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HEARING
ON
NATIONAL DEFENSE AUTHORIZATION ACT
FOR FISCAL YEAR 2014
AND
OVERSIGHT OF PREVIOUSLY AUTHORIZED
PROGRAMS
BEFORE THE
COMMITTEE ON ARMED SERVICES
HOUSE OF REPRESENTATIVES
ONE HUNDRED THIRTEENTH CONGRESS
FIRST SESSION
SUBCOMMITTEE ON SEAPOWER AND
PROJECTION FORCES HEARING
ON
**OVERSIGHT OF U.S. NAVAL AND U.S.
AIR FORCE ACQUISITION PROGRAMS
IN THE FISCAL YEAR 2014 NATIONAL
DEFENSE AUTHORIZATION BUDGET
REQUEST**

HEARING HELD
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OVERSIGHT OF U.S. NAVAL AND U.S. AIR FORCE ACQUISITION PROGRAMS IN THE FISCAL YEAR 2014 NATIONAL DEFENSE AUTHORIZATION BUDGET REQUEST

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ARMED SERVICES,
SUBCOMMITTEE ON SEAPOWER AND PROJECTION FORCES,
Washington, DC, Wednesday, April 24, 2013.

The subcommittee met, pursuant to call, at 10:00 a.m., in room 2118, Rayburn House Office Building, Hon. J. Randy Forbes (chairman of the subcommittee) presiding.

OPENING STATEMENT OF HON. J. RANDY FORBES, A REPRESENTATIVE FROM VIRGINIA, CHAIRMAN, SUBCOMMITTEE ON SEAPOWER AND PROJECTION FORCES

Mr. FORBES. First of all, I want to welcome all of our members and our distinguished panel of experts to today's hearing that will focus on the Administration's fiscal year 2014 budget request. In the decade ahead, I believe we will increasingly lean on our seapower and projection forces to underpin our national security strategy.

Our naval forces are deployed around the world, protecting the world's sea lanes and operating forward to deter conflict. Our projection forces are uniquely ready to support a wide range of mobility, strike, and strategic deterrence missions around the globe.

While I am pleased at the capabilities provided by our forces today, the long-term outlook of our defense posture is being challenged. Naval forces embarked on carrier strike groups and amphibious readiness groups routinely deploy 7 to 8 months.

Because of the Navy's sustained surge, our nuclear aircraft carriers are depleting their nuclear reactor propulsion units at accelerating rates. Our bomber fleet averages 37 years old, and our venerable tanker fleet averages an even older 48 years.

While we are meeting the minimal requirements of our ever-retreating national strategy, it is painfully obvious that our future readiness is being leveraged to pay for our current requirements.

The most recent example of the Administration's direction is the 30-year shipbuilding plan that was partially submitted on Monday. The Administration, once again, proposes the early retirement of seven cruisers and two amphibious ships in fiscal year 2015, well before the end of their service lives.

With 31 ships being retired over just the next 2 years, we are headed towards a fleet size of 270 battle force ships by fiscal year 2015. Decline is a choice, and I believe this new plan willingly chooses to continue the slow, painful decline of robust American seapower.

The plan also includes a significant increase to the overall ship construction budget to accommodate the *Ohio* class ballistic missile submarine replacement. At over \$5 billion, these strategic investments in our nuclear triad are essential.

Our main concern, that during the procurement and construction of the *Ohio* class replacement, the shipbuilding budget will demand an average of \$19 billion per year. To fund both this new boat and the battle force it will take, either a substantial increase in the shipbuilding account or an effort to fund the *Ohio* class replacement from outside this account.

I look forward to continuing to work with the Department of the Navy to address this funding shortfall. During the Navy Posture Hearing earlier this month, military leaders indicated that they were pleased at the investment in the ship construction accounts and highlighted the dearth of ships in construction when they took office.

To arrest this decline, this Administration embraced the plan that includes an aggressive strategy to build a moderately capable surface combatant called the Littoral Combat Ship, that adds over 50 ships over the term of the plan. But unfortunately, the mission modules that are integral to support this 20-year seaframe are still in research and development, complicating the Navy's ability to respond to basic mine countermeasures missions and antisubmarine missions.

Just as the fleet is shrinking from the retirement and procurement of less major surface combatants and amphibious ships, we are filling these shortfalls with smaller surface combatants and support vessels.

We need to take steps to arrest the decline of our battle force fleet. As to the Air Force projection forces, I am pleased that we may be initiating the semblance of a credible recapitalization plan.

With the support of an investment in the KC-46 Tanker Program and strategic emphasis on the Long Range Strike Bomber, I believe that the Air Force is on the right path with the right platforms for our Nation's future.

I look forward to supporting these continued investments in our mobility and projection forces capabilities.

As to the Marine Corps, I understand the amphibious combat vehicle is the Marine Corps' top priority for ground force modernization, and the Marines have completed the required analysis of alternatives.

We need to get this program right for the future of the Marine Corps, and I look forward to receiving an update on this critical program. I would be remiss if I also did not recognize the Navy in providing a credible long-term acquisition strategy that uses block buy on multiyear procurements to secure steep reductions in overall Naval pricing.

Not only is this a good strategy for our Nation's taxpayers, it provides the long-term surety to our industrial base, that will allow them to make critical investments for their long-term health.

My friends, we are at a strategic inflexion point in terms of our defense policy. Concurrent with the new strategy being contemplated by this Administration, my fear is that the overall capabilities of our military will continue to atrophy, and our inability

to be able to operate forward and project power, will embolden regional instability.

In the end, future defense reductions will be paid for in the lives of our service members. I refuse to accept this premise and will do everything in my power to arrest further decline from modernizing and growing our capabilities.

Joining us today to discuss the fiscal year 2014 budget request, are five distinguished and patriot gentlemen.

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

Vice Admiral Allen G. Myers, U.S. Navy. He is the Deputy Chief of Naval Operations for Integration Capabilities and Resources.

We have Lieutenant General Richard P. Mills, U.S. Marine Corps Deputy Commander for Combat Development and Integration.

We also have Lieutenant General Charles Davis. He is the Military Assistant of the Air Force for Acquisition.

And, Lieutenant General Robert R. Allardice, Vice Commander of the Air Mobility Command.

General, we thank you all for being here, and one thing I would like to emphasize at the beginning is, I understand two of you are going to make actual opening comments and then respond to questions.

This is probably, if not the most bipartisan committee, it is probably one of the most bipartisan committees in Congress. We share a common goal in making sure that we are reaching the desired strength that we have for our military. We appreciate all of your Services here.

There is no attempt to embarrass any of you with any questions. We understand you are speaking for the Department in your respective Services, but it is also our goal to try to make sure we are asking the tough questions, so we are putting all the facts on the table and moving forward with the kind of oversight we need.

Our members will try to do that today, but in the end, I want to make sure I am going to give each of you an opportunity. If you have left anything out or felt you need to change anything or you need additional time, I am going to give it to you, so that you can make sure you get that on the record.

And with that, I want to recognize now my good friend and ranking member, Mike McIntyre, from North Carolina, with any remarks he might have.

Mike?

[The prepared statement of Mr. Forbes can be found in the Appendix on page 49.]

STATEMENT OF HON. MIKE MCINTYRE, A REPRESENTATIVE FROM NORTH CAROLINA, RANKING MEMBER, SUBCOMMITTEE ON SEAPOWER AND PROJECTION FORCES

Mr. MCINTYRE. Thank you, Mr. Chairman. And thanks to all of you for your service to our country, and thanks to your families for their sacrifice in the great work that you do.

We know this is a critical time for both the Department of the Navy and the Department of the Air Force, and with the combina-

tion of prior cuts and implementation of sequestration, the Navy and Air Force are being forced to make tough decisions.

For the Navy, the budget request, \$14.1 billion for shipbuilding for eight new construction battle force ships. I was pleased to see the Navy was able to include a second *Virginia* class submarine in the budget request because we know maintaining a 2-ship buy per year *Virginia* class submarines is an important part of the Navy's effort to mitigate the submarine shortfall that is predicted in the coming years.

It is our understanding that the Navy is still trying to decide whether the next multiyear procurement for destroyers will be a 9-ship or 10-ship buy due to the impacts of sequestration. We need to hear from the witnesses as to how this subcommittee could be of assistance in obtaining that additional ship.

For the Marine Corps, I know that the development and fielding of a new amphibious combat vehicle is one of its top priorities, and this budget includes \$137 million towards that effort.

Our subcommittee will be interested in hearing how the Marine Corps plans to field this important capability while also avoiding the cost growth that led to the cancellation of the Expeditionary Fighting Vehicle.

This budget continues the development of two high-priority initiatives for the Air Force, the new Long Range Strike Bomber and the new aerial refueling tank or aircraft. The current age, the average age of the bomber fleet being 37, and the average age of the current tanker fleet being 48, we know it is critical that these platforms deliver on-time, and also, in an affordable manner.

We are concerned very much about sequestration. We certainly hope that the witnesses can explain how these cuts are affecting your respective Services so that our subcommittee can understand the short-term and the long-term impacts, and how we can be of the absolute help we want to be to the Navy, to the Marine Corps and to the Air Force.

God bless all of you all for your commitment and sacrifice, and thank you for being with us today.

Mr. FORBES. Mike, thank you for those comments, and Mr. Secretary, I think you are going to lead off for us, and again, we thank you and your office for your responsiveness to this committee and you have done great work in trying to get us the questions we have asked. We appreciate that cooperation, and we look forward to your remarks this morning.

STATEMENT OF HON. SEAN STACKLEY, ASSISTANT SECRETARY OF THE NAVY FOR RESEARCH, DEVELOPMENT AND ACQUISITION; VADM ALLEN G. MYERS, USN, DEPUTY CHIEF NAVAL OPERATIONS FOR INTEGRATION OF CAPABILITIES AND RESOURCES (N8), U.S. NAVY; AND LTGEN RICHARD P. MILLS, USMC, DEPUTY COMMANDER FOR COMBAT DEVELOPMENT AND INTEGRATION, MARINE CORPS COMBAT DEVELOPMENT COMMAND, U.S. MARINE CORPS

Secretary STACKLEY. Thank you, sir. Chairman Forbes, Ranking Member McIntyre, and distinguished members of the subcommittee.

Mr. FORBES. Mr. Secretary, could you use that mike closer to your mouth. They can be a little sensitive sometimes.

Secretary STACKLEY. Yes, sir. Thank you for the opportunity to appear before you today, to address the Department of the Navy acquisition programs and, with the permission of the subcommittee, I propose to provide a brief statement and submit a separate formal statement for the record.

Your Navy and Marine Corps team is this Nation's expeditionary force in readiness, a balanced naval, air, and ground force forward-deployed, forward-engaged, on the ground in Afghanistan; performing maritime security along the world's vital sea lanes; missile defense in Mediterranean and Sea of Japan; intelligence, surveillance, and reconnaissance where needed, as needed; persistence of presence at sea with an embarked Marine force ready to move ashore.

They're conducting antipiracy patrols, global partnership stations, humanitarian assistance in a quietly, reliably on patrol providing strategic deterrence, and all the while, training for the next deployment, the next operation, the next crisis, the next contingency.

The Department of the Navy's 2014 budget request provides the resources needed to meet this full range of missions, and it provides the investment required to execute tomorrow's mission against the future threat.

But before discussing the 2014 budget request, it is important to mark where we are in 2013. The 2013 budget request reshaped our shipbuilding, aviation, and tactical vehicle plans to reflect the priorities of the new defense strategy.

And Congress strongly supported that request. In fact, funding was increased for additional ships and aircraft, as well as for operations and modernization of the in-service fleet. Too, the Authorization Act provided multiyear authority for submarines, destroyers, and MV-22 [Osprey tiltrotor] aircraft and, with that, stability for the industrial base and near \$5 billion in savings for the taxpayer.

However, sequestration more than offset these gains, and we are about \$11 billion out of balance across operations, maintenance and investment. And given the method of applying sequestration and our limited ability to reprogram funds to resolve fiscal year 2013 issues, we need to identify workarounds to each line of the budget in order to execute the planned program as best as possible.

In the end, there will be impacts. Reductions to operations and maintenance funding is directly impacting our near-term forward presence and our depot maintenance and training, which will affect future operational rotations, and the readiness of our nondeployed forces will be reduced.

In our investment accounts which provide for future readiness, we are weighing alternatives to mitigate quantity reductions, scheduled delays and the cost impacts due to each of our ship, aircraft, and weapons systems programs.

We will work with your staff as these details unfold, particularly as they affect the 2014 budget deliberations.

The 2014 budget request balances capability and readiness in support of the defense strategy while maintaining focus on affordability and the industrial base. Our shipbuilding program is stable

as we continue to build towards a 300-ship force as defined by the Navy's force structure assessment.

Submarine, destroyer, Littoral Combat Ship, and mobile landing platform construction performance is strong, and these program savings have been reinvested to uphold our shipbuilding rates despite downward pressure on the budget.

In fact, we increased construction in the near term, with the addition of a second *Virginia* class submarine in 2014 towards that program's 10-built multiyear, and we will work closely with your subcommittee to determine how to best overcome the impact of sequestration to likewise award the additional tenth DDG 51 [*Arleigh Burke* class guided missile destroyer] as part of that program's multiyear.

Two years ago, we reported cost growth on the lead ship of the *Ford* class aircraft carrier program, stemming from development of new systems and delays in design and material, all impacting production.

Our efforts to improve on this performance has stemmed cost growth on the lead ship but not reversed it. Accordingly, we are requesting cost cap relief and funding to complete CVN 78 [*USS Gerald R. Ford* supercarrier] in accordance with our previously reported estimate.

We are attacking these issues on the next carrier, CVN 79 [*Ford* class supercarrier *USS John F. Kennedy*] and are working with the shipbuilder to replan materiel ordering, work flow on fellow ships, and needed facility improvements in order to reduce costs of our future carriers.

Performance in amphibious ship construction is much improved. LHA 6 [Landing Helicopter Assault] lessons are rolling into LHA 7 construction, and the recently delivered LPD 23 [amphibious transport dock ship] and LPD 24 are entering the fleet at high levels of quality and completion, and we look for this trend to continue as we complete the remaining ships in that class.

Looking ahead, we are conducting design studies and analysis of alternatives for future amphibious and auxiliary ships. LHA 8, the future LX(R) to replace the LSD [Landing Ship, Dock] 41/49 class and the future oiler T-AO(X), as we consider the workload at our shipyards and the vendor base, it is critical that we press forward with these ships' design in order to find opportunities to pool work forward affordably as necessary to sustain this critical sector of our industrial base.

I would like to briefly address the *Ohio* replacement program. Requirements are stable and development and early design are on schedule to support procurement in 2021. Affordability of the Navy's shipbuilding program during the period of the SSBN construction remains a priority however.

And while design for affordability is a central tenet of our *Ohio* replacement strategy, meeting our cost objectives will not alone bring our shipbuilding, topline, within reach during that program.

Like our shipbuilding program, the stability in aviation programs is provided by mature programs being procured under multiyear contracts, the Super Hornet, the MH-60 helicopter, and the MV-22 Osprey. To this list, we are requesting authority for multiyear

procurement of the E-2D [Advanced Hawkeye early warning and control] aircraft commencing in 2014.

When the leading edge of modernization of our maritime patrol fleet, our ability to leverage commercial production of the 737 aircraft for the P-8A [Poseidon multimission maritime aircraft] has reduced costs and risks for this aircraft which is preparing for its first deployment later this year.

