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**NAVY SHIPBUILDING AND IMPACTS  
ON THE DEFENSE INDUSTRIAL BASE  
IN A TIME OF FISCAL UNCERTAINTY**

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HEARING

BEFORE THE

SUBCOMMITTEE ON OVERSIGHT  
AND INVESTIGATIONS

OF THE

COMMITTEE ON ARMED SERVICES  
HOUSE OF REPRESENTATIVES

ONE HUNDRED TWELFTH CONGRESS

SECOND SESSION

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**NAVY SHIPBUILDING AND IMPACTS ON THE DEFENSE  
INDUSTRIAL BASE IN A TIME OF FISCAL UNCERTAINTY**

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HOUSE OF REPRESENTATIVES,  
COMMITTEE ON ARMED SERVICES,  
SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS,  
*Washington, DC, Tuesday, September 11, 2012.*

The subcommittee met, pursuant to call, at 2 p.m., in room 2212, Rayburn House Office Building, Hon. Rob Wittman (chairman of the subcommittee) presiding.

**OPENING STATEMENT OF HON. ROB WITTMAN, A REPRESENTATIVE FROM VIRGINIA, CHAIRMAN, SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS**

Mr. WITTMAN. I call to order the House Armed Services Committee's Subcommittee on Oversight and Investigations. We will begin our deliberations. We do have some votes coming up, gentlemen, so we are going to try to get under way on time and—

Mr. CONAWAY. Is that a nautical term?

Mr. WITTMAN. We are in the spirit of the hearing.

Before I begin the hearing, I would like to note today's importance in our Nation's history. Today is the 11th anniversary of the terrorist attacks of September 11th. For 11 years now, our All-Volunteer Force has been engaged in combat operations requiring cyclical deployments. Some of our sailors, soldiers, airmen, and marines have deployed 4, 5, even 6 times; some have even been called upon to serve on 12 or 13 combat deployments.

We owe a debt of gratitude, thanks, and unwavering support to the men and women of our Armed Forces and their families, a debt that can never be repaid. These men and women and their families epitomize the United States of America, and their courage, bravery and commitment, work ethic, pride and professionalism, which are characteristics that continue to make this Nation great, are exhibited every day in what they do for our Nation.

You need look no further than some of the names of the newest ships in our fleet to understand the honor that is paid to the men and women that made the ultimate sacrifice for this country over the past 11 years, names such as the USS *Jason Dunham*, DDG 109; and USS *Michael Murphy*, DDG 112; and USS *Rafael Peralta*, DDG 115. These ships will serve this Nation for the next 30 to 40 years, and the service, sacrifice, and legacy of these men will never be forgotten.

Our thoughts and prayers are with all of the families who lost loved ones on September 11, 2011, our All-Volunteer Force and their families. Never has so much been sacrificed by so few for so many for so long.

With that as our backdrop, I can think of no better topic to discuss than the 30-year shipbuilding plan and concerns I have had regarding our defense industrial base. Over the last year this subcommittee has held two hearings, conducted numerous briefings, and facilitated many engagements with the Department of the Navy and industry and traveled to shipyards across the country to learn firsthand about how effective DOD's 30-year plan is and how it impacts our national defense industrial base. We learned that the annual plan is critical to establishing priorities and identifying challenges that need to be addressed in both the short and long term. We also learned that historically the plans have played an integral role in leading to programmatic improvements and cost savings over time.

I would like to take this time to thank all of these yards for their hospitality and professionalism as they shared with us their enthusiasm for their trade and their commitment to building the best Navy in the world.

This hearing is focused on the 30-year plan's impact on our shipyards and closes out what I believe has been a valuable effort in identifying challenges and concerns so that we in Congress can make decisions based on fact rather than speculation. Critical to this effort were oversight visits to Electric Boat in Groton, Connecticut; Bath Iron Works in Bath, Maine; NASSCO [General Dynamics National Steel and Shipbuilding Company] in San Diego, California; Huntington Ingalls Industries in Pascagoula, Mississippi; Austal in Mobile, Alabama; and Huntington Ingalls Industries in Newport News, Virginia. Those yards build our Navy ships and submarines and do an absolutely fantastic job at their trade.

In my view, nothing takes the place of "on the ground" observations and the opportunity to speak frankly with the people responsible for the day-to-day operations, particularly in an industry as unique and critical to our Nation as shipbuilding.

As we all know, warship planning, design and construction is one of the most complex industrial endeavors a nation faces when determining national and maritime strategy. Whether we are building submarines, amphibious ships, destroyers, logistics ships, or aircraft carriers, we can't get the job done without an industrial base that has the talent and intellect to solve unique design and engineering problems. Shipbuilding is an art form and a perishable skill. It is done by the most highly trained and experienced corps of engineers and tradesmen in the world. It is supported through business and industry spanning 50 States and designed and engineered by our greatest asset: the American people.

After conducting our oversight visits, it was clear to me that while American ingenuity, creativity and initiative are alive and well in our shipyards, it is also clear to me that challenges still exist. In a constrained fiscal environment facing the dire impacts of sequestration, many in industry are considering forced layoffs, contract renegotiations, disruptions to production, and poor future vendor supply prospects.

This afternoon the subcommittee will focus on maintaining a robust and sustainable industrial base capable of executing the Navy's shipbuilding plan and our national strategic objectives, particularly as we pivot to Asia. As articulated in the final report

of the QDR Independent Panel: “A robust U.S. force structure, one that is largely rooted in maritime strategy . . . will be essential.” I look forward to hearing your perspectives on the challenges we face, including planning for surge capacity and recapitalization of the fleet.

The focus of this hearing is not to dive into specific programs and the nuances and challenges of certain platforms; this is the duty and responsibility of another subcommittee. The goal here today is to focus on the macro level of shipbuilding and discuss the impact on the defense industrial base in a time of fiscal uncertainty.

The one lesson we have learned during our visits to all the shipyards is the delicate execution and attention to detail that must be displayed while progressing through the planning process. A balance must be achieved in order to attain a sustainable workload, workforce, all while producing a capable and effective platform. The industrial capacity at these yards and the supply chains that support them are unique. It is imperative that as we move forward and shift to an Asia-Pacific-centric strategy, that we effectively balance the planning process with the industrial base capacity that is needed to achieve maritime and national security success in the 21st century.

Secretary Stackley, Rear Admiral Eccles, thank you for being here today. Thank you for your continued distinguished service to our Nation. Each of you, along with Vice Admiral Blake, who has appeared before this committee in the past, understands ships, and you know this business. We appreciate your expertise and insight on this very important matter. The bottom line is this: Ships are different from many perspectives particularly in acquisition and procurement. As you gentlemen note, “Shipbuilding programs do not have the opportunity to build full-scale prototypes.” The United States Navy is the only service that will commission a prototype and then take it to war.

I look forward to your testimony, and I hope that we can have a thoughtful and meaningful dialogue on these important issues.

[The prepared statement of Mr. Wittman can be found in the Appendix on page 27.]

Mr. WITTMAN. As a matter of business, before we get started, I have a quick administrative matter to address. I anticipate that there will be members of other subcommittees that will join us, and I would like to ask for unanimous consent that they be allowed to participate.

Absent objection, it is so ordered. I will recognize these Members at the appropriate times for 5 minutes after all Oversight and Investigations Subcommittee members have had an opportunity to question the witnesses.

And with that, gentlemen, I will turn to you for your opening statements, and, Secretary Stackley, we will start with you.

**STATEMENT OF HON. SEAN J. STACKLEY, ASSISTANT SECRETARY OF THE NAVY, RESEARCH, DEVELOPMENT AND ACQUISITION; AND RADM THOMAS J. ECCLES, USN, CHIEF ENGINEER AND DEPUTY COMMANDER FOR NAVAL SYSTEMS ENGINEERING, NAVAL SEA SYSTEMS COMMAND, U.S. NAVY**

Secretary STACKLEY. Chairman, Representative Conaway, thank you for the opportunity to appear before you today to address the Department of the Navy shipbuilding and the defense industrial base. With permission of the subcommittee, I propose to provide a brief joint oral statement and submit a separate formal statement for the record.

Today's Navy is a battle force of 286 ships, nearly half of which are deployed or under way on any given day supporting operations in Afghanistan; providing maritime security along the world's vital sea lanes of communication; missile defense in the Mediterranean and Sea of Japan; intelligence, surveillance, and reconnaissance where needed as needed. They are conducting antipiracy patrols, global partnership stations, humanitarian assistance operations, providing global presence at sea and with embarked Marine Expeditionary Forces ready to move ashore.

They are training to ensure constant readiness in preparation for the next deployment, next operation, and all the while they are quietly, reliably on patrol providing strategic deterrence.

The Navy's long-range shipbuilding plan, submitted annually with the budget, outlines the requirements for building and sustaining the balanced force of nuclear aircraft carriers and submarines, surface combatants, amphibious assault ships, auxiliary and support ships that provide our sailors and marines the capability and the capacity needed to sustain these operations and maintain our maritime superiority in support of our Nation's defense strategy.

This objective is cast alongside the fiscal realities that come with the Budget Control Act of 2011, and so when shaping our shipbuilding plan to reflect the priorities of the Department's strategic guidance, there is an overarching requirement that we remain relentlessly focused on improving affordability in our shipbuilding programs. Further, as this committee is well aware, the strength of our shipbuilding plan is closely coupled with the strength of our shipbuilding industrial base.

Naval warship design and construction is arguably the nation's most complex heavy industry. The range of capabilities that characterize today's fleet require an industrial base with extraordinarily diverse manufacturing capabilities underpinned by a skilled workforce and a unique design and engineering capability. Accordingly, in the course of balancing resources and requirements in the formulation of the shipbuilding plan, the effect of program decisions on the industrial base must be carefully weighed.

This industrial base comprises nominally a dozen new construction shipyards building our battleforce ships, and a greater number of private and public repair shipyards maintaining and modernizing the fleet, in total employing about 120,000 skilled workers at shipyards in our East, West and Gulf Coasts and the Great Lakes.

To this number we must also add the skilled labor responsible for developing and manufacturing the radar, command and control

communications and weapons systems that give each of our ships the warfighting edge that comes with our technical superiority.

And finally, we must add the skilled labor that stretches virtually across the country responsible for manufacturing the full range of critical warship components and equipments, from heavy forgings and castings to reactor compartments and propulsion engines, right down to shock-qualified circuit breakers and specialty hardened steel.

Compounding the technical and manufacturing challenges inherent to shipbuilding, ships are procured at very low annual production rates. Their construction requires significant capital investment and infrastructure. Competitive opportunities are limited, and depending on ship type, production of a single ship may require from 5 to as long as 10 years to complete, with ship unit costs measured in the billions. And skilled trade workers take over 5 years to train and to develop, so, if lost, they are not easily replaced.

Meanwhile, developmental risks that other major programs are able to retire through build and test of a prototype unit must be retired through the production of the lead ship of each new ship class.

The Navy's shipbuilding plan must account for these unique characteristics when considering the effect of the plan on the industrial base. To this end, the Navy assesses the industrial base sector by sector and tier by tier, monitoring the health of the shipbuilders and major suppliers. In doing so, the Navy examines not only production labor employment, but also engineering capabilities, facility capabilities and efficiency, overall skill and experience of the workforce, and, as warranted, financial strength.

The objective is to arrive at a plan which provides stability for the industrial base on meeting the Navy's prioritized shipbuilding requirements. Stability translates into retention of skilled labor, improved material purchasing and workforce planning, strong learning curve performance, and the ability for industry to invest in facility improvements, all resulting in more efficient ship construction and a more affordable shipbuilding program.

Through measures such as multiyear procurement of the DDG 51 [*Arleigh Burke* class guided missile destroyer] and *Virginia* class ships, the DDG 1000 [*Zumwalt* class guided missile destroyer] swap/DGG 51 Restart Agreement, the Littoral Combat Ship dual block buy, the Mobile Landing Platform modification for the Afloat Forward Staging Base, the ongoing effort to develop an optimal build plan for aircraft carrier construction, incentives for capital investment in shipbuilding facilities, and investments in industry-wide manufacturing process improvements through the National Shipbuilding Research Program, the Navy has worked with the shipbuilding industry to try to maintain stability in procurement, balance workloads, improve affordability, and induce more efficient utilization of industrial base capacity.

In summary, the U.S. shipbuilding industrial base is a strategic national asset, providing our Navy and Marine Corps the highly capable warships required by the nation's defense strategy. Accordingly, in the course of balancing resources and requirements in the formulation of the shipbuilding plan, the Department carefully

weighs the effects of program decisions on the industrial base to ensure our nation maintains the skills, capabilities, and capacities critical to meeting the needs of our national security now and for the future.

Thank you, sir.

[The prepared statement of Secretary Stackley and Admiral Eccles can be found in the Appendix on page 30.]

Mr. WITTMAN. Thank you, Secretary Stackley. We have votes, so we are going to recess until the votes are finished, and then we will reconvene when we arrive back from votes, so thank you so much for your patience. We will ask that you endure with us while we walk across the street and vote, and we will be back shortly. Thank you.

