.

Now, we have come through a period of multiple lead ships with the supply chain competition, but we are transitioning to follow-on ships which inevitably leads to significantly less competition. So how can we ensure the health of that chain?

As I testified to this subcommittee last July, at the heart of our difficulties in shipbuilding is that most of the time the Navy must buy ships one at a time and must pay for them up front. This results in tough challenges in creating a healthy and efficient shipbuilding industry. We need to increase the use of initiatives that enable us to amortize our investments in our people, facilities and supply chain, like multi-year appropriations and multi-year contracts.

And I would like to conclude my statement with a point regarding the *Ohio*-class replacement program. It has already been talked about at length today, but I just add, if we could be moving to a smaller base, as the plan seems to indicate, all of us, the Navy, the Congress and the industry will be wrestling with what size base that is. One of the factors that will drive that decision, in fact I think the largest factor that will drive that decision, is how the *Ohio* replacement program will be budgeted. If it is in the SCN [Shipbuilding and Conversion, Navy] account, the base would be significantly smaller, as this program will absolutely impact every other program in that account.

If it is not in the SCN, if it is taken off the budget or funded as a strategic enterprise, then the base required to support the SCN is a different size and will minimize the turmoil and the uncertainty that lies ahead.

Now, this second option would certainly be my respectful recommendation.

I welcome the attention of the Congress and this subcommittee in particular to the needs of our industry, and I thank you once again for allowing me to talk with you today. I really appreciate the invitation. I look forward to your questions.

[The prepared statement of Mr. Petters can be found in the Appendix on page 75.]

Mr. TAYLOR. The Chair thanks the gentleman very much.

And again, our apologizes for keeping you here so late.

The Chair now recognizes Mr. David Heebner of General Dynamics.

STATEMENT OF DAVID K. HEEBNER, EXECUTIVE VICE PRESIDENT, MARINE SYSTEMS, GENERAL DYNAMICS CORPORATION

Mr. HEEBNER. Thank you, Chairman Taylor, Congressman Akin, members of the subcommittee. It is a pleasure to appear before this committee again. And I want to thank you for your committee's support for the United States shipbuilding. I would like to make a brief opening statement and, if you would permit me, submit a written statement to be added to the hearing record.

Mr. TAYLOR. Without objection, so ordered.

Mr. HEEBNER. My name is Dave Heebner, and I am the Executive Vice President of General Dynamics Marine Systems. GD Marine Systems includes Bath Iron Works in Bath, Maine; Electric Boat in Groton, Connecticut, and Quonset Point, Rhode Island; and NASSCO in San Diego, California.

Our shipyards employ nearly 22,000 people who design, build and support submarines, surface combatants and auxiliary ships to the U.S. Navy and commercial ships for the U.S.-Flag customers.

Our primary objective at General Dynamic [GD] shipyards is to provide the Navy quality ships that achieve fleet performance requirements and are the best possible value to the American taxpayer.

When I last testified before this committee in July of 2009, I mentioned three aspects that have direct and substantial impact on our shipyards' ability to achieve that goal. They are, one, stability of requirements. Stable requirements lead to more mature designs which reduce production risk and promote efficiency. Two, predictability in funding and scheduling. Predictability allows time for planning and commitment of resources that enhance shipbuilding processes. And three, sufficient volume for efficient production. Building enough ships to enable investment in processes, people and facilities to lower costs and maximize the value of each ship we deliver.

While assessment of the industrial base impact of the Navy's new 30-year shipbuilding plan is ongoing, I am certain that the Navy has worked hard to balance available resources among a broad and diverse set of competing demands. Stability of requirements is implicit in this plan, and predictability is enhanced because the plan is based on reasonable assumptions and can be executed.

With regard to these two aspects, the plan promotes our ability to provide quality ships at the best possible value.

However, the most challenging aspect of the plan is volume. While we credit the Navy for its balance in allocating available resources, the new plan is funded at levels that build 13 fewer surface ships in the near term when compared to the previous shipbuilding plan. Internal to our shipyards, the volume challenge will trigger workforce resizing. And external to our shipyards, reduced volume will negatively affect the thousands of suppliers who provide components and commodities. In the end, this reduction in volume will lead to higher shipbuilding costs, not the best possible value for the taxpayer.

This simply reflects the principle of economy of scale. Over the past decade, GD made major capital investments in our shipyards to enable production efficiencies, but the return on these investments to the Navy will be limited without sufficient volume. Our objective remains unchanged. We will deliver high-quality, capable ships to our Navy. The new 30-year shipbuilding plan is a good baseline, and we will work with the Navy and the Congress to address the volume issues.

Mr. Chairman, thank you for your continued strong support of American shipbuilders. I am proud of the high quality ships that the men and women of General Dynamics deliver to the Navy, and I invite the committee to visit our shipyards, so that our skilled workers can show you the magnificent ships they build.

I thank you for this opportunity to testify. I look forward to your questions.

[The prepared statement of Mr. Heebner can be found in the Appendix on page 91.]

Mr. TAYLOR. Thank you, Mr. Heebner.

The Chair now recognizes the ranking member, Mr. Akin.

Mr. AKIN. Thank you, Mr. Chairman. I did have one quick question of Mr. Heebner. I understand that moving work on the MLP into fiscal year 2012 or at least into 2014 creates more stability for the workforce at NASSCO, but would moving that work to the left create any savings on these platforms? That is the first question.

And then the second question would be, what additional work do you hope to compete on, and will those opportunities be available before fiscal year 2014?

And I guess maybe add a third thing relative to a comment that was made by Secretary Stackley, and that was, I think they said that you have got one MLP scheduled in 2011. They are going to skip 2012, so that there is time to work out possible bugs between the first and then the next couple. I just wanted you to respond to those if you would. Thank you.

Mr. HEEBNER. Thank you, Congressman Akin.

I would like to draw back some attention to the hearing that we had in July of last year, and remember that the focus on that hearing was the efficiency in American shipbuilding, in both military ships and also in commercial shipbuilding.

And I can tell you that the investments that we have made to reengineer our shipyards in facilities and people and processes have been effective in working toward that efficiency. I can point out to you the *Virginia*-class submarine program and our ability to anticipate the Block III ship buy and significantly improve the cost of those ships, getting those ships down to $2 billion a copy, to be able to transition from an initial ship that took 84 months of span time to construct down to our target of 60 months, a significant savings. That is a credit to being able to plan effectively for what we want to do.

For the MLP program, another important ingredient in being able to build ships serially and efficiently is by creating a complete design before you start building the ship. That design factor is built into our plans for the MLP, and I am not interested in going back to the old days where we wait to develop requirements, where we start construction with a low level of design completion. I think we have found the model that works. We have done it with the *Virginia* class. We have done it with a product carrier at NASSCO, and I think we should continue to do it by getting the designs complete first. That is our plan on MLP, and we have looked at it from the viewpoint of being able to build those ships serially, year after year, so that we can maintain the workforce and those efficiencies that we have built into the yard.

Mr. AKIN. So I think what I am hearing you say is because you are moving to the new method of building the ships which is less expensive, part of that says, is you have got your whole design as done. You know that everything is going to hook together, and so when you build the first one, you are not anticipating any major changes, so you can build the second one right after the first. Am I understanding you?

Mr. HEEBNER. As long as our Navy partners maintain consistency in the requirements for those ships, we intend to leverage the design build process that we have now proven in our own processes to be effective.

It is clearly evident in the PC [Patrol Craft] program that we built out there in the NASSCO shipyard, where we delivered that ship 6 months early, and we reduced the cost on the ship. We produced the first ship 6 months ahead of the schedule, and we reduced the cost in that to all of the stakeholders.

So I think that that is possible in shipbuilding. We have demonstrated it there, and we are showing that we can meet our commitments in the submarine programs as well.

Mr. AKIN. So then the other part of my question was, does that mean savings, and can the ships be built at a lower price if you can, leveling your workforce, if you can build them on 1-year increments, does that help you out? And does that translate to savings for the Navy?

Mr. HEEBNER. As I mentioned in my opening statement, obviously one of the important objectives we have in shipbuilding is to deliver the best possible value to the taxpayer and by being able to maintain a skilled workforce without the cycles of reductions and increases, to be able to maintain the trained base. And I will give you a quick example.

When we were having difficulties at NASSCO 5 or 6 years ago in meeting production and time lines, basically, we were experiencing five trainees to one journeyman. Today we have five journeymen to one trainee. That is the way to do it. That is the way you build efficiency into your yard. If you want to break production on us, if you want to move the next ship out to meet some fiscal timeline, we can do that. But that workforce changes under those conditions, and we go back to the other condition. We know what the answer is. Let's maintain the momentum that we have in building efficiency into our yards.

The answer is, yes, we can save money on those ships.

Mr. AKIN. Thank you very much.

Thank you, Mr. Chairman.

Mr. TAYLOR. The Chair thanks the gentleman.

The Chair now recognizes the gentleman from Connecticut, Mr. Courtney.

Mr. COURTNEY. Thank you, Mr. Chairman.

Just a follow-up on the *Ohio*-class discussion from the prior panel and Mr. Petters' reference to it.

First of all, I think you would find a lot of support on this committee to finding a separate funding mechanism for that. It would solve a lot of problems by itself.

I mean, obviously, the other issue is just, you know, the projection, the $6 billion to $7 billion per submarine, which the Navy has built into its shipbuilding plan. I mean given the fact that, obviously, the *Virginia*-class program achieved a great deal of success, as all the witnesses have mentioned earlier, do you think we can maybe be a little more optimistic about whether or not building on, you know, what we have learned from that, that there may be hope that we can do better than that projection?

Mr. HEEBNER. Thank you, Congressman.

The direct answer is yes.

Let me just compliment the Navy at this point and the Congress and this committee for supporting the *Ohio*-class development process. We know what it takes to get to an effective design at the time

of construction start. And we have programmed into this *Ohio* replacement program the time to be able to do that efficiently. We have engaged our partners in the United Kingdom, so we can cost share in that process as well. So we have an effective plan in place right now to be able to deliver those submarines, and begin construction in 2019, and deliver those submarines on the schedule that we have intended.

There is a lot of work that has to be done between now and then. The Navy and our UK partners have to decide on the requirements, the requirements for each individual boat and also for those that we share commonly between us. As we get through that process, we will build that into the design. And our intention is to complete the design so that we can build the ships in 2019 without making multiple changes as we begin construction. That will enable the efficiency that will keep the cost down.

Mr. COURTNEY. Well, we are rooting for you.

Tomorrow we are going to have a lot of people on the Hill who are part of the submarine industrial base. The suppliers are kind of swarming the place. I mean, you described how you know when you begin these programs, you have multiple bidders, and then as it goes along, because just by nature, you end up with sort of sole-source. I mean, how fragile is the supply base right now?

Mr. PETTERS. As I mentioned, our overall supply chain today for all of Northrop Grumman shipbuilding is about 60 percent sole-source.

For the submarine community, it is actually 80 percent sole-source. On the one hand a sole-source supplier or sole-source condition can be particularly challenging to manage from a cost perspective because when you go to negotiate it with a sole source supplier, you have a lot different kinds of leverage, less leverage frankly. But what we found in all the studies that we have done across all of our programs is that the most important factor in being able to manage the cost is really not whether they are sole-source or not. It really is, are we able to provide consistent demand and steady, consistent demand that we can forecast and then meet our forecast on?

So, in the case of the *Virginia*-class program, that has actually been our best program, from a cost-management perspective in the supply chain, because we have been able to predict to our supply chain, even though it is 80 percent sole-source, we have been able to predict to them what the demand is going to be. And we have been able to place work with them in such a way that we have been able to come to good cost-effective solutions that make sense for both the suppliers because they have consistent demand, as well as the shipbuilders and the taxpayers because of the bill.

And so, for me, the issue is, well, while we talk about sole-source and lead ships kind of drive competition, at the end of the day, the competition is really not the panacea I think that people would like it to be. I think the real issue is treating the program as a class and then being able to keep a steady, consistent demand out there for that supply chain to manage to. And I think you can do that whether it is 80 percent sole-source or 20 percent sole-source. That consistent demand is the key.

Mr. COURTNEY. Mr. Heebner.

Mr. HEEBNER. The supply base for General Dynamics Electric Boat is 70 percent single-source supply. I would echo Mr. Petters' comments that it is manageable as long as we can provide predictability and stability to that supply base. From time to time, there are some of those suppliers who just cannot sustain themselves over time, and we take exceptional action to be able to maintain that source. But I do believe that it is manageable even at that high rate.

Mr. COURTNEY. Thank you.

Mr. TAYLOR. The Chair recognizes the gentleman from Virginia, Mr. Wittman, for 5 minutes.

Mr. WITTMAN. Thank you, Mr. Chairman.

Gentlemen, thank you so much for joining us today. We appreciate the great ships you build, and so do our men and women in uniform.

I want to just start out with a question in looking at the shipbuilding plan. And you all had talked about consistency in demand and making sure that we had that capacity within the industrial base to make sure we can meet this Nation's needs. When I look at certain classes, I look at DDG bills, and I see it go from two to one, two to one, two to one. I am wondering how you see that affecting your capacity. And again, I realize the challenges there with making sure you have the experts there trained and making sure you keep those experts in building those ships. I want to talk about that particular class.

And then, also, the SSNs, as you look out in the future, when we get to 2030, you see we start to trail off with the number of SSNs that we are building off to being at 39 in 2030. So I am wondering with the trail trailing off of the builds on SSNs and then it ramps back out, what does that do to the industrial base? And then what does the two-one-two-one schedule for DDG–51s do to your ability to maintain that capacity in the industrial base?

Mr. HEEBNER. If I could start with two comments. The first is the DDG–51 is a good example of what can happen successfully in shipbuilding when you get the serial production of ship and you have competition between two surface combatant yards, as you do between Ingalls and Bath Iron Works. Now, we were successful in building that ship for a long time. But several years ago, we made an investment in the Bath Iron Works yard in concert with the United States Congress, the Navy, the communities in the State of Maine. And we built the land level transfer facility and we built an ultra hull manufacturing facility.

And the result of that is, from the last slider we had to the most recent launch ship, we have taken over 2 million man hours, labor hours, out of the production of a single DDG–51. That is the type of thing you can do with investment. And you get—I am able to convince my board to make these kinds of investments when I can show them that we have the likelihood of serial production.

When I saw the 30-year plan and noted three ships every 2 years, as compared to significantly more than that in the periods that allowed us to build that efficiency, I don't know how the Navy or the Congress would intend for us to maintain two competitive surface combatant yards. So I think we need to take a look at that, keep competition in, build five ships every 2 years, certainly a re-

quirement, but do it so that we compete with each other and get the best possible price for the taxpayer. Make us work hard to do that. We are ready for that competition. But it takes more volume than three ships every 2 years.

Mr. PETTERS. And I would just echo that there is not sufficient volume, in my opinion, in the plan today to have healthy competition. Competition works where you have sufficient volume to keep the competition moving year in and year out. And I think the DDG–51 program was the *Virginia*-class program before the *Virginia*-class program came along in terms of its model program, serial production, attracting investment, attracting talent, using competition to drive efficiencies. It is also a model program. We are on the edge of restarting that program now and we have a plan in front of us that is going to restart it at low production rates. If the expectation is that we can achieve what we did before in the 51 program at higher production rates, I would agree with my compatriot here that volume is not sufficient to warrant that. And so we would have the same issues of trying to justify investment, trying to attract talent and those kinds of things.

Mr. WITTMAN. An additional question about our amphibious ships. And I know there is a lot of debate. We heard it earlier with General Flynn with 38 versus 33. We know we are transitioning. We are transitioning from the LPD to the LHD [Amphibious Assault Ship]. Tell me, is that transition going to be taking place in a way that is going to make sure we transfer efficiency in the process to make sure we can meet our amphibious ship needs?

Mr. PETTERS. Up until this plan was published, the plan that we were working to was a plan that would finish the 11th LPD, then go and use the LPD hull to build a couple of LCCRs and use that to transition into the LSDX program. And that would be a bridge, if you will. It would be a bridge, a design bridge. It would also be a talent and capability bridge and facility bridge.

This plan has removed those two LCCRs, and so basically it has taken the bridge out. What the implications of that are for LSDX, I don't know. If the idea is that somehow you can bridge from an LPD–27 to an LSDX with a 4- or 5-year gap, I think that that is a bridge too far. And so we will have to—that is one of—in my written testimony, that is an area where I think that the plan could use a little bit more scrutiny.

Mr. WITTMAN. Thank you, Mr. Chairman.

I apologize. That should have been LPD to LSD, but anyway.

Mr. TAYLOR. The Chair thanks the gentleman.

The Chair now recognizes the gentlewoman from Maine, Ms. Pingree, for 5 minutes.

Ms. PINGREE. Thank you very much, Chairman Taylor.

And thank you both for being here today and speaking with us about your industry. You both did a good job of answering one of my questions about the competition, industrial base, and the procurement rate of the DDG–51, so I don't know that I have anything else to say. But I appreciate, and you have heard in earlier testimony, how often that comes up with the committee members and our concern about maintaining the industrial capacity and the competition.

My other question is for Mr. Heebner. And thank you again for being here today. It is nice to see you. As you know, the DDG–1000 program is experiencing a Nunn-McCurdy cost breach due to the decision to truncate the program to only 3 ships instead of 10 and not likely because of program or shipbuilder performance. What is your perspective on the Secretary's explanation for the cost breach, and can you give us an update of the production of the DDG–1000?