Likewise, the Navy's MQ-4 Triton aircraft, which is making progress towards its first flight later this spring, leverages Global Hawk development to provide high-altitude, long-endurance unmanned capability to complement the P-8A.

The third leg of our balanced new war ground force, Marine Corps tactical vehicles, is at the front-end of much needed recapitalization. We brief this committee on our strategy to replace the HMMWV [High-Mobility Multipurpose Wheeled Vehicle] with a more capable, survivable, joint, light, tactical vehicle being procured jointly with the Army.

And with the termination of the expeditionary fighting vehicle, to replace the aging amphibious assault vehicle, with a more capable, more survivable, amphibious combat vehicle that meets thresholds set for affordability.

The JLTV [Joint Light Tactical Vehicle] program remains on track with the 2014 budget request, continuing development and support of procurement commencing in 2015.

We are continuing to review, with the Army, the impacts of sequestration on that schedule and we will advise the results upon completion of this review.

The amphibious combat vehicle is as the commandant stated in testimony, top Marine Corps priority. In order to ensure we get this right, we are conducting a combined requirements definition feasibility study spanning the best of Government and industry requirements, design and cost experts.

Our intent is to bring the best talent and best information together to build on the tremendous body of knowledge we possess across all of our vehicle programs and determine how to deliver the capability needed by the Marine Corps with high confidence and the affordability of the defined requirements.

We have engaged your staff on the front end of this process and will remain engaged as we press to future milestone decisions.

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

[The joint prepared statement of Secretary Stackley, Admiral Myers, and General Mills can be found in the Appendix on page 52.]

Mr. FORBES. Mr. Secretary, thank you.

And General, I understand that you are going to make our other presentation, and we appreciate your service to our country, and thank you for taking time to help us this morning, and I turn the floor over to you.

STATEMENT OF LT GEN ROBERT R. ALLARDICE, USAF, AIR MOBILITY COMMAND VICE COMMANDER (AMC/CV), U.S. AIR FORCE; AND LT GEN CHARLES R. DAVIS, USAF, MILITARY DEPUTY, OFFICE OF THE ASSISTANT SECRETARY OF THE AIR FORCE FOR ACQUISITION, U.S. AIR FORCE

General ALLARDICE. Thank you. Chairman Forbes, Ranking Member McIntyre, and distinguished members of the subcommittee, with your permission, sir, I will make some brief opening comments and ask that our full written statements be placed in the record.

Sir, thank you for your steadfast support of our airmen as they go about the Nation's work around the world. General Davis and I are honored to be joined today by the distinguished members of this panel.

We recognize that we are at our finest when we operate as a true joint team and our willingness to work together towards solutions to future challenges is absolutely critical.

It is humbling to be here representing the 134,000 airmen from the Active Duty, Air Force Reserve and the Air National Guard today. Included in that number is nearly 10,000 dedicated civilians without whom we could not accomplish our mission.

When combined with the commercial industry and industry partners, these teams round out our national air transportation capability. We are grateful for the support that this committee provides our entire team as we execute our global mission every day.

The remarkable thing about our air mobility forces, our fellow citizens don't often hear about what they do. We go about quietly accomplishing our mission behind the scenes without the Nation understanding how dependent they are on rapid power projection.

Rapid global ability gives us strategic options that no other nation in the world enjoys today. We have seen this play out time and again across the full spectrum of operations from humanitarian to combat.

Our fellow U.S. citizens in the Northeast saw this in play last fall when a total force team transported utility trucks from California to an Air Reserve base outside of Boston, where they were desperately needed in the aftermath of the Superstorm Sandy.

Halfway around the world, the continuous bomber presence in the Pacific, which has proven invaluable in expressing this Nation's will is impossible to happen without the support of the air refueling capability that your mobility airmen provide.

We work very closely with our combatant command, the United States Transportation Command to ensure that we are ready to provide forces that meet geographic combatant commander requirements.

Although we inform how those requirements are derived, we ultimately don't establish them. The fiscal year 2013 NDAA [National Defense Authorization Act] directed a mobility capabilities and requirement study, and we fully support that endeavor.

We support the President's fiscal year 2014 budget request. This budget fully funds the Air Force's number 1 acquisition program, the KC-46A. We are excited about the future of this program as it remains on time and on budget.

This summer when the assembly of the first aircraft is scheduled to begin, we will be another step along the path replacing the KC-135 [Stratotanker aerial refueling aircraft] fleet which you have indicated, Mr. Chairman, as 54 years old at this time.

The fiscal year 2014 request includes funding for the final 11 kits to convert our C-5A [Galaxy strategic airlifter] into modern C-5Ms [Super Galaxy], resulting in a final fleet of 52 C-5Ms. The 10 C-5Ms we currently have supporting our global engagement are performing absolutely magnificently, and they are a true force multiplier.

We also to continue to recapitalize the C-130 [Hercules tactical airlifter] fleet, funding six additional C-130Js, and perhaps, most importantly, the fiscal year 2014 request provides a path forward to the readiness challenges we are facing as we absorb sequestration into our fiscal year 2013 flying hours and weapons systems sustainment.

Our airmen have responded to sequestration, as they always do, with dedication and innovation. We are doing some of the easy commonsense things like giving back Blackberries and turning in staff cars.

We are also having to cut our own staffs, and now we are getting down to the absolute bone of readiness and sustainability.

Last year at this time, we were before you with a request to significantly adjust our force structure. We wanted to thank the committee for your willingness to work with the Air Force, and believe, that the total force proposal included in the fiscal year 2013 NDAA showed our willingness to listen to every stakeholder in the air mobility family.

We know these changes aren't just something we talk about here. They affect communities that support our airmen, and they affect our airmen themselves.

Although today's focus will be on the tools we use, it is our airmen that power all these tools. They say goodbye to their families and always find a way to get others to the next day.

Whether it is a combat air drop in Afghanistan, humanitarian food and water deliveries in Haiti, or holding the hand of one of our injured soldiers from the battlefield during an air medical evacuation flight, your air mobility airmen always answer the Nation's call.

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

[The prepared statement of General Allardice can be found in the Appendix on page 79.]

[The prepared statement of General Davis can be found in the Appendix on page 94.]

Mr. FORBES. General, thank you. And to all of you, we appreciate you being here. The questions that we are going to ask you, we need very much to do the oversight that we have to do and to prepare the NDAA markup that is coming our way.

I am going to ask just an initial question or so to lay a foundation of where we are going, then I am going to defer most of my questions until the end of questions, and we just need to be able to do the kind of hearing that we need to do to make sure we got the record necessary for that markup.

You have got tremendous expertise on this panel, and I am looking forward to their questions as we go forward.

This is not an examination for any of you so feel free if you need to talk to your staffs or coordinate with one another if I am asking the wrong person the question, please someone else chime in. And also, if the question is unfair. Just tell me that, and I will try to rephrase it.

And what I want to start with is, kind of a take-off where the general just left us. We talked about all the cuts that are taking place now with Blackberries and staff and everything that is there, but I want to put sequestration on the shelf for just a moment.

And I want to look at the fact that, according to our numbers and everything our staff can show before sequestration, we had about \$800 billion of cuts the Administration has made over the last 4 years to our projected 10-year spending.

Admiral, are our figures right, is that the right figure that took place before sequestration? Was it a cut of about \$800 billion over the last 4 years in projected figure and, if not, what is the correct figure?

Admiral MYERS. Chairman, I think you are referring to the PB 12 [President's Budget 2012] efficiencies that was under Secretary Gates, and that was the \$487 billion—

Mr. FORBES. But according to our staff, the actual cuts that we have had over projected spending for the next 10 years, that the Department of Defense has had, has been \$800 billion in that 4-year period of time.

What is the total amount of cuts that were taken prior to sequestration, over a projected reduction in spending, that would take place over the next 10-year period of time. Do you know that figure or can you get that figure for us?

Admiral MYERS. That was part of the PB 12 initiative and submission and for the Navy that represented \$48 billion.

Mr. FORBES. But for the whole Department of Defense, because I am going to ask everybody that question, do you any of you know what that figure—and this is an open book then, \$800 billion is what our staff has come up with. That is what HASC [House Armed Services Committee] says it is, do any of you know what that figure actually was before sequestration?

And so, let me just go down the line then.

Admiral, what do you think that figure was?

Admiral MYERS. The PB 12 submission, we were on record talking about \$487 billion.

Mr. FORBES. So you think that the total amount of cuts that the Administration has taken to national defense reduction and spending has been \$487 billion?

Admiral MYERS. That was the Department of Defense number.

Mr. FORBES. Okay. Mr. Secretary.

Secretary STACKLEY. Yes, sir. The \$487 that Admiral Myers cited there is also an initiative to identify efficiencies within our budget anticipating further pressure on the topline of about \$100 billion, but with the intention of create those efficiencies and plow them back into investments.

Mr. FORBES. But as you and I both know, because that is what the Secretary said when he had his press conference, but they

didn't go back into reinvestment, did they? Didn't they come out—

Secretary STACKLEY. Over time, they got eclipsed by the \$487, and then subsequently, sequestration.

Mr. FORBES. So the total figure before sequestration that you believe it was would have been—

Secretary STACKLEY. Four eighty-seven, and I really want to come back to you on the record to—

[The information referred to can be found in the Appendix on page 119.]

Mr. FORBES. Okay.

Secretary STACKLEY [continuing]. Verify that number.

Mr. FORBES. General, what does the Marine Corps think it was?

General MILLS. I am going to take that question for the record.

[The information referred to can be found in the Appendix on page 119.]

Mr. FORBES. Okay. Either general for the Air Force?

General DAVIS. Sir let me—the \$487 figure is the one we have been working with. I do know also that, as Secretary Stackley mentioned, the Air Force went through its own drill as well with a \$30 billion efficiency wedge across the FYDP [Future Years Defense Program] that we had to go find, so we need to get it for the record, but I have no doubt that there was other things that may have added up to get to that.

[The information referred to can be found in the Appendix on page 120.]

General ALLARDICE. Sir—

Mr. FORBES. Pardon me?

General ALLARDICE. I will have to take it for the record.

[The information referred to can be found in the Appendix on page 119.]

Mr. FORBES. What I would love for you to do is have your staffs work with our staffs so we finally get that figure, and one of the things that concerns me is, right now, we don't even know what the figure is.

And that ought to be frightening to us, and the second thing, I am going down the line on you, too. Admiral, do you have any knowledge that of that \$487 or \$587, or if it is \$800 billion as we think it was, during any of that time, did the Navy ever say, "Too many cuts, we shouldn't be taking this," to your knowledge?

Before sequestration?

Admiral MYERS. I think the Navy was on record when we submitted the PB 12, reflecting exactly where those cuts were coming from and where they were taken and the pressure it was putting on the Department of the Navy.

And part of that pressure was reflected in the shipbuilding plan where we intended to retire the seven cruisers and the two LSDs. So I think the that Navy was very forthright in showing where the pain was.

Mr. FORBES. Did you submit any statements that you know of or is there any statement—and I don't expect you to have that information now, but I would like for you to get that back to us because I have sat through a lot of hearings, and I never heard the Navy make those comments.

And I could have missed them, but if you would get that back for me, I would just love to have that in my hand of where they objected.

[The information referred to can be found in the Appendix on page 119.]

Mr. FORBES. Mr. Secretary, do you recall the Navy having objected on that \$487 or the \$800 billion, the total figure, whatever it comes down, anything other than sequestration that the Navy ever said, "This is too much. We shouldn't have these cuts." Publicly.

Secretary STACKLEY. Publicly. Honestly, sir, what we do is we take our requirements, we take the budget and we balance, and when our requirements and the budget are out of balance, what we do is inform the system of what the impacts are and what the risk is.

Mr. FORBES. Did you ever know that the Navy ever informed the system of what those impacts would be, outside of sequestration, because again, as I have sat through hearing after hearing, we have asked that same question.

And what we were always told was this, "These are acceptable risks. We are okay with these cuts."

Do you recall that time when the Navy ever said, "Too much. We shouldn't have these cuts."

Secretary STACKLEY. I can't cite a point where the Navy said, "This breaks us."

Mr. FORBES. Would you do as I asked the admiral and try to find that and come back and let us know if there are any such statements that you can put your hand on?

Secretary STACKLEY. Yes, sir.

Mr. FORBES. Good. General, Marine Corps, same thing.

General MILLS. Sir, I would say that, in various statements before the various congressional committees, the Marine Corps, over the past couple of years, has been clear that the reduction in budget was going to affect our manpower numbers, for instance. That is—

Mr. FORBES. But did they not say, "These are acceptable risks, we can take them."

General MILLS. As far as I know, yes, sir.

Mr. FORBES. And if you—if I have missed any, General, if you would get back to me on any statements outside of the sequestration, of the cuts the Administration has. When you come back with that final number, let me know where the Marine Corps said, "This is too much."

General MILLS. Yes, sir.

Mr. FORBES. And, General Davis and Allardice, either one.

General DAVIS. Sir, I do think there was statements made in the previous posture hearings that our Chief and Secretary said that that presents risks.

Mr. FORBES. Before the sequestration?

General DAVIS. Yes, sir, on the previous budget, and I will caveat that with, as we are looking at it now, if we get the ability to take the force structure in the areas where we felt we could take the risks, much of that did not materialize and was reversed, and so that created a new and unique situation for the Air Force.

The one thing I will say, having work acquisition programs, we have some flexibility to try to cover capabilities when we know what a cut is. And I will just add for the record, as we look in the outyears, the uncertainty of what 2015 and 2016 and beyond looks like, probably creates a much greater risk than having a known number.

Mr. FORBES. And granted the unknown is always there, but at some point in time, the sheer numbers, and we will talk about in just a second, create a problem because that means we turn in Blackberries and we turn in staff, and we do all those kinds—

General, anything that you remember the Air Force, outside of sequestration, of those cuts, when we ultimately determine what the number is?

General ALLARDICE. No sir. To the best of my knowledge, we articulate it in terms of risk and how much risks we are incurring but—

Mr. FORBES. And let me just tell y'all, every hearing I sat through, here is what I was told, "It is acceptable risk." No one ever told us, "No, no. This is hitting in the wrong—"

Now here is why I want to ask this, and I am going to finish with this question and then go to somebody else and come back with you.

As I look at the shipbuilding plan that we are talking about now, one, we have reduced the number of ships that we have, overall, and a lot of those ships were 2038 before we actually see the ships go into our fleet.

Mr. Secretary or Admiral, you both know, we live by our accountants, you live by your accountants, and the Congressional Budget Office is who we have to rely on a lot of times to do our analysis.

Regardless of whether we take the Congressional Budget Office or we take your figures, over the life expectancy of this shipbuilding plan, if we take your figures, we are looking at about \$16.8 billion average shipbuilding costs, and that doesn't count the refueling. If you add that in, which normally comes out of the shipbuilding account, I think, that is about \$18 billion to \$19 billion. Is that a fair statement?

Secretary STACKLEY. That is correct, sir.

Mr. FORBES. CBO [Congressional Budget Office], of course, would differ with your numbers. They would say about \$22 billion, but regardless, let's take your figure.

The average amount that we have had for shipbuilding in our budget, for the last 30 years, and there is no big spikes in this. As you know, it has been less \$15 billion.

My question for both of you in making these assumptions, can you present to me any evidence at all, a scintilla of evidence, that would suggest that we will have those increases in budgets, as we move down the road.