Secretary STACKLEY. Sure. Thank you.

[Recess.]

Mr. WITTMAN. We will reconvene the House Armed Services Committee Subcommittee on Oversight and Investigations.

Admiral Eccles.

Admiral ECCLES. Sir, Mr. Stackley's statement is our joint statement, and we appreciate your interest in the matter, and we look forward to your questions.

Mr. WITTMAN. Gentlemen, thank you, and thanks again for your patience and understanding as we navigate today's technologies.

I will begin with questions, and then we will move to the Members. Secretary Stackley, I will start with you. If you look at where we are today with needs within our naval fleet, looking at the need for a surge construction capacity, looking at from time to time national disasters that create demand for our ships, looking at the strategic pivot to the Pacific, the question is, is do you believe that we have the proper strategic laydown for our new-construction shipyards in that realm of capacity? And are you satisfied that that capacity is sufficient on both coasts? And if you were to have a 30-year shipyard plan, would that plan properly reflect the nation's needs, the strategic laydown needs, not only today, but how would you propose that it would meet those potentially in the future, and how do those needs for the strategic laydown change if you were to put together a 30-year shipyard plan?

Secretary STACKLEY. Yes, sir. Let me first draw on the 30-year shipbuilding report, I will call it the reference document. The effort that goes into building that plan before it comes over as a report to Congress involves Navy, Marine Corps, OSD [Office of the Secretary of Defense], starting with top-tier documents regarding the defense strategy, and this year in particular regarding the defense strategy that was released coincident with the 2013 budget coming to the Hill, considering the rebalance towards the Pacific.

We start by identifying not just numbers, but the force mix, the capability by platform required to meet that defense strategy. Then we have to overlay upon that some realization of fiscal constraints. And near term, those definitely drive the decisions inside the FYDP [Future Years Defense Program]. The top line ends up becoming a very important consideration and constraint as we build the program plan. Longer-term uncertainty starts to take over in that regard.

So when we talk about the strategic laydown, and the capacity, and working the two coasts, that dialogue all takes place within I will call it fiscal realities. So we have the overarching guidance of the strategic defense guidance, and we have the overarching constraint associated with budget reality, and across the two we arrive at a balanced force that we can not just build, but we have to be able to sustain it, what the CNO [Chief of Naval Operations] refers to as wholeness. It is not just about platforms, it is about capabilities and about wholeness in the fleet in service.

So we balance what we can afford to build with what we can afford to sustain, maintain and operate across a mix of ships, looking at the mix of missions, because we have to size ourselves for the major combat operations that are considered, but also to deal with the routine operations globally day in, day out.

So a long, roundabout way to get to your question, I think it is about balance; when we talk about optimizing, it is about balancing requirements with resources, looking at the force structure, looking at the industrial base, looking at the missions. That brings with it a measure of risk. And so at the same time, we have to deal with mitigating the risk near-term and long-term.

In the near term we are working with the Hill on those risk areas. In the long term we have to take advantage of the time we have available to address whether it is a cost risk or an operational risk that we are staring at as a result of the force structure that we can afford.

Mr. WITTMAN. Thank you.

Let me ask another question. If you look and take into consideration how unique shipbuilding is and look at the current process of procurement, is there efficiency in directing procurement to specific shipyards? And when you look at the uniqueness of the classes of ships—and I ask that in the context, and you mention it in your opening statement, that there is essentially uniqueness in the procurement process. And if we go to an open competition for ships, the question is if you do that, and one of the yards wins, and then the capacity of the other yard is so low that it can't sustain that particular yard, and then you have that capacity that essentially leaves because of that direct competition, does that help us maintain the necessary capacity growing in the future?

And we all know now as we look at the capacity across the board, each of the yards kind of has its lanes that it operates in. Its capability of operating outside those lanes is constrained at least in the near term. So I wanted to get your perspective on the efficiency in directing procurement to specific shipyards based on their lanes of expertise or the direct open competition, obviously all driven by, as you pointed out in your opening statement, driving down costs.

Secretary STACKLEY. Yes, sir. So let us start with, again, requirements, the balanced force. We have outlined what we consider to be a balanced force of about 300 ships inside the report: 11 carriers, 48 attack boats, 10 to 14 "boomers" [ballistic missile submarines] depending on where we are across the 30 years, about 90 large surface combatants, 55 LCSs [littoral combat ship], we need a 33-ship amphib [amphibious] force to ensure 2 MEB [Marine Expeditionary Brigade] lift capability, and then about 29 support ships. That is the balanced force.

Now, the way we go about procuring it, if I go directly to your question, if you go call it class by class, start with carriers, one builder of aircraft carriers for the Nation, we are going to build carriers one every 5 years. That is what we need to sustain an 11-carrier force out through the 2040 timeframe. That is single source. What we need to do is manage the workload at that shipyard for aircraft carriers.

But there is much more than just new construction that is taking place at Newport News. We have an RCOH [Refueling and Complex Overhaul] about every 3 years, and they are also involved in submarine construction. And now we start the decommissioning of nuclear carriers. So the total workforce at Newport News is more than just carrier new construction. So as we look at their challenges, their workload, their skill sets, we have to look across all that they have got under construction and in overhaul.

Submarines. When we get to submarines, we want dual sourcing for the nation, and this decision was made back in the beginning of the *Virginia* program, and so we, in fact, do have dual sourcing. It is not competitive, it is through a teaming agreement with the two shipyards. At the time the teaming agreement was struck, we were literally building less than one submarine per year, frankly an inadequate rate of production to support that size industrial base efficiently, but the Nation was willing to pay that premium to keep two shipyards with that capability.

Now we have been able to ramp up to two boats per year, a more efficient rate of construction, across the two shipyards. And, in fact, when you consider their workload, submarine construction is very robust right now, particularly as we approach the added program associated with replacing the *Ohio* class within the next decade.

Moving on to surface combatants, dual-sourcing surface combatants, so Bath Iron Works and Ingalls. This decision, again, was made back a couple of decades ago that we are going to keep two shipyards building surface combatants. And each opportunity that we have to revisit that, we conclude that it is in the Nation's best interest to keep two builders building surface combatants, and then it is incumbent upon the Navy working with industry to ensure there is adequate workload to support efficiency, but also that we are no longer building three to five destroyers per year. So the shipyards are going to have make some adjustments in terms of their capacity, their level of efficiency given the near- and longer-term projections for surface combatant construction.

It gets more difficult when you start looking at amphibians and auxiliaries, and this is where I will tell you my concern today is greatest. On the amphibious shipbuilding side, we have signed a contract for the final of the LPD 17 class [Landing Platform Dock]. We have the LSD class [Landing Ship, Dock] is in operation and in service, and they are not due for replacement until the mid-2020s, and the big-deck amphibians are at a build rate of about one every 4 to 5 years.

What that creates is we do not have the steady-state, steady-flow workload that we like to put through what is today a single amphibious shipbuilder, Ingalls, and looking at Ingalls and Avondale as a single operation. And so there are some challenges in the longer term, the back end of this decade, when it comes to amphib-

ious ships. It receives a lot of attention inside the Department of the Navy as well as with the Navy and industry on how do we posture ourselves for that period after the completion of the LHA 7 [USS *Tripoli* large-deck amphibious assault ship], which is now under contract, and the completion of the LPD 17 class in the next few years.

And similarly on the auxiliary side, we have one shipbuilder today that is building auxiliary ships, NASSCO. NASSCO is currently completing a very successful production run of the T-AKE program [Tanker—Dry Cargo and Ammunition], and they are off to a great start on the Mobile Landing Platform class of ships, which is literally we have three MLPs [mobile landing platform] authorized and appropriated. We are going forward with a request for a fourth. But that is the full extent of that ship class, and it is a few years beyond MLP before there is another auxiliary program.

So the type of challenge that we have got inside of the Department of the Navy is wrestling with that potential gap to our industrial base, other challenges within the shipbuilding top line, and then the opportunities to be able to pull work to the left to build that bridge for those critical shipbuilders.

Mr. WITTMAN. Very good. Thank you, Secretary Stackley.

Ms. Hanabusa.

Ms. HANABUSA. Thank you, Mr. Chair.

Along the line that you were saying, I visited NASSCO, and I got their nice little graph about their concerns about the dips and where the military is not building. I think this is what you are talking about with the auxiliary base.

And in that situation, what they were hoping for was to be sort of replaced with commercial—the commercial building so that we would have a constant, and we would not lose really the, for lack of a better description, the talent pool that we would normally lose if we go beyond a certain point. So this then brought in, of course, the discussions on the Jones Act, which, of course, affects our cargo ships and the commercial base.

So given the fact that the military has a strong sense about maintaining, for example, and keeping MLPs, and keeping everything going, keeping our first-tier shipbuilders healthy, which is what your statement says, that they are going to be healthy, but then we come to the second-tier level, the auxiliaries and the amphibious, we have these potential gaps.

So do you feel that the Government itself should take a position to strongly encourage and again maintain the Jones Act capabilities requirements so that we would be able to see the constant or hopefully have the commercial needs then meet those peaks and valleys that we have?

Secretary STACKLEY. Yes, ma'am. Let me first, specifically with regards to NASSCO, very clearly NASSCO needs more than just Navy auxiliary shipbuilding to remain a viable new-construction shipyard. And part of their business strategy, and, frankly, part of our industrial base strategy working with NASSCO, is that Navy shipbuilding will provide a base, but they will need commercial shipbuilding over and above the Navy program.

And so we have with NASSCO what is referred to a shipbuilding capabilities preservation agreement that takes the overhead associ-

ated with Navy shipbuilding work and provides NASSCO the ability to bring commercial work in over and above the Navy work without having to further adjust the overhead except as outlined in the agreement with the Navy. That gives them the opportunity to be more competitive for commercial work.

You raised the question on Jones Act shipbuilding. The Navy has been and continues to be a strong supporter for Jones Act shipbuilding. One of the challenges that the Nation is wrestling with right now is that a lot of the shipping where the owners would be coming to our shipbuilders through the Jones Act is being held up because of the economic picture.

Ms. HANABUSA. And that is exactly, I guess, the issue, because that is where we start to have MARAD [United States Maritime Administration] and loan guarantees, because for most of the commercial shipbuilders, they need to be able to access MARAD and the loan guarantees.

So has there been any consideration given to maintain the shipbuilding capabilities as to whether some of that responsibility, whether Congress should consider shifting it partially or looking at it in terms of the defense strategy as well? Because clearly to maintain our second-tier shipbuilders and ship-repair facilities, we need to have that constant flow and that relationship with the commercial. Has that been given any consideration? Because I know that the loan guarantees for the commercial building is an issue.

Secretary STACKLEY. I can clearly say it has been given consideration, and that we have looked at some initiatives. But we are limited in terms of how much the Navy can do beyond SCPA [Shipbuilding Capabilities Preservation Agreement], beyond support for Jones Act, and beyond direct Navy contracts, which we do have a good number of with our second-tier shipbuilders, but when it comes to the commercial shipping side, we are very limited as far as how far we can go to bring that forward particularly as I described in these economic times. Yes, ma'am.

Ms. HANABUSA. Thank you.

Mr. Chair, I yield back the balance of my time.

Mr. WITTMAN. Thank you, Ms. Hanabusa.

Mr. Conaway.

Mr. CONAWAY. Thank you, Mr. Chairman.

Gentlemen, thanks for being here.

Secretary Stackley, you mentioned as you were talking through your path that in addition to building ships, we also have to sustain them across their life cycle, and it is all about resourcing, resource shepherding and management.

Can you give us some sense as to what—between 282 ships in the fleet now, what level of deferred maintenance each of those ships is in place that is not—is resource-constrained as opposed to just timing issues that, you know, we will get to it when it is appropriate? But how much of our deferred maintenance is a result of not having the resources to get it done on a timely basis?

Secretary STACKLEY. Yes, sir. I am going to share this response with Admiral Eccles. But I will describe this. For the past decade effectively, we have been operating with either an OCO [Overseas Contingency Operations] funding or a wartime supplemental. So we have been able to leverage those funds to address much of our

maintenance backlog. And so more so than prior, our maintenance for a surface submarine and aircraft carrier maintenance has been either fully funded or very well funded. One of the challenges that we have now as we emerge from a period of OCOs is ensuring that we sustain that level of funding.

Mr. CONAWAY. I don't need to know the exact numbers, Admiral, but thank you. That is where I wanted to go to.

Admiral, Secretary Mabus and I have had a couple of spirited conversations about spending extra operation and maintenance money on theater, on publicity stunts like the Great Green Fleet, the Rim of the Pacific deal this summer, where we spent a lot of extra money on bio jet fuel at 16 to 20 bucks a gallon, which is way in excess of what commercial is. According to reports in the newspaper, DOD is buying 1,500 Chevy Volts, I guess to help a sister agency, General Motors department, with that issue.