Mr. HEEBNER. Thank you, Congresswoman Pingree.

It is a program that we are particularly proud of at this stage. A couple of comments I think would be appropriate before I talk about the Nunn-McCurdy breach. The DDG–1000 program is leveraging off of the success of the DDG–51 program at Bath Iron Works. And we have had the opportunity to exercise a land level transfer facility in the ultra hull and made great strides in improving efficiency in shipbuilding performance. We designed this ship more completely before start of construction than any other ship that has been built at Bath. And as a result, as we have begun the process, we have maintained the schedule for production and, in some cases, exceeded it.

But you shouldn't just listen to my view of this thing. Secretary Stackley has a quarterly meeting with all of the major contributors to the DDG–1000. And I commend the Navy for the way they are managing and overseeing the performance of the multiple contributors to that program. And that ship is coming along.

From our perspective, the hull mechanical and electrical is about 10 percent complete, so it is too early to declare victory, but the reality is, we are on or ahead of schedule in the projection. We have leveraged lessons learned in the DDG–51. I like the comment that CNO Roughead made in his testimony where he said, the Nunn-McCurdy breach is mathematics. And he talked about a program that went from 10 ships in his last assessment to 3 ships, and when you do the mathematics, you simply get a technical breach that must be reported and must be dealt with.

My suggestion to you though is that we are in the process right now of contracting for the DDG–1000 three ships. The first one is under contract. The second and the third ships are not under contract. If we can keep those on contract, then we can generate the savings that have been built into the plan. If we must delay those contracts, then that will have impact on both the workforce and also on the cost of the ship. So it is important that we maintain our vigilance in moving forward and getting those two ships under contract.

Ms. PINGREE. Thank you very much.

Thank you, Mr. Chair.

Mr. TAYLOR. Mr. Bartlett.

Mr. BARTLETT. Thank you very much.

When I became Chair of this subcommittee, I was concerned that our platforms were two few and very large and provided very enticing targets for a peer. And I would imagine that if a peer chose to start a war with a Pearl Harbor kind of an event, I wondered how many of our major assets would be available to us the next morning. And we commissioned three naval architecture studies looking at what a future navy might ought to look like considering these

threats. And one of those was chaired by Art Cebrowski, who I am sure you know.

And his study indicated that he thought that we should have a 600- to 800-ship navy that would cost no more than our present navy because he was envisioning much smaller ships. I noted that we had unmanned aircraft. The pilots are in Nevada. And we have unmanned submarines. We still have people on ships. And I asked them why we still had people on ships since they are obviously easier to drive than either an airplane or a submarine. And the answer I got was that we have so few of them, and they are so big and so valuable, we have to have people on board for damage control.

As you know, half the cost of keeping a ship at sea is the people. So if you got rid of half the fleet, we could have 50 percent more ships. If you got rid of all the people, we would have twice as many ships.

Well, if you had a navy like Art Cebrowski envisioned, 600 to 800 ships, and now if you took the people off them, you could have 1,200 to 1,400 ships out there. With that many ships, you could consider them semi-expendable, and you could rest easy if you didn't have manpower on them to help put out the fires and control the damage. What would life be like in your yards if you were building six ships a year for each yard? That is what this would amount to, by the way. They wouldn't be quite today's ships, but they would be six ships in each yard a year.

Mr. PETTERS. Well, Congressman, I guess my first reaction to that is, if I could be in serial production on any kind of platform, it would be preferable to building ships one at a time. And if I could manage the investment stream around a class of ships instead of trying to do it on an annual basis the way the budgeting process works, I could also create a set of efficiencies.

I, frankly, don't think the issue is, what would it look like in the year that you were actually building six ships of a different kind? You are talking about a whole different kind of a concept for ships at that point.

I think the challenge for the industry and for the Congress in something like that and the requirements piece of it would be the turbulence of the transition from the large platforms, the facilities to build large platforms, to creating a different kind of facility, a different set of qualifications in our workforce to set up that serial production. That would be a very turbulent period that would be, you know, a significant amount of challenges around efficiencies of investment.

I can point to, you know, just an example of a composite facility that we have invested in heavily in Gulfport, you know, creating a new technology for a composite deck house for the DDG–1000. Those investments were made based on the concept that this composite deck house would be available for a class of ships that was a couple of dozen ships. We are now down to three. And so the return, you know, the managing of that return is a big challenge.

And so if that is where you are going to want to end up—if you could say today that we knew for a fact we were going to end up there, I think we could all chart a path that could get us there efficiently.

The challenge that I see is that, I am not sure we can chart that path, you know a 5- or a 10-year path when we move things around year in and year out.

Mr. BARTLETT. With the new Chinese anti-ship missile, I think having smaller and more is a distinct advantage. And if we had enough of them that you could consider them semi-expendable, like we do our unmanned aircraft, then we could have twice as many ships for the same dollars because half the cost of keeping a ship at sea is the people on the ship.

Thank you very much, Mr. Chairman.

Mr. TAYLOR. The Chair thanks the gentleman and now recognizes the gentleman from Connecticut for 5 minutes.

Mr. COURTNEY. Thank you, Mr. Chairman.

I wanted to just pick up an item which was in your written testimony, Mr. Petters, regarding the workforce challenges as far as the bulges that you sort of have in terms of the demographics.

In your testimony, you mentioned the fact that Northrop Grumman is doing some partnering with community colleges and I guess probably hopefully the vo-tech schools in terms of trying to solve that problem. The House actually enacted or passed a bill last year which is waiting, is pending in the Senate, the Student Aid and Fiscal Responsibility Act, which is basically a way of sort of reorganizing higher ed assistance that will free up some dollars in a budget neutral way that I think will be very beneficial to our country. And one of the aspects of it is setting up the competitive grant program for community colleges that show that they are collaborating with business in terms of workforce needs in their region.

If it does make it through the Senate, who knows, but it will create I think a lot more financial resources for community colleges to sort of, again, get more connected to workforce needs in their areas. Assuming that happens and that your area of community colleges could sort of expand those types of programs, I mean, is there more capacity for Northrop Grumman to grow those types of programs, and would that benefit your workforce needs?

Mr. PETTERS. Thank you for the question, Congressman.

It is an area of personal interest for me. I served for several years on the State Board of Community Colleges in the State of Virginia, and today I am a member of the Shipbuilding Executive Team that does that in the State of Virginia. We are heavily engaged in the Workforce Council in the State of Mississippi, and we are also heavily engaged in the Workforce Development Committee in the State of Louisiana. It is so critical to us that I personally believe that my business has to be involved in the pipeline of workforce development all the way from the Governor's office all the way down through the classrooms and into the shipyard itself.

We have in the past worked hard with the community colleges, and we have been able to get some Department of Labor grants for almost exactly the concept of things that you are talking about. I would have to go back and look at the specific legislation here, but certainly, the opportunity to compete for grants that would create alignment between what the community college's mission is and what our requirements are would be very beneficial to us.

You know, the challenge for us today is that nobody graduates anybody with a degree in shipbuilding. You have to get that by

coming into the shipyard. And we have actually been able to go into the colleges and use some of our training programs in the community colleges so folks work on their associates degree on our curriculum, which is actually very helpful to us.

Mr. COURTNEY. In the case of EB [Electric Boat], I know for a fact that this is happening in southeastern Connecticut. There is a mentoring high school program which EB has had for a number of years, where students from high school get brought into the design area with mentors to kind of really—you know, they have a science and math proclivity, and this kind of helps them really see an end game in terms of the value of those skills. And we now have a situation at EB where there are mentors who are now mentoring high school students who themselves went through this program 10 or 15 years ago as high school kids. And Three Rivers Community College, again, does have those kind of relationships with EB.

But personally, I just feel that this legislation will provide real resources and also policy to get our educational system working to help businesses, not just shipbuilding, but certainly it appears anyway that the demographics suggest that we really have got to do a better job to produce that. Again I don't know if you want to comment on it. But again, I really appreciated your testimony focusing on that issue.

Mr. HEEBNER. I would make just a brief comment, Congressman Courtney, and I know we have spoken about this in the past. Clearly the path to success in a shipyard for a young man or woman is through experience, but it is also through education. And while we can do a portion of that in the shipyard itself, we rely on the local communities at all of our shipyards to augment that with formal education. We get the net benefit of that in the shipyard as the individual worker becomes more proficient at what he does. But we also get the benefit of that in the community because we have more educated people who are more engaged in the community and help to set the role models that others will follow as well as they come along. So it is a very important part of the development program in each of our yards.

Mr. COURTNEY. Thank you, Mr. Chairman.

Mr. TAYLOR. I am curious, because at different times, both of your corporations have been to see me and probably every member of this subcommittee, in, you know, what appears to be a semipanic as you are trying to look out for your workforce, as you are trying to keep your operations going. And the question that always comes up in the back of my mind is, obviously, someone saw this downturn coming, no matter what the program was, a while back. To what extent do your corporations feel like the Navy is listening when you speak several years out and say, do you know what? I am going to hit a bathtub of employment in 2 years. I am willing to negotiate a price, a little bit better price on another of something that I am already making, would you be willing to enter into that type of negotiation?

To what extent does the Navy listen to that type of an approach from your corporations?

Mr. PETTERS. Mr. Chairman, I have a personal experience of going through that in Virginia. In about 2005 or 2006, we saw that the delivery of the *Bush* and the delivery of a refueling overall, cou-

pled with submarine deliveries, would cause us to have a significant drop-off, which would then translate into a ramp backup as we started work on the *Ford* class and started to build into the two submarines per year.

We started as a management team to start thinking about all of the different ways you can deal with that kind of an issue, and we started it 3 to 4 years in advance. We worked our way through not only the things that we can do, which adjusting our overtime rates, adjusting our leased employees as opposed to our hiring rates, trying to manage within an employment ban, so that we didn't hire people and then just turn right around and lay them off.

We also engaged with the Navy Carrier Program Office on this issue. And the Navy Carrier Program Officer over the course of a couple of years was able to accelerate some work into the valley. You know, they brought the next refueling, they brought it into the shipyard a few months early. They were able to work with us on how we scheduled our PSAs [Post Shakedown Availability] for the ships we were going to deliver. And so the Navy couldn't solve the problem alone. We had to do a lot of work on our part to make sure that we managed it far enough out from a hiring and workforce perspective. But the Navy did lean forward in that particular case, I thought, as constructively as I have ever seen. When we got to 2009, when we were expecting a couple of thousand people, 5 years ago, we were expecting a couple of thousand people might be in jeopardy. In 2009, we didn't lay anybody off.

Now, I can say that, you know, in the carrier business, you have got a horizon that is long enough there where you can see far enough in advance. In some of our other programs, the horizon is not quite that far, and you have to be more reactive and more responsive, which makes the challenge a little bit harder you know. And on top of that, you have things that move around on you, like attrition rates and things like that, that you might have an estimate that changes which causes you to make some adjustments.

Where we have been able to forecast far enough in advance for people to actually take action that would matter, the Navy seems to have been able to constructively engage in that to the best of their ability.

On the other hand, I think the Navy is—you know, you are asking my opinion—I think the Navy is constrained by their resources sometimes, and they understand that we take two LCCRs out of the program, that is going to have an effect on the size of the base. It is. And so I think that that has been kind of the, that is the challenge that we are up against now.

Mr. TAYLOR. Given that it is a pretty safe bet that the centerpiece of the Navy surface fleet for the foreseeable future will be the DDG–51, do you think the Navy is doing a good enough job, or those people in the Navy that you deal with, of trying to gain whatever economies you can from things that you know you are going to be buying in the near and distant future?

Mr. PETTERS. I think the first problem with the challenge of the restarting of the 51 line is that, whenever you restart a production line, really smart people sit down and try to figure out what is the cost? What is the extra cost going to be associated with gapping the line? What is the extra schedule going to be required?

In my experience, we have always underestimated the cost impact and we have underestimated the schedule impact. And I think that, as we are working our way through the 51 restart, we are dealing with that, those issues right now, trying to make sure we have the best estimates of what the cost of restart is going to be, what the schedule should be. And I think the Navy has been constructively working with us to understand that.

But we are not—we are right at the front end of that to step off and get the program rolling. And my biggest concern is not really the engagement we have had on the restart of the program, but it is on the volume following. If the volume of that program is going to be two-one, two-one, two-one, when the volume that sustained us in the previous years was three ships per year, that is half the volume that we had before. And I think that is—to me, that is the fundamental issue in the program; it is not really the challenge of the restart. I think we have good people doing good work to try to figure out the restart, but I think the volume is a challenge.

Mr. TAYLOR. Well, toward that end, you know our dilemma; a shipbuilding budget that has basically been frozen about $15 billion, huge challenges coming down the line with the *Ohio* replacement, a $7 billion aircraft carrier. To what extent have either of your corporations approached the Navy and said, and I will use the F–18 program as an example, where this vendor came to Congress and said, you give us a long-term contract, we will reduce the price of the platform? To what extent have either of your corporations approached the Navy and said, for this kind of stability, I will offer you this kind of price? I am just curious.

Mr. HEEBNER. I could make an immediate comment on it. I would like to make two points on it, though.

The first is that I spent 33 years in uniform; 11 of my last 14 years were in the Pentagon. And I wish I had been as good as Secretary Stackley at opening up my communications with my suppliers. I think he has done an exceptional job understanding the various elements of making decisions about national security and building ships, at creating an environment where his staff and the industry can communicate openly and effectively. So my compliments to the Navy, and specifically to Secretary Stackley.

A second point is an example. The MLP program that Secretary Stackley referred to here today was going to be terminated with the MPFF program. But when we discussed that with the Navy, we went back to the drawing boards at NASSCO, and we laid out a program where we could get 70 to 80 percent of the capabilities in the ship that was required for 50 percent of the cost or thereabouts. And we worked hard on doing that and with the Navy, to make sure that it would work for them.

Now, as it turns out, after reviewing their requirements and our capabilities to deliver a ship at a lower rate, we came to a mutual agreement that it was in fact possible. So it is clear to me that the environment is healthy, and we can have discussions like this between industry and the Navy.

Mr. TAYLOR. I am curious, I will mention to both of you that, since the Stackley plan, and I think credit is due to him on bringing some stability to the LCS program, since the Stackley plan has become the congressional plan, I have been approached by at least

one yacht maker and several people who build offshore supply vessels as to their interest in bidding on the second five, the second block of five. I was curious if either of your corporations are looking into bidding on the second block of five LCSs.

Mr. PETTERS. We are interested. We are looking at both programs, and we will be doing evaluations about our fit on the program.

Mr. TAYLOR. Mr. Heebner.

Mr. HEEBNER. And a similar comment. We have looked at both ships and the capabilities within our yards—and I say that with an S, because I have to look at it that way—that we do have the capabilities to build either of those ships, and we will look carefully at what the requirements are and how we can most effectively compete in that competition.

Mr. TAYLOR. Mr. Petters, my last question goes to your remark, and actually both of you touched on a very high percentage of your subcontractors are sole-source contractors to you. Given the economic environment in America today, given the record low prices that I am seeing for public works projects across the country, the record number of bidders on construction projects, publicly funded construction projects around the country, my instinct tells me that there should be the same thing throughout America's industrial base. And my instinct tells me that, you know, with the price of metals being approximately one half of where they were 2 years ago, that there ought to be some bargains out there.

Now, Mr. Petters in fairness to you, in your recent visit to Mississippi, you pointed out to me the amount of time it takes to get a contractor approved by the Navy. Keeping that in mind, do you feel like that the Navy is resourcing enough people and the right people toward bringing as many subcontractors as possible on line to broaden both of your industrial bases?

And I am just curious, let's take a valve for an example. A valve manufacturer comes to both of you. I want a bid. I think we have the technology. We have the people to make this valve. They are not on the approved vendors list. What is the process that you go through to get them approved, and approximately how long does it take? Or if you have a better example, I would like to hear it.

Mr. PETTERS. I will walk you through a hypothetical if you would like. It will help illustrate it. And I can take the question in detail for the record if you would like.

But hypothetically, if you were a manufacturer of a product that you sold commercially in a retail environment and you sold it at a hardware store, at a pump to the offshore rigs or things like that, and you saw that there was a requirement to sell that valve to—the Navy had a requirement for a 2-inch valve that had this kind of flow rate and that matched the valve you were using, there would be, depending on the ship, depending on the design, the criticality of the systems, there would be a set of requirements that you would be asked to check off as the supplier, things like, have you shock qualified the valve? Does it require an acoustic qualification? Are the materials U.S. materials? Do we have specialty materials involved? Do you have a cost accounting system in your company that can separate the cost of the government work from the cost of your nongovernment work? Would you have, be able to sup-

port a quality organization that would be there to support the Navy's or the government's requirements for validation of the pedigree of the valve and the organization of that?

And I think that the challenge you have is that, because I thought about it again after our conversation last week, I think the challenge you have is that you have a lot of folks who would like to do this work, but when they step back and look at the history of the work, they don't see enough predictability or sustainability there to warrant the kind of investment to go do those kind of things to get qualified to go into it. That is not a worker issue. That is a business issue.

And so my sense of this, as we go out into the marketplace, is I know of companies who start up. And one of the requirements when they start up is that they will not do government work because they don't want to have to deal with separating their government cost collection system from their other cost collection systems, and they don't want to deal with the tracking of special pedigree of materials and go through the shock qualifications and the acoustic qualifications you have to go through. I think that is the fundamental issue.