In other words, if you have been getting less than \$15 billion for 30 years, if our curve lines on cuts that y'all just talked about are heading down like this, and if our shipbuilding plan is going to depend on us having a huge spike-up in dollars that come in the shipbuilding plan. And that is what we are basing it on.

Give me the evidence that would suggest to you that we will have any additional dollars at all from a fiscal point of view, from Congress, to make the shipbuilding plan work.

Secretary STACKLEY. Sir, let me break this down in a couple of parts.

First, the way we outline the long range shipbuilding plan, we break it up into phases or periods. We talk about the near term, mid term and long term. And clearly, when you get out to the mid term and long term, those projections are—they get more ambiguous because we haven't defined, exactly, what those platforms will be and the capabilities.

So we don't place a lot of fidelity on the long term. The near term, we believe we have a lot of fidelity in the FYDP plus right beyond the FYDP, and so, in terms of our budget projections in the FYDP what we see today, we think that is solid, sequestration aside.

The most significant issue in that plan, which I touched on in my opening statement regards the impact of recapitalizing our strategic deterrence capability. And clearly—clearly that program which in then-year dollars when you consider the R&D [Research and Development] investment and the procurement dollars, we are talking about \$100 million, roughly, over about a 12- to 15-year period.

That dominates the affordability discussion during that period, and it doesn't place a lot of weight, overall, on the 30-year period. So that is the most significant—most daunting—challenge that we are staring at in terms of our shipbuilding program.

It is our—as I have stated, while we are focused on affordability, we have stabilized the requirements. We are making the progress we need to make today. All of our efforts to improve affordability of that boat and that programs will not be sufficient to bring our shipbuilding requirement during that period down to within our historical budget.

So I cannot point towards evidence. I would have to point back to the build-up of the 600 ship Navy, during the 80s, when we last saw those levels of shipbuilding investment.

Mr. FORBES. So then, Mr. Secretary—and I appreciate your candor in this and before I go to Mr. Courtney, I just want to make clear that, while we do not have a lot of confidence in the long range projections of our fiscal forecasting, of doing that.

That fiscal forecasting is what will determine whether we get the number of ships we need in the Navy. So if we don't have a lot of credibility in that, we also don't have a lot of credibility that we are going to get that number of ships. Fair?

Secretary STACKLEY. Yes, sir.

Mr. FORBES. Can't get the ships unless you get the dollars.

Secretary STACKLEY. Yes, sir. We have the near term, the mid term, which is where the high replacement takes place—

Mr. FORBES. There is a chart, and again, I know you have probably seen it, this is a CBO chart, but when we are talking about those spike-ups in spending, the spike-ups come after the Administration leaves office essentially for most of these.

Secretary STACKLEY. Yes, sir.

Mr. FORBES. So what we are saying is to make these projections, we are talking about a reality, we are going to have a significant turnaround in the dollars that will have to go into ship construction and shipbuilding. Fair?

Secretary STACKLEY. We need a steady increase, and we have to separately or distinctly, address the cost impact associated with re-capitalizing—

Mr. FORBES. But yet, what we have seen is a constant reduction that has taken place in our overall spending for—that is of the last 4 years.

Secretary STACKLEY. Not in shipbuilding. You can't relate that—

Mr. FORBES. We haven't seen an increase, have we?

Secretary STACKLEY. In the last 4 to 5 years, there has been an overall increase to our shipbuilding investments.

Mr. FORBES. Okay. I will come back to that.

Mr. COURTNEY, I would like to recognize you for 5.

Mr. COURTNEY. Thank you, Mr. Chairman. And thank you to all of the witnesses for being here.

Before I begin, I would actually like to step back for a moment and just recognize one of our staff who is leaving us after today's hearing. Lieutenant Commander Phil MacNaughton who is sitting behind me and has been with this staff for, I think around 5 years or so, has provided amazing advice and expertise to all of us because his lead has been on the Seapower Committee.

He is leaving to serve his country. He is heading to the Middle East and, you know, which just shows what kind of person he is in terms of his commitment to public service.

As a staff member, he is probably one of the few guys who has actually piloted some of us in terms of our trips to various places, which is about as good as it gets, and again, I would just ask my colleagues to recognize Phil's great work that he has done for the committee and wish him safe travels and safe work as he, again, steps up his commitment and sacrifice for our country.

[Applause.]

Thank you. Mr. Secretary, again, I just wanted to maybe sort of bring some of the discussion down to some of the, you know, nitty-gritty of the last year or so, again, congratulations to both of you and Admiral Myers, and all of the witnesses for sort of trying to get through this incredibly tumultuous budget environment where, I mean, literally, from day-to-day it has been hard to predict what this place was going to do.

And again, this committee, I think, subcommittee, certainly tried to work with you last year, particularly, with the DDG and the *Virginia* class language that came out in the Defense Authorization Bill, which again, tried to provide some flexibility for the block contracts that, again, are very close.

Can you give us an update in terms of where you see the *Virginia* class block contract negotiations and, you know, maybe what we can expect in terms of, you know, some type of announcement or agreement?

Secretary STACKLEY. Well first, sir, I make it a point to not discuss negotiations, particularly at a public hearing. But, you know,

the program is building on success, so the nature of the negotiations is twofold.

One is, how do we continue to achieve the savings that *Virginia* has accomplished, literally, through the series of block buys going into this multiyear, in order to hit the full savings that we reported to Congress, and I have no doubt that we are going to get there.

And we are going to get there in a timely manner. One of the challenges that we have, it is sequestration related, was, we did lose some advance procurement funding, which is in a separate line, that we are working with the shipbuilder to figure out how do we compensate for that loss of AEP because it is critical to our schedules, and our schedule execution in the multiyear is critical to hitting our savings.

So that is a detail that we are working. I have no doubt that we will pull through that, but there will be some dollars that need to be backfilled in 2014, that we will discuss with your staff in that regard, and I think they can anticipate that coming.

So the bottom line is, you know, we are going to plow through the details, to get to the 10-boat multiyear. There is some repair work to do as a result of sequestration, and we are going to work closely with the shipbuilder to minimize the impact of that speed bump on the execution.

Mr. COURTNEY. Well, again, and I know you well, I mean, just certainly keep us informed about where the problem is. I mean, Majority Leader Reid and Senator Schumer place were both on the floor talking about trying to come up with a package to mitigate sequestration.

So, it seems like there some stirring go around, and frankly, the more we can get examples of the harm that it is causing to, again, a very promising development in terms of getting an affordable contract, that just adds fuel to the argument about why, you know, we need to come together in this place and fix this.

The other question I just wanted to ask, and again, I know a lot of other members are bursting here, is LCS [Littoral Combat Ship], you know, obviously, if you look at the shipbuilding plan, that is a big piece of where the numbers are.

And I just wondered if you could give us a sort of update, in terms of, and obviously there are press reports swirling around this, and any information you can share with us this morning, I would appreciate.

Secretary STACKLEY. Yes, sir. And I will probably split part of this with Admiral Myers. Let me talk first about the shipbuilding side and have Admiral Myers discuss the operational side.

The shipbuilding, as I discussed in my opening statement, the construction is going well. We signed up for the block buy. We are midway through the block buy. We are seeing performance at both shipyards within our budget projections.

We are using delivery schedules on that program to balance with costs. In other words, we are not going to put a lot of pressure on delivery schedule if it creates any cost challenges on the program, but overall, between both the LCS 1 version and the LCS 2 version, we are seeing a steady rate of improvement in terms of cost performance, operating within our budget, and again, that budget was

sized to achieve the \$2.9 billion savings across the 20 ships of the block buy.

So that part of the program is stable. Again, there is a sequestration impact that we have got to work through. Every line item was hit by sequestration. So in the case of LCS execution, sequestration has added risks on the budget side, because we had to pull money out of everywhere we could without impacting the overall program, but when you do that, you add risks, and some of that we might be needing to come back to you all to address backfilling.

The mission module side is in development, and we have three mission modules in development. The first one that is going forward, its initial operational capability is the mine countermeasure mission module, and that is scheduled for its IOC [Initial Operational Capability] in 2014.

The elements of the mine countermeasure mission module are each doing well. The remote minehunting vehicle, which is central to the mission module, went through the reliability growth program. It is far exceeding what the targets were for reliability.

The sensors that are associated with that mission package are performing in accordance with their requirements with one exception where we are at 90 percent of the threshold trying to get the rest of way there.

And then we have a neutralizing system that is meeting its requirement in testing, and we are trying to expand that to address other parts of the water column.

The bottom line to all that is, the mine countermeasure mission package is moving smartly through its development schedule; however, IOC in 2014 is now at risk because of sequestration in 2013, so the reduction in the Research and Development funds to complete that development and testing, might bump that IOC.

We are trying to hold onto it, but I can't give you confidence when you take that much of the funding away in the year of execution prior to ROC [Required Operational Capability] that we can gracefully recover.

So that is at risk measured in months, but we see that getting across the finish line in the course of 2014 or early 2015. The ships and mission packages are timed well in terms of the mix delivering to the fleet, and I think I will turn it over at this point, and have Admiral Myers address the operational side.

Admiral MYERS. Thank you for the question. The—we are pleased with our LCS, and just to give you a kind of a rundown on where we are with the ships. The *Freedom*, the *Independence*, LCS 2, and the *Forth Worth*, they are all conducting either testing, maintenance or routine crew proficiency training throughout 2012.

Freedom operated off the coast of Southern California throughout that year, and basically, got herself ready for her deployment to Singapore, and I will talk about that in just a second, what we hope to gain from that.

The *Independence*, we have tested the sea frame and the MCM [Mine Countermeasure Module] mission package requirements, and she sailed around from the East Coast and is now homeported in San Diego.

The *Forth Worth*, that is the LCS 3, she has been placed in commission after successful completion of the builders and acceptance trials and is currently homeported in San Diego as well, and she will be the combat systems ship qualification trials best ship.

The PCU [Pre-Commissioning Unit] *Coronado*, LCS 4, continues training in preparation for her mid-2013 planned delivery to the Navy.

Now, in terms of *Freedom*, her arrival at Singapore represents the beginning of a proof-of-concept deployment. This is going to demonstrate LCS capabilities that are going to allow us to assess crew rotation and our maintenance plans.

The *Freedom* will conduct maritime security operations, she'll participate in international exhibitions and exercises to highlight the U.S. strategic intent in the Southeast Asia region. This will also help to reassure our partners, our bilateral and multilateral partners, of our commitment in our pivot to the Asia-Pacific region.

The Navy is going to get valuable insight into the unique capabilities of LCS and what this ship is going to bring to the fleet, into their joint military operations and, based on this deployment and insights from the proof of concepts that we are going to gain from this 8-month deployment, we are going to take that and roll that into our lessons learned, and also, continue with the testing and the certification of the *Freedom* and the rest of the LCS class in the Navy.

Like all first of class ships, we continue to assess the ships' performance. We implement lessons learned, and we make corrections where necessary, so we are very pleased and happy to talk about the mission packages separately if you want me to do that.

Mr. FORBES. Mr. Courtney, thank you for your questions and your expertise in this area. And thank you for recognizing Phil and his good service to our committee and to our country.

I would now like to recognize the Chairman of the Readiness Subcommittee, an expert on these matters, Congressman Wittman.

Mr. WITTMAN. Thank you, Mr. Chairman and Secretary Stackley, and Vice Admiral Myers, Lieutenant General Mills, Lieutenant General Davis and Lieutenant General Allardice, thank you all so much for joining us today. We appreciate your service to our Nation and what you do for our sailors, for our marines, and for our airmen. We deeply appreciate that.

I will begin with you, General Mills. You heard both the Chairman and Secretary Stackley mention the amphibious combat vehicle. I wanted to get your focus on where are we with the ACV [Amphibious Combat Vehicle].

I wanted to get your perspective, too, on why does the Nation need to invest in the ACV, especially based on the austere times that we face.

Also, how is the Marine Corps going to be able to purchase both the joint light tactical vehicle and the amphibious combat vehicle, again, facing these budget challenges.

And can you tell me, too, specifically about the target date for the IOC, for the ACV? I am very concerned in that looking at the past experience with the EFV [Expeditionary Fighting Vehicle] and the timeframe that was well, expired through that process, and with it taking nearly 15 years with an old amphibious assault vehi-

cle with the AAV [Assault Amphibious Vehicle] there, timing this with this, I think is critical.

So if you can give us your perspective on those elements of the ACV, that would be great.

General MILLS. Sir, thank you for that question. Thank you for the support that you provide the Marines, and the Marines at Quantico, in particular, sir, I appreciate it very much.

I will divide the question up into a couple of parts and I would ask Secretary Stackley if he would like to get in on the actual procurement procedure. I think both the JLTV and the ACV are success stories.

I will start with JLTV and that we have partnered with the Army in developing a vehicle which meets both of our needs, and both of us have compromised to a bit, but at the end, that produced a vehicle that we can afford and that will be successful on the battlefield and give more protection and more mobility to our forces as they move around that battlefield based on the current dangers.

We also feel that we have developed a strategy, a procurement strategy which would allow us to buy the JLTV, when it is ready to go to the fleet and sufficient numbers to meet our immediate needs.

And then take a break in order to purchase the ACV and then come back and finish up our body of JLTVs later on in the program after the Army is done there.

So we feel there is a good strategy there, and we are pushing ahead with that very good success story. I have driven in all of the—all of the demo models that have been provided to us by industry, and each one of them is—really is quite a vehicle and gives you quite capability on the battlefield.

Regards to the ACV has been testified to numerous places on numerous times. The ACV is, in fact, the Marines' number 1 ground priority, and we are pushing forward to that. And that is also a success story.

Drawing on lessons learned, I think, from the EFV experience, we have been able to incorporate that both into our capabilities documents as we have produced those, and again, into our acquisition strategy as we develop that.

The ACV, of course, is going to cover down on the developing gap in our capability—our core capability of projecting power ashore from our amphibious ships, and that is the initial wave of troops going ashore, that they have a self-deployer that provides them once they hit the, you know, the water line, the ability to maintain the momentum moving ashore to the objective, conduct operations on the objective in a protected armored environment and then withdraw to the ships, again, in a timely manner.

We feel that plays to our core capability, the unique capability of being able to project combat power ashore from our forward-deployed amphibious forces at a time and place of our own choosing.

The ACV has been developed over the past 18 months when the capability, of course, was determined, we went through and done an AoA [Analysis of Alternatives] and that was completed last summer. Subsequent to that AoA and the JROC [Joint Requirements Oversight Council] approval to move forward with the pro-

gram, we look at the ability to also add to the capabilities by adding high water speeds.

We have gone back to take a look at the feasibility of a self-deployer that could achieve higher water speed in the A2/AD [Anti-Access/Area-Denial] environment. We have reopened parts of the AoA, if you will, just to ensure that the high water speed capability is used in that.

And we are moving along by establishing a work force down at Quantico focused on the ACV, a unique work force that I will let Mr. Stackley talk to here in a moment. We think that we have a real blend of industry, the Department of the Navy personnel and the Marines at Quantico, in putting together a team that will give us what we need, what we can afford, when we need it.

The last point that I will make is your discussion point about the IOC of the ACV. We are also concerned about that, of course, we don't want a gap to develop for our capability to lesson, so we have an AAV sustainability program that is well-funded, in the budget, that we will maintain and improve about 400 of our AAVs, which will—while they won't extend the life of those vehicles, they will give us more survivability for the Marines inside the vehicles on the battlefield.

We will improve the seating in the back. We are going to improve the power train, and we are going to put protection on the floor which will protect those Marines from the threat of the IEDs [improvised explosive device] which have developed on today's battlefield.