Where we see those kinds of things going on, and I look at resources, deferred maintenance, the OCO, and the warfights are not going to be here much longer, and so we will get back to over a period of time a situation where we were previously where we did have, in fact, significant backlogs of deferred maintenance. How do you look at your budgets and decide for the American taxpayer how it makes more sense to spend money at 20 bucks a gallon for bio jet fuel versus the regular fuel when we have got resource issues across the entire spectrum including building and maintaining our ships?

Secretary STACKLEY. Sir, the answer comes down to investing in the future. The decision to operate ships and aircraft during the Rim of the Pacific exercises with biofuels wasn't because of the business case of that specific exercise. It is because the Secretary has a vision that we need to become more energy independent.

Mr. CONAWAY. With that—I got it—have you looked at the goal of by 2020 we are going to be a 50/50 blend? How much, do you have any clue what the increased cost to the taxpayers will be because of that at that point in time? Biofuels will not be competitive with standard fuels by that point in time, I don't believe.

Secretary STACKLEY. Let me take that question for the record.

[The information referred to can be found in the Appendix on page 45.]

Mr. CONAWAY. We can't not talk about sequestration. And can you give us some sense of what—and I know Secretary Panetta said not much is being done with respect to planning, but can you, both of you, give us your thoughts as to what you think the disruption will be to all of this grand plan that we have in place if sequestration does occur and lasts a significant amount of time? What does it mechanically do to you in the shipbuilding capacity that we are trying to maintain?

Secretary STACKLEY. Yes, sir. I am going to draw a distinction between planning and understanding.

Mr. CONAWAY. Exactly. I was trying to get you to that latter point.

Secretary STACKLEY. We are spending a lot of time trying to understand what all of the implications are associated with a sequestration. It was established very mechanical, so we are using nominally a 10-percent number. When you set aside MILPERS [Military

Personnel] for fiscal year 2013, second of January, barring action by Congress to preclude it, then there would be—at a project and activity level, there would be a 10-percent reduction across the board.

And in the shipbuilding, specifically with regards to shipbuilding, then we are going to be challenged program by program to determine how can we execute a program of record. And so there are three questions that I put forward. First is, well, what is the 2013 baseline that we are going to sequester from? So we will not, in fact, have a 2013 authorization and appropriation act by the second of January per current plans; we will be under a CR [continuing resolution]. So right there we start with a CR baseline for a sequestration.

And then the second challenge is, what comes next? So if we are only dealing with a 10-percent impact to 2013, that is one set of problems, but if that is compounded each year subsequent with additional 10-percent reductions, we have to understand that before we talk about the impacts to 2013.

So inside of shipbuilding, if I take a 10-percent cut, can I get my ships under contract in 2013? Some definitely; some definitely, definitely not unless there are other budget actions that supplement the budget requirement. And that is the part that is too difficult to plan right now because there are too many unknowns and uncertainties to be able to make those decisions.

Mr. CONAWAY. So what I heard you say was that in 2013, it could mean we would not start some new ships that we anticipate doing based on these plans if sequestration stands as it is currently understood?

Secretary STACKLEY. Until there is other budget action either through a reprogramming, or in certain cases we could defer work into 2014, but then we would have to backfill those requirements with the 2014 budget, and we would have to be doing this with Congress so that we are collectively agreeing that we are not fully funding these ships in 2013, we are going to pick up the balance of funding in 2014 in that particular case.

Mr. CONAWAY. Thank you, Mr. Secretary. I appreciate it.

Mr. WITTMAN. Thank you, Mr. Conaway.

Now we will go, Mr. Young is one of the committee members, I think he stepped out momentarily. We do want to get to all the O&I subcommittee members first, but with that we will now go to Mr. Courtney.

Mr. COURTNEY. Thank you, Mr. Chairman, for the invitation to join you here today and for your leadership on this issue.

Secretary Stackley, I mean, again, your comments just again show why sequestration should not happen. And as Senator Levin said earlier today, since 90 percent of the Members in both Chambers oppose sequestration, we should roll up our sleeves and avoid it and defuse it from going forward. And again, the scenario you described is just one of many reasons why that should happen.

Earlier today the language of the CR was released, and that is going to, again, fund the government through March to avoid a shutdown. My office has reviewed the text, and the language appears to support moving forward with two submarines planned for in 2013 since the CR from fiscal year 2012 was for two a year. But

I just was wondering if you could comment on your interpretation of the CR as it pertains to the *Virginia* class.

Secretary STACKLEY. Yes, sir, so it will be two pieces of this. So we have two boats have been requested with the 2013 budget. Those have been supported by all the committees, and so when we look at how does the CR impact the program, we have to look at what each of the committees did.

We also have to look at 2012. So when we look at 2012 high water mark, we impose the CR impact on 2012, we look at what the four committees did, we think we are in pretty good shape, the 2013 execution for the *Virginia* multiyear. So we don't need further. For example, in the 51 multiyear we don't have authorization, so we are not hamstrung in that regard.

Mr. COURTNEY. So I guess so the concern, though, that is already starting to percolate out there is regarding other programs such as carriers and cruisers. I just wonder again if you could give your sort of initial take on the impact of the language that was released today as far as those programs are concerned.

Secretary STACKLEY. Yes, sir. With regard to carriers, that is, frankly, where our concern is greatest. Today the CVN-71 [*Nimitz* class supercarrier USS *Theodore Roosevelt*] is in her fourth year of her RCOH. She will be entering her fourth year of her RCOH. She is due to complete in June, and we had requested funding in 2013 to complete that RCOH; \$135 million was included in the request.

Without that provision in the CR, current estimates are funding will not take us to completion. We are going to need subsequent budget action to pick up the balance of the RCOH. So our concern is that we will disrupt the completion of that RCOH, which would impact that ship's schedule and ultimately cause cost increases.

Separately and distinctly, the CVN-72 [*Nimitz* class supercarrier USS *Abraham Lincoln*] will be entering her RCOH. She is due to enter the shipyard in February of 2013. That is a new start, and so we will need Congress to basically give us the new start authority that goes with CVN-72 RCOH as well as the funding that would not be included with the CR.

So we have one carrier that is in execution, another one that we need to bring in to start the RCOH. The absence of what we are referring to as an anomaly in the CR to address these, it poses havoc for our carrier, not just the RCOH process, but the workload at Newport News is heel to toe. So if you impact the CVN-71's completion, you are going to impact the other work at the shipyard, if you impact the start of CVN-72, you are going to be impacting operations on the far end of 72 as well.

So there is an operational impact, there is a cost impact, there is disruption at the shipyard impact, and that is why it was such a higher priority for the Department to get some consideration in the CR.

Mr. COURTNEY. For an anomaly.

Secretary STACKLEY. Yes, sir.

Mr. COURTNEY. Right. So assuming it is enacted as written, that carries us through March, will there be time for a future Congress to be able to rescue that need for an anomaly of some form either through another CR or through a real budget?

Secretary STACKLEY. Two things. We are going to do everything we can to take the dollars that we have in hand for the CVN-71 and get as far into the execution as possible, but we can't do anything for a CVN-72 other than the limited funding that we have available for advanced planning to prepare for the RCOH. This exact scenario occurred for the CVN-70 [*Nimitz* class supercarrier USS *Carl Vinson*] RCOH in 2005, and that required standalone legislation by the Congress to allow us to go ahead and start the CVN-70 RCOH inside of the terms of a CR.

Mr. COURTNEY. Thank you, Mr. Chairman. I yield back.

Mr. WITTMAN. Thank you, Mr. Courtney.

Now we will go to Mr. Young.

Mr. YOUNG. Thank you, Mr. Chairman, and thank you, gentlemen, for being here today.

Admiral ECCLES, I represent a district in south central and southern Indiana. It is adjacent to Naval Surface Warfare Center Crane, and I recently visited Crane for a ribbon cutting. There is, as you know, a new strategic weapon systems engineering facility that recently opened there. We discussed, of course, while I was there the excellent support that Crane provides to the Navy, including engineering support for the *Ohio* replacement program.

As we look into increasing program efficiencies in this particular program, what sort of design improvements and technologies might be incorporated as we provide 12 additional SSBNs [Ship, Submersible, Ballistic, Nuclear]?

Admiral ECCLES. Sir, thank you for the question. In the *Ohio* replacement program, we are in the early stages now of working through the translation of concept to design. And as we look at some of the major features that will characterize that submarine and its affordability for the Navy and the nation, one example would be reactor core fuel for life, avoiding the need for refueling in future. Another would be stability in the strategic weapons system in that the submarine is built around the same features that today are hosted in *Ohio* with the latest Trident missile, a missile system well proved and reliable.

There are many, many details of the design that are still being worked through, but the maximum ability to leverage technologies developed for *Virginia*, including at the component level, making sure that systems and components within the *Virginia* class can be leveraged to the *Ohio* replacement, will give us the greatest opportunity to have a common base for submarine parts, submarine supply support for predictable maintenance and the like, which I think all feature very well in creating an environment where not only is the procurement a predictable outcome, but so, too, is the sustainment through the life of the class.

Mr. YOUNG. Thank you.

Secretary Stackley, I would like to briefly discuss the importance of our sea-based deterrent and strategic capabilities provided for our Nation and our allies. As you know, the sea-based deterrent and ballistic missile submarines provide the most reliable and survivable leg of our nuclear triad. Under this fiscal environment I am sure we recognize the significant impacts the *Ohio* replacement program has to the Navy shipbuilding budget. I know that you and Admiral McCoy are working toward the cost-effective approaches

with the *Ohio* replacement program, and perhaps looking to consolidate strategic systems funding outside of the Navy shipbuilding budget.

Could you please speak to your cost-effective recapitalization of our Nation's sea-based strategic deterrent and the joint cost-sharing approaches of our strategic weapons systems?

Secretary STACKLEY. Yes, sir. There are two aspects to that. First is the actual design and development phase for the *Ohio* replacement program, which we are in today, so there is a very concerted effort across the Navy comprising naval reactors, the strategic systems program, and the PEO [Program Executive Office] submarines program to attack, frankly, the design and development costs for the program during this period. But they have to do that in concert with the United Kingdom, because while we are recapitalizing the *Ohio* program's capability and the *Ohio* replacement program, at the same time the United Kingdom is recapitalizing their strategic deterrent vanguard with the successor program.

So there is a close collaborative effort between the U.S. and the U.K. through the development of a significant portion of our respective boats referred to as the common missile compartment. So we actually have a joint U.S.-U.K. development of a common missile compartment that is predominantly our strategic weapons system with the PEO submarines, the submarine portion of that compartment, while in parallel we have development for the new reactor plant. So there is effort on the development side leading into the procurement side.

The current estimate for the recurring costs for the higher program for boats 2 through 12 is about \$5.7 billion, and that is in 2011 fiscal year dollars. And that is a strict parametric estimate based on the capabilities of the platform.

We went through significant effort to tailor the requirements to ensure we can meet the mission, but we do not go to the exquisite level of capability, tailor the requirements to bring earlier cost estimates, which were in the \$6 to \$7 billion, down to that range.

Now we are in the more getting into the more detailed design phase. We are attacking design details to go from a \$5 to \$6 billion estimate to a target of a \$4.9 billion recurring cost for the higher program.

We have a disciplined approach with literally hundreds of initiatives ongoing where it is using advanced design tools, it is leveraging ongoing activities on *Virginia* so we get to reuse as much of the technology design and manufacturing as possible from the *Virginia* into the higher replacement program, and then also challenging not the higher-level requirements, but some of the lower-level requirements and the specifications that go into the design of the boat to see if there is a more affordable, more produceable way of coming forward with a program.

So we are marching forward in this what we are referring to as a design for affordability effort, and frankly we would welcome the opportunity to come and brief interested Members of the Hill on the methodology and the progress. And this is going to be a long road from now until the 2021 contract award, but it is absolutely critical that we get this right, because during the period of construction of the *Ohio* replacement program, it will dominate not

just our shipbuilding program, but much of our procurement, and we have to ensure that we get it at the right price, and this is the time when we make those critical decisions that 10, 15 years from now our successors will be living with.

Mr. YOUNG. Thank you, and thank you for your service, both of you.

I yield back.

Mr. WITTMAN. Thank you, Mr. Young.

We now go to Mr. Rigell.

Mr. RIGELL. Thank you, Mr. Chairman.

I appreciate you gentlemen being here today and your service to our country.

Secretary Stackley, I would like to pivot back to your point with respect to this current CR. And our office is working through this. I just want to make sure that I have got the facts straight, because it has been a busy day, and our staff is working on a lot of things, but it does appear and I believe your testimony here today is that in the CR there is absent, noticeably absent, any RCOH funding for a CVN-71 for fiscal year 2013. Is that correct?

Secretary STACKLEY. That is correct, because under the CR rules we had no funding in 2012 for CVN-71. So under CR rules, you go back to 2012, and if there is zero dollars in 2012, then you are not allowed to spend dollars in 2013.

Mr. RIGELL. Well, this is that hidden layer of inefficiency that is built into this terrible system that we are under right now whether one is Republican or Democrat serving our country.