And so all of those things become barriers to entry, if you will, for the people that are in the business. And so, for me, that—when we talk about them being sole-source, those barriers to entry are really the sole-source piece of it. And for me, the issue then is they are sole-source, now I have to manage them from a consistency of demand issue. And we have demonstrated over the past 10 years that, even when we have gone sole-source in a large way like we have on the submarine program, we have consistent demand. We have predictable demand. We are able to manage the cost.

Mr. TAYLOR. Mr. Heebner.

Mr. HEEBNER. Mr. Chairman, I would like to answer that question just slightly differently.

At these hearings, Mr. Petters and I get to speak on behalf of the shipyards. I think somebody needs to speak on behalf of the suppliers as well.

And I would just make the point that, by definition, single-source suppliers does not mean inefficient or overpriced. I think the fact is that people are working hard out there to keep their prices down, and we have within our procurement systems checks and balances to make sure that what we are paying for products are in fact fair return for a fair investment. So I don't by definition start out with the assumption that they are not efficient.

I certainly subscribe to what Mr. Petters said in the sense that qualifying suppliers is an arduous process that is established by rules that must be followed. But I give a lot of credit to our suppliers today who have stuck with us in this process of reduced production, and I think we should recognize them and pat them on the back for what they are doing to keep supplying important parts for us.

Mr. TAYLOR. Absolute last question. In today's environment and given an excellent conversation I had on the streets of Biloxi this weekend with a shipyard worker, I would hope that both of your firms are making every effort to hire Americans first. And what is

the policy of your two particularly when it comes to defense-related work? What is the policy of your two companies?

Mr. PETTERS. In our nuclear work, we have an American citizenship requirement. In our nonnuclear work, the requirement is not quite as rigid as that. And I will get to you for the record exactly what our rules are if you would like.

Mr. TAYLOR. I would like that, sir.

[The information referred to was not available at the time of printing.]

Mr. PETTERS. But we are looking for American citizens.

Mr. TAYLOR. Mr. Heebner.

Mr. HEEBNER. And I think it best that I take that for the record because I don't have a complete answer for you.

[The information referred to can be found in the Appendix on page 109.]

Mr. TAYLOR. That is fair. But if you would, a couple of weeks response. Thank you.

Again, the Navy is hiring 5,000 acquisition specialists. When people at some of the shipyards are telling me that the price of their subcontracts is increasing by 30 percent in a time when government contracts that normally get 5 bidders are getting 30 and when things are regularly coming in at 10, 20, 30 percent below the estimated cost for other government contracts, there is a part of me that says, why aren't we experiencing the same savings? And so if our 5,000 new Navy acquisition specialists can help you to do that and if you need the legal authority to make that happen, I would hope that both of you gentlemen would be making some suggestions to this committee.

Again, I thank you very, very much for appearing before this committee. I apologize for the late delay and for keeping you so long.

Are there any further questions.

The committee stands adjourned.

[Whereupon, at 6:06 p.m., the subcommittee was adjourned.]

A P P E N D I X

MARCH 3, 2010

PREPARED STATEMENTS SUBMITTED FOR THE RECORD

MARCH 3, 2010

Opening Statement of Congressman Gene Taylor
Chairman, Subcommittee on Seapower and Expeditionary Forces
"Fiscal Year 2011 Budget Request for Navy Shipbuilding Programs"
March 3, 2010

The hearing will come to order.

Good afternoon. Today the subcommittee meets in open session to receive testimony from Department of the Navy witnesses on the shipbuilding budget request for the coming fiscal year and the proposed shipbuilding plan for the next thirty years.

Because the shipbuilding plan has such a large effect on the shipbuilding industrial base of the nation, the subcommittee has also requested that the two leaders of our largest shipbuilding companies appear to discuss how the plan, in their view, affects that industrial base, and if they are willing, to recommend changes to the Congress on ways to achieve the goals of the shipbuilding plan in a more cost effective manner.

First, I would like to make some observations on the shipbuilding plan. As some of you may remember, a few years ago I referred to the shipbuilding plan the Navy submitted as "pure fantasy". Shipbuilding plans in the past have been full of unrealistic assumptions about the cost of ships and unrealistic assumptions on the amount of money the Navy would receive from the Department of Defense for buying those ships. The unrealistic portions of the plan always started just beyond the five year procurement plan, because the Navy was not obligated to justify its assumptions on cost and budget past five years.

Today I will make a slightly different observation. The plan submitted by the Navy this year is not "pure fantasy" as in years past, but it is optimistic. It is very optimistic. The plan as submitted by the Navy, if funded and if executed within that funding, would restore the Fleet above 300 ships by 2018, peak at 320 ships in 2024, but return to a Fleet size in the 280's by 2032. The plan would maintain aircraft carries levels at 11 with some years 12. The plan would not meet the Marine Corps requirement of 38 amphibious assault ships, but would hover around the 33 ships the Navy and Marine Corps have stated is the minimum number of ships that would meet an acceptable level of risk. The attack submarine force goes below the requirement of 48 boats in 2024 and stays below that requirement thru 2040, with a low of 39 boats in 2030.

Although it is very clear that the Navy has worked harder on removing "fantasy" from this plan, the plan does not build the number of ships at a satisfactory rate to restore our Navy to the full capability that I believe is necessary. The Navy was clearly limited in the development of this plan by the amount of funding for ship construction that they were provided by the Department of Defense. Some relatively simple arithmetic indicates that the Navy really needed about $10 billion more per year than provided.

Leaving aside the issue of underfunding, the shipbuilding plan is troubling in a few areas. First, the procurement of amphibious assault ships is occurring in an inefficient manner, the ship construction starts are not spaced to optimize the workforce or the supply chain. You just cannot stop and start shipbuilding programs and expect any cost savings in quantity buys or in workforce familiarity. I know the Navy knows this, and certainly the one official in the Navy who knows it best is sitting at the witness table today. Yet the Navy has still decided to place

the amphibious ships in the plan in years which ensure extra costs due to inefficiency. This goes back to my previous point that the Navy really needed about $10 billion more per year.

If that were the only issue with the long term plan, it would probably be fixable. But the real issue facing the Navy is the cost to recapitalize the Ohio Class submarine. Billions in development costs followed by 12 ships each costing anywhere from $6 billion to as high as $8.5 billion will crush the rest of the Navy shipbuilding account, if the Navy is required to pay the bill. The submitted plan assumes the Navy will pay all the costs for these boats and has a very optimistic assumption that extra funding will be available to cover some of the costs. During the years that these submarines are funded the rest of Navy shipbuilding is on life support. Minimum levels of surface ship construction will occur during these years according to this plan and the Navy will lose over 30 ships from the overall force between 2024 and 2034. And that is optimistic. I have been around long enough to know that the reality is that increased funding will likely not be available and even more significant cuts in surface ship construction will occur.

On the positive side, the Navy 5 year plan is better than any plan that has been submitted in a very long time. Fifty new ships, an average of 10 per year, is an achievable goal with projected funding. The problem is that the Navy is decommissioning ships as fast as they are bringing new ships into the Fleet and overall force numbers don't start to increase until 2016. I expect our witnesses today to discuss why this has happened and provide this committee with options to retain some of these vessels in service while new ships are built to replace them.

Joining us today in our first panel are:

The Honorable Sean Stackley, the Assistant Secretary of the Navy for Research, Development, and Acquisition.

VADM Terry Blake, Deputy Chief of Naval Operations for the Integration of Resources and Capabilites, and

LTGEN George Flynn, Commander, Marine Corps Combat Development Command and Deputy Commandant for Combat Development and Integration.

Our second panel will consist of:

Mr. Mike Petters, Corporate Vice President and President, Northrop Grumman Shipbuilding, and

Mr. Dave Heebner, Executive Vice President, marine Systems, General Dynamics Corporation.

I thank all the witnesses for attending; I believe everyone has appeared before this committee at least once with the exception of VADM Blake. Welcome to you all.

I turn now to the Gentleman from Missouri, the Ranking Member of the Subcommittee for any remarks he may wish to make.

March 3, 2010

Akin Opening Statement for Hearing on Navy Shipbuilding Programs

"Secretary Stackley, Admiral Blake, and General Flynn, good afternoon and welcome. We look forward to your testimony today.

"The President's Fiscal Year 2011 defense budget for the Department of the Navy requests $179.1 billion for discretionary and war funding. This represents an increase of $5.2 billion over Fiscal Year 2010 enacted levels. The news was even better for shipbuilding, which saw an increase of $1.9 billion over Fiscal Year 2010 enacted levels. This is clearly a sign that someone within the Department has gotten the message about the value that our maritime forces bring to our current and future security. I congratulate you and thank you for your advocacy for Navy and Marine Corps personnel and programs.

"With that said, I wish all the news were positive. I have major concerns, particularly with the lack of future planning at the Department of Defense level and the Navy's out-year budgets. The Navy's long-term shipbuilding plan is based upon, '...the 313-ship force structure originally set forth in the Fiscal Year 2005 Naval Force Structure Assessment,...as well as decisions made during the 2010 Quadrennial Defense Review (QDR).' Yet, the 2005 Naval Force Structure Assessment did not anticipate the Navy would be given responsibility for regional ballistic missile defense and the QDR appears to have largely focused on the capabilities required for the near to mid-term—not on the capabilities required in the long term to deter and defeat a near peer competitor.

"Indeed, long range shipbuilding plan explicitly states, 'In summary, then, the QDR has resulted in revised mission priorities to better focus the Department on the war we are in...' I am concerned that this emphasis on developing capabilities for today's conflicts and assessing risk based on today's operating environments puts our future force in jeopardy.

"Lacking better guidance from the Office of the Secretary of Defense, the Navy and Marine Corps have offered their best judgment about a reasonable ship construction profile in the form of this thirty-year shipbuilding plan. It is superior to many previous plans in several ways. But the shipbuilding plan acknowledges that a new Force Structure Assessment will have to be completed—which causes me to question whether or not we can rely on this latest plan as a yardstick for assessing the services capital shipbuilding requirements.

"Moreover, even though the QDR states that U.S. forces must be able to deter, defend against, and defeat aggression in anti-access environments, the long term shipbuilding plan does not appear to be driven by this goal. Instead, in the period that the Navy considers most likely to be characterized by a near peer competitor with anti-access capabilities, our forces fall to their lowest levels. We can't wait until that period to attempt to recapitalize our surface combatants, attack and guided missile submarines, and amphibious forces. Shipbuilding moves too slow—it will be too late.

"On a related issue, I am not convinced this shipbuilding plan adequately addresses the need for ballistic missile defense capable ships. Supposedly, this will be considered as part of the new Force Structure Assessment. I hope that the assessment does not short change the other missions that our Combatant Commanders have for these ships. Our destroyers—particularly our BMD destroyers—were already in high demand before the President announced his decision to use Navy assets to defend Europe rather than a ground-based system. The Navy is being asked to support a new mission, but has not been given new resources necessary to succeed.

"Today, I'll be interested in your perspectives on the hard choices that were made in preparing this shipbuilding plan and whether or not you believe the shipbuilding plan puts the Navy in a position of strength to face a near peer competitor in the far-term.

"On a separate note, I know our witnesses realize that I'm keenly interested in our strike fighter programs. Normally, I wouldn't raise the subject in a shipbuilding hearing, but today I hope you'll have a chance to discuss your ship integration plans for the Joint Strike Fighter. Too often, we over look the requirements being levied on our ships by the introduction of this fifth generation fighter."

NOT FOR PUBLICATION UNTIL RELEASED BY THE
HOUSE ARMED SERVICES COMMITTEE
SUBCOMMITTEE ON SEAPOWER AND
EXPEDITIONARY FORCES

STATEMENT

OF

THE HONORABLE SEAN J. STACKLEY
ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)

AND

VICE ADMIRAL JOHN TERENCE BLAKE
DEPUTY CHIEF OF NAVAL OPERATIONS
FOR INTEGRATION OF CAPABILITIES AND RESOURCES

AND

LIEUTENANT GENERAL GEORGE J. FLYNN
DEPUTY COMMANDANT
COMBAT DEVELOPMENT AND INTEGRATION &
COMMANDING GENERAL, MARINE CORPS COMBAT DEVELOPMENT COMMAND

BEFORE THE

SUBCOMMITTEE ON SEAPOWER AND EXPEDITIONARY FORCES

OF THE

HOUSE ARMED SERVICES COMMITTEE

ON

NAVY FORCE STRUCTURE AND SHIPBUILDING

MARCH 3, 2010

NOT FOR PUBLICATION UNTIL RELEASED BY THE
HOUSE ARMED SERVICES COMMITTEE
SUBCOMMITTEE ON SEAPOWER AND EXPEDITIONARY FORCES

Mr. Chairman, Representative Akin, and distinguished members of the Subcommittee, thank you for the opportunity to appear before you today to address Navy shipbuilding. The Department is committed to the effort to build an affordable fleet tailored to support the National Defense Strategy, the Maritime Strategy, and the new 2010 Quadrennial Defense Review. The Department's FY 2011 budget will provide platforms that are multi-capable, agile, and able to respond to the dynamic nature of current and future threats. The FY 2011 shipbuilding budget funds nine ships, including two Virginia Class fast attack submarines, two DDG 51 Class destroyers, two Littoral Combat Ships (LCS) including Economic Order Quantity for seven ships sets, an Amphibious Assault Ship (LHA), a Mobile Landing Platform and the third Joint High Speed Vessel (JHSV) for the Navy. Additionally, a second FY 2011 JHSV is funded in Other Procurement, Army for a total of ten ships in FY 2011.

As we continue to build our future force, we remain engaged in operations in Afghanistan and in the drawdown of U.S. forces in Iraq.

Since last year, the Marine Corps has transferred authority for Anbar Province to the U.S. Army and is near completion of a responsible drawdown from Iraq. From 2003-2009, our force levels in Iraq averaged 25,000 Marines. By spring of this year, our mission in Iraq will be complete and your Marines will redeploy.

In Afghanistan, the mission has expanded. Since July, the 2nd Marine Expeditionary Brigade has conducted Operation Khanjar, the most significant Marine Corps operation since the battle of Fallujah in 2004, and the largest helicopter insertion since the Vietnam War. As of September 22, 2009, there were more Marines in Afghanistan than in Iraq. In December, they conducted Operation Cobra's Anger in the vicinity of Now Zad and recently the First and Third Battalions, Sixth Marines initiated a major offensive to secure Marja. By March 2010, there will be more than 18,500 Marines in Afghanistan, and by mid-April, that number will grow to a robust Marine Air-Ground Task Force of 19,400 personnel with equipment, and will be commanded by a Marine two-star general. Your Marines and Sailors have already had success and have made a difference in some of the toughest regions of Afghanistan, primarily Helmand Province in the South — the source of the highest volume of opium production in the world. However, more work remains to be done.

For the second year in a row, the Navy has more Sailors on the ground than at sea in CENTCOM. At sea, we have more than 9,000 Sailors, including a U.S. Navy aircraft carrier and air wing dedicated to providing 24/7 air support to U.S. and coalition forces on the ground and ships supporting counter-terrorism, theater security and security force assistance operations. Navy Riverine forces are on their sixth deployment to Iraq, conducting interdiction patrols and training their Iraqi counterparts. On the ground, we have more than 12,000 active and reserve Sailors supporting Navy, Joint Force, and Combatant Commander requirements. Navy Commanders lead six of the 12 U.S.-led Provincial Reconstruction Teams in Afghanistan. We have doubled the presence of our SEABEE construction battalions in Afghanistan, increasing our capacity to build forward bases for U.S. forces and critical infrastructure in that country. Our Naval Special Warfare forces continue to be heavily engaged in direct combat operations and our Explosive Ordnance Disposal teams continue to conduct life-saving counter-Improvised

Explosive Device operations. As we shift our effort from Iraq to Afghanistan, demand for Navy individual augmentees (IAs) has increased. We have additional IAs supporting the surge of U.S. forces in Afghanistan while our IAs in Iraq remain at current levels to support the withdrawal of U.S. combat troops, maintain detention facilities and critical infrastructure, and support coalition efforts until the operations and support they provide can be turned over to Iraqi forces.

While Iraq and Afghanistan continue to be the primary focus of our nation's military efforts, our Navy remains globally present and engaged to protect our partners and advance our nation's interests around the world. Approximately 40 percent of our Fleet is currently underway, providing U.S. presence in every region of the world. Our Fleet is executing all the capabilities of our Maritime Strategy today.

Our ballistic missile submarines are providing nuclear deterrence year-round, while our Aegis cruisers and destroyers are providing conventional deterrence in the form of ballistic missile defense of our allies and partners in Europe, the Mediterranean, and the Western Pacific. Our Carrier Strike Groups and Amphibious Ready Groups continue to prevent conflict and deter aggression in the Western Pacific, Arabian Gulf and Indian Ocean, while their forward deployments afford the U.S. the ability to influence events abroad and the opportunity to rapidly respond to crisis.

Our Navy continues to confront irregular challenges associated with regional instability, insurgency, crime, and violent extremism at sea, in the littorals, and on shore as we have done throughout our history. We are partnering with U.S. Coast Guard law enforcement teams in the Caribbean to conduct counter-narcotics and anti-trafficking operations and deny traffickers use of the sea for profit and exploitation.