With that, I will ask Mr. Stackley if he has any comments regarding the unique acquisition strategy.

Secretary STACKLEY. Let me simply add to what General Mills described that, typically, or historically what we have done is we would do an AOA. We would develop requirements. They get tossed over the fence. We might get a parametric type of estimate accomplished.

Eventually, we roll that forward and, at some point in time, downstream industry gets closely involved, and we are out there dealing with proposals and get the proposals back and, quite often, we end up with a mismatch between what the requirement was, what the real cost is, and what the schedule is.

And what we are trying to do different here, is do the front end of requirements' definition since we know so much about the AAV, the EFV, other combat vehicles, bring industry into the process and tighten up the loop between the requirement, the design, and the cost.

So in near real time, you can look at trades between capability, affordability and what that might mean in terms of schedule for the overall program. We are placing great emphasis on cost realism which means getting a mature model.

It also means using mature technology so we don't have this lengthy, drawn-out development phase for the program.

So we think we have this exactly right, from MARCORSYSCOM [Marine Corps Systems Command], Quantico, PEO [Program Executive Office] land systems all involved, but also, Navy warfare centers and Army personnel are joining the mix. And we brought industry in—we brought in the big defense contractors, but we are

also opening up third-party participation in this requirements' definition, feasibility, and cost estimating phase of the program.

Our intent is to get this put into shape for the 2015 budget as it comes over so it has the definition that you all need, and in the interim, to open up the door so you all have insight into the how—the progress that we are making and how we are going about this acquisition.

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

Mr. FORBES. Now Mr. Kilmer and other valuable members of the subcommittee. The gentleman from Washington, I yield 5 minutes.

Mr. KILMER. Thank you, Mr. Chairman. And thank you all for being here. I guess my first question is, and I am not sure if I should address it to Admiral Myers or to Secretary Stackley, my question is around the impacts of sequestration and how it affects life-cycle costing of our vessels.

I was out at our Naval shipyard—our Puget Sound Naval shipyard in my neck of the woods and heard questions around deferred maintenance and how furloughs and the laying off of temporary employees might affect, also, the amount of time that maintenance happens.

Someone said, and I don't know if this is accurate, but the amount of time for maintenance—the length of time for maintenance *Stennis* [USS *John C. Stennis*] might increase by 4 to 6 months.

I am just wondering how, if at all, does that impact acquisition strategy and how you look at ongoing costs within the vessel program?

Admiral MYERS. Okay. I will take the first stab at this, and if I can address the impact of our shipyard workers and furloughs, the second part of your question and then roll that into the impacts of lifecycle and acquisition and turn that over to Mr. Stackley.

Well first, furloughing of our civilians does impact our ability to generate our carriers and submarines in fiscal year 2014, because this is the workforce that is actually doing the maintenance, both in our ship and aircraft depot maintenance facilities.

So the lost work that you refer to, Congressman, it creates a domino effect to our maintenance schedules that it is going to take us a couple of years to dig out of. The Department of Navy is exploring options to minimize these impacts, but when you look across 2013, 2014 and 2015, just the impacts of this year, when you focus on our carrier readiness, it is going to delay getting carriers out of the yards.

When you talk about submarine readiness, it is also going to impact delays. It is going to extend the duration of—upwards of three SSBNs, 3 to 4 months. We have the data that shows, by ship, what kind of delays that furloughing these workers would create.

And there are also impacts to our aviation readiness, upwards of 60 aircraft and 150 engines would SLEP [undergo Service Life Extension Program] from 2013 into fiscal year 2014. So these are going to create readiness challenges for the Department of the Navy that we are going to have to reconcile in 2014, 2015, and 2016.

And we are going to need the President's Budget, 2014 submission, which doesn't account for these kinds of readiness impacts,

but we are going to need that budget in order to have an approach to have the funding levels, and the resources required, to try to reconcile this.

Secretary STACKLEY. I don't know if I can improve much upon Admiral Myers' statement other than to describe that, while we are doing what we can within the dollars we have and the authority we have to reprogram, we are doing what we can to restore the funding that we had programmed for maintenance.

We are going to be limited, and so there will be a deferral of maintenance that rolls into the outyears, that will have an impact. That is on the maintenance side.

On the investment side, we are faced with shortages in every investment line, and so we are having to go line by line to determine how do we absorb that shortage, and we are trying to balance between the near-term costs, the outyear impacts, the likelihood of being able to restore the funding in the outyears to arrive at what is the right answer for total costs and total capability.

And it is not the same in each case. In certain cases, we are holding onto the procurement tightly because if we let that slip, the impacts to jobs, the impact to costs in those programs, will be so high that fixing that later will be out of balance.

And in those cases, we might look at deferring some support costs, some spare costs, because that is a dollar-for-dollar restoration.

In other cases, where we might be on the edge in terms of readiness, we are being very careful to not defer anything associated—that might impact on readiness when it comes to support costs and spares. And there, we might be taking a hit in terms of the quantity that we procure.

There definitely will be an impact. It is very difficult to quantify today. In our process, we are trying to balance near-term and far-term to arrive at the, you know, the right least-cost impact and least impact to the total capability and force.

Mr. KILMER. Thank you, Mr. Chairman.

Mr. FORBES. Mr. Kilmer, thank you for that line of question.

Now I recognize the distinguished gentleman from Georgia, Mr. Johnson for 5 minutes.

Mr. JOHNSON. Thank you, Mr. Chairman. Gentlemen, the Middle East eruption a couple of years ago, the Arab Spring, touched many nations in the area of your—or in the Gulf Region.

And one of the nations that has been impacted by that has been the island nation of Bahrain, and Bahrain has served as the headquarters for the Fifth Fleet.

With the disturbance there, civil demonstrations and more people being involved, just a great percentage of the population involved in the demonstrations, and the kingdom—the king—cracking down on that kind of activity, and the residents becoming more and more agitated and violence is, perhaps, on the horizon, lots of human rights violations going on, some say.

What do you see as the future for our activities in Bahrain, stationing of the Fifth Fleet there, and have there been any contingency plans put into place or at least developed in the event that the situation gets out of hand in Bahrain.

Admiral MYERS. Congressman, thank you for the question. The Navy's role is to meet our responsibilities to operate forward where it matters and be ready when it matters. Having a headquarters in Bahrain for our Fifth Fleet, a Naval Central Command Component Commander, is important for the Navy.

To get to the specifics of your question, in terms of, contingencies with relationships that we have with the nation of Bahrain, I would need to take that for the record and get back to you.

[The information referred to can be found in the Appendix on page 122.]

Mr. JOHNSON. So what you are saying is that, you cannot answer the question as to whether or not there are—there is any contingency planning that is taking place at this time?

Admiral MYERS. Congressman, I would prefer to take—I can answer the question, but not in this forum.

Mr. JOHNSON. All right.

Admiral MYERS. And I would prefer to take it into a more appropriate forum.

Mr. JOHNSON. All right. I understand.

News reports indicate that the Littoral Combat Ship, which relies heavily on electronic systems, is vulnerable to hacking. Can you elaborate on the issue and tell the committee what you are doing to ensure that all of our systems, including LCS, are secure?

Admiral MYERS. Yes, sir. I also heard—got the same report, and this is part of a vulnerability assessment that we look at our platforms to make sure that we are confident that they aren't vulnerable, and if we find any issues or vulnerabilities, then they are reported, assessed, and then ultimately, rectified.

This vulnerability assessment has been reviewed by the Government industry team, so we are assessing it right now, and where there is differences exist from the previously—anything that was self-identified—or things that were from the Navy's or industry's expertise or input.

What we intend to do is get the Government and the Navy team together and put together an implementation team to understand what we need to do to mitigate it. Our information assurance threats continue to evolve, and so we need to evolve, to counter them.

The specifics of what is in that report is classified, and again, that would be something that we would take to a different forum to talk about in more detail.

Mr. JOHNSON. Thank you. I yield back.

Mr. FORBES. Thank you, Mr. Johnson.

I believe Mr. Wittman had one short followup question, and I will yield to him at this time and come back.

Mr. WITTMAN. Thank you, Mr. Chairman. I wanted to ask Secretary Stackley, if you can briefly describe the plan that the Navy has for the replacement of the T-AO [Tanker] class and LSD class ships. I think that is a concern going forward, making sure that we are looking at that. Can you give us a little focus on what that plan might be?

And secondly, is there any plan to use some common hull forms to look at the hulls that are currently in the inventory using that, as well as, systems that are currently on ships to make sure that

we can maybe gain some time and some efficiencies with using those particular elements in design in replacement of the T-AO and the LSD class of ships.

Secretary STACKLEY. Yes, sir. Thanks for the question. I will break it up into two parts, T-AO(X) and then discuss LX(R), but there is a lot of common theme here.

First, a T-AO(X), the Navy is going in this budget, FYDP the Navy is proceeding with procuring the T-AO(X) what we would call, “ahead of need.” In other words, there is certainly more service life on the in-service fleet oilers; however, we have two issues that we are addressing when we go after the T-AO(X).

First, we are outside of MARPOL regs [Marine Pollution regulations]. We do have an exemption in support of—for national security, but we just view as the responsible thing to do to proceed with a more modern fleet oiler and get within MARPOL regs, which frankly will improve the T-AO(X)’s access to foreign ports.

So we have moved that program into a 2016 start and, at this point in time, we are doing design studies leading up to the ultimate competition for procurement in 2016. We are, in fact, doing everything we can to just leverage mature technologies.

There is no invention or breakthrough required for T-AO(X). We want to leverage commercial design to the extent practical, and we are working through those details right now, inside the building, inside the process and with industry.

So I believe that is well on track. I mentioned two points. One was to address the MARPOL regs concern, but the other is—I described in my opening statement—industrial-based concerns across our amphibious and auxiliary shipbuilding sector, and T-AO(X) fits in nicely to address that concern. So we see that as a win-win.

The other program you described was the LX(R) which is the replacement for the LSD 41/49 class. That class retires in numbers in the mid 2020s. Right now, she is scheduled for procurement in 2000—the LX(R) is scheduled for procurement in 2019, which would notionally give her the lead ships’ delivery date about the 2020 to 2025 timeframe.

We have advanced procurement that lays in 2018 timeframe, and today we are conducting the analysis of alternatives to determine exactly what will the LX(R)—what will the—between the requirements and capabilities—what will the LX(R) be?

In that analysis of alternatives, we are looking at everything ranging from clean sheet new design to a modified repeat on the existing LSD 41/49 class to foreign design concepts that could fit the bill, and also, specifically back to your question, leveraging current shipbuilding programs, specifically the LPD 17 class design, but modifying it for the lift fingerprint required by the LSD 41/49 replacement.

So the AoA is going through that work today. The ship procurement is out at the end of the FYDP, and in between, we do have a concern regarding that sector of our industrial base.

So the Navy’s press is to keep those design activities on schedule and look for opportunities to try to bridge that gap in the industrial base and hit the affordability numbers that we need for both of those programs.

Mr. WITTMAN. Very good. Thank you, Mr. Chairman. I yield back.

Mr. FORBES. Thank you, Congressman Wittman.

If I could pick up now and thank you so much for your patience in being here. I have a series of questions we need to get on our record before we conclude the hearing, and I want to pick back up with where I left, and Keith, if you could pass out this chart, please. I just want to show you where we get our numbers, so when you are back and doing your research, this is from the HASC committee staff which do a very good job. We depend on them to help us write our legislation.

And based on their numbers, what we have, Mr. Secretary and Admiral, particularly, you can look over here, the \$291 billion figure is essentially what the cost extrapolated out to be when that money wasn't reinvested back, but according to the HASC figures, we have \$291 billion plus \$487 billion.

So that comes up to about \$778 billion of cuts from spending that the Administration took long before sequestration. Now, if that figure is inaccurate, we will hold the record open until you get back to us.

But until we get something from you guys or from your staffs, we have to work on the assumption that our staff is correct. So, we had \$778 billion of cuts that took place long before sequestration.

To the knowledge of this subcommittee and our staffs, we heard nothing about these cuts being too much from the Navy, the Marine Corps or the Air Force. If I am wrong on that, we will hold the record open until you can get us documentation that shows where that was.

The way that would normally come back over is if it wasn't expressed in an open hearing like this, you would give us an unfunded requirement list. So Admiral, the first question I have for you is, based on this \$778 billion figure, or whatever the figure ultimately comes back to, we have received no unfunded requirement list from the Navy.

To your knowledge, did the Navy submit one to us or Secretary Stackley, that we just missed somehow and did not get it?

Admiral MYERS. To my knowledge, there has been no submission, and before I get into that, I want to make sure that I reaffirm that the approach that we are taking with the sequestration that is, you know, has already been on record, was focusing on the must-pay bills, reconciling—

Mr. FORBES. And all this was the figures before sequestration.

Admiral MYERS [continuing]. Right. So to my knowledge, there has not yet been a submission for an unfunded—

Mr. FORBES. And there hasn't been one in the last several years that you know of, is that correct?

Admiral MYERS. I would have to get back to you—

[The information referred to can be found in the Appendix on page 119.]

Mr. FORBES. If you would, if you don't mind doing that, and I don't want to take up more time than necessary, but I would just ask, General, if both—all three generals, if you would do the same thing. If I have missed one, if you would get it for us.

And then, Mr. Secretary, based on the numbers that we have, whether we took your numbers or CBO's numbers, it will require us to have a significant uptick in our shipbuilding accounts if we are going to meet these numbers by at least 20 percent or more over the next several years, if we are going to reach the goals that we have in our shipbuilding plan.

Would that be a fair assessment?

Secretary STACKLEY. Yes, sir. Our report that we submitted last year, and you will get the update this year, it shows the funding required for a shipbuilding plan, and it is very clear that our funding goes up markedly, beyond the FYDP.

Mr. FORBES. And I thank you for your work in doing that. Can I ask you to address, now, the *Ohio* replacement program and, particularly, you were kind enough to submit—or Admiral Myers actually, that Secretary Stackley submitted an interim update to the 30-year shipbuilding plan 2 days ago that indicated a significant increase to the ship construction account to support the *Ohio* class replacement.

And Mr. Secretary, we thank you for your efforts in trying to get that to us so that we could have it in a timely manner, but if you look, even in the fiscal year 2014 budget request, the public requires over a billion dollars and is expected to ramp up until we purchase our first boat in fiscal year 2021, at the cost of over \$5.5 billion.

And I support, most people on this subcommittee, support what you are doing and they support the *Ohio* class replacement, but considering that requirement and to associate it with the Nuclear Posture Review, to your knowledge, has the Secretary or your staff provided any support for the program as a strategic investment over and above the Navy's topline.

In other words, what are we going to do when we have that huge amount of money. Is it going to all come out of the shipbuilding account, or is there some argument that it might come outside that shipbuilding account?

Admiral MYERS. Mr. Chairman, there is no question that, when you look at the mid-term of our 30-year shipbuilding plan that, just looking at the numbers and the number of ships, half of our resources are SCN [Shipbuilding and Conversion, Navy], if you will, in a typical year goes to one ship.

So it is an understatement to say that that is going to challenge us. It challenges our shipbuilding account and it challenges us on—when you look at that timeframe.

Now, my leadership has been on the record acknowledging this resource challenge that is outside the FYDP, largely due to investment and the requirements associated with the SSBN-X program.