What is the ripple effect of that? You touched on it briefly, but I would like for us to fully understand to the extent that we can today in the time available if that stays as is if it does actually ripple through and become law.

Secretary STACKLEY. Yes, sir. Well, let me start with current estimates, and we are refining these. Current estimates are the funding that we have on hand will support continued execution of the CVN-71 until the January-February timeframe. And we will continue to refine that. But that is the point at which we absolutely have to have continued funding.

Mr. RIGELL. That is right around the corner.

Secretary STACKLEY. Yes, sir. And we cannot wait until a couple weeks before we run out of money to have assurance that there is continuation of funding.

Mr. RIGELL. Understood and agreed.

So I don't want to put words in your mouth here, but I think it is your testimony this is just really bad policy; this is bad for our country and needs to be addressed in prompt order. And again, I don't want to characterize your testimony, but it seems to be along those lines.

Secretary STACKLEY. Let me just describe that we have to have budget action to continue execution of CVN-71 continuous through this period. The CR would have been the first opportunity. Absent an anomaly in the CR, we are going to have to pursue some other way of getting continued funding to the CVN-71. That will come with its own challenges.

Mr. RIGELL. Because of the high priority of just the overall program and just as it ripples through.

Secretary STACKLEY. Yes, sir.

Mr. RIGELL. I would like to pivot back again also to the statement that was made earlier, Mr. Secretary, concerning—and, Admiral, it might have been you, sir—that OCO funds embedded in those I think are some maintenance work being done on our ships; that I have some concern that if we go to absolute zero in OCO funds, that really it is going to put some heavier burden on the regular defense budget for maintenance and repair.

Admiral ECCLES. If I can jump on that, the OCO funding in years recent has accounted for about 20 percent of maintenance in the surface Navy, for example. And if that OCO were to go away, it doesn't mean the maintenance goes away, so, of course, there is a budget burden.

The question in my mind has a lot to do with whether or not we have got surface maintenance sized right, and in the 2013 proposal we sent forth dollars and maintenance, which, while accounting for that OCO, would for the first time in a long time get this as squared away as we could for a full, wholesome surface maintenance program, and that is based on looking at covering backlog with OCO over a number of years, also resetting ourselves with respect to the way maintenance discipline in the surface Navy has been working. We have been getting better and better over the last few years instilling a process of understanding better what our ship condition is and then documenting the necessary engineering and maintenance to improve and hold that for the wholeness of expected service life for those ships.

Mr. RIGELL. Is it true, then, that OCO funds are doing more than just paying for the marginal costs, if you will, maybe to use an accounting term, the marginal costs of the war, for example, in Afghanistan; that they are not only paying for that, but they are also paying for things that otherwise would have been paid for through the regular defense budget?

Secretary STACKLEY. Let me offer—

Mr. RIGELL. Very short, but you will get the last word.

Secretary STACKLEY. Yes, sir. In my opening statement I describe that half of our ships have been underwater deployed pretty constant through this period. And so what the OCO is doing is that is funding, it is an accounting for the funding that goes with sustaining that OPTEMPO [Operational Tempo] and keeping the ships up to the level of the maintenance requirements to support current operations.

So I don't think this is simply a matter of we are augmenting our base funding to account for other shortfalls. I think we are driving the fleet—it is not just the ships, but the aircraft as well—at a very high OPTEMPO during the period, and we have been relying on the OCO to be able to keep up that pace.

And so the challenge is now as we back away from it is to ensure that our base budget does, in fact, appropriately fund our maintenance requirements.

Mr. RIGELL. I thank you for your testimony.

Mr. WITTMAN. Thank you, Mr. Rigell.

We will pursue a second round of questions, so if the panel members would like to stay around. I am going to begin with one question for both you gentlemen. You have heard some questions about

the looming additional massive defense cuts to our defense budget potentially in 2013, and then lower budget caps from fiscal year 2014 through fiscal year 2021.

I wanted to ask you in that particular scenario, and obviously at this point I am sure you all in some way, shape, or form are looking forward about what that means. And certainly on the outside with our contracting community, our vendors, there is some uncertainty that is building out there both from their planning aspects, and looking what they are planning for, and also understanding, going forward, how they make investments in people, and equipment and infrastructure there in their businesses.

The question then becomes if they look at the uncertainty there, they will make those investments, pull things back. How does that affect the industrial base? How does it affect our vendor base? And then, in turn, what is the Navy doing now to plan for that potential scenario?

We all hope that it doesn't happen. We are all working hard to make sure that it doesn't happen. As we heard earlier, there is lots of agreement that it shouldn't happen. The question is, how does it come about to make sure that it doesn't happen? But in the meantime the question is from your standpoint what are you going to plan for that? What are you doing in your conversations with the shipbuilders and vendors to say, in case, this is what we will do?

Secretary STACKLEY. Yes, sir. Thanks for that question.

Let me first describe when we talk about the top line coming down, that is at a macro level. Inside the top line, rules of sequestration aside, inside the top line it becomes a matter of prioritizing your resources, and clearly shipbuilding is a top priority for the Department of the Navy. That will be point number one.

When we look ahead at least within the FYDP at those types of challenges, we have been very careful to look at long-term agreements with our shipbuilders through our contracts to provide the degree of stability that will weather that type of budget downturn. And so going program by program, carriers, we are locked in at a carrier every 5 years, and the work that we are doing at Newport News on this optimal build plan, that is to bolster that plan against an economic, a budget adjustment.

Submarines. We are marching into the next multiyear. As you are well familiar, we have requested 9, but we are working with Congress to get that 10th boat, and that will lock in the 2014–2018 window, a nice, stable, two-boat-per-year run not just for the shipbuilders, but the vendor base that supports them.

Destroyers. As soon as we get an authorization appropriation bill for 2013, we will be ready to award fiscal year 2013 through fiscal year 2017 multiyear. Again, we have requested 9, but we will work with Congress to get a 10th, providing that long-term stability for our large surface combatant industrial base.

LCS. We worked with Congress to get the dual block buy award, 20 ships over 5 years.

Each one of these actions is going after the stability that not just the shipbuilders, but the industrial base requires so that they can plan, so that they can invest, so that they can train and retain that skilled workforce that we rely upon for affordability and, frankly,

reliable operational and schedule performance when the ships deliver.

We are, again, challenged on the amphib and the auxiliary side because we are looking at the end of programs, we are at the end of the LPD program. We have a very short run on the MLP program. And so we are looking ahead at the replacement to the LSD and as well to the next big-deck amphib. Those are challenges towards the back end of this FYDP. We have to start planning for today so that we don't go down some irreversible path in the meantime that would harm our industrial base at the shipyard or the vendor base.

Mr. WITTMAN. Very good. So what I understand, then, is those efforts to make sure the long-term elements both within the FYDP and outside the FYDP are going to continue even in the face of what potentially happens with sequestration?

Secretary STACKLEY. Yes, sir.

Mr. WITTMAN. Okay. Very good. Thank you.

We will then move back to Mrs. Hanabusa.

Ms. HANABUSA. Thank you, Mr. Chair.

In one of the hearings we had regarding a discussion about how sequestration may affect especially shipbuilding, I think the person testifying said that shipbuilding was somewhat different in that you are, for lack of a better description, almost line-itemed per ship. So, for example, if there was an 8-percent or 10-percent cut across the board, which is what will be in total sequestration could be or may be, that that would then cancel out, for example, the second ship. The exception, as we were told, were carriers, because carriers are permitted to be funded over a period of time.

Is that correct as to how the impact could be, so if you get 10 percent, and you have two or three, say, MLPs, just hypothetically, and it would cut the third one completely out? Is that the correct understanding of what the impact of sequestration could be?

Secretary STACKLEY. Not quite. It is correct that shipbuilding is different. The programs are effectively line-item projects, and so they will separately incur nominally a 10-percent impact associated with if sequestration occurs.

And so when you go down to the program level—you mentioned MLP is not a good example because fiscal year 2013 is not a—we are not requesting a ship in 2013—but when you go down to the program level, if you take a 10-percent cut, the challenge that we, the Navy, are going to deal with is how can we take a 10-percent cut and minimize the impact to the shipbuilding program?

And there is more than just the shipbuilding contract. We have a number of activities inside of that program. So there is a shipbuilder piece, there is a Government-furnished equipment piece, there are technical services. So the challenge is if we took a 10-percent hit in the shipbuilding program, what can we deliver within the remaining budget, and then how do we backfill either through a reprogramming action or through a subsequent budget, a fiscal year 2013 budget, so that we don't lose what we have got in terms of efficiency and good pricing in our contracts?

But the challenges are extremely hard, because there is going to be a cumulative impact, and we will be very limited in terms of places where we can go to augment the funding in those programs,

and we do not today know what we are going to be staring at in 2014. We will not know that when it is time to make those decisions.

So this is a good example of why you are hearing such strong reaction from the Department on the impacts of sequestration.

Ms. HANABUSA. So, in essence, you don't quite know what you would do. It wouldn't just be a matter of just saying, if it is a 10-percent cut, that we can't fund the third ship; just hypothetically, if there were three ships, you can't fund the third ship. That would then result in the elimination of the third ship. It may be you may have more flexibility if you can cut something else within that program.

Secretary STACKLEY. Well, first we would need to know what comes across the line in the 2013 budget, and, second, we are going to need to know what happens in 2014. And so when you bound the problem in that way, then we are going to be looking at what do we have left in terms of resources to execute? And I hesitate to give you a hypothetical response, but if across the board each of our shipbuilding programs took a 10-percent cut in 2013, and there is a subsequent type action in 2014, I can't quickly arrive at a scenario that says we are going to be able to put all the ships that we had requested under contract in 2013.

Ms. HANABUSA. So you haven't even gotten to the point as to what or how, under the Budget Control Act, which we now shift to caps after the sequestration issue, so we are talking about caps—you haven't even looked at how those caps may then affect shipbuilding?

Secretary STACKLEY. Our energy and focus has been on building a 2014 budget that we plan to execute building on top of the 2013 budget that we requested with Congress. We haven't looked at the alternatives associated with 2000—a sequestration taking place starting the 2nd of January carrying out into subsequent years.

Ms. HANABUSA. But you do know that under the BCA [Budget Control Act], there are going to be caps, and the caps are not—well, they don't look like you are going to be able to recoup any of this. So there has got to be some understanding or analysis done as to what those caps are going to mean and how it is going to effect, for example, shipbuilding.

Secretary STACKLEY. Yes, ma'am.

Ms. HANABUSA. So as you work through the 2014 budget, you have already looked at the impact of the caps with the caps in place? Or are you hoping that Congress is going to do something so that those caps are not going to affect you?

Secretary STACKLEY. It has taken all of our efforts to build the 2014, the budget that we plan to execute. We don't have added bandwidth to then build a separate budget that brings the Budget Control Act impacts in across the FYDP. We have not done that.

Ms. HANABUSA. That is the answer I was interested in.

Thank you, Mr. Chairman.

Secretary STACKLEY. I started by describing the way we build our shipbuilding program as an example, and it is very similar to our other capabilities, is we start with the defense guidance, we overlay on top of that our resource constraints, and then we put together the best program possible to meet our national security needs.

When you take a look at the impact associated with the Budget Control Act, we are going to have to go back and arrive at a new defense strategy. The impact is significant enough that we will not be able to put together the force that we need, maintain the wholeness that the CNO demands, and operate at the pace that we are operating with those types of budget adjustments.

Ms. HANABUSA. Thank you very much.

Thank you, Mr. Chairman.

Mr. WITTMAN. Very good. Thank you, Ms. Hanabusa.

Mr. Rigell.

Mr. RIGELL. Thank you, Mr. Chairman.

And, Secretary Stackley, I just want to make sure I have this right. If we do find ourselves in really the most unfortunate situation where sequestration becomes a reality, is it true that the budget cuts would be allocated not over four quarters, but three, in some ways making them even more problematic?

Secretary STACKLEY. Absolutely. In fact, I think it is going to be worse than that, because sequestration would hit inside of a CR. So we are already somewhat constrained in terms of our execution in the CR. The sequestration would hit in the second quarter, and so we have very limited flexibility and a very limited amount of time to adjust to the full impacts.

Mr. RIGELL. Thank you.

Given the complexity of the Department of Defense budget and certainly within the Navy's budget there, it is difficult enough to try to get a handle over what is being spent and making sure it is being spent wisely.

Given that, have you allocated or reallocated some resources, some accounting resources and planning resources, for the contingency plan of if sequestration becomes a reality? To what extent have you developed a real plan to adapt to it and deal with it?

Secretary STACKLEY. I had described earlier that we haven't planned for sequestration, but we are spending time understanding what the impacts would be. You can't solve individual program issues, you can't deal with any of this in isolation. Since it impacts the entire budget, you really have to take a look at the entire budget.

And so if we are unable to halt—"we" being the collective Administration and Congress—halt sequestration, we are probably looking at building a new budget inside of a budget, that being 2013 execution. And at the same time we are going to have to revisit the 2014 budget because the 2014 budget is built upon 2013.