We continue to strengthen our relationships and build the capabilities of our international partners through maritime security activities, such as global maritime partnership stations in Africa, South America, and Southeast Asia, and high-end training and operations with partners in the Western Pacific. Our ships continue to conduct counter-piracy operations off the coast of Somalia with an international presence that includes traditional and non-traditional partners, such as China and Russia.

We are providing humanitarian assistance and disaster response to Haiti after a 7.0-magnitude earthquake devastated the nation. Within hours of the earthquake, we mobilized the aircraft carrier USS CARL VINSON (CVN 70) with over a dozen helicopters, cargo aircraft, and extensive potable water-generating capability. The USS BATAAN Amphibious Ready Group with the 22nd Marine Expeditionary Unit, the USS NASSAU Amphibious Ready Group with the 24th Marine Expeditionary Units, and the USS GUNSTON HALL immediately responded to stabilize the increasingly volatile environment. This force included over 4,300 Marines and Sailors, seven amphibious ships, 28 tilt rotor / rotary wing aircraft, multiple ship to shore landing craft, and significant medical, engineering, construction, and sustainment capability. Additional naval assistance included complementary sustainment and command and control capabilities along with a SEABEE construction detachment, our hospital ship USNS COMFORT with medical personnel and supplies, a Navy dive and salvage team, P-3 surveillance aircraft; several surface ships with helicopters, Maritime Prepositioning Force ships with military and interagency

supplies and equipment, and Military Sealift Command ships with fuel and cargo. Our disaster relief effort continues there today as part of a comprehensive U.S. government and non-governmental organization response.

Global demand for Navy forces remains high and continues to rise because of the ability of our maritime forces to overcome diplomatic, geographic, and military impediments to access while bringing the persistence, flexibility and agility to conduct operations from the sea.

The Department has updated the Long Range Shipbuilding Plan based upon the 313-ship force originally set forth in the last Naval Force Structure Assessment, as amended by the Secretary of Defense decisions, and the 2010 Quadrennial Defense Review (QDR). As such, the plan is designed to provide the global reach; persistent presence; and strategic, operational, and tactical effects expected of naval forces within reasonable levels of funding. The plan balances the demands for naval forces from the National Command Authority and Combatant Commanders with expected future resources. The plan takes into account the importance of maintaining an adequate national shipbuilding design and industrial base and uses realistic cost estimates for the ships.

In the near-term from FY 2011 to FY 2020, the Department of the Navy begins to ramp up production of ships necessary to support persistent presence, maritime security, irregular warfare, joint sealift, humanitarian assistance, disaster relief, and partnership building missions, namely the LCS and the JHSV. At the same time, the Department continues production of large surface combatants and attack submarines, as well as amphibious landing, combat logistics force, and support ships. Yearly shipbuilding spending during this period averages $14.5 billion (FY 2010$), or about $1.5 billion less than the 30-year average. The overall size of the battle force begins a steady climb, reaching 315 ships by FY 2020.

In the mid-term planning period, from FY 2021 to FY 2030, the recapitalization plan for the current Fleet Ballistic Missile Submarine (SSBN) inventory begins to fully manifest itself. Current plans call for 12 new Ohio Class Replacement Submarines (SSBN(X)) with life-of-the-hull nuclear reactor cores to replace the existing 14 Ohio Class SSBNs. Advance Procurement funds for detail design for the first SSBN(X) begins in FY 2015, and the first boat in the class must be procured in FY 2019 to ensure that 12 operational ballistic missile submarines will be available to perform the vital strategic deterrent mission. Eight more SSBNs will be procured between FY 2021 and FY 2030 (with the final three coming in the next planning period, beyond FY 2031). Because of the high expected costs for these important national assets, yearly shipbuilding expenditures during the mid-term planning period will average about $17.9 billion (CY 2010$) per year, or about $2 billion more than the steady-state 30-year average. Even at this elevated funding level, however, the total number of ships built per year will decline because of the percentage of the shipbuilding account which must be allocated for the procurement of the SSBN. Recognizing these impacts, we are looking at various ways to control the cost of these ships, including leveraging technology and lessons learned from the highly successful Virginia SSN shipbuilding program and by considering sustainment issues earlier in the design process than we have in the past.

In the far-term, from FY 2031 to FY 2040, average shipbuilding expenditures fall back to an average level of about $15.3 billion (FY 2010$) per year. Moreover, after the production run of Ohio replacement SSBNs comes to an end in FY 2033, the average number of ships built per year begins to rebound.

Aircraft Carriers

The Navy remains firmly committed to maintaining a force of 11 carriers for the next three decades. With last year's commissioning of USS GEORGE H. W. BUSH (CVN 77) and inactivation of the 48-year-old USS KITTY HAWK (CV 63), our last conventionally powered aircraft carrier, we have an all-nuclear-powered carrier force for the first time. Our carriers are best known for their unmistakable forward presence, ability to deter potential adversaries and assure our allies, and capacity to project power at sea and ashore; however, they are equally capable of providing our other core capabilities of sea control, maritime security, and humanitarian assistance and disaster response. Our carriers provide our nation the ability to rapidly and decisively respond globally to crises with a small footprint that does not impose unnecessary political or logistic burdens upon our allies or potential partners.

Our 11-carrier force structure is based on world-wide presence requirements, surge availability, training and exercises, and maintenance. During the period between the November 2012 inactivation of USS ENTERPRISE (CVN 65) and the commissioning of GERALD R. FORD (CVN 78), the Navy will utilize the Congressional waiver for a 10 carrier fleet. We will continue to meet operational commitments during this 33-month period by carefully managing carrier deployment and maintenance cycles. After the commissioning of CVN 78, we will maintain an 11 carrier force through the continued refueling program for Nimitz Class ships and the delivery of our Ford Class carriers at five-year intervals starting in 2020.

CVN 78

The GERALD R. FORD (CVN 78) is the lead ship of our first new class of aircraft carrier in nearly 40 years. Ford Class carriers will be the premier forward deployed asset for crisis response and early decisive striking power in a major combat operation. They incorporate the latest technology, including an innovative new flight deck design to provide greater operational flexibility, reduced manning requirements, and the ability to operate all current and future naval aircraft. Among the new technologies being integrated is the Electromagnetic Aircraft Launch System (EMALS) which will support Ford's increased sortie generation rates. EMALS is moving from having been a promising technology to a proven operational capability, which will deliver the war fighting enhancement needed in the future. Recently, the program successfully demonstrated a controlled launch sequence with the full-scale EMALS production representative unit and an aircraft launch demonstration is scheduled for later this summer. EMALS' production schedule supports delivery of CVN 78 in September 2015.

The Submarine Fleet

Our attack and guided missile submarines have a unique capability for stealth and persistent operation in an access-denied environment and to act as a force multiplier by providing

high-quality Intelligence, Surveillance, and Reconnaissance (ISR) as well as indication and warning of potential hostile action. In addition, attack submarines are effective in anti-surface ship warfare and anti-submarine warfare in almost every environment, thus eliminating any safe-haven that an adversary might pursue with access-denial systems. As such, they represent a significant conventional deterrent. While our attack submarine fleet provides considerable strike capacity already, our guided missile submarines provide significantly more strike capacity and a more robust capability to covertly deploy special operations force (SOF) personnel. Today, the Navy requires 48 attack submarines and four guided missile submarines (SSGN) to sustain our capabilities in these areas. The Navy is studying alternatives to sustain the capability that our SSGNs bring to the battle force when these ships begin retirement in 2026.

Virginia Class SSN

The Virginia Class submarine is a multi-mission submarine that dominates in the littorals and open oceans. Now in its 13th year of construction, the Virginia program is demonstrating that this critical undersea capability can be delivered affordably and on time. These ships will begin construction at a rate of two per year in 2011, with two ship deliveries per year beginning in 2017. The Navy will attempt to mitigate the impending attack submarine force structure gap in the 2020s through three parallel efforts: reducing the construction span of Virginia Class submarines, extending the service lives of selected attack submarines, and extending the length of selected attack submarine deployments. One of the critical aspects of this mitigation plan is achieving and sustaining a construction rate of two Virginia Class submarines per year. The Navy continues to realize a return from investments in the Virginia cost reduction program and construction process improvements through upgraded shipbuilder performance on each successive ship. Not only are these submarines coming in within budget and ahead of schedule, their performance is exceeding expectations and continues to improve with each ship delivered. Additionally, three of the five commissioned ships completed initial deployments prior to their Post Shakedown Availabilities.

Ballistic Missile Submarines

Our ballistic missile submarines are the most survivable leg of the Nation's strategic arsenal and provide the Nation's only day-to-day assured nuclear response capability. They provide survivable nuclear strike capabilities to assure allies, deter potential adversaries, and, if needed, respond in kind. The number of these submarines was delineated by the Nuclear Posture Review 2001 which established the requirement of a force comprised of 12 operational SSBNs (with two additional in overhaul at any time). Because the Ohio SSBNs will begin retiring in FY 2027, their recapitalization must start in FY 2019 to ensure operational submarines will be available to replace these vital assets as they leave operational service. As a result, the procurement plan in this report supports a minimum inventory of 12 SSBNs for this force.

Submarine Modernization

As threats evolve, it is vital to continue to modernize existing submarines with updated capabilities. The submarine modernization program includes advances in weapons, integrated combat control systems, sensors, open architecture, and necessary hull, mechanical and electrical upgrades. These upgrades are necessary to retain credible capabilities for the future conflicts and current peacetime ISR and Indication and Warning missions and to continue them on the path of reaching their full service life. Maintaining the stability of the modernization program is critical to our future Navy capability and capacity.

Surface Combatants

As in the past, cruisers and destroyers will continue to deploy with strike groups to fulfill their traditional roles. Many will be required to assume additional roles within the complex ballistic missile defense (BMD) arena. Ships that provide ballistic missile defense will sometimes be stationed in remote locations, away from strike groups, in a role as theater ballistic missile defense assets. The net result of these changes to meet demands for forward presence, strike group operations and ballistic missile defense places additional pressure on the existing inventory of surface combatants, currently base-lined at 88. While a new force structure analysis may require the Navy to procure a greater number of these ships, we will also have to consider redistributing assets currently being employed for missions of lesser priority for these new missions as a result of the 2010 QDR and the President's commitment to supporting the missile defense of our European allies.

In the Navy's FY 2009 shipbuilding report, the lead CG(X) guided missile cruiser was planned to start in FY 2011. This ship was to fulfill a critical role in Integrated Air and Missile Defenses (IAMD); but due to the ship's projected high cost and immaturity of its combat systems technology and still evolving joint Ballistic Missile Defense architecture, the Navy has determined that it is not feasible to continue to pursue a new-design CG(X) procurement program. Instead, we intend to deliver highly capable, multi-mission ships tailored for IAMD by spiraling the DDG 51 program into the next future destroyer, DDG Flight III. This preferred approach will develop the Air and Missile Defense Radar (AMDR) and install it on a DDG 51 hull with the necessary hull, power, cooling, and combat systems upgrades. The installation of this "family of systems" upgrade to the existing DDG 51 Class will define the third flight of these ships. The war fighting analysis completed for CG(X) directly supports requirements development for this upgraded DDG 51 which is envisioned to be procured in FY 2016.

DDG 51

To address the rapid proliferation of ballistic and anti-ship missiles along with deep-water submarine threats, we have restarted production of the Arleigh Burke Class destroyer DDG 51 Flight IIA series. The first ship of the restart, DDG 113, was funded in FY 2010 and the contract is expected to be awarded this summer. This budget procures an additional two ships in FY 2011. These ships will incorporate Integrated Air and Missile Defense, providing much-needed BMD capacity to the Fleet. They will also leverage the maturity of the DDG modernization program and include all associated hull, mechanical and electrical alterations. We will continue

production of the DDG 51 in order to leverage the hot production line to spiral the DDG 51 to address future IAMD capabilities.

The DDG 51 Class, starting with the Flight IIA restart, will continue to be upgraded in order to deliver the best combination of capability and capacity to meet future threats. This approach leverages the cost-savings of existing production lines; reduces total owner ship costs due to predictable designs; reduces cost overruns and delays through the incremental, or evolutionary, approach of developing new technologies; and it strengthens and stabilizes the industrial base to more efficiently and cost effectively produce ships to meet our national needs.

Littoral Combat Ship (LCS)

The Navy remains committed to procuring 55 LCSs. LCS expands the battle space by complementing our inherent blue water capability. LCS fills warfighting gaps in support of maintaining dominance in the littorals and strategic choke points around the world. The LCS program capabilities address specific and validated capability gaps in Mine Countermeasures, Surface Warfare, and Anti-Submarine Warfare. The concept of operations and design specifications for LCS were developed to meet these gaps with focused mission packages that deploy manned and unmanned vehicles to execute a variety of missions. LCS design characteristics (speed, agility, shallow draft, payload capacity, reconfigurable mission spaces, air/water craft capabilities) combined with its core Command, Control, Communications, Computers and Intelligence, sensors, and weapons systems, make it an ideal platform for engaging in Irregular Warfare and Maritime Security Operations.

Affordability remains the key factor to acquiring the needed future capacity of this highly flexible and capable ship. To stay on path to deliver this ship in the quantities needed, we announced this past September that we will down select between the two LCS designs in FY 2010. We have assessed the combat capabilities of both these ships and believe that either ship would meet all of the Key Performance Parameters for this class. While each ship brings unique strengths and capabilities to the mission and each has been designed in accordance with overarching objectives for reducing total ownership cost. On balance, they produce essentially equivalent results across the broad spectrum of missions assigned. Therefore, the down select will be based largely upon procurement cost considerations. The selected industry team will deliver a quality technical data package, allowing the Navy to open competition for a second shipyard to build the selected design beginning in FY 2012. The winner of the down select will be awarded a contract for up to 10 ships from FY 2010 through FY 2014, and also provide combat systems for up to five additional ships built by the second shipyard. This decision was reached after careful review of previous FY 2010 industry bids, consideration of total program costs, and discussions with Congress. In addition to the funding required for two seaframes in FY 2011, our FY 2011 budget includes an additional $280 million for Economic Order Quantity for seven ships sets to continue the block buy which is essential to lowering the per unit costs of the seaframes. We request your continued support as we take the measures necessary to deliver this much needed capability at the capacity we need to meet future demands.

DDG 1000

The DDG 1000 Zumwalt guided missile destroyer will be an optimally crewed, multi-mission surface combatant designed to fulfill long-range, precision land attack requirements. The first DDG 1000 is under construction, with plans for three ships in the class. There is a validated Operational Requirements Document which specifies that Naval Surface Fires will be necessary to support combat operations across the beach. The DDG 1000 features two 155mm Advanced Gun Systems capable of engaging targets with the Long Range Land Attack Projectile at a range of over 63nm. In addition to providing offensive, distributed and precision fires in support of forces ashore, it will provide valuable lessons in advanced technology such as signature reduction, active and passive self-defense systems, and enhanced survivability features. Overall, construction of DDG 1000 is approximately 20 percent complete and is scheduled to deliver in FY 2013 with the initial operating capability in FY 2015.

Modernization

As threats evolve it is vital to modernize existing ships with updated capabilities. Capable ships, supported by an effective industrial base, have been the decisive element during war, crisis response, and peace-time operations for more than two centuries. The destroyer and cruiser modernization program includes advances in standard missiles, integrated air and missile defense, open architecture, and necessary hull, mechanical and electrical upgrades. These upgrades are necessary to retain credible capabilities for future conflicts, including BMD, and to continue them on the path of reaching their full service life. Maintaining the stability of the cruiser and destroyer modernization program is critical to our future Navy capability and capacity.

The DDG Modernization Program is planned to execute in two six-month availabilities; Hull Mechanical & Electrical first, followed by combat systems two years later. The program focuses on the Flight I and II ships (hulls 51-78), commencing in FY 2010. However, all ships of the class will be modernized at midlife. Key tenets of the DDG Modernization program include: upgrade of the Aegis Weapons System to include an Open Architecture (OA) computing environment; upgrade of the SPY radar signal processor; addition of Ballistic Missile Defense capability; Evolved Sea Sparrow Missile (ESSM); the upgraded SQQ-89A(V)15 anti-submarine warfare system; the SM-6 Missile; and improved air dominance with processing upgrades with the Naval Integrated Fire Control-Counter Air (NIFC-CA) capability.

The Cruiser Modernization Program is designed to modernize all remaining cruisers. The first fully modernized cruiser, USS Bunker Hill (CG 52), was completed in June of 2009. The key aspects of the Cruiser Modernization program include: upgrade of the Aegis weapons system to include an Open Architecture (OA) computing environment; addition of Evolved Sea Sparrow Missile (ESSM); SPQ-9B radar; Close In Weapon System (CIWS) Block 1B; upgraded SQQ-89A(V)15 anti-submarine warfare system; and improved air dominance with processing upgrades and Naval Integrated Fire Control-Counter Air (NIFC-CA). Six cruisers will receive an additional Ballistic Missile Defense upgrade. Our FY 2011 budget includes funds to execute the modernization of three cruisers and three destroyers.

Amphibious Warfare Ships

These ships provide distributed forward presence to support a wide range of missions from theater security cooperation and humanitarian assistance to conventional deterrence and assuring access for the Joint Force. When necessary, our forward postured amphibious forces can aggregate with others surged from homeports or other global locations to conduct major combat operations. The number of amphibious ships in the Department's inventory is critically important for overcoming geographic, diplomatic, and military challenges to access in permission, uncertain, or hostile environments.