But when you look at the 30-year shipbuilding plan as a whole, and the area that we can—we are most confident about, which is the near term, and you look at the FYDP, the next 5 years with the delivery of 47 ships and retiring 42 ships, I think that the Navy and the shipbuilding plan puts us on a trajectory that takes us to 300 in fiscal year 2019, and keeps us around 300 in the 2020s.

Mr. FORBES. And I am going to suspend my questions and recognize Congressman Runyan for any questions he might have for 5 minutes.

Mr. RUNYAN. Thank you, Chairman. My question is for General Allardice, specifically, I know I have brought this up a few times, but dealing with the CRAF [Civil Reserve Air Fleet] program. We know—we spend about \$244 million shipping cargo on foreign carriers, but as a result of what I think most people would say, overflying our grey tails, if you would, C-5s, C-17s [Globemaster III strategic airlifter].

The Air Force has had to reprogram 136 million last year to repair the engines in that fleet. First of all, I understand that there is a mission readiness that you have to have to, you know, maintain your readiness with that fleet, but there is also—our duty here is to make sure that—I think you would agree—that the CRAF program is a national security asset.

But as we don't use them, we have seen them fall off their ability to do their mission because we are not using them and spending, also money, on other foreign CRAF services.

So my question here is really, do we need a legislative fix and would AMC [Air Mobility Command] be in the conversation of having a legislative fix to make sure stuff like this—we are doing it right to the best and not having kind of an ambiguous kind of, maybe we will, maybe we won't kind of decision at AMC.

General ALLARDICE. Sure. Thank you and thank you for your support. First off, we obviously depend heavily on the CRAF. It is part of our total force projecting capability and, in order to execute any war plan, we need both the passenger capability and the cargo capability that civil reserve air fleet represents.

So we recognize that our objective today, and we agree with the community, we had a meeting last week. We agree that our number 1 objective is to have a grey tail organic fleet and a civil fleet that is capable of meeting the national needs in the time of emergency.

So we have that common objective. We understand and agree with the community that in order to achieve that objective, we have to have a healthy civil fleet. The CRAF fleet, in particular, it to parse out the civil augmentation. It is not part of the CRAF.

So there are objectives that we need to understand collectively that exist in the civil side. Honestly, the last 10 years, the civil side has enjoyed a significant amount of revenue, and our numbers are a little bit higher than what you read. It is somewhere north of \$2 billion over the last 10 years. It went to the civil augmentation fleet, not just the CRAF, but civil carriers in general. So a substantial number.

Where the challenge comes is as you draw down out of Afghanistan, the business goes down, you come to our line—readiness line, you know, how do we train and age the organic fleet, how then do we also ensure that we have a ready CRAF.

As you know, sir, we have completed phase one of the CRAF study. We are into phase two of the CRAF study right now which, we believe, will inform the future CRAF from our perspective and, as that comes out, we would obviously share with Congress and discuss that.

With respect to a legislation in the meeting last week, we agreed that—both—that we should working with industry to—it is premature today—to say that legislation is required because we don't know what the CRAF study will show as we look forward to CRAF, what the readiness line and the requirements are for the CRAF, and what that looks like.

We did agree that we will work with the carriers to—in a collaborative environment—to ensure that we understand, if the policy can fix it, we will use policy. If it is a parallel path to have legislation, we will work with them to have the right from our perspective, the right legislation.

And that is where we are today, is a common agreement that it is possible, but we think it is premature today to say that it is absolutely necessary.

Mr. RUNYAN. Well I think the one thing, and I know Congressman Hunter also has been all over this, the one big thing is the number I brought up, you have obviously our CRAF fleet, but we have \$244 million going to foreign carriers.

I mean, that is what I think you are going to get a lot of pushback, you know, from this committee, can we legislatively fix that to make sure this doesn't happen, you do have to allow some wiggle room because, obviously, you know, time and all that and availability, sometimes come into play.

But I think that is one thing that we are going to have to—we are going to have to have that discussion because it is our taxpayer dollars, you know, and this program is, obviously, as you said it, a national security asset, and we want to make sure that we are bringing as much of that money back home as possible.

General ALLARDICE. Sir, we understand that, and we share the patriotic tone of that. What is always of great concern is, in the crisis, when, you know, time is everything and we must get something to the fight to support the warfighter, and very often, the equipment that you are describing that carried on the non-U.S. flight carriers, is equipment that is outsized, that, you know, we can't—we are tapped so we can't get to it with organic at the time.

Or we would push to our civil fleet, but they can't carry it for a variety of reasons, they can't carry the outsized cargo or because it is going into a field where they can't go into because our risks.

So that is—we recognize what you are saying—we share with our partners in the industry, the interest to get there, to get there with policy, and we will come forward with our solution.

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

Mr. FORBES. Thank you for those questions, and I would like to recognize my good friend from Rhode Island, but Jim, before I do that, if you don't mind, I would like to recognize another member of our staff that is going to be leaving, Tom MacKenzie.

Tom has just given us great service. He retired from the Navy and Tom served on the Senate Armed Services Committee before he moved up to the House, and Tom, we just thank you for that service and all you have done for this committee and for our country.

And with that, Jim, I recognize you for 5 minutes.

Mr. LANGEVIN. Thank you, Mr. Chairman. First, I want to thank all of our witnesses for appearing today and for your great work

on behalf of our Nation. We certainly appreciate the benefit of your testimony and as we work to ensure that our forces have the platforms and capabilities that we need to handle the complex environments of the future.

Let me say from the outset, along with several others on this subcommittee, I have been a staunch supporter of the Model Acquisition Program, a national asset that is the *Virginia* class submarine program, and we certainly appreciate the Navy's working with our offices to enable the inclusion of a second submarine in the fiscal year 2014.

And I am certainly pleased that there has been strong support for the program and its budget, and I look forward to working with all of you to ensure the health of the program into the future.

Let me first, if I could, start with you Secretary Stackley, and Vice Admiral Myers. I am particularly interested in how you are planning to now, to have the capability to integrate very high energy intensive weapons systems, such as, directed energy weapons, high-powered microwaves and electronic warfare systems and rail guns in your surface combatants.

Can you speak to the Navy's plan to ensure that the ships that we are planning for and procuring now, as well as in the future, are capable of accepting the power, including loads of such systems in the future?

Secretary STACKLEY. Yes, sir. Two parts here. First, there are a number of directed energy developments ongoing. You mentioned rail gun. There are various laser projects that we have in place, and step one is to mature the technology, and that is two part—actually, it is three parts.

One is the basic technology has moved far along, so that is going well. The second part is to weaponize it. And that is probably the hard part right now, and that is to take—if you were to visit our lab at Dahlgren and take a look at the systems that are in development for these directed energy weapons.

We are making progress on the laboratory floor, but we have got to make the leap now to weaponizing them. A simple example with the rail gun. The focus right now—we have demonstrated the technology, now what we have got to do is, you have to develop a round, you know, that has relative utility for the rail gun. So that development is ongoing now. We have to size the weapon that it would accommodate our platforms, so that is ongoing now. So we are many years away, in the case of the rail gun, from actually installing one on board ship, but we are trying to keep—we are trying to pace that vision to the ability to mature the technology.

Lasers—we are a little bit further along. You have probably seen the videos of the demonstrations that we have done in terms of actually taking out small targets with a relatively small scale laser. So then the challenge becomes, how do we scale up that capability and, right now, we have got a demonstrator, effectively a demonstrator, on board the *Ponce* [USS *Ponce* amphibious transport dock ship] on deployment, so it is beyond technology demonstration. Now we are getting it in the hands of the fleet to figure out how do we best employ that.

So that is kind of the state of where we are today. To get to the rest of your question, which is, how do we ultimately get it to be

a weapons system out in the fleet, and how do we accommodate that on our platform. So that is the next challenge.

This technology is a—places a high demand on power systems for our platforms, and we have—power is precious onboard all of our ships and, with the introduction of integrated power systems, first on the surface side with the DDG 1000 [*Zumwalt* class guided missile destroyer], we start to see a technology on the platform side that then accommodates the demand of the directed energy.

So we do not have a clear point in time or program plan that we can say, “On this platform, at this point in time, we will have rail gun or laser system that will be fleet ready.” But, we are marching these all along and parallel to get there.

So what I would invite is a question for the record where we come back and lay out something that represents a roadmap for these technologies, how we mature the technologies and then, what that means for our platform to host them.

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

Mr. LANGEVIN. That would be helpful. Admiral, do you want to comment?

Admiral MYERS. To complement Secretary Stackley, in order to understand and inform what the future requirements need to be for our ships and for our warfighting, the Under Secretary of the Navy established Navy directed energy steering group.

And this steering group is going to develop a roadmap, and they are going to have near-term over the next 5 years; mid term, over the next 5 to 10 years; and then a far-term plan so that that can inform our resource decisions, and the way that we approach weapons and weaponizing our ships.

Also, although this directed energy working group is ongoing, as Mr. Stackley pointed out, we are not waiting for the results. We have done lots of testing when it comes to lasers, and that goes back to 2008, with the assistance of congressional adds [add-ons], I might add.

And then in 2012, the USS *Dewey* was able to demonstrate the utility of a laser weapons systems in terms of what the impacts would be against a threat representative of an unmanned aerial vehicle.

So we are continuing the development, but we also need to be guided by a steering group and a roadmap that will tell us what we think we need and what is in the realm of the possible over the next 5, 10 to 15 years.

Mr. LANGEVIN. Thank you. Well, my time has expired. You have other questions that I will submit to the record, and if you could respond to those as expeditiously as possible, I would appreciate that.

Thank you, Mr. Chairman.

Mr. FORBES. And if I could follow up on the gentleman from Rhode Island’s question with you, Secretary Stackley. Obviously, to have the roadmap, you have got to have the platforms to put them on, and what is the risk of essentially stopping the bill to the DDG flight to be.

You know, that has been the most successful powerful and capable warship afloat in favor of fielding the new AMDR [Air and Mis-

sile Defense Radar] radar in the Flight III destroyer. And we are looking at these power systems, you know, we know we can do it and put the radar on there, but it kind of limits us down the road if we want to do what the congressman was talking about.

This ship will be procured to 2029, and we know it is going to be in service through the 2060s, have we considered putting this radar on the LPD 17 or the DDG 1000 hull, and give us the explanations there if you would.

Secretary STACKLEY. Yes, sir. Back in 2009 timeframe, we accomplished what we referred to as, “hull radar study,” which went after the need to increase our integrated air and missile defense capability.

At that time, some of the competing concepts were the DDG 1000 as the platform, the DDG 51 and other platforms, such as, LPD 17. What we were trying to get at is a total force solution that would look at platforms, but not platforms alone, also, netting links and integrating across platforms, radar resource capability plus the kinetic, you know, the weapon, the SM-3 [Standard Missile 3].

The results of that study were a couple. First, AMDR was the right technology to invest in for the radar upgrade, and that has proved itself, that development is going very well.

Second, to determine how much radar capability do you need at the platform level in order to bring the total ballistic missile defense capability up against the threat that was sized in that study. And that threat was based on intel [intelligence] reports, and it is worth the staff getting an update on that study in those reports, to put this in the right context.

But suffice to say that, the complexity of that threat, and the—I call it the “ray density and the size,” was such that we need to go more than an order of magnitude beyond what we have today in the SPY-1D(V) [S-band Aegis littoral warfare] radar.

So we measure that radar capability in terms of dBs [decibels] above SPY. And the range of capability that we needed at the platform level, was SPY plus 15 dB to SPY plus 30 dB.

And what that means in terms of size is a SPY plus 15 dB radar, is larger than what we have today on the DDG 51. But much of that increased capability comes through the AMDR technology. So it is slightly larger than what we have today. SPY plus 30, in fact, would challenge LPD 17. It is a significant-sized aperture.

So what we settled on was, we know the DDG 51 is going to be central to the BMD [Ballistic Missile Defense] role. We know we need integrated air missile defense, so we need the AAW [Anti-Air Warfare] capability of the 51, and we need it in conjunction with the carrier battle groups that it is protecting.

And we settled on a size that would give us something greater than SPY plus 15 capability on the 51 Flight IIIs, for the radar. To do that, we have to upgrade the power plant.

So, we have got the studies going on today, looking at, we have got a power plant selected, and now we are looking at the design impacts associated with the machinery spaces. It is all—it is engineering work, it is not new discovery.

So those—to studies are going on the platform to support a downstream decision for the 2016 Flight III ship, so we will see

the—we will get through a milestone decision on the radar that says it is ready for production.

A milestone decision on the ship side that says that the upgrades for power and cooling are ready for production, and then we will be coming back with the budget to the Defense committees so that you all see exactly what the approach is in terms of managing the risks, managing the costs, and meeting the requirements on that platform.

Mr. FORBES. And thank you for your analysis as to how you are doing that, and our staffs will continue to work your staffs on making sure we understand the direction you want to go with that.

Just a couple more questions that we need to finish up with. Cruisers, I know this is a very sensitive issue. We know, also, that the Navy is still assessing the feasibility of the *Port Royal*, but Congress was pretty clear in the fiscal year 2013 NDAA Defense Appropriations Bill, that it believes it is essential to maintain our Naval fleet through the expected service life of the cruisers.

We included the appropriate funding for the modernization of those assets. A couple questions here, and I don't mean to be facetious on this: Do we need to do anything else, legislatively, to make clear our intent of what Congress wanted to do with the cruisers, or do you feel that the Navy at least understands the congressional intent of wanting to modernize and put those monies toward the modernization of the cruisers?

Admiral MYERS. Mr. Chairman, first of all, we appreciate Congress' support in the \$2.4 billion that was added in the ships' modernization and operations and sustainment fund—SMOSF [Ship Modernization, Operations, and Sustainment Fund]—that enabled the Navy to retain the seven cruisers and the two LSDs for fiscal years 2013 and 2014.

Those funds, they expire at the end of the fiscal year 2014.

The Navy originally had those funds—or had those ships slated to retire because of not being able to afford them. Congress gave us the money for 2 years, and the Navy intends to operate those ships for 2 years and then, in the beginning of fiscal year 2015, our intent is to retire those ships.

Mr. FORBES. So with the money that Congress appropriated to modernize them, does the Navy plan to spend that money on modernizing those ships as Congress directed it?

Admiral MYERS. The plan that the Navy brought to Congress was essentially a FYDP plan, a 5-year plan. And in that plan, the Navy broke up all the different elements that would be required to sustain and modernize those ships. The people, the HM&E [Hull, Mechanical, and Electrical], the modernization.

So with 18 months since the appropriations act, until the time that those funds retire, there isn't enough time to do the planning or to procure the modernization that would be required, much less the time to install the upgrades, to use that portion of the SMOSF funds.

Mr. FORBES. So, it would be fair to say that, right now, the Navy does not intend to use those monies as a appropriated by Congress for the modernization of the cruisers?

Admiral MYERS. The Navy is assessing, but it is challenging to—

Mr. FORBES. But you have no intention of doing that right now, is that correct?

Admiral MYERS. We do not. It does not appear that we have the time to do the planning to procure the parts and then to do the installation, but we are assessing that, and that is something that I would like to take for record and get back to you.

Mr. FORBES. But you haven't forwarded any long-term lead materials or anything like that and don't plan to do that in the near future. Is that correct?

Secretary STACKLEY. That is correct, sir. Let me kind of summarize. First, Congress' intent was very clear, all four defense committees came out strongly with regards to the Navy's plan to early retire the seven cruisers and the LSDs.

And the Secretary, and as you know, we are also consistent in the testimony last year, and thus far, in the posture hearings that, we would like to hold onto these ships. This came down to a difficult budget choices and where to task risks, but the Department of the Navy would like to hold on to both the cruisers and the LSDs were it not for the total cost of operating plus modernizing.