Mr. RIGELL. Going back for just a moment to CVN-71 and the current CR, and I know engineers don't like to maybe comments on things like that, but I will ask anyway, were you surprised that that funding was not there? Was it on the process side that the funding did not appear in this new CR, or did you fully expect it because it can only just bring forward what has been brought forward?

Secretary STACKLEY. It was at the top of our priority list as an anomaly for the CR.

Mr. RIGELL. And that was expressed, I am certain, to the contacts here?

Secretary STACKLEY. Yes, sir.

Mr. RIGELL. Okay. Maybe beyond the scope of what we should cover here, but, I mean, was there a basis for someone not acting on that information?

Secretary STACKLEY. I am probably not the right person to answer that question.

Mr. RIGELL. I thought we would get to a full halt on that, but that is okay. I wanted to press this as far as I could just to understand where we broke down in the whole process.

Mr. Chairman, I really appreciate your holding this hearing today and just the opportunity to inquire about that from really the good leaders within our country who are right at the tip of the spear in trying to help us do the right thing. So again, I appreciate your service, Mr. Chairman. I yield back.

Mr. WITTMAN. Thank you, Mr. Rigell.

If there are no other questions from the panel members, we will move to adjourn. And I want to thank our panelists today, Rear Admiral Eccles, Secretary Stackley, for your testimony today. Obviously this is a challenging issue for us here in Congress. I think it is interesting to know what is lacking in the CR, especially since it affects the RCOH on CVN-71. We know that that is absolutely critical. That is a problem, I think a significant problem, obviously, going forward in the budgeting process.

Also, I think what we took from this hearing, too, is the need to make sure that planning takes place from the congressional side, and obviously some direction on SSBN(X) [*Ohio* class replacement ballistic submarine] as far as their continued efforts, and I know there has been some definition and some resources there, but obviously continuing that; and then also the future decisions occurring not too far outside the FYDP for the amphib ships and auxiliary ships and making sure that we maintain not only this nation's needs, but also the industrial capability there.

So I deeply appreciate your testimony today. It gave us some great information as to how the planning process ought to take place going forward, and how we, as a committee, as a full committee, have an obligation to make sure that we include those planning aspects in what we do as a full committee.

So again, gentlemen, thank you so much for your testimony today, and if there are any further questions, I would ask that the panel members submit them in writing to our panelists today. And, again, with that, this subcommittee is adjourned.

[Whereupon, at 3:54 p.m., the subcommittee was adjourned.]

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**A P P E N D I X**

SEPTEMBER 11, 2012

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**PREPARED STATEMENTS SUBMITTED FOR THE RECORD**

SEPTEMBER 11, 2012

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**Statement of Hon. Rob Wittman**  
**Chairman, House Subcommittee on Oversight and**  
**Investigations**  
**Hearing on**  
**Navy Shipbuilding and Impacts on the Defense**  
**Industrial Base in a Time of Fiscal Uncertainty**  
**September 11, 2012**

Before we begin this hearing, I would like to note today's importance in our Nation's history, the 11th anniversary of the terrorist attacks of September 11th. For 11 years now, our All-Volunteer Force has been engaged in combat operations requiring cyclical deployments. Some of our sailors, soldiers, airmen, and marines have deployed 4, 5, 6 times . . . some have even been called upon to serve on 12 or 13 combat deployments. We owe a debt of gratitude, thanks, and unwavering support to the men and women of our armed forces and their families—a debt that can never be repaid. These men and women and their families epitomize the United States of America and their courage, bravery, commitment, work ethic, pride, and professionalism which are the characteristics that continue to make this country great. You need look no further than some of the names of the newest ships in our Fleet to understand the honor that is paid to the men and women who made the ultimate sacrifice fighting for this country over the last 11 years: names such as the USS *Jason Dunham* (DDG 109), USS *Michael Murphy* (DDG 112), and USS *Rafael Peralta* (DDG 115). These ships will serve this Nation for the next 30–40 years and the service, sacrifice, and legacy of these men will never be forgotten. Our thoughts and prayers are with all the families who lost loved ones on September 11th, 2001, our All-Volunteer Force and their families. Never has so much been sacrificed by so few for so many for so long.

With this as our backdrop, I can think of no better topic to discuss than the 30-Year Shipbuilding Plan and concerns I've had regarding our defense industrial base. Over the last year, this subcommittee has held two hearings, conducted numerous briefings and facilitated many engagements with the Department of the Navy and industry, and traveled to shipyards across the country to learn firsthand about how effective DOD's 30-year plan is and how it impacts our defense industrial base. We learned that the annual plan is critical to establishing priorities and identifying challenges that need to be addressed in both the short and long-term. We also learned that historically the plans have played an integral role in leading to programmatic improvements and cost savings over time.

I would like to take this time to thank all of these yards for their hospitality and professionalism as they shared with us their enthusiasm for their trade and their commitment to building the best Navy in the world.

This hearing is focused on the 30-year plan's impact on our shipyards and closes out what I believe has been a valuable effort in identifying challenges and concerns so that we in Congress can make decisions based on fact rather than speculation. Critical to this effort were oversight visits to Electric Boat in Groton, Connecticut; Bath Iron Works in Bath, Maine; NASSCO in San Diego, California; Huntington Ingalls Industries in Pascagoula, Mississippi; Austal in Mobile, Alabama; and Huntington Ingalls Industries in Newport News, Virginia, where we build our Navy's ships and submarines. In my view, nothing takes the place of "on the ground" observations and the opportunity to speak frankly with the people responsible for day-to-day operations, particularly in an industry as unique and critical to our Nation as shipbuilding.

As we all know, warship planning, design, and construction is one of the most complex industrial endeavors a nation faces when determining national and maritime strategy. Whether we're building submarines, amphibious ships, destroyers, logistic ships, or aircraft carriers, we can't get the job done without an industrial base that has the talent and intellect to solve unique design and engineering problems. Shipbuilding is an art form and a perishable skill. It is done by the most highly trained and experienced corps of engineers and tradesmen in the world. It is supported through business and industry spanning 50 States and designed and engineered by our greatest asset: the American people.

After conducting our oversight visits, it was clear to me that while American ingenuity, creativity, and initiative are alive and well in our shipyards, it is also clear to me that challenges exist. In a constrained fiscal environment facing the dire impacts of sequestration, many in industry are considering forced layoffs, contract renegotiations, disruptions to production, and poor future vendor supply prospects.

This afternoon the subcommittee will focus on maintaining a robust and sustainable industrial base capable of executing the Navy's shipbuilding plan and our national strategic objectives, particularly as we pivot to Asia. As articulated in the final report of the QDR Independent Panel: "A robust U.S. force structure, one that is largely rooted in maritime strategy . . . will be essential." I look forward to hearing your perspectives on the challenges we face, including planning for surge capacity and recapitalization of the fleet.

The focus of this hearing is not to dive into specific programs and the nuances and challenges of certain platforms; this is the duty and responsibility of another subcommittee. The goal here today is to focus on the macro level of shipbuilding and discuss the impact on the defense industrial base in a time of fiscal uncertainty. The one lesson we learned during our visits to all the shipyards is the delicate execution and attention to detail that must be displayed while progressing through the planning process. A balance must be achieved in order to attain a sustainable workload, workforce, all while producing a capable and effective platform. The industrial ca-

capacity at these yards and the supply chains that support them is unique. It is imperative that as we move forward and shift to an Asia-Pacific-centric strategy that we effectively balance the planning process with the industrial base capacity that is needed to achieve maritime and national security success in the 21st century.

Secretary Stackley, Rear Admiral Eccles, thank you for being here today and thank you for your continued distinguished service to this Nation. Each of you, along with VADM Blake, who has appeared before the committee in the past, understands ships and you know this business. We appreciate your expertise and insight on this very important matter. The bottom line is: ships are different from many perspectives, particularly in acquisition and procurement. As you gentlemen note, "shipbuilding programs do not have the opportunity to build full-scale prototypes." The United States Navy essentially is the only service that will commission a prototype and then take it to war.

I look forward to your testimony and I hope that we can have a thoughtful and meaningful dialogue on these important issues.

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RELEASED BY THE HOUSE ARMED  
SERVICES COMMITTEE  
SUBCOMMITTEE ON OVERSIGHT  
AND INVESTIGATIONS

STATEMENT

OF

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

AND

REAR ADMIRAL THOMAS J. ECCLES  
CHIEF ENGINEER AND DEPUTY COMMANDER FOR  
NAVAL SYSTEMS ENGINEERING  
NAVAL SEA SYSTEMS COMMAND

BEFORE THE

SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS

OF THE

HOUSE ARMED SERVICES COMMITTEE

ON

NAVY SHIPBUILDING AND ITS IMPACT ON

THE DEFENSE INDUSTRIAL BASE IN A TIME OF FISCAL UNCERTAINTY

SEPTEMBER 11, 2012

NOT FOR PUBLICATION UNTIL RELEASED BY THE  
HOUSE ARMED SERVICES COMMITTEE  
SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS

Chairman Wittman, Ranking Member Cooper, and distinguished members of the Subcommittee, thank you for the opportunity to appear before you today to address Department of the Navy (DoN) shipbuilding and its impact on the defense industrial base in a time of fiscal uncertainty. The US defense industrial base is a strategic national asset, providing our Navy, Coast Guard, and other federal agencies the highly capable seagoing platforms required to meet the Nation's Maritime Strategy. It is essential that the industrial base be sized and shaped to meet current and known future requirements, with a measure of surge capacity should times of conflict or other urgent needs demand it. Further, it is essential that industry invest the capital, train and retain the skilled work force, and maintain the competitive posture required to build and maintain our Navy's complex warships in the most cost effective manner possible.

The US Navy places great weight on the health of the industrial base as a factor in the development of shipbuilding procurement plans, always balanced carefully against operational requirements and cost effective acquisition.

This statement provides a review of the process for formulating the Navy's shipbuilding plan, discusses how the Navy assesses, monitors, and takes into account impacts to the industrial base, and summarizes the current state of the Navy shipbuilding and combat systems industrial base at a major supplier level. Finally, the statement discusses financial incentives used by the Navy to support the industrial base, particularly in the area of facilities capitalization.

#### **Shipbuilding Plan Formulation**

In the development of shipbuilding plans, programs, and budget, the Navy carefully balances operational requirements against available resources, and includes industrial base considerations as a key component of the overall decision process. The most publicly recognizable product of this process for shipbuilding has become the Navy's annual long range shipbuilding plan.

Section 231 of Title 10, United States Code, as amended by Section 1021 of the National Defense Authorization Act for Fiscal Year (FY) 2012 (Public Law 112-81) requires the Secretary of Defense to submit to Congress an annual, long range plan for construction of combatant and support vessels for the Navy. The time span covered by this plan is 30 years.

Developed in coordination with Navy, Marine Corps, Joint Staff, and the Office of the Secretary of Defense (OSD), the 30 Year Shipbuilding Plan outlines the number and type of ships the Navy will need to best meet the requirements of the National Security Strategy and the Maritime Strategy over the next three decades. The plan accounts for the Navy's current battle force inventory, retirement and recapitalization plans for these ships, and current plans for the acquisition of new ships and new ship classes needed to fulfill the demands of the National Security Strategy. The plan then balances needs against expected resources and assesses the risks associated with the Department's ability to fund future ship requirements. Finally, the plan carefully considers the shipbuilding design and industrial base necessary to build and maintain tomorrow's Navy.

The plan is spelled out in three distinct phases: near term, mid-term, and far-term. The near term is the first ten year period of the plan and includes the current Future Years Defense Program (FYDP). The requirements underpinning this phase are the need to provide a balance of ships that is fiscally achievable and lay the foundation for the 21<sup>st</sup> century fighting force while simultaneously sustaining critical industrial capacity. Given known ship capability and quantity requirements, cost estimates are judged to be most accurate in this period.

The mid-term phase is the second ten year period. The requirements underpinning this section are based on the Quadrennial Defense Review (QDR), intelligence estimates of future threats and operating environments. The objective in this phase is to make adjustments to the plan in order to balance the mix of ships, unit costs, projected budget resources, and industrial base concerns. Cost estimates for the force structure defined for this period become less accurate over time as the threats become less clear, industrial base issues become more uncertain, technologies continue to evolve, and requirements change.

The far-term phase is the final ten year period. The requirements during this period are not as well defined as those for the near or mid-term. The number, type, and capabilities of ships are estimated based on anticipated Joint and Navy war-fighting requirements. Cost estimates are notional due to the uncertainty of business conditions affecting the shipbuilding industry and estimates associated with inflation and deflation indices. In the report, the far-term phase largely addresses the recapitalization of today's legacy ships and ships procured at the beginning of the near term of reporting.