The Navy and Marine Corps have determined a minimum force of 33 ships represents the limit of acceptable risk in meeting the 38-ship amphibious force requirement for the Assault Echelon in a two Marine Expeditionary Brigade (MEB) forcible entry operation. A 33-ship force comprised of 11 LHA/D amphibious assault ships and a mix of 11 LPD 17 amphibious transport docks and 11 LSD(X) dock landing ships will be sufficient to support forcible entry operations with acceptable risk in the speed of arrival of combat support elements of the MEB.

LPD 17 Class Amphibious Warfare Ship

The LPD 17 San Antonio Class of amphibious warfare ships represents the Navy's commitment to an expeditionary, power projection and engagement Fleet capable of operating across the full spectrum of warfare. The class has a 40-year expected service life and serves as the replacement for four classes of older ships: the LKA, LST, LSD 36, and the LPD 4. San Antonio Class ships play a key role in supporting ongoing overseas operations by forward deploying Marines and their equipment to respond to global crises. USS NEW YORK (LPD 21) commissioned last November and to date, two LPD-17 ships have completed initial deployments. The 11th LPD is planned for procurement in FY 2012.

LHA Replacement (LHA(R))

LHA(R) is the replacement for our Tarawa Class ships that will reach the end of their already extended service life between 2011-2015. LHA(R) will provide flexible, multi-mission amphibious capabilities that span the range of military operations from forcible entry to humanitarian and disaster relief. LHA(R) will leverage the LHD 8 design while providing modifications that remove the well deck and increase aviation capacity to better accommodate aircraft in the future Marine Corps Aviation Combat Element (ACE), such as the short take-off vertical landing Joint Strike Fighter and the MV-22. We laid the keel of the lead ship, USS AMERICA (LHA 6) in July 2009 and our FY 2011 budget includes funds for one LHA(R) which is split-funded in FY 2011 and FY 2012.

Maritime Prepositioning Force (Future)

The MPF(F) concept envisioned a forward-deployed squadron of ships to enable rapid closure to areas of interest, at-sea assembly, and tactical employment of forces to areas of interest in the event of crisis. Although useful in the lower end of the war-fighting spectrum, this

squadron was primarily designed for use in major combat operations. Due to refocusing of priorities and cost, this program has been restructured and replaced with alternatives which enhance the existing capabilities of the Maritime Prepositioning Ship (MPS) Squadrons. While the MPF(F) program originally intended for this purpose has been truncated in this year's program, the creation of a support program has been added to enable development of the Tactics, Techniques and Procedures required to fully exploit this mission area in the future. Ships previously discussed in the context of the MPF(F) are moved to the Command and Support section for battle force accounting. In addition, the Navy has determined the LHA 6 Class amphibious assault ships previously designated for the MPF(F) would better serve the Navy and Marine Corps in the assault echelon force where they could be employed in Joint forcible-entry operations. As such, the requirement for these ships has been moved to the Amphibious Warfare category.

In support of this enhanced MPS concept of operations, three T-AKE auxiliary dry cargo ships have been shifted to provide logistic support to Marine Corps units ashore. Further, the Navy recognizes the need to provide for at-sea transfer of vehicles from a cargo ship and to provide an interface with Landing Craft Air-Cushioned (LCAC) vessels (both key capabilities the MPF(F) program was to provide). The Navy intends to procure three Mobile Landing Platforms (MLPs) to fulfill this capability. The planned MLPs, a lower cost variant of the MPF(F) MLP program, will be based on an Alaska Class crude oil carrier modified to be a float-on/float-off vessel. These ships will provide concept validation, operational testing and an incremental operational capability. Operationally, the three current MPS Squadrons will have an additional MLP and an additional T-AKE to supplement the current maritime prepositioning force in order to better provide in-theater capability to support resupplying a MEB.

Joint High Speed Vessel (JHSV)

The JHSV provides high-speed support vessels for the Army and the Navy. JHSV will be an effective alternative to move assets throughout marginally developed theaters of operation while also requiring a less well developed port facility than is the case for today's principal lift assets. In addition, its relatively shallower draft permits operation in a greater number of port facilities around the globe. The combination of these attributes permits rapid transport of medium size payloads over intra-theater distances to austere ports, and load/offload without reliance on well developed, heavy port infrastructure. Combatant Commanders have made clear to the Navy their desire for this niche capability that can execute unique operations with partner nations throughout each of their areas of responsibility.

Shipbuilding Industrial Base

Beyond balancing requirements and resources, the FY 2011 President's Budget submission for shipbuilding also weighs the shipbuilding industrial base. The Navy's plan leverages stable designs to minimize disruption experienced over past decade of "first of class" construction. The plan provides stable procurement rates within constraints of requirements and budget which allows industry to plan and invest in facilities and process improvements to drive learning and efficiencies into serial production. The FY 2011 shipbuilding plan ensures that major suppliers have "base" workload and opportunity to compete for future ship construction.

As an example, the revised LCS acquisition strategy creates opportunity for our major shipbuilders to compete for future workload that was previously limited to incumbents. The Navy intends to sustain dual sources for fast attack submarines, surface combatants, Littoral Combat Ships, and amphibious/auxiliary ships.

The Navy continues to promote efficiency within the shipbuilding industry. The Navy has expanded use of competition and fixed price contracts; incentivized shipyards to improve facilities through contract incentives, selective release of retentions, and Hurricane Katrina infrastructure funding; cracked down on contract changes; and judiciously employed Multiyear Authority, Block Buy Authority and Economic Order Quantity to show commitment to stable production.

Finally the Navy has initiated a Shipbuilding Industrial Base Study to review capabilities/capacities of the shipyards including design and production; the health of the vendor base, and trends in rates and overhead, productivity, and investment strategies. This study will inform Navy's FY 2012 budget deliberations.

Acquisition Workforce

The Department has embarked on a deliberate plan to increase the size of the DoN acquisition workforce by at least 5,000 employees over the FYDP, or about a 12 percent increase. We started last year and aggressively increased our acquisition workforce based upon bottoms-up requirements from our PEOs, Systems Commands, and Warfare Centers. In the last 15 months, for example, we have added 400 acquisition personnel (journeyman and high-grade) to support shipbuilding programs at the Naval Sea Systems Command. In addition, we have added over 900 acquisition personnel to our warfare centers across the country, that provide critical engineering, integration support, testing, and contracting oversight to all of our sea, air, land, space acquisition programs. These personnel are critical since they represent a part of the pipeline of future Program Managers and Senior Systems Engineers.

We have also taken advantage of the Defense Acquisition Workforce Development Fund (DAWDF), initiated by Congress, and added nearly 300 acquisition interns this past year, and are on target to bring aboard an additional 500 this year and next. About 30 percent of our DAWDF Acquisition Workforce hires are now in shipbuilding organizations. We have also improved our education and training programs in two critical areas of need --- shipbuilding program management and contracting. We have used DAWDF funds to pilot a shipbuilding program manager's course that was successful enough that we are moving it permanently to our Defense Acquisition University (DAU) program. In addition, because of the difficulty in hiring experienced contracting officers, we have implemented an intense accelerated contracting training program at the Naval Sea Systems Command to increase the number of qualified contracting officers as well as increase retention rates among this important group. It will take several years to rebuild and rebalance the DoN's acquisition workforce, but these measures and continuing them with this budget is an important step.

These acquisition workforce initiatives are supportive of DoD's High Priority Performance Goal to "Reform the DoD Acquisition Process" in the President's Analytic

Perspectives volume (page 78) of his FY 2011 Budget which includes these performance measures:

- By 2011, DoD will decrease reliance on contract services in acquisition functions by increasing the in-house civilian and/or military workforce by 4,765 authorizations for personnel.

- By 2011, DoD will increase the total number of DoD civilian and military personnel performing acquisition functions by 10,025 personnel (end-strength).

Summary

The Navy's Long Range Plan for the Construction of Naval Vessels addresses the requirements in support the National Defense Strategy, the Maritime Strategy, and the new 2010 Quadrennial Defense Review. The plan sustains an 11 CVN force from 2015 through 2045; increases Virginia Class build rates to two submarines per year; increases Air and Missile Defense capability with continued DDG 51 construction and Aegis modernization; increases amphibious lift capability with LHA 7 procurement in FY 2011 and the 11th LPD in FY 2012; increases intratheater lift capability with increased JHSV procurement; and continues Ohio Class Replacement design and development by funding Research and Development efforts within the FYDP as well as Advance Procurement funds for detail design in FY 2015.

Through the Long Range Plan for Naval Vessels, the Navy has addressed affordability. The plan continues DDG 51 construction to leverage a stable design, mature infrastructure, and affordable capabilities. The Navy cancelled CG(X) and truncated DDG 1000 procurement at three ships and consolidated construction in a single shipyard. The Navy plans to transition DDG 1000 technologies and has aligned CG(X) Research and Development funding to the DDG 51 platform including development of the Air and Missile Defense Radar. The Navy intends to down select to a single LCS design which leverages competition, commonality, and efficient construction rates. The Navy has restructured the Maritime Prepositioning Force by continuing development of enhanced seabasing capabilities for the Maritime Prepositioning Squadrons. We have directed the LHA(R) ships to the amphibious force and intend to augment with MPS squadrons with a T-AKE, Mobile Landing Platform, and an existing Large Medium Speed Roll-On/Roll-Off ship. The Mobile Landing Platform will leverage an existing commercial design. The Navy has also increased the emphasis for meeting and extending service lives of in-service ships. We are sustaining the CG/DDG Modernization efforts and are targeting extension of the more capable DDG 51 Flight IIA ships to 40 year. We have deferred command ship replacement and intend to sustain the current command ships until 2029.

The Navy has addressed realism in the Long Range Plan for Naval Vessels by incorporating realistic budget projections in the near and mid term and realistically estimating the long term. In addition, in this year's plan the Navy has included the estimated funding for the Ohio Class Replacement program during the mid term period.

Finally the Navy has addressed the industrial base in leveraging stable designs to minimize disruption experience with first of class constructions, provides stable production rates

within the constraints of requirements and budget and ensures major shipbuilders have base workload and opportunities to compete for future ship construction.

STATEMENT OF

C. MICHAEL PETTERS
CORPORATE VICE PRESIDENT AND PRESIDENT,
NORTHROP GRUMMAN SHIPBUILDING, INC.

BEFORE THE

SUBCOMMITTEE ON SEAPOWER AND EXPEDITIONARY FORCES

OF THE

HOUSE ARMED SERVICES COMMITTEE

ON

NAVY'S 30-YEAR PLAN IMPACT ON THE INDUSTRIAL BASE

MARCH 3, 2010

NOT FOR PUBLICATION UNTIL RELEASED BY
THE HOUSE ARMED SERVICES COMMITTEE
SUBCOMMITTEE ON SEAPOWER AND
EXPEDITIONARY FORCES

Chairman Taylor, Ranking Member Akin, distinguished members of the Seapower and Expeditionary Forces Subcommittee, thank you for inviting me to appear before you to discuss my views on the aspects of the Navy's long-range shipbuilding plan and what I believe are key issues faced by the shipbuilding industry as a whole.

Introduction

I appreciate and thank you for the opportunity to discuss shipbuilding with you today. It is a personal honor for me to represent the industry in general, but also, and more specifically, to represent 40,000 proud American Shipbuilders in Northrop Grumman - men and women whose heritage of building great ships for the Navy dates back to 1895. As shipbuilders, we take great pride in our relationship with the Navy and in our responsibility of providing the ships they need to defend the nation and to defend freedom around the globe.

Northrop Grumman Shipbuilding designs, builds, refuels, repairs, and maintains nearly every class of ship for the Navy and specific ships for the Coast Guard in our four shipyards and three other industrial sites in the United States. In addition to being the nation's sole designer, builder, and refueler of nuclear-powered aircraft carriers, Northrop Grumman Shipbuilding provides nuclear- powered submarines, surface combatant ships, and amphibious assault ships to the Navy and National Security Cutters for the U.S. Coast Guard. We are the largest industrial employer in Virginia and the largest private employer in both Mississippi and Louisiana.

Thirty-Year Shipbuilding Plan

Now, let me turn to the specifics of the Navy's 30-year shipbuilding plan, and give you my impressions and elaborate on the factors impacting the shipbuilding industrial base.

I believe the Navy's 30-year shipbuilding plan is courageous, but perhaps optimistic. The plan is courageous in that it sets in motion solutions to many of the issues impacting the industrial base. It is optimistic in that resources will always be an issue in the out years of the plan. I commend the Chief of Naval Operations and the Secretary of the Navy for committing to a plan and staying with it through the budget development cycle. Though there are exceptions, I believe the

proposed plan goes a long way toward stabilizing a declining shipbuilding industrial base while providing our Sailors and Marines the ships they need to protect our national interests.

The 30-year shipbuilding program builds:

- Aircraft Carriers on five-year centers
- Large-Deck Amphibious Assault ships on five-year centers
- Two *Virginia*-class submarines per year
- *Ohio*-class Replacement SSBN(X) production starting FY 2019
- Three DDG-51s every two years
- LPD 17/LSD(X)'s on two-year centers starting in FY 2017
- 66 LCS's, 41 Joint High Speed Vessels and three Mobile Landing Platforms

There is much good news in this plan. To begin with, two nuclear submarines per year and aircraft carriers on five-year centers will go a long way to stabilize these two facets of the shipbuilding industrial base. Similarly, the industrial base for large-deck amphibious ships, also to be built on five-year centers, will be stabilized by this plan. Finally, the acceleration of the LCS and JHSV programs, as well as the restructuring of the Maritime Landing Platform (MLP) program to a less complex ship, will all have positive effects.

However, it is clear to me that the Navy's plan assumes an industrial base rationalization from its current state to a future state where ships are more affordable, and the industry can attract and retain skilled shipbuilders and obtain a solid return on investment for the shareholders who provide the capital. That is a bold assumption. In order to make that happen, the industry, the Navy, and Congress all would have a lot of work to do to make this transformation of the shipbuilding industrial base a success. Many challenges and hard choices would have to be made. We would need a creative partnership between industry, the Navy and Congress if rationalization were to happen.

In my experience, the 30-year plan usually provides a "best case" scenario. And I do not see this plan to be any different. I see three challenges to the plan: two near-term and one longer-term. The first near-term challenge is the number of major surface combatants. In years past, the Navy has procured three destroyers per year, which allowed it to maintain dual sources for destroyers, which in terms of numbers represents almost 30 percent of the fleet. However, the current plan cuts this rate in half. The Navy knows the number of ships it needs to procure to satisfy its mission; however, in this procurement process, the Congress should be aware that the plan for destroyers has implications. Will one and a half ships be enough to keep two yards in competition, will it be enough to attract and retain the skills needed to cost-efficiently build these ships, and will it be enough for the shareholders so that they put their capital in our shipyards? Especially in the future, when not just price but technological innovation will be required?

A second near-term challenge is the lack of a bridge to LSD(X). Industry has worked very hard with the Navy to create an affordability bridge between LPD 27 and LSD(X). Taking the Navy's own strategy to promote commonality, NGSB, the Marine Corps and Congress promoted the construction of LPD 26 and 27, as well as LCC(R) 1 and 2 as common platforms that would be a bridge to a common LSD(X). The strategy's virtue was that it met both war fighting and industrial base needs. However, LCC(R) 1 and 2 both now have been removed from the plan, producing a five-year gap between start of LPD 27 and start of the LSD(X). My sense is that the efficiency of the shipyards will be affected and that the Navy will incur non-recurring engineering costs for a new class of ships that might otherwise been avoided.

The final challenge is more long-term. I am concerned about the looming bill for the Ohio Replacement Program in the mid-term of the plan. While the 30-year shipbuilding plan addresses this challenge, it is also clear that many of the later years in the plan will require SCN budget of approximately $20B (FY10$). If that goal is not attained, there will not be enough money to continue building all classes of ships. The surface combatant and amphibious assault challenges cited above will be greatly exacerbated, which could lead to conditions resulting in shipyard closures. As a result, the ability of Congress to uphold its constitutional mandate to "maintain a Navy" will be significantly diminished. I strongly encourage this committee to consider alternate funding plans for Ohio Replacement Program, taking it off budget, and fund it in addition to normal SCN.

In summary, the plan implicitly assumes a rationalization of the industrial base, which includes craftsmen, engineers, facilities, and the entire supply chain that extends across the 50 states. When any industry goes through this kind of rationalization, the transition will be turbulent with turmoil and uncertainty. However, the Navy's plan does not address these issues. It is in the national interest that the resulting shipbuilding industry be healthy and stable. It is also in our best interests that the transition from the current state to the future state is conducted in a responsible manner. Promoting a real dialogue between industry, the Navy, and Congress would be an important start. We will not agree about everything. However, a dialogue will produce mutual understanding about the opportunities and constraints that each institution lives with daily. This can only be positive. In that dialogue, we should talk about how to leverage the good practices in today's programs and how to create enablers to obtaining appropriately sized work force, facilities, and supply chain that support the Navy's plan.

Now, I would like to highlight the positive elements in the Virginia-class as a model for us to leverage in executing the Navy's plan.

Virginia-class as the model program

The *Virginia*-class submarine program raises the bar for all Navy programs in procurement and production. Since the signing of the teaming agreement by both Northrop Grumman Shipbuilding and General Dynamics Electric Boat in 1997, this highly successful program has become a model in how we can reduce costs, improve construction schedules, and leverage operational efficiencies repeatedly from ship-to-ship through multi-year, multi-ship procurements.