The add by Congress in 2013 as Admiral Myers described, it arrived halfway through the year. The dollars effectively expire at the end of 2014, and in this window of time, to put \$2.4 billion to work without the long-term vision in terms of continuing to sustain and, actually, accomplish modernization, we can't get there quickly enough.

Mr. FORBES. And I appreciate that analysis. It is fair analysis that may differ with the outcome, but it is a fair analysis. I just want you to understand our frustration, which I know you do, when you then say these are difficult budget choices, we wanted the cruisers, but we see the fact that we were cutting \$778 billion, and nobody from the Navy said, "Wait a minute. We really don't want to cut \$778 billion. We might want to use some of this to keep our cruisers."

That is what is frustrating, Admiral.

Admiral MYERS. Mr. Chairman, if I could just add, the Navy does intend to operate these ships, maintain and operate these ships, so it is not that we are not using any of the \$2.4 billion. I want to make that clear. It is just the modernization portion that challenges us because the timeframe that we have to use that money.

Mr. FORBES. And basically, we are foregoing 10 or 12 years of service life for the cruisers, fair?

Admiral MYERS. Yes, that is a fair statement.

Mr. FORBES. Secretary, just a couple of—air force, wind force, and then we will be wrapped up.

The *Ford* class carrier. You and I have talked about this, everybody is doing good jobs. We know it is hard work. But the estimated costs of CVN 78 has grown 22.3 percent, at least the numbers that we have since the submission of the fiscal year 2008 budget and 4.1 percent since the submission of fiscal year 2013 budget.

It has been reported that the Administration is considering a legislative proposal to increase the cost cap of CVN 78 that was enacted in the fiscal year 2008 NDAA to \$12.8 billion. It is essential that we provide better cost controls on the program.

We have talked about that, I know both sides are trying to work on that. Can you just explain to us what steps have been taken to better control the costs on the *Ford* class carrier and what, if anything, we need to do to support you in helping to do that.

Secretary STACKLEY. Yes, sir. To understand what is being done, the controller costs, it is probably best to first understand what has been driving the costs.

CVN 78 is a near-100-percent redesign of the *Nimitz* class. Not just a design but actually the technology and the systems that are incorporated in that platform. So there were a large number of development efforts that were ongoing in parallel with the ships' design phase.

And we have a matter of concurrency of development efforts that were delayed, design efforts that were delayed, all that rolling into material procurement that was delayed. All of that going into production of the carrier and accumulating into a significant cost growth during the production phase of the carrier.

So the efforts to contain this are manifold. One is the design contract itself was rewritten to do a couple of things. One to go after things that we could do at that stage of design to reduce costs, and also, change the type of contract to drive to a completion contract.

Government-furnished equipment, there is cost growth associated with Government-furnished equipment. A significant part associated with the electronic magnetic—electromagnetic aircraft launching system, and the advanced arresting gear.

To contain costs on that, we basically put that system into a firm fixed price contract by the vendor, and we put—in fact, we assigned penalties if the delivery of that system is late. And since that point in time, that program has been performing well.

We are installing a dual-band radar on the carrier which that development, the intent of the CVN 78 was, it would leverage the development of the dual-band radar from the DDG 1000 program, but when the DDG 1000 program was truncated, and a part of the effort to reduce the costs on the DDG 1000, the dual-band radar was reduced on the 1000 to just single-band, multifunction radar and, therefore, the CVN 78 picked up those development and integration costs on that program.

So about half of the cost growth on the carrier is associated with those development efforts earlier on. The—another part of the previous adjustment to the cost on the carrier simply associated with inflation.

That contract was awarded in 2008, delivers in 2015, the cost cap was set early on, and there was an allowance made for—to account for inflation and, in fact, we exercised that allowance in the cost cap for inflation, which then brings you to the last piece, which is production, which we are wrestling with today.

It is too late to undo the impact associated with development, and we are suffering through the impacts that have trickled into the impacts on material procurement, so a lot of cost growth in production of the CVN 78 is disruption caused by late material.

The shipbuilder has been turning the industrial base upside down to do a couple of things. One to get through all of the first nautical testing as required for these new systems as quickly as possible.

But second is to find alternative sources where it makes sense to improve upon delivery to a shipyard. Those are bearing some fruit, but in the end, not enough to overcome the early cost trends.

So that is why we have predicted, projected about 2 years ago, what our estimate of completion would be updated for these impacts.

Two years later, we are continuing to work on changing that trend, but there is not enough progress to change the estimate, and so, we have to come forward with requests for cost cap to relieve the associated funding to go towards completion of the carrier. And we have to keep the press on in terms of the remaining production and test activities.

Mr. FORBES. Well, we thank you for the good work you have done in doing that, and the contractor. We may have to be talking about what kind of milestones we can just get to make sure we are assuring that those costs are being contained so that we can justify that to our other members who have to vote on these dollars.

But thank you for that effort. One last question for the Navy. The LCS, I know both of you are familiar with that, we have talked about it, I think overall, the development program is doing well. Admiral, I understand you have got to do the deployment to see exactly what utilization you are going to have for these vessels.

But here is the one conceptual question that I have to ask both of you to get on the record. We are looking at the fact that this is a little bit different because of the modular mission packages, and normally when we have a ship that is ready to deploy, and it goes and does what it is supposed to do.

Some of those module mission packages, we are not going to have the complete package for probably 5 years down the road. And, at that time, we are going to probably have about 25 of the 52 vessels already intact, and if they have got a 20-year hull life on them we are talking about using, a sizable portion of that hull life before we have to fully, the modular mission packages, fully ready to go.

Can you just kind of deal with that issue, and if you have thought through that and what we need to explain that to our members.

Secretary STACKLEY. Yes, sir. First, I would argue that the modular approach to the LCS mission package is the strength of the program. And you are correct that the full operational capability associated with the three mission packages across the two versions of the LCS, doesn't—that full operational capability doesn't come until late in the FYDP.

But the incremental approach that we have outlined for that capability is ensuring that as the ships are delivered to the fleet, that we are able to marry up the increments of the mission packages as the ships are ready for fleet operations.

So for example, I described at the mine countermeasure mission package, IOC, currently scheduled for late 2014, we will work through the funding issues, to try to hold on to that schedule.

But what we are going to field then, will be increment one. And increment one will provide a level of capability, equal to or greater than, what we have in the fleet today. So it gives us confidence that, when we get increment one out there, we can start to deploy mine-countermeasure-capable LCSs in the 2015 timeframe.

But the full capability associated with that mission package we will continue to follow in subsequent increments, and that full capability includes filling gaps that we cannot fill today.

So, rather than hold the program, waiting for the full capability of the mission package, we are going to go ahead and field the first increment when we got a level of capability equal to or greater than what we have today, and as the follow-on technologies are ready, we will introduce those in such a fashion it doesn't disrupt the platform or the mission package, which is the way it was designed.

So it is really a strength that we don't have to go in, rip anything out, but as the separate technologies complete their separate testing, they get to be integrated in with the mission package.

That is the mine countermeasures and following suit on that is surface warfare. In fact, the *Freedom* is deployed today with the version of the surface warfare mission package, and we continue to improve upon that with subsequent increments, so she is able to deploy today, but then, by the 2017/2018 timeframe that you refer to, she will, in fact, be further capable in what we are deploying today.

And then the third mission package is the ASW [Anti-Submarine Warfare] which probably, rightfully is—we try to array these in accordance with need, and that mission package is under development today, but we are using mature technologies in that case. And the issue then becomes integrating them onto the LCS platform.

Mr. FORBES. Good. One question for the Air Force and either both of you take this. We are concerned, as you are, with sequestration and its impacts. As to sequestration impacts and the fiscal year 2013 and fiscal year 2014 budget assumptions by the Department, that sequestration will somehow be undone, the subcommittee is concerned about the impacts of funding shortfalls related to high priority programs, such as, the KC-46 refueling tanker, and the new Long Range Strike Bomber.

How will you prioritize these programs within your Service, and more importantly, what impact will our national security incur if these critical capabilities are delayed?

General DAVIS. Sir, thank you. Those two programs make up three of the top priority programs in the United States Air Force, and they comprise about 27 percent of our budget, the bomber, the tanker, and the F-35 [Lightning II Joint Strike Fighter] program.

And so, these are clearly priorities within our budget as we look to meet, you know, the new defense strategy which has us looking about how we fly in denied areas and into anti-access areas, notably in the Pacific.

We were grateful for the fact that H.R. 933 [Consolidated and Further Continuing Appropriations Act, 2013] actually funded the required level we needed to protect the very valuable fixed-price contract on the KC-46, so we see, as General Allardice mentioned in his statement, that program going quite well.

As we looked at the sequestration impacts to the very early phases of the Long Range Strike Bomber, the team was able to handle that 9 percent or so cut within it is development by kind

of working around certain issues and being able to structure the program just a little differently in the very early phases.

So they had some flexibility to preserve that. As it moves into some of its more important phases in the next year, so that flexibility for another levy somewhere out there, would all but be gone, so I think you can understand, that since those are our top three programs, those are critical that we protect those in the outyears.

Mr. FORBES. And I think the programs are going well. You are kind enough to give us some good briefings on those, but can you—what can you tell us for the record if those programs were delayed, how would it impact our national security?

So we can make sure they are not delayed.

General DAVIS. Sir, I am going to let—I will let General Allardice talk about specifically the tanker, which is in his portfolio. Let me talk about the bombers. Every one of you who had mentioned something about the age of our bomber fleet was approaching 37-plus years.

Our B-2 [Spirit stealth bomber], which is our newest airplane, is already on the verges of 30 years old. I was there when I saw that first airplane fly, and that just seems like decades ago. We have money, a lot of money, scattered through the POM [Program Objective Memorandum] to be able to maintain both—or all of the B-1 [Lancer strategic bomber], the B-52 [Stratofortress strategic bomber], the B-2, throughout what we hope will be 2040 and beyond.

But it is money that doesn't provide a new capability. It really, if you will, treads water just trying to match the new threat that appears on the horizon every day.

We are reacting to every threat that those bombers are going to have to penetrate. We are not leading the fight in that, if you will. We are not bringing in the new capability that the threat has to react to. We are just surviving diminishing parts. We are surviving new threat radar modes. We are surviving new missile technologies, and so, I don't know how we do that for another three decades.

So that is why the Long Range Strike Bomber is absolutely critical to that.

Mr. FORBES. And how about the tanker?

General ALLARDICE. Sir, thank you, and as you indicate, our program is going well today. As a reminder, 54 years, average age, today. The tanker the KC-46 will show up in 2017 to start. And we will field that over a number of years, and when we end the fielding of the KC-46, the KC-135 will be 80 years old.

As a pilot, flown the 135, loved it to death, the first one I flew is the same age as I am. I hope I am alive to fly it when it is 80 years old. It is hard for me to comprehend, particularly in light, as General Davis said, a requirement to go into anti-access/area-denial areas.

So delaying the program today, which is a firm fixed price, we believe we have a very good deal with the contractor. Any delays puts that at risk, drives the cost up, per unit cost, up to a level that I doubt we would save anything, and we would just be putting our force at risk.

Mr. FORBES. I think Mr. Langevin had a final question, sir?

Mr. LANGEVIN. Thank you, Mr. Chairman. Secretary Stackley and Admiral Myers, given the importance and increasing complexity of cyber-related issues, as our system is getting increasingly complex, interconnected, and interdependent, how are you procuring to ensure that systems are able to function in warfighting environments, where our data links may be degraded or denied or where the networks may be under significant strain from cyber attacks. That is one question.

The other question I had is, given the potential capabilities of unmanned, under sea vehicles promised to provide, will you please give us a brief update on the Navy's plans for these systems?

Secretary STACKLEY. Yes, sir. Let me start with your second question, unmanned vehicles. Clearly, one of the priorities for the Secretary of the Navy has been to expand our employment of unmanned vehicles, both the surface and underwater as well as air.

We have got a number of developments that are ongoing, a number of prototypes that are in operation and, in fact, we have accelerated the deployment of certain capabilities. So for example, we employed an underwater surveillance system, its acronym was PLUS [Persistent Littoral Undersea Surveillance], persistent long range underwater surveillance, to demonstrate not just the ability of technology to capture data, at sea, over long periods of time, but actually to employ that in an operationally relevant environment.

And that has led to continued emphasis for that capability.

Separately, I described on the discussion on the LCS efforts that are going into the mine countermeasure mission package, a central element of the MCM mission package, is the remote mine hunting system which is a semisubmersible unmanned vehicle, and that is, perhaps, our most mature surface or subsurface unmanned vehicle.

But then, coming around to the submarine program, we are looking at large displacement UUVs [Unmanned Underwater Vehicle] and the ability to deploy the LDUUV [Large Diameter Unmanned Underwater Vehicle] with the payloads that it would bring to extend the reach and the capability of the submarine.

So these are three quick snapshots. Double that number in terms of what is going on the air side, to bring the maturity to the fight in as rapid a fashion as we can through a combination of development and, in certain cases, we are leveraging urgent needs to accelerate the fielding of those capabilities.

Admiral MYERS. Thank you. And just to complement what Secretary Stackley said, and I will start with the protecting the infrastructure first with cyber and then finish up with our unmanned programs.

Developing a cyber workforce is very important for the Navy. And taking that workforce and that approach into our ships and protecting our ships, so one example that is in our President's Budget 2014 submit, is the consolidated afloat network and enterprise services gains that is going to be on our next—on our ships and with our next-generation network ashore.

So if this is going to reduce the number of Navy networks and applications and it continues to expand the inspection of cyber hygiene with improved results. So we think that at least with the training of the people and the backbone that we are going to have

on our shifts, and the way we are approaching our shore establishments that, we are on the right track.

When it comes to unmanned systems, we have a number of activities and, as Mr. Stackley correctly highlighted, in a number of different areas. I mean, it goes all the way from the X-47B, the UCAS [Unmanned Combat Air System] demonstration which goes to the USS *Bush*.

She has already completed the sea trials when she was on the USS *Harry S. Truman*, and this spring, we will take it to the next level. We have the UCLASS program which is by fiscal year 2020. We are going to have enhanced reach and persistence that will come off of our interior strike groups, and Mr. Stackley already highlighted undersea, the large diameter UUV, what we are doing there.

So we continue across the spectrum to advance our unmanned systems.

Mr. LANGEVIN. Thank you for your time—

Mr. FORBES. Gentlemen, thank you so much for your time today. As we mentioned at the outset, this is the transcript that we have to use to do our portion of the defense authorization markup, so it is very crucial to us, and we thank you for your time. And as I said at the beginning, I want to take just a moment now and Admiral Myers and Secretary Stackley, I want to begin with you.

Is there anything that you believe we have mischaracterized today or any question that you didn't to fully respond to, or is there something that you think is important to get on the record that we need to have on there before we do the markup.

And Admiral, we will start with you.

Admiral MYERS. Well, thank you, Chairman. There were a couple of questions that were addressed to both Secretary Stackley and myself, and Secretary Stackley did a marvelous job of responding, but I also wanted to make sure that, as you went to the next question, that I had a chance to—

Mr. FORBES. Sure.

Admiral MYERS [continuing]. Since it was addressed to both of us. The first one has to do with the LCS and the mission packages, and I concur with everything Secretary Stackley said, but I just want to reinforce that, the Navy feels like we have LCS in the mission package procurement and development right.