### **Industrial Base General Considerations**

Navy warship design and construction is arguably the Nation's most complex heavy industry. The range of capabilities that characterize today's fleet; spanning from undersea warfare to the launch and recovery of aircraft at sea, from gas turbine to nuclear propulsion, from close-in weapon systems to intercontinental ballistic missiles, and related control systems, sensors, and communication systems; all designed for extended operations at sea under extreme conditions ranging from high sea state to live fire, require an industrial base with extraordinarily diverse manufacturing capabilities underpinned by unique design and engineering skills. Compounding the inherent technical challenges, ships are procured at very low annual production rates requiring significant capital investment and infrastructure (dry docks, bridge rail cranes, etc.). Depending on ship type, production of a single ship requires from five to as long as ten years to complete, with ship unit costs measured in the billions. Yet, research and development (R&D) investment is relatively low, and given the resources required to produce a first of class warship, shipbuilding programs do not have the opportunity to build full-scale prototypes. Accordingly, developmental risks that other major programs are able to retire through the build and test of a prototype unit must be retired through the production of the lead ship of each new ship class.

The Navy's shipbuilding plan must account for these unique characteristics when considering the effect of the plan on the industrial base. To this end, the Navy assesses

the industrial base sector-by-sector (aircraft carriers, submarines, surface combatants, amphibious ships, auxiliary ships, etc.) and tier-by-tier (major, mid-tier, and smaller shipyards); monitoring the health of the shipbuilders, major suppliers of integrated warfare systems (IWS) and command, control, communications, computers and intelligence (C4I) systems, and major suppliers of key components (hull, mechanical, electrical systems) and commodity materials (steel, pipe, cable, etc.). In doing so, the Navy examines not only production labor employment, but also engineering capabilities, facility capabilities and efficiency, overall health and demographics of the workforce, and, as warranted, financial strength.

At the most fundamental level of analysis, the Navy utilizes industry and internal assessments of production workload for its major shipyards and key mid-tier yards to assess the impact of shipbuilding procurement options (across the range of likely competitive outcomes) on these yards. The objective of this analysis is to arrive at a plan which provides stability for the industrial base while meeting the Navy's prioritized shipbuilding requirements. Stability translates into retention of skilled labor, improved material purchasing and workforce planning, strong learning curve performance, and the ability for industry to invest in facility improvements; all resulting in more efficient ship construction and a more affordable shipbuilding program. Design efforts for new or modified classes of ships are also similarly phased to the extent possible to sustain the health of the engineering workforce. When operational requirements or budget constraints threaten to counter this objective, DoN and DoD leadership are careful to thoroughly evaluate alternatives to arrive at the plan that provides the best balance across requirements, affordability, and the industrial base.

In addition to basic workload and production line assessments, the Navy looks for other methods where feasible to help sustain the industrial base. In the past, through measures such as multi-year procurement of the DDG 51 Class and VIRGINIA Class, the DDG 1000 Swap/DDG 51 Restart Agreement, the Littoral Combat Ship dual block buy, and the re-design of the Mobile Landing Platform, the Navy has worked with the shipbuilding industry to try to maintain stability in procurement, balance workloads, improve affordability, and induce more efficient utilization of industrial base capacity. With particular concern for the auxiliary shipbuilding sector, which straddles Navy and commercial shipbuilding, and is weakened by the current low demand for both Navy auxiliary and commercial ships, the Navy has offered use of the Shipbuilding Capabilities Preservation Agreement (SCPA). Such an agreement, which permits the contractor to claim certain indirect costs attributable to its private sector work as allowable costs on Navy shipbuilding contracts, is intended to improve the competitiveness of the shipyard as it competes in the private sector for commercial work. These and similar efforts continue as part of the proposals in the FY 2013 President's Budget request and the 30 Year Shipbuilding Plan.

### **Sector-By-Sector Summary**

At present, the shipbuilding industrial base is generally stable although consolidations at both the prime and sub-tiers are occurring. At the prime level, shipyards and major tier-one suppliers remain in relatively good financial health.

An example of consolidation at the prime level was Northrop Grumman divesting its shipbuilding business in March 2011. The resulting new company, Huntington Ingalls Industries (HII), is moving forward with a proposed plan to close its Avondale shipyard in 2013 and centralize its operations in the region at its Pascagoula shipyard. This internal business decision by HII reflects their determination that such consolidation is appropriate in view of their future workload projections based on the Navy's long range shipbuilding plan, and necessary in view of their need to reduce operating costs to be competitive for future shipbuilding contracts.

There has also been significant consolidation at the sub-tiers. For example, in the 1990s four domestic companies manufactured naval main reduction gears. Today, only two domestic suppliers remain.

Consolidation presents both risks and rewards for the Navy shipbuilding program. Whereas it may entail a decrease in industrial base capability and/or capacity and a potential lessening of competition, for those remaining suppliers it may also bring about the possibility to realize greater economies of scale, greater retention of skilled labor, and higher and more efficient equipment utilization rates which contribute to more affordable shipbuilding. In allocating its shipbuilding budget and performing the associated contracting actions, the Navy looks for the efficiencies inherent to an industrial base optimally sized and shaped for current and projected workload, but also guards against irreversible actions which would leave the Nation wanting for critical skills, capacity, or competition within our shipbuilding industrial base.

#### Aircraft Carrier Industrial Base:

New construction as well as the Refueling and Complex Overhaul (RCOH) of aircraft carriers are accomplished exclusively at HII Newport News Shipyard. The current shipbuilding plan of one RCOH every three years and one new carrier procurement every five years maintains sufficiently stable production to sustain a level workload and a highly skilled workforce that supports complex aircraft carrier work. Near term objectives to align FORD Class carrier delivery schedules with Nimitz Class decommissioning schedules (sustaining an eleven-carrier force) result in a slower initial rate of production for the FY 2013 carrier, CVN 79. In view of the need to incorporate lead ship lessons learned into an optimal build plan for the FORD Class, however, and the added complex workload associated with the decommissioning of USS ENTERPRISE (CVN 65) during this period, it is expected that this CVN 79 production ramp will provide greater opportunity to improve overall cost on the program. However, certain sectors of the aircraft carrier vendor base will require close monitoring, particularly those sole-source vendors who rely on aircraft carrier orders to remain viable.

Submarine Industrial Base:

The submarine industrial base comprises two shipbuilders, General Dynamics Electric Boat and HII Newport News Shipyard. Submarine design and construction workload is at its highest level in over two decades, including six VIRGINIA Class submarines under construction, design work for the next block of VIRGINIA Class submarines, design efforts to reduce total ownership cost, and development and design of the OHIO Class Replacement SSBN. Although the FY 2013 President's Budget request delays one FY 2014 VIRGINIA Class submarine to FY 2018 and delays the OHIO Replacement Program acquisition profile by two years (resulting in lead ship procurement in 2021 vice 2019), projections are that the submarine industrial base will continue to steadily expand beyond the end of this decade. Pending Congressional approval, the FY 2013 President's Budget requests multiyear procurement for nine FY 2014-2018 VIRGINIA Class submarines, which should provide the opportunity to mitigate the impact of deferring the FY 2014 submarine. Separately, the two year delay to the lead boat of the OHIO Replacement Program should provide opportunity to complete that program's Design for Affordability effort, enabling the program to meet its affordability requirements.

Surface Combatant Industrial Base:

The surface combatant industrial base comprises two first tier shipbuilders, General Dynamics Bath Iron Works (BIW) and HII Ingalls Shipbuilding (Ingalls). Six ships of two destroyer classes are under construction at these two shipyards; three DDG 1000 Class ships are being built at BIW (with co-production by Ingalls), and three DDG 51 Class ships are under construction (DDG 112 and 115 at BIW, DDG 113 at Ingalls). An additional two destroyers have been awarded (DDG 114 at Ingalls and DDG 116 at BIW). This backlog provides workload stability at both yards, enables efficient re-start of DDG 51 construction, facilitates performance improvement opportunities at both shipyards, and maintains two sources of supply for future Navy surface combatant shipbuilding programs. Pending Congressional approval, the FY 2013 President's Budget requests multiyear procurement for nine FY 2013-2017 DDG 51 destroyers, which should further stabilize the combatant industrial base.

Amphibious and Auxiliary Ship Industrial Base:

Tier one shipyards constructing amphibious and auxiliary ships include HII Ingalls Shipbuilding, HII Avondale Shipyard, and General Dynamics National Steel and Shipbuilding Company (NASSCO). Sustaining stable workload in this sector has been challenging.

Ingalls is currently constructing the lead ship of the AMERICA (LHA 6) Class and three LPD 17 Class ships (LPD 24, 26, 27). Further, the Navy recently awarded Ingalls the detail design and construction contract for LHA 7. This workload, in conjunction with other construction activity, maintains stable amphibious ship production at Ingalls through the 2017 timeframe.

HII Avondale is delivering LPD 23 this month, and is constructing LPD 25. HII has announced that it will close its Avondale facility following the delivery of LPD 25 in 2013.

GD NASSCO is completing construction of its final T-AKE Class Dry Cargo Auxiliary ship in October 2012, following which its workload will ramp down rapidly, leaving only three Mobile Landing Platforms (MLPs) in its new construction backlog. MLP 1 will deliver in the spring 2013, with MLP 2 delivery in early 2014. The FY 2013 President's Budget requests funding to modify MLP 3, awarded in 2012, into an Afloat Forward Staging Base (AFSB) variant and to procure a fourth MLP in FY 2014 as an AFSB variant. Funding in 2013 is necessary to ensure AFSB is delivered in time to meet the decommissioning schedule for the interim AFSB, USS PONCE, and to avoid the dedication of other higher-cost, less-suited fleet combatants to the AFSB mission. Funding in 2013 is also necessary in order to leverage ongoing MLP production, which will ensure this capability is delivered at the lowest possible cost. The MLP AFSB is the only auxiliary ship in the Navy's shipbuilding plan until 2016. With the pending closure of Avondale shipyard, constructing MLP 3 and 4 is critical to the viability of the remaining auxiliary shipbuilder and to ensuring that the shipbuilding industrial base remains capable of building affordable auxiliary ships in the future.

Future amphibious and auxiliary shipbuilding includes the Fleet Replenishment Oiler (T-AO(X)), to be competed in FY 2016; the LHA 8, planned for procurement in 2017; and the LSD 41/49 Class Replacement program, LX(R), planned to begin in FY 2018. The Navy will continue to work closely with this industrial base sector and Congress as we bridge the 'soft gap' between current amphibious and auxiliary shipbuilding programs and these future programs.

#### Shipbuilding Engineering Design Industrial Base:

The surface ship engineering design industrial base is relatively stable with DDG 51 Class Flight III, CVNs 78 and 79, MLP AFSB variant, T-AO(X), LX(R), LHA 8 and other design work. This design base is spread out amongst the multiple shipyards across the Nation performing surface ship new construction. Surface ships of all classes are almost continually being built to replace older ones that must be retired. Over the course of the shipbuilding and conversion plan, a portion of this engineering design workforce will be engaged in design work to support ongoing new construction as well as supporting design upgrades to in-service ships.

However, in recent years the Navy has been especially concerned with the submarine engineering design industrial base. With Virginia Class Block upgrades (including Virginia payload module) and Ohio Replacement program design the submarine design efforts are extremely robust.

Second Tier Shipbuilding Industrial Base:

The second tier industrial base is robust. Second tier shipyards are building the Littoral Combat Ship (LCS), Joint High Speed Vessel, Ocean Class AGOR Ship, Oceanographic Research Ship (T-AGS 66), and the Ship to Shore Connector (SSC).

The LCS 1 variant is a steel monohull and aluminum super structure design built by the Lockheed Martin-led industry team at Fincantieri's Marinette Marine Corporation in Marinette, Wisconsin. The LCS 2 variant is an aluminum trimaran hull design built by the General Dynamics (for LCS 2 & 4) and Austal USA (for LCS 6 and follow)-led industry team at the Austal USA shipyard in Mobile, Alabama. Leveraging the stability provided by their respective 10-ship block buy awards, the LCS shipbuilders have committed significant capital investment toward the modernization of their facilities and training of their workforce to ensure their ability to meet the fixed price target costs. Pending the outcome of future competitive awards, the workload at each of these shipyards remains stable through (at least) 2017.

The next two Ocean Class AGOR ships are being built by Dakota Creek Industries (DCI), Anacortes, Washington. The Ship to Shore Connector program detail design and construction contract for the test and training craft and up to eight additional craft was awarded to Textron Marine and Land Systems in Slidell, Louisiana in July 2012.

Ship Combat Systems:

The combat systems industrial base has remained stable with ongoing combat systems development work for DDG 1000, LCS, AEGIS and Ship Self Defense System (SSDS). Raytheon is the lead Combat Systems Integrator for DDG 1000 and large deck amphibious ships. Lockheed Martin is the lead Combat Systems Integrator for AEGIS, and both General Dynamics and Lockheed Martin maintain combat system integration roles for LCS.