Under the teaming agreement, each ship of the class is built by both Northrop Grumman Shipbuilding in Newport News, Virginia, and General Dynamics Electric Boat in Groton, Connecticut. Ships are co-manufactured whereby the ship's major modules have been assigned to each respective yard, and the delivery of the ship is alternated between each yard. Today with a completed class design, both yards continuously collaborate on process improvements to reduce the number of modules, optimize the construction sequence, and further drive down cost and schedule. While challenging, the team has been able to deliver on its commitments.

The multi-year, multi-ship procurement for the Block III in the Navy's 30-year plan demonstrates the Navy's confidence in this program. The quest to continue to improve on the *Virginia* class will proceed as we enter production rates of two ships per year. Let me give a few examples of other positive benefits derived from multi-year, multi-ship procurement.

Serial Production results in efficiency

With the multi-year, multi-ship contract, we can embrace a serial production approach to our project management and resource planning. A skilled, dedicated workforce, who knows the science of modern shipbuilding and the art of building great ships, is the heart of the shipbuilding industry. On the *Virginia* class, the learning, ship-over-ship, improved as our craftsmen became more proficient through serial production. While we employ a great amount of automation, much of the assembly, outfitting, and testing needed to bring the ship to life requires "hands-on" labor and deck plate knowledge. In craft production, the stability of volume in serial production directly translates to labor cost efficiency. The repeatability in serial production provides the management the ability to assign workers to the same job on each ship thus gaining proficiency, reducing variability, and fully optimizing process efficiencies.

The *Virginia*-class block-buy approach provides predictability and stability in the industry's ability to capture and retain talent. The predictable volume and schedule in the multi-year, multi-ship contract enables reliable production plans with labor level-loaded across engineering, production and the supply base within the *Virginia*-class ships. The cost associated with efforts to respond to contract delays or cancellations as well as hiring and retaining costs of skilled workforce are all minimized.

Block-buy benefits cascade to suppliers

The benefits of multi-year procurement flow to our suppliers and their suppliers who are an essential part of the shipbuilding industrial base. At Northrop Grumman Shipbuilding, material represents over 30 percent of our cost profile. We typically spend between $2 and $2.5 billion annually across all the ships in our portfolio. The ability to bundle material procurement for

blocks of ships, as is the case routinely with the *Virginia* class, provides the economic order quantity necessary for better pricing. In return, our suppliers also benefit from operational efficiencies associated with sustained production. The sustained production is equally important and enables us to avoid costly supplier base restarts that we have seen in other programs with less predictable demands.

Successful capital incentive program

The *Virginia* class incentive structure for capital investment for an on-going program is a model to be replicated. The capital expenditure incentive structure in the *Virginia*-class program offers greater opportunity for both shipyards to make capital investments with higher rates of return if the improvements resulting from the investment are realized over the life of the 30-ship class. Both Northrop Grumman Shipbuilding and General Dynamics Electric Boat as teaming partners have submitted capital projects to the Navy, which have been approved and incentive fees have been shared equally.

While slightly different than the *Virginia*-class approach, on CVN78, the Navy provided incentive fee structure in the contract which supported our ability to meet the needed rate of return on investment to build new facilities with required capabilities for the next class of carriers. These capital incentive approaches enable the industry to show the expected returns on the investment to our parent corporations and shareholders. In return, shipbuilding capabilities can be strengthened and maintained to support the Navy's mission.

Impacts on Shipbuilding Workforce, Facilities, and Supplier Base

While the *Virginia* class practices can be a model for all other programs in the Navy's 30-year plan, the industry must find ways to get to the right level in capacity and capabilities to create a healthy industrial base that fits the plan. In doing so, industry would need to develop strategies to redeploy its workforce while maintaining the skill base, consolidate or close facilities to maximize utility and to reduce unnecessary investments, and deploy "smart-buy" procurement strategies to maintain key suppliers in the supply chain.

I believe industry in general has taken some steps to rationalize its workforce, facilities, and suppliers over the past decade as the defense production levels slowed down at the end of the Cold War. However, further rationalization is clearly assumed to create a healthy industrial base that aligns to the Navy's 30-year plan. Let me share my thoughts on the challenges shipbuilders still face in order to rationalize our workforce, facilities, and the supplier base.

Workforce

Shipbuilding is complex. To build these great ships requires uniquely skilled craftsmen who marry science and technology with the art of shipbuilding. Many of our employees are third-, fourth-, and fifth-generation shipbuilders. However, the demographics have shifted to where a large portion of our workforce today is made up of new employees, with less than five years of work experience, coupled with a large population of seasoned shipbuilders with 25 plus years of experience who are nearing retirement age. Ships are not built overnight, nor are 25 plus years of experience in shipbuilding easily replaced. In past decades through downsizing and consolidation, this unfavorable workforce shift has grown while the workforce declined.

We have taken actions to address this challenge by making substantial investment in our people. We have focused on accelerating the learning and development of those with less than five years experience, placed extensive emphasis on strengthening the first line leadership, and fostered knowledge transfer from seasoned veterans to those who will replace them. Additionally, we have strengthened our relationships with local community colleges to provide craft and business curricula while formalizing and strengthening our on-the-job training.

In our flagship Apprentice Schools, we continue to train and develop the next generation of shipbuilders. In February, 161 apprentices at our Newport News yard graduated and joined our shipbuilding family, and another 159 will graduate from our Gulf Coast shipyards this April. We are also home to strong tradition and great shipbuilders who have stuck with the industry through good times and bad. Today, we have nearly 1,000 "Master Shipbuilders" who have reached 40 uninterrupted years of shipbuilding, leading the way on a daily basis.

We are committed to developing our people to ensure this nation's ability to build great ships. However, another potential challenge to maintaining our workforce looms ahead. The expected build-up of domestic energy infrastructure could drive a talent drain from the shipbuilding workforce. The shipbuilding skills required to work with heavy steel, large component fabrication and assembly, as well as nuclear knowledge, are the same skills necessary to support the energy infrastructure. This threat to shipbuilding however, could become an opportunity for our shipyards and shipbuilders with the help of Congress. Outside the US, shipyards are becoming stronger and are remaining viable by taking on energy infrastructure work. Such work allows these shipbuilders to maintain their skilled workforce so the skills are there in sufficient numbers to take on shipbuilding when the need arises. This could not happen without foreign governments that support this redeployment of facilities and skilled workforce.[1]

Facilities

We have the same industry footprint today as we did when the plan called for a 600-ship Navy. Today, the shipbuilding industry, consisting of six large shipyards, numerous secondary shipyards and four public yards, has more capacity than what is required to support the Navy's 30-year plan. The maintenance cost to upkeep the piers, dry docks, cranes, facilities, equipment, and other infrastructure is expensive but necessary in order to sustain our shipbuilding capabilities. Workforce skills and qualifications need to be maintained, especially in nuclear skills, because the cost to re-train or re-qualify is even higher. However, to invest their capital, our shareholders expect a return on their investment commensurate with the risks inherent in our shipbuilding business. This has not always been the case.

Aside from the challenge of obtaining the capital due to less work and lack of returns, under the current government regulations, we cannot readily redeploy our assets to other non-defense work

[1] In the BusinessGreen news, Liberal Democrat leader Nick Clegg announced plans to strengthen United Kingdom's struggling wind turbine manufacturing industry by diverting £400m of government spending to conversion of underused shipyards into offshore wind turbine plants through the party's new Green Jobs Manifesto. The manifesto estimates that this will create 12,000 jobs in port development and additional 45,000 new jobs in manufacturing.

that could improve the utilization rate, lower overall overhead rates, and yield higher rate of return on investment for our shareholders. Foreign countries offer subsidies to build ships as well as incentives for the industry to transition from defense work to commercial work such as wind, nuclear, and solar.[2] In the U.S., the industry will have to bear the cost of start-up, cost for facility and equipment impairment, and address any environmental issues as well as fund the necessary capital investment. Shipbuilding Capability Preservation Act agreements helped the industry in the past and perhaps, working together we can create a mechanism to enable the industry to responsibly rationalize its facilities and create a healthy industrial base.

Supply Chain

No discussion of the shipbuilding industrial base would be complete without a discussion of the supplier base. Just over a year ago, we combined the supply chain function across our shipyards to ensure we were doing the very best job we could in managing these critical resources. All told, we have more than 4,900 suppliers across the 50 states that currently support our programs with raw material, components, and systems.

In the past decade, as shipbuilding rates declined, we drove focused efforts to rationalize our supply base taking into account the marketplace, prices, predictability, and risks. While we made many conscious decisions about the suppliers we needed to keep, the marketplace also made decisions on its own with many suppliers choosing to exit naval shipbuilding. Drivers included the attractiveness of adjacent markets, inconsistency of demand, and costs associated with maintaining the unique skills and qualifications required for naval ship supply. We felt the brunt of the impact as suppliers, especially sole-source suppliers, closed their doors. The low volumes we have today are eliminating competition. As a result, today approximately 60 percent of our total material spending is with sole source suppliers who design, integrate, and manufacture key systems.

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[2] In September 2009, ThyssenKrupp Marine Systems sold its German shipyard, Nordseewerke, to SIAG Schaef Industrie who planned to convert the yard to support manufacturing for the wind energy industry. Nordseewerke Shipyard was founded in 1903 but has been challenged in the recent years with diminishing workload. Germany's feed-in-tariff system, which guarantees prices or premiums for electricity produced from renewable sources, provides the incentives for many who are entering the renewable energy industry.

With one programmatic exception, *Virginia*-class submarines, we have seen material costs escalate at a rate beyond that which simple material price indices would dictate. This phenomenon is directly related to our ability to take sustained demand to the marketplace. Virtually every other program has had some form of production interruption that has led to increased material costs. When we have consistent reliable demand, we can manage our costs.

Advanced funding to procure material in pre-construction contracts, multi-ship contracts, and block-buys have contributed significantly to our ability to bulk purchase and negotiate better pricing. Just as we can achieve labor savings through volume production, suppliers can better manage their workforce, retain skills, maintain stable production rates, and achieve the learning curve much like we have been able to achieve with our team mate on the *Virginia*-class ships.

In summary, to rationalize the shipbuilding industrial base to support the plan, we must come through the challenges I discussed above in the workforce, facilities, and the supply chain.

What the Congress, the Navy, and Industry must do

There is much debate and scrutiny over the fleet size and whether the Navy is properly resourced to carry out their mission. Over the past two decades, the fleet decreased from over 600 ships[3] to 287 ships today with a projection to 301 by 2040. While industry is not qualified to tell the Navy what ships it may or may not need to fulfill its essential missions, we are uniquely qualified to prescribe what is required for a strong and healthy shipbuilding industrial base to build and maintain these ships. Since the Navy's plan assumes a smaller industrial base than the current size, this will require a responsible rationalization of the current workforce, facilities, and supply chain.

[3] Congressional Research Service has compiled a table showing total number of ships in the Navy since FY1948. In 1970, the Navy had 769 ships in the fleet, which declined steadily to 477 ships in 1980. The fleet size slightly increased through the '80s at its highest at 566 ships in 1989. Starting in 1990, the fleet size once again steadily fell to 318 ships by 2000.

Looking to the horizon, executing the Navy's plan will require greater collaboration and partnership between Congress, the Navy, and industry on the following:

- Drive programs toward multi-year, multi-ship, block-buys
- Provide incentives to support workforce stability and a stronger supply base
- Support closure and/or redeployment of select shipbuilding assets to new endeavors such as energy infrastructure manufacturing

We look forward to actively participating in any future dialogues on these challenges. I represent men and women who share a single vision: to build the finest military ships in the world. We share a single profession — we are shipbuilders. Working together, with the strong support you continue to show our industry, we can build a healthier shipbuilding industry that will continue to provide great ships for our nation into the next century.

ATTACHMENT 1
FEDERAL INFORMATION REQUEST
NORTHROP GRUMMAN SHIPBUILDING

The data herein are for the Northrop Grumman Shipbuilding sector, which includes Northrop Grumman Shipbuilding, Inc. and its subsidiaries Continental Maritime of San Diego, AMSEC, Newport News Industrial, Newport News Nuclear, and Newport News Energy.

FISCAL YEAR 2010 FEDERAL CONTRACTS

Federal Contract (Including Subcontracts)	Customer/Federal Agency	Dollar Value		Subject of Contract or Subcontract
		Award	Mod	
2101507	Bettis/Naval Sea Systems Command		16,000,000	Engineering Design & Support
2004-399-7	Advanced Technology Institute/Office of Naval Research		4,420	Engineering Design & Support
2005-321 TO #4	Advanced Technology Institute/Office of Naval Research		326,276	Research and Deveopment
2005-337 TO #5	Advanced Technology Institute/Office of Naval Research	26,862		Research and Deveopment
2005-337 TO #6	Advanced Technology Institute/Office of Naval Research	171,812		Research and Deveopment
2005-337 TO #7	Advanced Technology Institute/Office of Naval Research	37,269		Research and Deveopment
2005-337 TO #8	Advanced Technology Institute/Office of Naval Research	958,450		Research and Deveopment
2005-321 TO #12	Advanced Technology Institute/Office of Naval Research	906,679		Research and Deveopment
2005-321 TO #13	Advanced Technology Institute/Office of Naval Research	30,762		Research and Deveopment -Advanced Mooring System
2005-337 TO #14	Advanced Technology Institute/Office of Naval Research	4,970		Research and Deveopment
2005-337 TO #15	Advanced Technology Institute/Office of Naval Research	4,353		Research and Deveopment
2005-341-16	Advanced Technology Institute/ATI Shipbuilding Research Program Naval Sea Systems Command		6,730	Engineering Design & Support
2005-341-17	Advanced Technology Institute/ATI Shipbuilding Research Program Naval Sea Systems Command		11,965	Engineering Design & Support
2007-503 TO #3	SCRA-Affordable Joint Fabrication	1,070,065		Research and Deveopment
51055GN5 S07-1004 TO 002-10	Edison Welding Institute	3,000		Research and Deveopment
BOA-NMC-091100199	Concurrent Technologies Corporation/Office of Naval Research	172,598		Engineering Design & Support
BOA-NMC-091200020	Concurrent Technologies Corporation/Office of Naval Research	175,820		Engineering Design & Support

ATTACHMENT 1
FEDERAL INFORMATION REQUEST
NORTHROP GRUMMAN SHIPBUILDING

FISCAL YEAR 2010 FEDERAL CONTRACTS

Federal Contract (Including Subcontracts)	Customer/Federal Agency	Dollar Value		Subject of Contract or Subcontract
		Award	Mod	
BOA-NMC-091200136	Concurrent Technologies Corporation/Office of Naval Research	45,771		Engineering Design & Support
DE-AC09-08SR22470	Department of Energy		800,000,000	ARRA Funding for Savannah River Site/MO of SRS
EB-03-C-2101	Electric Boat/Naval Sea Systems Command		27,106	Submarine & Aircraft Carrier New Construction
EB-05-C-2103	Electric Boat/Naval Sea Systems Command		5,517,060	Submarine & Aircraft Carrier New Construction
EB-05-G-4417-L840	Electric Boat/Naval Sea Systems Command	2,000		Submarine & Aircraft Carrier New Construction
HSCG23-04-J 2DW206	ICGS (USCG)		18,014	Coast Guard New Construction
HSCG23-05-J-2DW056	ICGS (USCG)		19,053,668	Coast Guard New Construction
N00024-00-G-2105-4T28	Naval Sea Systems Command		41	Submarine & Carrier Overhauls & PSAs
N00024-02-C-4004	Naval Sea Systems Command		(26,836)	Hardware and Support Services for Naval Ship Construction & Repair
N00024-05-G-4418-4T45	Naval Sea Systems Command	7,041		Hardware and Support Services for Naval Ship Construction & Repair
N00024-05-G-4418-FY01	Naval Sea Systems Command		(1,214,324)	Hardware and Support Services for Naval Ship Construction & Repair
N00024-05-G-4418-FY03	Naval Sea Systems Command		59,651	Hardware and Support Services for Naval Ship Construction & Repair
N00024-05-G-4418-FY05	Naval Sea Systems Command	1,279,510		Hardware and Support Services for Naval Ship Construction & Repair
N00024-05-G-4418-NU08	Naval Sea Systems Command		39,766	Hardware and Support Services for Naval Ship Construction & Repair
N00024-05-G-4418-NU09	Naval Sea Systems Command		57,187	Hardware and Support Services for Naval Ship Construction & Repair
N00024-05-G-4418-NU09	Naval Sea Systems Command	68,186		Hardware and Support Services for Naval Ship Construction & Repair
N00024-05-G-4418-NU10	Naval Sea Systems Command		137,974	Hardware and Support Services for Naval Ship Construction & Repair
N00024-05-G-4418-NU10	Naval Sea Systems Command	79,583		Hardware and Support Services for Naval Ship Construction & Repair
N00024-06-C-2104	Naval Sea Systems Command		4,607,459	Engineering Design & Support
N00024-06-C-2115-EXEC	Naval Sea Systems Command		2,775,866	Submarine & Carrier Overhauls & PSAs
N00024-07-C-2104	Naval Sea Systems Command		6,038,251	Engineering Design & Support
N00024-07-C-4404	Naval Sea Systems Command		29,909,482	Submarine & Carrier Overhauls & PSAs
N00024-08-C-2100	Naval Sea Systems Command		56,119,503	Submarine & Carrier Overhauls & PSAs
N00024-08-C-2103	BPMI	166,290		TDKM COMMON IETM UPDATES