When you look at the three different mission packages, the surface, the antisubmarine and combined countermeasure mission packages, they each have an initial operations or operable date that we intend to field them in the fleet. And with the surface package, that is in fiscal year 2014, we intend to procure 24 of those.

With the ASW package, that is going to IOC in 2016, with 16—and eventually we will have 16 packages and then with the mine countermeasure, it is again in fiscal year 2014, with 24 packages and is a program objective.

Now just looking at the MCM packages, again, like Secretary Stackley said, this is an improvement over what we have today. So we already—we procured four MCM packages in the increment one. Two of them have been delivered, and we are expecting the other two later this year.

This improvement will be succeeded as we develop increased capability that we can modularize and put in eventual increment two, increment three and increment four in the future, so we will have more and more capable MCM mission packages on our Littoral Combat Ships.

When you look at the procurement rate of the ships and the way that we are developing these packages, we think we have it about right.

Mr. FORBES. Thank you, Admiral. Mr. Secretary, thank you again, and anything—

Secretary STACKLEY. Sir, I just want to first thank you for your support, the committee's support throughout the past rather difficult budget year. I mean, not too long ago we were staring at the prospects of a yearlong continuing resolution, and thankfully, that is behind us.

And as we work through the impact associated with sequestration, you have our commitment to work closely with your staff because, realistically, our adjustments associated with sequestration, will directly affect your deliberations on the 2014 budget, and we both need to keep those closely coupled so that we end up on the backside with the right results.

Your questions regarding what has happened to the projection of the topline over the next decade, we will get back to you on that. But the specific question regarding whether or not the Services have raised their hand to say we can't get there from here.

As you well know, we do balance requirements and budget, and one of the things that we have got to do under all circumstances is articulate what impacts are and what the risks are. And that is what we attempt to do year in, year out, as the budget cycle turns, first inside the building and then as the budget comes over the Hill with the committees, so that you all can do your job, not just in terms of oversight, but just like your placard states, just like the Constitution states to provide and maintain a Navy, you need those insights with regards to what is the impact on national security at this budget level, with this program that you have brought forward and that is our commitment to you.

Mr. FORBES. Mr. Secretary, we thank you.

Nobody knows the long hours all of you pull outside of these hearings and we appreciate them and respect you all for it and want to work closely with you on that.

Admiral—I am sorry?

Admiral MYERS. Is this an opportunity for closing or?

Mr. FORBES. I tell you what let—

Admiral MYERS. Or are you going—

Mr. FORBES. No, you go right ahead and do that as part of this as we go down the line, so Admiral—

Admiral MYERS. Okay, I want to make sure I didn't miss an opportunity.

Mr. FORBES. No, no, this is yours.

Admiral MYERS. Okay, well thanks.

I want to thank Congress for the fiscal year 2013 National Defense Authorization Act and the 2013 Defense Appropriations Bill.

Based on our strategies and policies, we are using these funds to pay our civilian personnel, must-pay bills, reconcile our fiscal year

2013 readiness and sustain the operations and maintain those ships and airplanes that are priority for forces that are going to deploy for fiscal year 2013 for the rest of the year and prepare for the fiscal year 2014 Global Forces Management Allocation Plan, the GFMAP.

We are also using those funds to restore critical base operations and renovations. Now, we are still working through the impacts of fiscal year 2013 sequestration and we know that sequestration is going to impact our fleet and bases in a way that is going to make them less ready than we planned for.

So the funding that has impacted us across the Navy has been about 8 percent. This will likely result, when you look at the procurement side, in fewer weapons and aircraft and it is going to increase our ship construction costs and manifest itself in time to complete or later initial operating dates.

I ask for your support for the fiscal year 2014 budget request and thank you for the opportunity to testify on behalf of the 613,000 Navy sailors and civilians operating around the world.

Thank you.

Mr. FORBES. Thank you, Admiral.

Mr. Secretary, anything else that you have?

General, you have anchored both of these two groups today. We thank you for the great job the Marine Corps always does. You are always great leaders and you have done such an admirable job for us for so many years, thank you for being here.

Same question to you, anything we need to get on the record for the Marine Corps that you think is important as we go into this markup?

General MILLS. Mr. Chairman, just let me add to the thanks on behalf of all your marines for the support that you give and the support the entire committee gives to what the Marines do today and what we are—have to be doing in the future.

And just once again, to reemphasize the criticality of the ACV program to us and to our core competencies and to the effort that we are putting into it to ensure that we meet the affordability options but also to maintain that capability for this Nation in a time of crisis.

Mr. FORBES. Thank you. Thank you.

General MILLS. Thank you for the opportunity.

Mr. FORBES. It is important that we get that on the record so we can make sure we are letting our members know that.

General Davis, once again, thank you and General Allardice for all; you have done. My question to you, the same thing, is there anything we mischaracterized today that you want to correct or any questions that we left out that you think is important to say and this is your time to get it on the record.

General DAVIS. Sir, just a couple of things.

I want to say first of all, you personally have reached out to many of us to ask our inputs on some situations that are going on and I want to thank you for that and the committee's support as been mentioned here today. That kind of dialogue is invaluable and as Secretary Stackley mentioned, we don't get through 2014, 2015 and 2016 and out unless we can continue that open dialogue with you and your committee and I appreciate that opportunity.

We will get back to you as directed on these funding issues. The only thing I will add is that in the Air Force, we have seen that as we have the ability to use the expert airmen we have to try to build a structure to meet whatever number we are given, we believe we have the capability to manage a lot. It is when that capability to shape our force structure with the consent and advice of Congress gets taken out of our hands, we have an issue and so, I—we need to come back to you with how we have dealt with and how our leadership has answered that.

I also want to thank you through the questions and through the answers the very intricate and detailed and exquisite master class I had on shipbuilding here today and it gives me great confidence that as we expand our CONOPS [concept of operations] with the Navy and the Marine Corps and the other Services on air-sea battle that we are going to have some great and capable partners as we go through this.

I do want to mention though that United States Air Force has the daunting requirement to be able to move anything around the world at any time as General Allardice mentioned and in addition to be able to strike any spot on the world at any time and we do that through the great support aircraft we have, through the mobility aircraft tankers and also through the long-range bombers that are a very key element of power projection which did not get much notice here today.

And I want to mention the fact that we struggle with keeping that fleet, as you had noted a couple of times, viable as parts of that fleet will reach 80 years old or more before it is replaced, we are worried about what the outyear numbers of our budgets will do to that and we are going to do everything we can to continue to modernize not only the B-2 but the B-1 and the B-52.

We have significant amounts of our Air Force TOA [Table of Allowance] going into our budgets throughout the FYDP. And as you mentioned, the Long Range Strike Bomber has about \$380 million this year and about \$8.8 billion across the FYDP. We are putting in excess of around \$500 million in the B-52 just to be able to bring it into the 20th century so to speak with digital weapons as well as data links that can command it and control it in any spot of the globe beyond line of sight and that is something that is well overdue for that venerable platform.

Even the B-1, which has proven to be a quite capable, even close air support airframe over in Afghanistan which will now turn its eyes, if you will, further west, is going to have about \$608 million put into it over the FYDP to be able to bring integrated capabilities to and including data links and improved situation for the pilots.

But the B-2 again, as I said, just to be able to get it to match the threat across the FYDP is going to require about \$5 billion. That will just bring the capabilities so it can recognize the threats that exist out in the denied and anti-access areas. It will give it some capability to communicate back and it will give it better capability to receive nuclear command and control messages and that is going to be important.

But as I look at our bomber fleet, we have to remember that, again, we put that fleet any place in the world at any time and it probably would be worth imagining what went through the minds

of the North Koreans as those airplanes were over their country and they couldn't do a dadgum thing about it.

And so, that is why there is so much of the Air Force budget going into these airplanes. But I say again, all we have been able to do is react to what the threat is and as a student of air power and of having been involved in this situation, the last thing you want to be as an airman is predictable because that makes you just a target.

And so, that brings us back to the long range strike bomber which constantly receives questions about why another bomber if these airplanes are going to be around for 40-plus years? That airplane is going to be the beneficiary of 20-plus years of technology development on other airframes and other classified programs and avionics that exist on F-22s [Raptor fighter jet] and F-35s. And that will get us to these areas of the world where we can't necessarily survive for lengthy periods of time today. It will make us be the one that is driving the threat reaction, not driving our budget to fit whatever is going on in that part of the world.

So I appreciate the support your committee's giving for that. I do see that as being a very key cornerstone of the United States Air Force in the future since it is our core mission to strike anywhere in the world at any time. So I appreciate the support for that.

And I thank you for the chance to get in a few comments.

Mr. FORBES. General, I thank you for those.

And one of the things I want you to know too is how much we respect your Department, it is ability to give us a lot of these detailed questions that we have been doing on shipbuilding, we have been doing with you guys but y'all been giving it to us in classified settings, you know. But we appreciate that.

The second thing is if anything history has taught us in the last few years, it is so important to have partnerships when we see these budget cuts and the sequestration, we can scream about it and yell about it but unless we hear you guys coming in here giving us that picture to give to these policymakers, we will continue to see these lines. That is why we push so hard to get those pictures of what those risks really are so that we can paint them.

But thank you for the great work that the Air Force is doing and that you personally do.

General ALLARDICE. Thank you, Chairman, I am honored.

One point of clarification to follow up with Congressman Runyan that the—one of the points with working with the CRAF as we consider legislation or policy is to maintain decision space for the combatant commander. We don't want to put that at risk and that is really a point to reinforce.

Thank you.

I really appreciate my brother's articulation about holding the target at risk anywhere in the world. Halfway around the world is about 12,500 miles; that is, for the average person, that is like flying coast to coast in the United States four times nonstop. That is really hard to do. When we put a B-2 out to fly over Korea and say hey take off out of the United States and from the United States and go perform that mission. The capability that brings to bear is a pretty impressive capability.

Behind the scenes there are at least four air refuelings one way. In order to execute that, we have to have an en-route structure, something we don't hear very much about, little parts around the world where we can place our tanker force so that we can deliver that capability and then we also have in the airlift business our contingency response force which are the men and women that go right after and air—seizure to allow us to accelerate the flow of the logistics movement.

My point here is that as we draw down and we start to reposture our force because of the new strategy, something we have to really be attuned to is that in order to hold targets at risk anywhere in the world, we have to have a balanced force throughout the world in order to be able to fly 12,500 miles unrefueled to either deliver a bomb or a hope package.

Thank you for your time, sir.

Mr. FORBES. General Allardice, we thank you for your service and let me just tell you, we don't want you to be predictable and we want you to be cutting-edge, we don't want to lie on our laurels and the other thing we all want to be committed to making sure of is that our budgets are not driving our strategy but our strategy is driving our budget and we all work together, we can get that as a nation.

And with that, I thank you all and we are adjourned.

[Whereupon, at 12:19 p.m., the subcommittee was adjourned.]

A P P E N D I X

APRIL 24, 2013

PREPARED STATEMENTS SUBMITTED FOR THE RECORD

APRIL 24, 2013

Statement of Hon. J. Randy Forbes
Chairman, House Subcommittee on Seapower and
Projection Forces
Hearing on
Oversight of U.S. Naval and U.S. Air Force
Acquisition Programs in the Fiscal Year 2014
National Defense Authorization Budget Request
April 24, 2013

I want to welcome all our members and our distinguished panel of experts to today's hearing that will focus on the Administration's Fiscal Year 2014 budget request.

In the decade ahead I believe we will increasingly lean on our Seapower and Projection forces to underpin our national security strategy. Our naval forces are deployed around the world, protecting the world's sea lanes and operating forward to deter conflict. Our projection forces are uniquely ready to support a wide range of mobility, strike, and strategic deterrence missions around the globe.

While I am pleased at the capabilities provided by our forces today, the long-term outlook of our defense posture is being challenged. Naval forces embarked on Carrier Strike Groups and Amphibious Readiness Groups routinely deploy 7 to 8 months. Because of the Navy's sustained surge, our nuclear aircraft carriers are depleting their nuclear reactor propulsion units at accelerating rates. Our bomber fleet averages 37 years old and our venerable tanker fleet averages an even older 48 years.

While we are meeting the minimum requirements of our ever-retreating national strategy, it is painfully obvious that our future readiness is being leveraged to pay for our current requirements. The most recent example of the Administration's direction is the 30-year shipbuilding plan that was partially submitted on Monday. The Administration once again proposes the early retirement of seven cruisers and two amphibious ships in fiscal year 2015, well before the end of their service lives. With 31 ships being retired over just the next 2 years, we are headed towards a fleet size of 270 battle force ships by FY15. Decline is a choice, and I believe this new plan willingly chooses to continue the slow, painful decline of robust American Seapower.

The plan also includes a significant increase to the overall ship construction budget to accommodate the *Ohio* class ballistic missile submarine replacement. At over \$5 billion, these strategic investments in our nuclear triad are essential. I remain concerned that

during the procurement and construction of the *Ohio* class replacement the shipbuilding budget will demand an average of \$19 billion per year. To fund both this new boat and the battle force it will take either a substantial increase in the shipbuilding account or an effort to fund the *Ohio* class replacement from outside this account. I look forward to continuing to work with the Department and the Navy to address this funding shortfall.

During the Navy posture hearing earlier this month, military leaders indicated that they were pleased at the investment in the ship construction accounts and highlighted the dearth of ships in construction when they took office. To arrest this decline, this Administration embraced a plan that includes an aggressive strategy to build a moderately capable surface combatant called the Littoral Combat Ship that adds over 50 ships over the term of the plan. But unfortunately, the mission modules that are integral to support this 20-year seaframe are still in the research and development, complicating the Navy's ability to respond to basic mine countermeasure missions and antisubmarine missions. Just as the fleet is shrinking from the retirement and procurement of less major surface combatants and amphibious ships, we are filling these shortfalls with smaller surface combatants and support vessels. We need to take steps to arrest the decline of our battle force fleet.

As to the Air Force projection forces, I am pleased that we may be initiating the semblance of a credible recapitalization plan. With the support of an investment in the KC-46 tanker program and strategic emphasis on the Long Range Strike Bomber, I believe that the Air Force is on the right path with the right platforms for our Nation's future. I look forward to supporting these continued investments in our mobility and projection forces capabilities.

As to the Marine Corps, I understand the Amphibious Combat Vehicle is the Marine Corps top priority for ground force modernization and the Marines have completed the required analysis of alternatives. We need to get this program right for the future of the Marine Corps and I look forward to receiving an update on this critical program.

I would be remiss if I also did not recognize the Navy in providing a credible long-term acquisition strategy that uses block-buy and multiyear procurements to secure steep reductions in overall naval pricing. Not only is this a good strategy for our Nation's taxpayers, it provides the long-term surety to our industrial base that will allow them to make critical investments for their long-term health.

My friends, we are at a strategic inflection point in terms of our defense policy. Concurrent with the new strategy being contemplated by this Administration, my fear is that the overall capabilities of our military will continue to atrophy and our inability to be able to operate forward and project power will embolden regional instability. In the end, further defense reductions will be paid for in the lives of our service members. I refuse to accept this premise and will do everything in my power to arrest further decline by modernizing and growing our capabilities.

Joining us today to discuss the fiscal year 2014 budget request are five distinguished and patriot gentlemen:

- Honorable Sean Stackley, Assistant Secretary of the Navy for Research, Development, and Acquisition;
- Vice Admiral Allen G. Myers, USN, Deputy Chief Naval Operations for Integration of Capabilities and Resources;
- Lieutenant General Richard P. Mills, USMC, Deputy Commander for Combat Development and Integration;
- Lieutenant General Charles Davis, USAF, Military Deputy, Office of the Assistant Secretary of the Air Force for Acquisition; and
- Lieutenant General Robert R. Allardice, USAF, Vice Commander of the Air Mobility Command.