The Navy has fully embarked on utilizing competition to manage future combat system integration costs. As an example, combat system integration work for future AEGIS development work is now under competition with multiple bidders. The Navy is pursuing fair and open competition in the fielding of open, modular, and extensible systems. This strategy enables the Rapid Capability Insertion Process (RCIP) and the integration of new technology without costly software changes, helps manage Commercial Off-The-Shelf (COTS) obsolescence, and encourages commonality and reuse. The Open Architecture approach to development allows new business models, reduces manning and training, test and evaluation efforts, combat system certification efforts, and operating and support infrastructure. The RCIP builds off the successful submarine Acoustic Rapid COTS Insertion (ARCI) model where modular open systems are fielded in a full and open competition market.

The Navy is also actively managing combat system risk for equipment procurement, with comprehensive research recently completed on the producibility of

each Combat System element for AEGIS in support of the DDG51 production re-start. During the restart of DDG 113, the Navy instituted a rigorous change control process that performs a thorough review of the availability and manufacturing status of each combat system item and make plans for redesign as required to continue to meet future shipbuilding requirements.

The Navy's submarine force continues to enhance the combat system industrial base with procurement of the Submarine Warfare Federated Tactical Systems which encompass combat control, sonar, and imaging systems. Several prime contractors, including Lockheed Martin, Raytheon, and General Dynamics integrate the efforts of nearly two hundred subcontractors, many of them small businesses spread among more than thirty states. Additionally, the submarine force has a team dedicated to leveraging the flexibility of small businesses to address known capability gaps and help these small businesses partners with the government and major defense contractors.

Over the last two decades, the pace of innovation and expansion in the microelectronics, communications, and information technology markets has been very rapid. A wide variety of vendors are now qualified to design and build an array of products used within new or upgraded combat systems, such as microprocessors, consoles, displays, and communications equipment. A robust global commercial electronics industrial base supports these vendors. Second tier suppliers of assembled components tend to serve both commercial and defense customers. Third tier suppliers of individual components such as integrated circuits frequently supply identical products for both commercial and defense use. At the fourth tier, such as design tools and reused intellectual property, there is frequently minimal awareness of final end use in defense products. In essence, the industrial base has become largely global below the level of the prime contractors.

The Navy has also actively embarked on programs to simplify the maintenance of combat systems by taking advantage of new commercial toolsets and implementing automated testing to reduce costs and improve overall testing capabilities. These initiatives will all lead to improved operational and maintenance capabilities by the sailor on the deckplates and improved operational testing capabilities for combat systems.

Together, this active combat systems industrial base, maintenance and testing initiatives, and active ongoing competition for future work ensures the Navy will continue to field combat systems and ships that are affordable and lay the foundation for the 21st century fighting force while simultaneously sustaining critical industrial capacity for combat systems.

#### **Navy Shipyard Facility Investment Incentives**

Modernizing facilities and equipment at shipyards that build Navy vessels can lead to improved efficiency, ultimately reducing the cost of constructing ships. Over the past 10 years large shipyards have invested more than \$1.9 billion in facilities and equipment using both public and corporate funds. Investments have fallen largely into four categories: improving efficiency, developing new shipbuilding capabilities,

maintaining existing capabilities, and restoring capabilities. Examples of each category include the following:

Improving efficiency—General Dynamics BIW built a new facility—the Ultra Hall—that improves efficiency by allowing shipbuilders to access work space more easily in a climate-controlled environment.

Developing capabilities—HII—Newport News built a replacement pier that allowed shipbuilders to work on two aircraft carriers simultaneously due to a Navy scheduling conflict.

Maintaining capabilities—General Dynamics Electric Boat invested to repair docks in order to maintain the shipyard’s ability to launch and repair submarines.

Restoring capabilities—HII—Ingalls Shipbuilding invested to restore Ingalls full shipbuilding capacity and capability following Hurricane Katrina, resulting in a modernization of their facilities.

To incentivize investments, the Navy has provided support to most major shipyards with four mechanisms: (1) released money early from the reserve of contract funds normally held back to ensure ships are delivered according to specifications, (2) accelerated asset depreciation schedules, (3) tied a portion of the contractor's fee to investing in new facilities and equipment, and (4) adjusted the contract share-line to give the contractor more of the savings if costs decrease.

Through investments to improve efficiencies and develop new capabilities, major shipyards modernized their facilities and equipment, thus transforming their shipbuilding processes. Some of these investments completely changed the physical layouts of shipyards. For example, BIW completed a Land Level Transfer Facility in 2001, replacing an inclined-way transfer facility used since 1890. The Land Level Transfer Facility allows the shipyard to construct ships in larger, more fully outfitted units on any one of three construction lanes. Another example includes General Dynamics NASSCO’s facility expansion project, which fundamentally changed the layout of the shipyard to increase production capacity, throughput, and efficiency. In particular, NASSCO added new production lanes to reduce shipyard congestion, allowing builders to move units around the shipyard with reduced bottlenecks, and added a modern blast and paint facility to improve paint process efficiency while reducing emissions.

Another vehicle the Navy utilizes to incentivize facility investment is through a general policy under the Federal Acquisition Regulation (FAR). Under the policy, contractors are usually required to furnish all facilities and equipment necessary to perform government contracts. When a contractor furnishes facilities and equipment to perform a contract, the government recognizes the costs associated with these items by paying depreciation and facilities capital cost of money costs allocated to the contract. Depreciation and facilities capital cost of money costs are indirect contract costs, or costs incurred for the general operation of the business that are not specifically applicable to

one product line or contract. By recovering depreciation costs, the contractor recoups the cost of an asset—a facility or a piece of equipment—over the asset’s estimated useful life. Facilities capital cost of money acknowledges the opportunity cost for a contractor when it uses its funds to invest in facilities and equipment in lieu of other investments such as relatively risk-free bonds. Facilities capital cost of money is determined by multiplying the net book value of the contractor’s capital assets by a cost-of-money rate, which is a rate tied to the U.S. Treasury rate.

With respect to Navy shipbuilding, a shipyard’s indirect costs, including depreciation and facilities capital cost of money, are allocated to the Navy’s shipbuilding contracts at the shipyard in accordance with the Cost Accounting Standards. When a shipyard makes facilities and equipment investments, all ships under contract during the life of those assets are allocated a portion of the assets’ indirect costs. Therefore, if the number of ships under construction at a given time in a shipyard increases, the indirect costs per ship decrease, and if the number of ships under construction at a given time in a shipyard decreases, the indirect costs per ship increase.

### **Summary**

The DoD’s 30 Year Shipbuilding Plan provides a framework for promoting stability in the shipbuilding industry and supporting decision making for long term capital investment and workforce planning. Industrial base considerations are an important element that factor into the formulation of this plan. The Navy monitors and considers the health of major suppliers, the component supply base and commodity materials. In reviewing the health of the Navy’s shipbuilding industrial base, the Navy examines not only production labor employment, but also engineering capabilities, facility capabilities and efficiency, the overall health and demographics of the workforce, and the financial strength of key industry partners. In addition to these considerations, the Navy has applied other methods where feasible to promote long-term stability through MYP contracts, encourage shipyards to compete for commercial workload via SCPAs, and has used other innovative strategies to promote capital investment. The result is DOD’s plan; which takes into account the Navy’s current battle force inventory, retirement and recapitalization plans for these ships, and current acquisition plans. The Navy will continue to assess the industrial base for risk as it executes this shipbuilding plan and will address industrial base matters with industry and Congress in the course of programming future years’ shipbuilding budgets, formulating industrial base policies, and implementing acquisition strategies.



**Assistant Secretary of the Navy**  
(Research, Development and Acquisition)

7/28/2008 - Present

**THE HONORABLE SEAN J. STACKLEY**

Sean J. Stackley assumed the duties of assistant secretary of the Navy (ASN) (Research, Development & Acquisition (RDA)) following his confirmation by the Senate in July 2008. As the Navy's acquisition executive, Mr. Stackley is responsible for the research, development and acquisition of Navy and Marine Corps platforms and warfare systems which includes oversight of more than 100,000 people and an annual budget in excess of \$50 billion.



Prior to his appointment to ASN (RDA), Mr. Stackley served as a professional staff member of the Senate Armed Services Committee. During his tenure with the Committee, he was responsible for overseeing Navy and Marine Corps programs, U.S. Transportation Command matters and related policy for the Seapower Subcommittee. He also advised on Navy and Marine Corps operations & maintenance, science & technology and acquisition policy.

Mr. Stackley began his career as a Navy surface warfare officer, serving in engineering and combat systems assignments aboard USS *John Young* (DD 973). Upon completing his warfare qualifications, he was designated as an engineering duty officer and served in a series of industrial, fleet, program office and headquarters assignments in ship design and construction, maintenance, logistics and acquisition policy.

From 2001 to 2005, Mr. Stackley served as the Navy's LPD 17 program manager, with responsibility for all aspects of procurement for this major ship program. Having served earlier in his career as production officer for the USS *Arleigh Burke* (DDG 51) and project Naval architect overseeing structural design for the Canadian Patrol Frigate, HMCS Halifax (FFH 330), he had the unique experience of having performed a principal role in the design, construction, test and delivery of three first-of-class warships.

Mr. Stackley was commissioned and graduated with distinction from the United States Naval Academy in 1979, with a Bachelor of Science in Mechanical Engineering. He holds the degrees of Ocean Engineer and Master of Science, Mechanical Engineering from the Massachusetts Institute of Technology. Mr. Stackley earned certification as professional engineer, Commonwealth of Virginia, in 1994.



# United States Navy Biography

## REAR ADMIRAL THOMAS J. ECCLES CHIEF ENGINEER AND DEPUTY COMMANDER FOR NAVAL SYSTEMS ENGINEERING, NAVAL SEA SYSTEMS COMMAND

Rear Adm. Eccles was born on Johnson Air Force base in Japan and raised in Wallingford, Conn. He graduated from the Massachusetts Institute of Technology in 1981.

Eccles served at sea aboard USS *Richard B. Russell* (SSN 687) and USS *Gurnard* (SSN 662). As an engineering duty officer, he held positions at Mare Island Naval Shipyard, in the Navy's Deep Submergence Systems Program, and he had two tours in the Virginia Class Submarine Program, directing design and construction. He was executive assistant to the Commander, Naval Sea Systems (NAVSEA) Command.



Eccles was Seawolf program manager through the delivery of USS *Jimmy Carter* (SSN 23), where his team was awarded the Meritorious Unit Commendation, then program manager for Advanced Undersea Systems, responsible for research and development submarines, submarine escape and rescue systems, and atmospheric diving systems. As a commander, he was program manager for the design and construction of the unmanned autonomous submarine, *Cutthroat* (LSV 2).

Eccles' previous flag officer assignments included deputy commander for Undersea Warfare and Undersea Technology in NAVSEA, and commander of the Naval Undersea Warfare Center, before becoming NAVSEA's Chief Engineer in September 2008.

In 2010, Eccles led the US technical team supporting the Republic of Korea joint international investigation into the loss of the warship Cheonan. Also in 2010, he was appointed to the National Academy of Engineering committee examining the Deepwater Horizon explosion and oil spill in the Gulf of Mexico.

Eccles' education includes four degrees from MIT including a bachelor's in Electrical Engineering, a master's in Mechanical Engineering, the professional degree of Naval Engineer, and a master's in Management of Technology from MIT's Sloan School. He serves on the Visiting Committee in MIT's Department of Mechanical Engineering. He is a graduate of the Naval War College, the Defense Systems Management College, and the foreign policy program Seminar XXI, and was elected to the Society of Sigma Xi. He is qualified in submarines, and as a deep sea diver and salvage officer. His decorations include the Legion of Merit (3), National Intelligence Exceptional Achievement Medal, Defense Meritorious Service Medal, Meritorious Service Medal (4), and other individual and unit awards.

*Updated: 15 August 2011*

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**WITNESS RESPONSES TO QUESTIONS ASKED DURING  
THE HEARING**

SEPTEMBER 11, 2012

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**RESPONSE TO QUESTION SUBMITTED BY MR. CONAWAY**

Secretary STACKLEY. The July 5, 2012 Department of Defense Alternative Fuels Policy for Operational Platforms stipulates that:

“ . . . alternative drop-in replacement fuel procured for DOD-wide use and distribution within the Class III (Bulk) supply chain will compete with petroleum products under the DLA Bulk Purchase and Direct Delivery Purchase Programs. Awards will be based on the ability to meet requirements at the best value to the government, including cost.”

In order to comply with the policy, the Navy and/or its purchasing agent, DLA Energy, are required to purchase biofuels or any alternative fuels for drop-in replacements in operational quantities (i.e., not research, development, test, and evaluation) that are cost-competitive with the conventional petroleum-derived fuels that they replace. [See page 11.]



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**QUESTIONS SUBMITTED BY MEMBERS POST HEARING**

SEPTEMBER 11, 2012

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## QUESTIONS SUBMITTED BY MR. WITTMAN

Mr. WITTMAN. How can the workload at the public and private shipyards be balanced efficiently and effectively to align with future shipbuilding plans? a. What challenges exist? b. How are they being addressed? c. How important is a stable, proven, fully researched design and workload when executing shipbuilding plans?