ATTACHMENT 1
FEDERAL INFORMATION REQUEST
NORTHROP GRUMMAN SHIPBUILDING

FISCAL YEAR 2010 FEDERAL CONTRACTS

Federal Contract (Including Subcontracts)	Customer/Federal Agency	Dollar Value		Subject of Contract or Subcontract
		Award	Mod	
N00024-08-C-2110	Naval Sea Systems Command		3,419,290	Aircraft Carrier New Construction
N00024-09-C-2105	Naval Sea Systems Command		3,235,865	Engineering Design & Support
N00024-09-C-2107	Naval Sea Systems Command		3,382,728	Submarine & Carrier Overhauls & PSAs
N00024-09-C-2116	Naval Sea Systems Command		32,291,711	Aircraft Carrier New Construction
N00024-09-R-2203	NAVSEA	307,000,000		LPD 17 Engineering and Support
N00024-10-C-2102	NAVSEA	96,682,393	6,621,061	688 Planning Yard
N00024-10-C-2308	NAVSEA	170,100,000		DDG 113 Long Lead Time & Material
N00024-91-C-4032	Reactor Plant Planning Yard Services - Naval Sea Systems Command		26,291,452	Engineering and Support
N00024-98-C-2104	Naval Sea Systems Command		18,808,844	Aircraft Carrier New Construction
N00178-04-D-4091/EHP2	NGMS SEAPORT / Naval Surface Warfare Center		374,593	Engineering and Maintenance Support Services
N00406-08-D-8011	FISC Puget Sound - NAVY	383,314		Naval Vessel Maintenance
N32253-10-D-0001	PHNSY	4,216,427		ACCOMPLISH MAINTENANCE, REPAIR & MODERNIZATION OF US NAVY SUBMARINES
N40025-08-D-8004/034	TECNICO	153,955		USS NEWPORT NEWS- CHILLED STORES SUPPORT
N62793-03-G-0001	Supervisor of Shipbuilding - Newport News		4,803,942	Carrier PSA
N62793-03-G-0001-4T62	Supervisor of Shipbuilding - Newport News		2,285,155	Hardware and Support Services for Naval Ship Construction & Repair
N62793-07-C-0001	Supervisor of Shipbuilding - Newport News		55,352,248	Submarine & Carrier Overhauls & PSAs
PO #NGSB-CG-092109	Adaptive Intelligence Systems	30,000		Research and Deveopment
PO 3018909	Bechtel Marine Propulsion - NAVSEA 08		94,132,403	Engineering Services - Design & Support CVN65 & 688 CLASS
S07-1002-0003	Edison Welding Institute / ONR	301,856		ULTRASONIC TESTING AS ALT TO RADIOGRAPHY

ATTACHMENT 2
FEDERAL INFORMATION REQUEST
NORTHROP GRUMMAN SHIPBUILDING

Federal Contract Information:

Number of Federal Contracts:

Fiscal Year 2008	131
Fiscal Year 2009	117
Fiscal Year 2010	60

Federal Agencies:

Fiscal Year 2008	ARMY, NAVY, DHS/US COAST GUARD
Fiscal Year 2009	NAVY, DOE, DHS/US COAST GUARD
Fiscal Year 2010	NAVY, DOE, DHS/US COAST GUARD

List of Subjects of Federal Contracts:

Fiscal Year 2008	Naval Vessels New Contstruction, Naval Vessels Overhaul & PSAs, Naval Vessels Fleet Maintenance & Ship Repair, Engineering & Design Support, Research & Development, Coast Guard New Construction, Naval Vessel Long Lead Time Material, DOE Site Management
Fiscal Year 2009	Naval Vessels New Contstruction, Naval Vessels Overhaul & PSAs, Naval Vessels Fleet Maintenance & Ship Repair, Engineering & Design Support, Research & Development, Coast Guard New Construction, Naval Vessel Long Lead Time Material, DOE Site Management
Fiscal Year 2010	Naval Vessels New Contstruction, Naval Vessels Overhaul & PSAs, Naval Vessels Fleet Maintenance & Ship Repair, Engineering & Design Support, Research & Development, Coast Guard New Construction, Naval Vessel Long Lead Time Material, DOE Site Management

*** Aggregate Dollar Value of Federal Contracts:**

Fiscal Year 2008	$13,572,915,023
Fiscal Year 2009	$11,861,492,694
Fiscal Year 2010	$1,774,547,517

*Face value at price of all active contracts and modifications thereto held during each respective fiscal year excluding physically complete contracts. Through ~ February for FY 2010.

Federal Grant Information: Northrop Grumman Shipbuilding does not have any Federal Grants.

David K. Heebner
Executive Vice President – Marine Systems
General Dynamics Corporation

Testimony before the
House Armed Services Committee
Seapower and Expeditionary Forces Subcommittee
111th Congress, Second Session

Improving Efficiency in Shipbuilding

Washington, D.C.
March 3, 2010

**NOT FOR PUBLICATION UNTIL RELEASED BY
HOUSE ARMED SERVICES COMMITTEE –
SUBCOMMITTEE ON SEAPOWER AND EXPEDITIONARY FORCES**

Chairman Taylor, Congressman Akin, members of the subcommittee, thank you for your invitation to testify today and for the committee's long history of support for United States shipbuilding.

My objectives today are to, first, provide an introduction to General Dynamics Marine Systems shipyards, and then, as you requested in your invitation letter, comment on the effect the Navy's 30-year shipbuilding plan will have on industrial base capacity, workforce stability, and economies of scale.

Introduction to General Dynamics Marine Shipyards

General Dynamics Marine Systems business segment comprises Bath Iron Works, located in Bath, Maine; Electric Boat, located in Groton, Connecticut and Quonset Point, Rhode Island; and National Steel and Shipbuilding Company, or NASSCO, located in San Diego, California. Combined, these shipyards employ nearly 22,000 people. The group designs, builds and supports submarines, surface combatants, and auxiliary ships for the United States Navy, and commercial ships for U.S.-Flag customers.

BATH IRON WORKS

Bath Iron Works, located on the Kennebec River in Bath, Maine since 1884, delivered its first ship to the United States Navy in 1893. Since then, BIW has built more surface combatants than any other U.S. shipyard, delivering over 400 vessels, including 242 military ships as well as a variety of commercial vessels and private yachts. BIW has built the lead ship for nearly two-thirds of the non-nuclear surface combatant classes since WWII. Today, BIW is the lead designer for both classes of U.S. Navy Destroyers that are currently in production, and BIW's Planning Yard sustains 80% of the Navy's active surface combatant fleet. Bath Iron Works offers the full range of surface combatant Engineering, Design, Production and Life-Cycle support services. BIW plays a key economic role in Maine as it is Maine's largest single-site private employer with over 5,600 highly skilled engineers, designers and shipbuilders having, on average, over 20 years of ship design and construction experience. BIW is currently building DDG 51 Class Destroyers and DDG 1000 Class Destroyers.

ELECTRIC BOAT

Electric Boat Corporation, headquartered in Groton, Connecticut, and with major facilities at Quonset Point, Rhode Island, has been designing and building submarines for the U.S. Navy since 1899. Starting with the first nuclear submarine, the USS NAUTILUS, Electric Boat has delivered 101 of the U.S. Navy's 199 nuclear submarines. Electric Boat designed and built the lead ship for 16 of the 19 classes of nuclear submarines, and has designed the propulsion plant for all but one class. Today at Electric Boat there are over 10,000 engineers, designers, and craftsmen, focused on the design, construction, and life cycle support of nuclear submarines for the U.S. Navy and its allies. Almost 1000 more employees are engaged in various other shipbuilding work, including aircraft carrier propulsion plant design and naval combatant design and engineering. Electric Boat is currently building VIRGINIA Class submarines.

NASSCO

NASSCO in San Diego has designed, built and delivered 136 new ocean-going vessels (Navy and commercial) over the last 50 years and is the only remaining private full service shipyard on the West Coast designing, building and repairing large vessels for the US Navy and commercial customers. The shipyard employs approximately 4,500 engineers, designers, and skilled shipbuilding craftspeople, plus 1,000 long-term, on-site subcontractor partners supporting the shipyard. This makes NASSCO the largest industrial manufacturer in the San Diego area and a strategic resource for the Navy in Southern California. NASSCO personnel provide critical skills for the design and construction of US Navy Auxiliary ships as well as modern commercial ships for US domestic trade. In addition, NASSCO provides important ship repair services for the Navy – a vital role as San Diego has the West Coast's largest concentration of Navy ships. NASSCO is currently building the T-AKE 1 LEWIS AND CLARK Class Dry Cargo /Ammunition ships and a series of commercial double-hulled Product Carriers. NASSCO is designing the Mobile Landing Platform, a ship that will provide enhanced sea basing capabilities across the full range of military operations. Production of the MLP will start in 2011.

The primary objective at General Dynamics' three shipyards is to provide the Navy quality ships that achieve fleet performance requirements and are the best possible value to the American taxpayer.

Navy's 30-Year Shipbuilding Plan (FY11)

When I last testified before this committee in July 2009, I mentioned three aspects that have direct and substantial impact on our shipyards' ability to achieve that goal. They are (1) stability of requirements...stable requirements lead to more mature designs, which reduce production risk and promote efficiency; (2) predictability in funding and scheduling...predictability allows time for planning and commitment of resources that enhance shipbuilding processes, and (3) sufficient volume for efficient production...building enough ships to enable investment in processes, people and facilities to lower costs and maximize the value of each ship we deliver.

While assessment of the industrial base impact of the Navy's new 30-year shipbuilding plan is ongoing, it is apparent that the Navy has worked hard to balance available resources among a broad and diverse set of competing demands. Stability of requirements is implicit in this plan and predictability is enhanced because the plan is based on reasonable assumptions and can be executed. With regard to these two aspects, the plan promotes our ability to provide quality ships at the best possible value.

However, the most challenging aspect of the plan is volume. While we credit the Navy for its balance in allocating available resources, the new plan is funded at levels that build 13 fewer surface ships in the near term when compared to the FY09 shipbuilding plan. Internal to our shipyards, this volume challenge will likely trigger shipyard workforce resizing. External to our shipyards, the volume issue will affect thousands of suppliers who provide the components and commodities essential to ship construction, resulting in reduced economic order quantity and reduced vendor performance. In the end, less volume will inevitably lead to higher shipbuilding costs – not the best possible value for the taxpayer.

This simply reflects the principle of "economy of scale." Over the past decade GD made major capital investments in our shipyards to enable production efficiencies, but the return on these investments to the Navy will be limited without sufficient volume. This is not unique to ship construction, but an unavoidable outcome for any manufacturing enterprise facing similar circumstances.

Impact to GD Shipyards

Electric Boat: As a result of receiving Congressional funding for advanced production and accelerating the procurement rate of VIRGINIA Class submarines to two per year starting in FY 2011, this program is clearly a model for defense acquisition demonstrating the benefits to be gained when combining predictability, stability and volume. Electric Boat delivered the fifth ship of the Class, USS NEW HAMPSHIRE, for 25% fewer manhours than the lead ship, USS VIRGINIA. Our goal is to reduce the schedule span and labor hours by 40 percent. We continue to reduce costs and schedule through a process called design for affordability, and through capital investment and continuous improvement initiatives. The stability, predictability and volume of this program have also preserved critical skills and the industrial base, and contributed to reducing the total ownership costs.

Nonetheless, in the longer term the Navy's 30 Year Shipbuilding Plan potentially has a significant negative impact on the industrial base by reducing attack submarines by 10 ships when compared to the FY09 Plan – a 20% reduction. From our perspective, maintaining the VIRGINIA Class Submarine program at a two per year procurement rate will allow us to capture the production and costs efficiencies that are now well within reach.

Bath Iron Works: Building large surface combatants is a complex undertaking that demands significant resources and infrastructure (including highly skilled people, information systems, processes and facilities) that are in many ways different than those required for other types of ships. BIW is optimized to produce surface combatants efficiently and affordably, and possesses modern, world-class infrastructure unique to the industry. The effectiveness of this optimization is evidenced by the substantial labor hour reductions demonstrated on the DDG 51 program, strong early performance on the DDG 1000 program, and continuous innovation in surface combatant shipbuilding, such as that provided by the Ultra Hall facility.

The consolidation of the DDG 1000 Class construction at BIW will maintain an efficient level of volume for the near term. However, the FY2011 30-Year Shipbuilding Plan would sustain procurement at a rate of only 1.5 DDG 51's per year, representing a 50% reduction in volume for the large surface combatant industrial base. For the majority of the DDG 51 program, ships were procured from two surface combatant shipyards at a sustained rate of at least 3-ships per year. This level of volume represented a balance point where the overhead cost of the significant infrastructure

required to efficiently build surface combatants could be reasonably spread across the ships and result in affordable cost. This, coupled with the enhanced stability provided to the shipyards and suppliers by multi-year procurements beginning in FY1998, provided a solid foundation for affordability. The program described in the new 30-year shipbuilding plan reduces the ability to distribute overhead infrastructure costs and will result in increased cost, meaning fewer Destroyers will ultimately cost more per ship. Also, as a flat or declining volume limits the ability to hire and train the next generation of shipbuilders, apprenticeship programs will decline – an adverse impact that will be felt by the shipbuilding industry and the Navy for years to come.

NASSCO: As a full service shipyard, NASSCO strives to reduce the cyclical nature of the ship construction and repair business by participating in both commercial and military shipbuilding markets, which greatly contributes to establishing continuity for the shipyard's labor force. Through its partnership with a world class Korean shipyard, NASSCO is operating a highly successful commercial Product Carrier program, the only tier one shipyard to achieve this in recent times. In its Naval shipbuilding program, NASSCO has taken advantage of the long run of building two T-AKE supply ships each year since 2006. Benefiting from the lessons learned from the Koreans and from an aggressive and comprehensive cost reduction program, NASSCO has reduced the manhours required to build each successive ship at a rate unmatched by any shipyard in the industry. The end result is that it now takes well less than half the labor hours to build a T-AKE today than it took to build the lead ship. This enables us to deliver the Navy a high quality ship at the best possible value to the taxpayer.

The 30 year shipbuilding plan transitions NASSCO from building T-AKEs to building Mobile Landing Platform (MLP) ships. However, the plan represents a change from two ships per year to half a ship per year, resulting in gaps in production between each of the three planned ships. These gaps will result in cyclical workforce resizing involving a significant portion of NASSCO's production personnel during each production gap. Moreover, initiating the T-AO(X) program some five years after the termination of the T-AKE, where the potential exists for using a hull with considerable commonality, will likely sacrifice many efficiencies which might have been realized. The inherent inefficiencies generated by cyclical workforce resizing, coupled with the fact that each ship will have to absorb the entirety of the shipyard's overhead during its lengthened period of construction, will lead to significantly higher costs to the taxpayer for each MLP.

Summary

Our objective remains unchanged. We will deliver high quality, capable ships to our Navy. The Navy's FY2011, 30-year shipbuilding plan is a good baseline. We will work with the Navy and the Congress to address the volume issues. If additional resources can be made available to increase volume, we are best positioned to meet our objective to provide the best value to the taxpayer.

Mr. Chairman, as you know, shipbuilding is a complex and dynamic process. Your committee's support of multi-year procurement for mature programs, advanced procurement, advance construction authority, and commercial shipbuilding with the assistance of Title XI, will continue to reduce costs for both the government and for shipbuilders. I am proud of the high quality ships General Dynamics' shipbuilders are delivering to our Navy. I invite the committee to visit our shipyards so that our proud workers can show you the magnificent ships they build.

Thank you for this opportunity to testify. I look forward to your questions.

DISCLOSURE FORM FOR WITNESSES
CONCERNING FEDERAL CONTRACT AND GRANT INFORMATION

INSTRUCTION TO WITNESSES: Rule 11, clause 2(g)(4), of the Rules of the U.S. House of Representatives for the 111th Congress requires nongovernmental witnesses appearing before House committees to include in their written statements a curriculum vitae and a disclosure of the amount and source of any federal contracts or grants (including subcontracts and subgrants) received during the current and two previous fiscal years either by the witness or by an entity represented by the witness. This form is intended to assist witnesses appearing before the House Armed Services Committee in complying with the House rule.