Secretary STACKLEY. The Navy's FY2013 Long Range Shipbuilding Report to Congress contains the shipbuilding plan that balances workload stability given fiscal constraints while aligning with retirements and future shipbuilding plans. The goal of this plan is to provide a stable long-term shipbuilding forecast for private shipyards that reduces industrial base volatility and allows the industry to better match investments to meet Navy capabilities. The Navy believes that stability in the shipbuilding program is a key ingredient in sustaining a cost effective and capable capacity in the shipbuilding industry.

The Long Range Shipbuilding Plan is integral to the planning of maintenance and modernization in both the public and private sector. Typically the public sector is responsible for the maintenance and modernization of the Navy's nuclear ships, while the private sector is responsible for maintenance and modernization of non-nuclear ships. Based on the projected ship inventory and strategic laydown, the Class Maintenance Plan requirements for all ships in service are translated into projected public and private sector workloads. These workloads are compared to existing capacities, which can be adjusted as required. These long range workload forecasts are provided to Congress on an annual basis.

Challenges exist in balancing ship retirements with future shipbuilding plans and efficient shipyard production given fiscal constraints. In determining the shipbuilding plan, the Navy works to achieve the following:

- Stabilizing production workload across product lines and within individual shipyards.
- Building ships at affordable yet efficient levels.
- Avoiding gaps in ship production which can result in shipyard closure or costly production line start-up costs.
- Minimizing major design workload fluctuations.
- Addressing the rapid retirements of ships procured in the 1980s. The ships brought into service during the 1980s, some procured at a yearly rate of four to five ships of a single class, are projected to retire during the next 20 years. With today's need for capable, multi-mission platforms, the Navy cannot re-capitalize its legacy ships at the same rate at which they were originally procured and maintain an affordable, balanced procurement plan.

Solutions:

- Because Navy ships can only be constructed at a limited number of U.S. shipyards, the timing of ship procurement is a critical matter to the shipbuilding and combat system industries. As a result the Navy is moving toward longer production runs based on common hull-forms across like-platforms.
- Navy is working with its industry partners to consider several factors to control costs and improve stability:
- Level loading shipyards to sustain employment levels and skills retention, and stabilize workloads through work share opportunities and regional outsourcing.
- Greater use of contract incentives, such as multi-year procurement, fixed price contracts and increased competition.
- Reducing ship types, maximizing reuse of ship designs and common components, and implementing open architecture.

In addition to efforts described above, a stable design with a focus on both acquisition and operational affordability is very important and is directly related to the controlling of costs.

Mr. WITTMAN. Given the possible implementation of sequestration in FY2013 and the lower budget caps in the BCA for FY14–FY21, this shipbuilding industrial base

is currently facing uncertainty about the FY2013 shipbuilding programs and the outlook for subsequent years. The uncertainty causes planning difficulties for shipbuilders and supporting vendors, and could discourage them from making investments in people and infrastructure that could help reduce the cost of Navy ships. How is the Navy addressing these concerns and what plans are currently in place if cuts occur?

Secretary STACKLEY. If sequestration occurs, automatic percentage cuts are required to be applied without regard to strategy, importance, or priorities, resulting in adverse impact to almost every contract and procurement effort within the Department. Sequestration would adversely impact the Navy's ability to procure the shipbuilding programs programmed in the FY13 Department of the Navy President's Budget request. Potential reductions to the number of ships procured or stretch-outs to the programs of record will cause cost increases and create shortfalls or delays to ship deliveries, thus impacting the operating forces ability to meet its requirements. These adverse impacts would apply to both planned FY13 contract awards and shipbuilding contracts under execution that depend on Completion of Prior Year Shipbuilding Programs funds or other incremental funding. In addition, sequestration could result in percentage reductions of FY12 and prior year unobligated balances, affecting remaining efforts to complete shipbuilding programs under construction.

Depending on available transfer authority to consolidate these cuts, sequestration would severely limit the ability to preserve major acquisition programs, resulting in significant impacts to our defense industrial base. However, a detailed review directed by OMB would be required to determine the specific impacts to national security from sequestration.

Mr. WITTMAN. Secretary Stackley, is there a benefit to the Nation and the taxpayer with directed procurement? Taking into consideration that shipbuilding is unique and unlike any other acquisition and procurement process, is there efficiency in directing procurement to specific shipyards? (logistics ships and amphibious ships in order to provide a constant and efficient workload and stable vendor base and supply chain?) My concern is that if we openly compete large capital ships we could compete a yard out of business and essentially cause a massive decline in shipyard capability, strategic lay down, and surge capacity.

Secretary STACKLEY. The Navy uses directed procurement for a few of our ship classes. There is one builder of aircraft carriers for the Nation. As a result of Congressionally-directed teaming for attack submarine new construction, the Navy contracts with General Dynamics Electric Boat who subcontracts with Huntington Ingalls Industries (HII). The Navy has also been dual sourcing surface combatant construction since the mid-1990's, and each time that decision is revisited, the Navy has concluded that it is in the nation's best interest to keep two shipbuilders building surface combatants. In these cases, the Navy working with Congress, attempts to stabilize the procurement quantities in order to maintain adequate workload to support planning and achieve efficiencies. Industry has been doing their part too, making adjustments in terms of capacity and with respect to their future planning.

However, the Navy and the nation pays a price for programmatic decisions that set us on a path to acquire goods or services from a set of directed suppliers or from a single source. Competition is a critical driver in innovation and performance. While shipbuilding is different than many other acquisition and procurement processes, the value achieved through competition is unmatched. With respect to the procurement of Amphibious and Auxiliary ships, the Navy has historically employed competition within its acquisition strategy. In more recent years, the viability of the Amphibious and Auxiliary ships' industrial base has become a growing concern. HII's business decision to close their Avondale, Louisiana facility in 2013 (after the delivery of LPD 25) and consolidate their shipbuilding efforts at their shipyard in Pascagoula, Mississippi reflects the current imbalance between capacity and demand in the Amphibious/Auxiliary shipbuilding sector. Even then, current projections for Amphibious shipbuilding pose challenges for Ingalls shipbuilding in this next five year period. The next amphibious ship program, LX-R, is not required to replace the LSD 41/49 class ships until the mid-2020s (lead ship to be competitively awarded in 2018). The only first tier shipbuilder constructing auxiliary ships is General Dynamics NASSCO in San Diego, California. NASSCO has historically relied upon both Navy and commercial shipbuilding to remain viable, however the protracted downturn in commercial new construction has significantly impacted NASSCO's business base. The Navy has signed a Shipbuilding Capability Prevention Agreement with the intent of strengthening NASSCO's position for pending commercial awards. With regards to Navy ship construction, NASSCO recently delivered the last ship of the T-AKE program, and is currently constructing the Mobile Landing Platform (MLP) class of ships. NASSCO is under contract to build

three MLPs, which will deliver in 2013, 2014 and 2015 respectively. To satisfy an operational requirement, the Navy requested in PB13 that Congress authorize and appropriate funding to modify MLP 3 and build it as an Afloat Forward Staging Base (AFSB) variant, and to authorize and appropriate funding for a fourth MLP/AFSB variant in Fiscal Year 2014 (FY14). The MLP AFSB variant satisfies a Combatant Commander requirement and addresses a significant industrial base issue. The next auxiliary ship acquisition will not occur until 2016, when the Navy plans to competitively award the T-AOX lead ship, targeting replacement of the Navy's fleet oilers. Given the sum of these challenges and projections for future Amphibious and Auxiliary shipbuilding programs, the Navy and industry must work towards increasing efficiency at low rate production and too, to the extent budget and requirements afford, increasing the rate of production; if we are to sustain the current Amphibious/Auxiliary shipbuilders (less Avondale). The current overarching strategy employs competition for these future programs as the most effective means of driving affordability and innovation. Directed procurement may become necessary based on future events and program budget decisions; however such a procurement strategy comes at the expense of affordability and innovation and therefore is not the procurement strategy of choice.

Mr. WITTMAN. Considering the ever-present potential for the need of surge construction capacity, the ever-present threat of national disasters or other unforeseen events, and the strategic pivot toward the Pacific; are you satisfied with the current strategic laydown of our new construction capable shipyards? Are you satisfied with the construction capacities on both coasts? If there was a 30-Year Shipyard Plan, how do you see the strategic laydown of our national shipyards changing in the next 30 years?

Secretary STACKLEY. Currently, there are five large shipbuilding facilities on the East and Gulf Coasts, and one shipbuilding facility on the West Coast, in addition to other second tier and smaller shipyards constructing ships for the Navy. The current strategic physical location and laydown of our new construction shipyards is sufficient to support the Navy's long-range shipbuilding plan even with the potential of unforeseen events occurring and a pivot in our strategic focus toward the Pacific.

The current shipbuilding industrial base is not a legacy of the 1980's-era 600-ship goal. The structure of the industrial base and the companies and shipyard facilities building battle force ships has changed considerably, in a dynamic process of corporate adaptation and adjustment to the level and nature of Navy and Jones Act shipbuilding activity. Three shipyards left naval construction in the 1980s and one is slated to close in 2013. Two yards have entered—one is new and one is reentering.

- Exiting: the Lockheed shipyard in Seattle and the Todd shipyard in Los Angeles were closed down. The Todd shipyard in Seattle left the naval shipbuilding business. The Huntington Ingalls Industries Avondale shipyard near New Orleans, is scheduled to be closed in 2013.
- Entering: Austal USA in Mobile, Alabama, and Fincantieri's Marinette Marine in Marinette, Wisconsin. Marinette, who built mine countermeasure ships in the 1980s and later focused on Coast Guard ships, is now building Littoral Combat Ships (LCS) after about 15 years without naval construction in its portfolio. Austal USA is a relative newcomer and has expanded its facilities to build LCS and Joint High Speed Vessel (JHSV) ships for the Navy.

It is hard to predict how the future Navy will adapt over the next 30-years given operational needs and economic realities. With our current geographically dispersed shipbuilding footprint, the Navy and our shipbuilding industry are poised to adapt and flex to meet the Nation's needs for naval assets.

Mr. WITTMAN. Significant infrastructure and manpower investments recently implemented at shipyards across the country have resulted in increased workforce capacity. If changes in procurement occur as a result of a lack of funding, reallocation of resources, contract renegotiations, or other fiscal disruptions, how will this affect the long-term sustainability of not just the industrial base, but the classes of ships being built in the shipyards as well?

Secretary STACKLEY. The strength of our Navy's seapower is closely aligned with the strength of our shipbuilding industrial base. The critical skills, capabilities, and capacities inherent within our new construction shipyards and weapon systems developers inarguably underpin the U.S. Navy's dominant maritime position. Accordingly, in the course of balancing resources and requirements in the formulation of future shipbuilding plans, the Navy will continue to closely weigh the effect of program decisions on the industrial base. A priority will continue to be placed on providing stability for the shipbuilding industrial base and incentivizing facility investment. Stability translates into retention of skilled labor, improved material pur-

chasing and workforce planning, and strong, sustained learning curve performance. Stability coupled with capital improvements translates into more efficient ship construction and a more affordable shipbuilding program. Affordability is the key to achieving and sustaining the shipbuilding plan.

Mr. WITTMAN. If prime contractors cut back on production due to fiscal constraints, demand for goods and services from their subcontractors and suppliers goes down. Many of these suppliers will likely leave the shipbuilding business never to return, creating a deficit in required trades and skill sets that may never be regained. How does the Navy plan on protecting and sustaining the supplier community when their livelihood depends largely on business from prime contractors?

Secretary STACKLEY. The Navy assesses the shipbuilding industrial base sector by sector and tier by tier, monitoring the health of the shipbuilders and major suppliers. In doing so, the Navy examines not only production labor employment, but also engineering capabilities, facility capabilities and efficiency, overall skill and experience of the workforce, and as warranted, financial strength. The Navy meets periodically with our prime contractors, as well as professional associations such as the Shipbuilders Council of America (SCA) and the American Shipbuilding Suppliers Association (ASSA), and one of the key focus areas is the health of their supply base, which products have sole source or limited suppliers, and where there are vulnerabilities or potential opportunities.

The Navy is limited in terms of how much can be done beyond our direct contracts with our shipbuilders and our combat system suppliers. Additionally, perhaps the greatest tool available for protecting and sustaining the supplier community, one used to good effect in shipbuilding, is the use of long-term contracts; multi-years, multiple years, and Advance Procurement contracts. Currently, every major shipbuilding program is employing such a strategy, which provides for stable production while level-loading the vendor base. The Navy can and has entered into Shipyard Capability Preservation Agreements (SCPA) to assist in making shipyards more competitive commercially, and continues to support the Jones Act. In addition, the Navy is committed to using small businesses in support of its Sailors and Marines, and actively works to ensure that a fair proportion of business is provided by small business enterprises. Each one of these actions is aimed toward the stability of not just the shipbuilders, but of the entire supply chain. Stability is required to facilitate planning, investment, training and the retention of a skilled workforce that is necessary for the high performance, high quality, on schedule and affordable ships that our Sailors deserve.