Witness name: David K. Heebner

Capacity in which appearing: (check one)

___Individual

X Representative

If appearing in a representative capacity, name of the company, association or other entity being represented: General Dynamics Marine Systems

(Note - Data listed below is believed current as of 25 February 2010)

FISCAL YEAR 2010

Electric Boat 2010

Federal Grant(s) / Contracts	Federal Agency	Dollar Value	Subject(s) of Contract or Grant
2005-340	Advanced Technology Inst.	$873,851	Service Agreement
P.O. 4500323492	NGSB – NN	$142,292	CVN68 Class ATIS CD Development
N00014-10-D-0142	ONR	$570,462	NGIPS Compact Power Conversion
N00024-07-C-2103	NAVSEA	$20,268,820	Reactor Plant Planning Yard Services
P.O. 4661	ACI	$4,168	Shipyard Tool Benchmarking and Best Practices Study
P.O. 4832-A	ACI	$8,300	Emerging Technologies Survey Review
P.O. 9500009346	BBN Technologies	$121,385	Engineering Support for the RBC Program
PL00108950	BPMC-KAPL	$73,610,871	S9G/ANPS
P.O. 6012733	BMPC-KAPL	$1,232,997	KAPL Moored Training Ships MTS
N00024-09-C-2100	NAVSEA	$149,181,680	Common Missile Compartment
P.O. 3000664	Bettis	$295,000	Propulsion Plant Design Yard (PPDY) Services
N00024-03-C-2101	NAVSEA	$571,265	VIRGINIA Class Construction (SSNs 778-783)

N00024-05-C-2103	NAVSEA	$5,394,594	VIRGINIA Class R&D & Follow-Ship LYS
Federal Grant(s) / Contracts	**Federal Agency**	**Dollar Value**	**Subject(s) of Contract or Grant**
N00024-07-C-2107	NAVSEA	$440,999	Submarine Concept Formulation
N00024-09-C-2101	NAVSEA	$330,630,860	OMNIBUS VII
N00024-96-C-2100	NAVSEA	$891,473	VIRGINIA Class Design and Construction (SSNs 774-777)
N00024-04-D-4408	NAVSEA	$141,960	Multiple Award Indefinite Delivery/Quantity
N00024-05-G-4417	SUPSHIP	$8,497,356	Submarine Support BOA (FY06-FY08)
N00024-07-C-4005	NAVSEA	$43,727,922	New England Maintenance Manpower Initiative
N00024-09-C-4404	NAVSEA	$364,699	SSN719 DSRA 1-3
N00024-09-C-4413	NAVSEA	$2,313,247	SSN768 USS Hartford RAV-1
N00024-09-C-4417	NAVSEA	$3,402,446	Five Ship DSRA
N00104-06-G-A751	NAVICP	$3,132,049	SPM/SPU Refurbishment
N62789-07-G-0011	SUPSHIP	$2,257	Nuclear Support Agreement Fiscal Year 2007
N00024-09-2104	NAVSEA	$13,553,765,329	VIRGINIA Block III Construction
N00024-10-C-4302	NAVSEA	$24,999,954	Nuclear Regional Maintenance Dept.

Bath Iron Works 2010

Federal Grant(s) / Contracts	Federal Agency	Dollar Value	Subject(s) of Contract or Grant
N00024-06-C-2303	NAVSEA	$18,000,000	DDG 1000 class services, NGSB Workscope Transition, DDG1001 LLTM
N00024-06-C-2305 /N00024-08-C-2315	NAVSEA	$1,000,000	DDG51 Planning Yard establish and fund SLIN 0403AF for Eng. and Des. Efforts
N00024-06-C-2303	NAVSEA	$4,862,387	Exercise and fund Option SLIN 0026AB Class Logistics
N00024-06-C-2303	NAVSEA	$8,918,576	Establish and fund SLIN 0011AH for NGSB Workscope Transfer
N00024-06-C-2303	NAVSEA	$3,960,502	Establish and fund CLIN 0036 in DDG 1000 for DDG 1001 LLTM

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Federal Grant(s) / Contracts	Federal Agency	Dollar Value	Subject(s) of Contract or Grant
N00024-09-C-2229	NAVSEA	$7,000,000	MLP Systems Design Part 2 (SD2)
WO-2009-7100 (Mod)	CSC	$104,456.00	Notional Command Ship Concept Studies
WO-2009-7108	ATI	$62,962.00	T-AKE ASRS and HRVHMM Study
WO-2008-7228 (Mod)	ATI	$26,731.00	Shipbuilding Industry Working Group

FISCAL YEAR 2009

Electric Boat 2009

Federal Grant(s) / Contracts	Federal Agency	Dollar Value	Subject(s) of Contract or Grant
2004-388	Advanced Technology Inst.	$1,116,871	CNST Base Agreement
2005-340	Advanced Technology Inst.	$12,498	Service Agreements
2007-511	SCRA	$86,000	Cost Sail Cusp
4500308263	Northrop Grumman Shipbuilding, Inc.	$1,548,295	CVN-79 Engineering and Design Support
N00024-07-C-2103	NAVSEA	$19,484,053	Reactor Plant Planning Yard Services
P.O. 1322	SCRA	$25,100	D.O.D. Phase II SBIR Effort
P.O. 186168	Dresser-Rand	$57,759	Magnetic Bearing Engineering Model (MBEM) Phase II
P.O. 4400306128	Raytheon	$15,000	Electro-Optical Assembly
P.O. 4500294414	NGSB-NN	$61,321,024	CVN-78 Detail Design and Construction
P.O. 4500306297	NGNN	$1,759,658	Electrician Support to Northrop Grumman NN
P.O. 4500370708	Raytheon	$38,000	TI-08 SIM/STIM System (M-26920)
P.O. 700204282	GE Global Research	$127,500	Phase 3 Solid State Power Substation Program
P.O. SP-08-002	Superpower, Inc.	$445,000	High Temperature Superconducting Generator FY07
S0005-B2PCOE	Advanced Technology Inst.	$47,818	Shipbuilding Affordability Study
TDL-08-01-2	Louisiana Center for Manufacturing Sciences (LCMS)	$5,000	IME Shipbuilding Production Planning Initiative
P.O. 184027	Northrop Grumman NGES-MS	$250,000	Common Missile Compartment Launcher Test Stand
N00024-09-C-2100	NAVSEA	$85,416,638	Common Missile Compartment
KS6002608	KAPL	$76,100,000	Kesselring Site (KSO) Maintenance
P.O. 3020146	Bechtel Marine Propulsion	$22,750	Provide Radical Training to Idaho Falls

P.O. 6011956	BMPC-KAPL	$3,805,413	KAPL GFE Repair Bill
P.O. 6012733	BMPC-KAPL	$11,562,123	S&G/MARF Engineering Design Services
PL00108950	BMPC-KAPL	$15,573,334	US/UK NGNPP Engineering Services
P.O. 3000664	BETTIS	$1,272,430	Propulsion Plant Design Yard (PPDY) Services
N00024-08-R-4407	NAVSEA	$33,685,395	Proposal for the Planning and Execution of SSN719
83W005716	L-3	$1,032,167	Paint Four Outboard Transducer Array Assemblies
N00024-00-C-2112	NAVSEA	($504,491)	VIRGINIA Follow-Ship Lead Yard Services, R&D Propulsion Study
N00024-02-C-2206	NAVSEA	($595,180)	Force Protection Effort
N00024-08-C-2101	NAVSEA	$125,324	VIRGINIA Class Construction (SSNs 778-783)

Federal Grant(s) / Contracts	Federal Agency	Dollar Value	Subject(s) of Contract or Grant
N00024-04-C-2100	NAVSEA	$21,402,114	OMNIBUS V1
N00024-05-C-2103	NAVSEA	$15,362,892	VIRGINIA Class R&D & Follow-Ship LYS
N00024-09-C-2101	NAVSEA	$1,779,936,399	OMNIBUS VII
N00024-96-C-2100	NAVSEA	$538,226	VIRGINIA Class Design and Construction (SSNs 774-777)
N00024-02-C-2901	NAVSEA	($199,360)	SSGN Design & Conversion
N00024-02-C-4063	SUPSHIP	$7,973,300	GOCO Shipping Port (ARDM-4)
N00024-04-D-4408	NAVSEA	$1,815,546	Multiple Award Indefinite Delivery/Quantity
N00024-05-G-4417	SUPSHIP	$26,401,961	Submarine Support BOA (FY06-FY08)
N00024-06-C-4003	NAVSEA	$25,163,908	Nuclear Regional Maintenance Department (NRMD)
N00024-07-C-4005	NAVSEA	$40,447,532	New England Maintenance Manpower Initiative
N00024-07-C-4401	NAVSEA	$2,650,000	Navy Certified Dry Dock Availability
N00024-08-G-6321	NAVSEA	$1,483,167	Basic Ordering Agreement to support Naval Shipyard
N00024-09-C-4404	NAVSEA	$34,496,763	SSN 719 DSRA 1-3
N00024-09-C-4413	NAVSEA	$436,380	SSN768 USS Hartford RAV-1
N00024-09-C-4417	NAVSEA	$1,734,906	Five Ship DSRA
N62789-07-G-0001	SUPSHIP	$6,083,477	Nuclear Support Agreement Fiscal Year 2007

Bath Iron Works 2009

Federal Grant(s) / Contracts	Federal Agency	Dollar Value	Subject(s) of Contract or Grant
N00024-09-C-2302	NAVSEA	$403,290,937	LCS FLIGHT 0+ SHIP Construction (LCS-4)

Contracts			Grant
N00024-07-C-2107	NAVSEA	$59,966,798	Submarine Concept Formulation
2004-388	Advanced Technology Inst.	$2,073,300	CNST Base Agreement
2005-340	Advanced Technology Inst.	$64,980	Service Agreement
2007-388	Advanced Technology Inst.	$378,922	Design for Production Seamless Delivery
2007-511	SCRA	$621,547	Cost Sail Cusp
2008-329	Advanced Technology Inst.	$100,000	Improving Design – Analysis Data Management
LS08-06	Penn State/Applied Research Lab	$303,552	Improved Affordability of Sheet Metal Products
MRTS-07	Global Maritime Transportation School	$213,079	Multipurpose Reconfigurable Training System (MRTS)
Federal Grant(s) / Contracts	**Federal Agency**	**Dollar Value**	**Subject(s) of Contract or Grant**
N00014-08-C-0085	ONR	$3,995,637	Development and Assessment of Emerging Ship
N00030-08-C-0031	Strategic Systems Program	$41,115,733	US/UK Trident SWSS and AWSS Technical Services
N00167-99-D-0073	Carderock	$416,960	Sub Design and Assessment
080300158	CTC	$50,679	Steel Casting Optimization
P.O. 180109	NGMS	$98,238	SSGN MAC Spares Procurement Program
P.O. 180255	NGMS	$51,200	Sub Launched GSM Support Study
P.O. 180265	NGMS	$189,540	SSGN MAC Spare Parts
P.O. 4500273727	Westinghouse	$23,150,659	Engineering Services
RS08-100	Rite-Solutions	$788,251	Human Systems Integration (HSI) Tool Kit
S07-1003	EWI	$208,062	Fabrication Welding Proposal
KS6002608	KAPL	$32,800,000	Kesselring Site (KSO) Maintenance
PL00108950	BPMC-KAPL	$45,055,666	S9G/ANPS
P.O. 3000664	Bettis	$13,374,138	Propulsion Plant Design Yard (PPDY) Services
83W005716	L-3	$21,977	Paint Four Outboard Transducer Array Assemblies
P.O. 14-1010-275	BAE Systems Hawaii Shipyard	$49,920	Weld Support for USS CHOSIN (CG-65)
P.O. 4500279118	Northrop Grumman Newport News	$19,161,835	Trade Support to NGNN
P.O. 4500291170	Northrop Grumman Newport News	$230,900	Radcon Tech Support to NGNN
N00024-08-C-2101	NAVSEA	$56,775,853	VIRGINIA Class Construction (SSNs 778-783)
N00024-04-C-2100	NAVSEA	$12,970,003	OMNIBUS VI
N00024-05-C-2103	NAVSEA	$20,396,218	VIRGINIA Class R&D & Follow-Ship LYS
N00024-07-C-2107	NAVSEA	$2,255,000	Submarine Concept Formulation
N00024-96-C-2100	NAVSEA	$6,378,456	VIRGINIA Class Design and Const (SSNs 774-777)
N00024-02-C-2901	NAVSEA	$237,784	SSGN Design & Conversion
N00024-96-C-2108	NAVSEA	$122,579	SSN23 Construction & MMP Design

N00024-02-C-4063	SUPSHIP	$5,722,086	GOCO Shipping Port (ARDM-4)
N00024-04-D-4408	NAVSEA	$24,304,861	Multiple Award Indefinite Delivery/Quantity
N00024-05-G-4417	SUPSHIP	$69,258,971	Submarine Support BOA (FY06-FY08)
N00024-06-C-4003	NAVSEA	$21,096,197	Nuclear Regional Maintenance Department (NRMD)
N00024-07-C-4005	NAVSEA	$37,291,802	New England Maintenance Manpower Initiative
N00024-07-C-4401	NASVEA	$1,300,000	Navy Certified Dry Dock Availability
N00024-08-G-6321	NAVSEA	$2,018,048	Basic Ordering Agreement to support Naval Shipyard
N00104-06-G-A751	NAVICP	$2,242,257	SPM/SPU Refurbishment
N62789-07-G-0001	SUPSHIP	$870,736	Nuclear Support Agreement Fiscal Year 2007

Bath Iron Works 2008

Federal Grant(s) / Contracts	Federal Agency	Dollar Value	Subject(s) of Contract or Grant
N00024-06-C-2303	NAVSEA	$1,149,000,000	DDG 1000 Construction and mid forebody Construction, class services
N00024-04-G-2400	NAVSEA	$9,500,000	ER 14 PSA 04 Hull 7518 DDG 106
N00024-04-G-2400	NAVSEA	$9,300,000	ER 12 PSA 04 Hull 7517 DDG 104
N00104-08-D-ZD00 DO 01	NAVICP	$7,900,000	DDG 51 – Refrigeration Contract Logistics Support Order 01
N00024-06-C-2222	NAVSEA (Northrop Grumman Ship Systems Prime)	$6,800,000	Subcontract for LPD 24 Unit Construction
N00024-08-C-2218	NAVSEA	$3,000,000	Joint High Speed Vessel Preliminary Design
N00104-08-D-ZD00 DO 02	NAVICP	$1,400,000	DDG 51 – Refrigeration Contract Logistics Support Order 02
14-0415-300	NAVSEA (BAE Systems Prime)	$900,000	Aluminum Welders Leased Labor
N00024-04-G-2400	NAVSEA	$456,000	ER 13 PSA 04 Hull 7487 DDG 103
2005-339 Task # 10	NSRP (ATI Prime)	$10,000	NAVSEA Specification Review
2005-339 Task #11	NSRP (ATI Prime)	$3,000	Electrical Working Group

NASSCO 2008

Federal Grant(s) / Contracts	Federal Agency	Dollar Value	Subject(s) of Contract or Grant

WO-2008-7104	AMSEC	$85,840.00	Diagram Work – T-AGM 25
WO-2008-7105	ATI	$16,887.00	NAVSEA Specification Review Team
WO-2008-7225	DDL Omni	$13,674.00	Integrated Ramp Technology Study
WO-2008-7228	ATI	$153,153.00	Shipbuilding Industry Working Group
WO-2008-7230	Fraser's Boiler Service	$14,975.00	Naval Architect Services for USNS *Kilauea* Decommissioning
WO-2008-9703	ATI	$1,392,003.00	Large Scale Computer Modeling System for Shipbuilding Study
N00024-08-C4410	NAVSEA	$109,813.00	LSD 41/49 Class Modernization
N00024-02-C-2300	NAVSEA	$458,789,527	Fully exercise T-AKE 10 option
N00024-02-C-2300	NAVSEA	$100,000,000	Exercise T-AKE 11 LLTM option
N00024-02-C-2300	NAVSEA	$100,000,000	Exercise T-AKE 12 LLTM option

Federal Contract Information: If you or the entity you represent before the Committee on Armed Services has contracts (including subcontracts) with the federal government, please provide the following information:

Number of contracts (including subcontracts) with the federal government:

Current Fiscal year (2010): 32
Fiscal year 2009: 65
Fiscal year 2008: 62

Federal agencies with which federal contracts are held:

Current Fiscal year (2010): See Contract List
Fiscal year 2009: See Contract List
Fiscal year 2008: See Contract List

List of subjects of federal contract(s) (for example, ship construction, aircraft parts manufacturing, software design, force structure consultant, architecture & engineering services, etc.):

Current fiscal year (2010): Ship Design, Construction, Maintenance and Conversion
Fiscal year 2009: Ship Design, Construction, Maintenance and Conversion
Fiscal year 2008: Ship Design, Construction, Maintenance and Conversion

Aggregate dollar value of federal contracts held:

Current Fiscal Year (2010)	$14,250,780,385
Fiscal year 2009	$4,201,795,448
Fiscal year 2008	$2,356,567,296

Federal Grant Information: If you or the entity you represent before the Committee on

Armed Services has grants (including subgrants) with the federal government, please provide the following information:

Number of grants (including subgrants) with the federal government:

Current fiscal year (2010):	None
Fiscal year 2009:	None
Fiscal year 2008:	None

Federal agencies with which federal grants are held:

Current fiscal year (2010):	N/A
Fiscal year 2009:	N/A
Fiscal year 2008:	N/A

List of subjects of federal grants(s) (for example, materials research, sociological study, software design, etc.):

Current fiscal year (2010):	N/A
Fiscal year 2009:	N/A
Fiscal year 2008:	N/A

Aggregate dollar value of federal grants held:

Current fiscal year (2010):	N/A
Fiscal year 2009:	N/A
Fiscal year 2008:	N/A

WITNESS RESPONSES TO QUESTIONS ASKED DURING THE HEARING

MARCH 3, 2010

RESPONSE TO QUESTION SUBMITTED BY MR. TAYLOR

Mr. HEEBNER. The vast majority of employees at the three General Dynamics shipyards have been hired from within their local communities.

No H2B visa holders (temporary foreign production workers) are employed at the General Dynamics shipyards.

All employees at two of our shipyards, Bath Iron Works and Electric Boat, are US citizens.

Due to its' location and unique regional demographics, GD–NASSCO's workforce consists primarily of US citizens but also includes a number of legal permanent residents (green card holders)—eligible to pursue naturalization (US citizenship), and all of whom have gone through company background checks. [See page 49.]