Gentlemen, thank you all for being here.

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BY THE HOUSE ARMED SERVICES
COMMITTEE SUBCOMMITTEE ON
SEAPOWER AND PROJECTION FORCES

STATEMENT

OF

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

AND

VICE ADMIRAL ALLEN G. MYERS
DEPUTY CHIEF OF NAVAL OPERATIONS
FOR INTEGRATION OF CAPABILITIES AND RESOURCES

AND

LIEUTENANT GENERAL RICHARD P. MILLS
DEPUTY COMMANDANT
COMBAT DEVELOPMENT AND INTEGRATION &
COMMANDING GENERAL, MARINE CORPS COMBAT DEVELOPMENT COMMAND

BEFORE THE

SUBCOMMITTEE ON SEAPOWER AND PROJECTION FORCES

OF THE

HOUSE ARMED SERVICES COMMITTEE

ON

DEPARTMENT OF THE NAVY SEAPOWER AND PROJECTION FORCES
CAPABILITIES

DATE: APRIL 24, 2013

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HOUSE ARMED SERVICES COMMITTEE
SUBCOMMITTEE ON SEAPOWER AND PROJECTION FORCES

Mr. Chairman, Representative McIntyre, and distinguished members of the subcommittee, thank you for the opportunity to appear before you today to address Department of the Navy seapower and projection forces capabilities. The Fiscal Year 2014 President's Budget submission implements the Defense Strategic Guidance and continues our efforts to build and maintain platforms that will evolve and adapt, allowing our war fighters to fight and win the nation's wars, operate forward and sustain readiness. As we confront the challenges of budget constraints and the uncertainty inherent in our fiscal outlook, we are evaluating priorities in our shipbuilding, aviation, and combat vehicle plans to make the hard choices necessary to maintain the right measure of balance in capacity, capability and the industrial base.

As 2012 began, USS CARL VINSON and Carrier Air Wing 17 provide air support over Helmand Province while the USS ABRAHAM LINCOLN Carrier Strike Group sails west through 7th Fleet toward 5th Fleet.

USS MAKIN ISLAND, along with USS PEARL HARBOR and USS NEW ORLEANS and the embarked Marines of the 11th Marine Expeditionary Unit, are on point in the Persian Gulf... having relieved the BATAAN Ready Group and Marines of the 22nd MEU, who would, in February, return home after nearly eleven-months of overseas operations - the longest US Navy deployment in forty years.

In March, JOHN C. STENNIS Carrier Strike Group returned to homeport after a seven-month deployment to 5th and 7th Fleets, and seven days later, USS ENTERPRISE departs Norfolk for its final deployment, just eight-months after returning from its last cruise. Accompanying are destroyers USS PORTER, USS NITZE, USS JAMES E. WILLIAMS and cruiser USS VICKSBURG, all headed, as well, to the Middle East.

Later that same month, IWO JIMA Ready Group and 24th Marine Expeditionary Unit deployed...the regular drumbeat of rotational forces to support maritime security operations, provide crisis response capability, and increase theater security cooperation and forward naval presence in the 5th and 6th Fleets.

Already in 7th Fleet, Carrier Strike Group 1 and USS CARL VINSON anchor off Chennai, India, in preparation for Exercise MALABAR with the Indian Navy to foster interoperability.

In May, the second littoral combat ship, USS INDEPENDENCE, completes its maiden voyage to homeport San Diego... in time to see the hospital ship USNS MERCY depart the following day on a humanitarian and civic assistance mission to Indonesia, the Philippines, Vietnam and Cambodia.

The cycle continues with USS CARL VINSON home again in May with cruiser USS BUNKER HILL and destroyer USS HALSEY, having flown more than a thousand Operation Enduring Freedom (OEF) missions...6,600 flight hours...7,283 pounds of ordnance on target, 1,717 rounds of 20mm ammunition expended...in support of coalition ground forces.

Days later, USS GEORGE WASHINGTON, forward-deployed to Japan, departs on patrol, its fourth since arrival in the U.S. 7th Fleet Area Operations.

The next month, guided missile destroyer USS BENFOLD sails west from San Diego on an eight-month Ballistic Missile Defense deployment while USS VANDEGRIFT, USS SAMPSON, and national security cutter USCGC Waesche arrive in 7th Fleet to begin Cooperation Afloat Readiness and Training (CARAT), a series of bilateral exercises with Southeast Asian countries. And the 23rd RIMPAC is underway - the world's largest international maritime exercise involves 22 nations this year and more than 40 ships and submarines and 200 aircraft, around the Hawaiian Islands.

In the North Arabian Sea, USS DWIGHT D. EISENHOWER begins to fly combat sorties over Afghanistan...and back at the largest Fleet homeport in the world, USS ABRAHAM LINCOLN arrives in Norfolk to prepare for Refueling and Complex Overhaul. Having left Everett, Washington 245 days before, the ship sailed 72,000 miles, around the world, including 105 days in the Arabian Sea supporting OEF.

USS BONHOMME RICHARD, with elements of the 31st MEU embarked, begins its first patrol as the Navy's permanently forward-deployed amphibious assault ship from Sasebo, Japan.

The operational tempo of the Fleet remained high throughout 2012 and 2013. Guided missile cruiser USS CAPE ST GEORGE returns to San Diego after circumnavigating the globe in a nine-month deployment supporting 5th, 6th, and 7th Fleets.

And in Bremerton, Washington, Defense Secretary Leon Panetta thanks the crew of USS JOHN C. STENNIS for extraordinary effort to prepare for an eight-month deployment: four-months ahead of schedule; six-months after returning from a seven-month deployment.

Rotations continue...PELELIU Ready Group and the 15th MEU depart San Diego in September; Guided missile destroyer USS MILIUS returns to San Diego after eight-months while USS PAUL HAMILTON leaves Pearl Harbor for a planned ten-month deployment.

The third LCS, USS FORT WORTH, arrives in homeport San Diego following a September commissioning.

And ENTERPRISE Carrier Strike Group returns to Norfolk ...it is the 25th and final homecoming in 51 years of distinguished service. The inactivation ceremony follows on December 1.

In mid-December the DWIGHT D. EISENHOWER Strike Group returns to Norfolk, early, it seems, after only six-months gone, but back for a brief time to depart again and arrive on station in 5th Fleet barely a month ago.

And USS FREEDOM, the first littoral combat ship, arrives in the U.S. 7th Fleet area of responsibility on its eight-month deployment to Southeast Asia.

Meanwhile, all the year long, Marines keep lit the torch of freedom in Afghanistan and the Navy conducts anti-piracy patrols, international exercises, global partnership stations, under-ice operations, maritime surveillance, strategic deterrence, and missile defense missions.

No other military and no other nation on earth today, has the reach, the presence, the capability, the training and the resolve to maintain this pace or breadth of operations. Global reach, persistent presence, and operational flexibility, the inherent characteristics of U.S.

seapower articulated in the *Cooperative Strategy for 21st Century Seapower*, are demonstrated in all we have done in 2012 and continue to do in 2013. These tenets, along with the Defense Strategic Guidance, guide the priorities and direction of the Department of the Navy's Fiscal Year 2014 President's Budget request.

The Navy and Marine Corps' first responsibility is to ensure the ability to deliver the overseas presence and capabilities required by the Defense Strategic Guidance (DSG), Sustaining U.S. Global Leadership: Priorities for 21st Century Defense. The DSG mandates the need to be present overseas where it matters and to be ready when it matters, with a smaller, more ready force, with the right capabilities postured in each region. The DSG concludes that a prompt, credible response by forward U.S. forces can demonstrate American resolve and can blunt the initial actions of an aggressor. The Navy and Marine Corps are well suited and uniquely positioned to meet this mandate, and the Department of the Navy's budget submission for Fiscal Year 2014 reflects the capabilities needed to meet the DSG.

In implementing the DSG, the Navy's Fiscal Year 2014 budget submission sustains our support to partners in the Middle East, rebalances our effort toward the Asia-Pacific region, focuses our presence at key maritime crossroads, and meets the highest-priority capability demands of the geographic Combatant Commanders. We made tough strategy-based choices to ensure a coherent budget that delivers the overseas presence directed by the Secretary of Defense in support of the Global Force Management Allocation Plan (GFMAP); continues our essential, near term investments in the Middle East and Asia-Pacific; and develops capabilities over the long term to address warfighting challenges in these same regions.

Final passage of the Fiscal Year 2013 National Defense Authorization Act and the Fiscal Year 2013 Defense Appropriations Bill was critical to avert the damaging impacts to our operations, maintenance, and investment accounts associated with the potential year-long Continuing Resolution. These funds are being applied in accordance with our strategy and priorities to pay civilian personnel and "must pay bills," reconcile Fiscal Year 2013 readiness, sustain operations and maintenance for priority forces deploying to meet the current approved Fiscal Year 2013 GFMAP, prepare to meet the Fiscal Year 2014 GFMAP, and restore critical base operations and renovation. As well, the Department is exercising new start authorities

provided by Congress to develop and deliver future capabilities required by the force, and leveraging multiyear procurement activities for VIRGINIA Class submarines, ARLEIGH BURKE Class destroyers, and OSPREY MV-22 aircraft; all critical to meeting the force structure requirements in the most affordable manner possible.

Sequestration, however, reduced the Fiscal Year 2013 funding across all accounts by roughly 8 percent, or about \$10.7 billion total, thus directly impacting current and future readiness. The Navy is still reconciling the impact of this reduction; however, due to the mechanics of its implementation and the limits on Department-wide transfer authority authorized by the Fiscal Year 2013 Defense Appropriations Act, it is likely that the Department will be compelled to reduce our near term forward presence, our planned depot maintenance and training to support future operational rotations, our procurement of ships, aircraft and weapons systems to meet our force structure and inventory requirements, and our investment in future capabilities and readiness; thus impacting our future readiness. Every major weapon system is impacted by sequestration in 2013 with impacts ranging from reducing quantities procured, delaying schedules (delivery and initial operational capability), deferring costs to future years (particularly in the case of executing programs, such as shipbuilding), and absorbing cost growth due to all of these impacts.

The Fiscal Year 2014 Budget Request

As the Department moves into Fiscal Year 2014 and beyond, the budget submission balances Force structure, Readiness and Capability to meet national security commitments. During these times of constrained resources, the Department of the Navy remains committed to being responsible stewards of public funds. A brief overview of Seapower and Projection Forces programs follows.

Shipbuilding

The Navy reported to Congress in January 2013 results of the Force Structure Assessment (FSA) which determined the capabilities of the future force to meet the full range of

missions requirements by the Department of the Navy in support of the DSG. The FSA analysis resulted in a battle force requirement of 306-ships. This requirement is different from our previous 313-ship requirement because of: (1) reduced presence requirements resulting from the DSG's priorities; (2) increased forward basing of ships; (3) introduction of new payload capacity for SSNs (replacing the SSGNs) and; (4) the increased use of ships manned with rotating civilian and military crews which provide more presence per ship. Our shipbuilding investments are not programmed to reach the precise number and mix of ships within this FYDP, but do deliver a fleet of 300 ships by 2019 with increased capability and flexibility compared to the fleet of today.

The Department's Shipbuilding Plan continues to build toward the balanced 306-ship force outlined by the FSA. In support of this, the Fiscal Year 2014 President's Budget request funds eight ships: two VIRGINIA Class attack submarines, one DDG 51 ARLEIGH BURKE Class destroyer, four Littoral Combat Ships (LCS), and one Mobile Landing Platform/Afloat Forward Staging Base (MLP/AFSB) variant. Over the next five years, the Navy will deliver forty-seven ships. These investments are part of our long-term plan designed to deliver the fleet, by ship type, required per the FSA over the long term.

Key to accomplishing the objectives of the shipbuilding plan is stability and affordability. Over the past several years, the Navy has placed a priority on increasing shipbuilding rates and providing stability for the shipbuilding industrial base. 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. The past VIRGINIA-Class and DDG 51-Class MYPs, the DDG 1000 Swap/DDG 51 Restart Agreement, the LCS dual block buy, the MLP procurement, the continuation of CVN 78-Class procurements on constant five-year centers, and the heel-to-toe CVN RCOH induction-to-delivery cycle have provided critical stable workload for our shipyards and their respective vendor base. The approved upcoming VIRGINIA-Class and DDG 51-Class MYPs will help to further stabilize the surface combatant and submarine industrial base through this decade. Likewise, the funding requested to procure a fourth MLP, and to configure MLP 3 and MLP 4 as AFSBs will also provide for much-needed workload within the auxiliary shipbuilding sector.

The strategy going forward must also continue to center upon improving affordability. To this end, in addition to the emphasis on stability discussed above, the Navy has established affordability requirements and invested in Design for Affordability for future ship programs; mandating use of open systems design; leveraging competition where it exists in shipbuilding and weapons systems production; employing fixed-price contracts to control cost for ships and weapon systems in production; imposing strict criteria limiting disruptive change to contracts; investing in industry-wide manufacturing process improvements through the National Shipbuilding Research Program; and incentivizing capital investment in facilities where warranted.

The Navy will continue to aggressively pursue the mutual objectives of improving the affordability of our shipbuilding program and increasing the strength of our shipbuilding industrial base, and is committed to working closely with Congress on these efforts.

Aircraft Carriers

Our aircraft carriers are best known for their unmistakable forward presence, ability to simultaneously deter potential adversaries and assure our allies, and capacity to project power at sea and ashore. These national assets; however, are equally capable of providing our other core capabilities of sea control, maritime security, and humanitarian assistance and disaster relief. Our carriers provide our nation the ability to rapidly and decisively respond globally to crises with a small footprint that does not impose unnecessary political or logistic burdens upon our allies or potential partners.

GERALD R. FORD (CVN 78) is the lead ship of our first new class of aircraft carrier in nearly 40-years. FORD-Class carriers will replace, on a one-for-one basis, NIMITZ-Class carriers as they reach the end of their projected 50-year service lives. FORD-Class carriers are expected to be the premier forward deployed asset for crisis response and early decisive striking power in major combat operations through the remainder of this century. While the GERALD R. FORD aircraft carrier design uses the NIMITZ-Class hull form, it is essentially a brand new ship, encompassing new technologies and interior arrangements to improve warfighting capability, operational availability, and quality of life for its sailors, while reducing crew size by as many as 800 personnel and total ownership costs by approximately \$5 billion for each ship.

In 2011, the Navy identified cost growth issues associated with non-recurring design, government furnished equipment and ship construction on CVN 78. The Fiscal Year 2014 President's Budget includes funding for the cost growth identified in 2011 and requests that the cost cap be correspondingly increased to \$12.887 billion.

The President's Budget also requests the second year of construction funding for JOHN F. KENNEDY (CVN 79), the second ship of the FORD-Class. The planned delivery of CVN 79 aligns with the end of service life for USS NIMITZ, the ship it will functionally replace to maintain a force structure of 11 carriers. The ship's build schedule also allows for improved production efficiencies. The Fiscal Year 2014 budget additionally provides notification of a SECNAV adjustment for the CVN 79 cost cap to account for economic inflation and non-recurring engineering for incorporation of lead ship lessons learned and design changes to improve affordability.

Inarguably, this new class of aircraft carrier brings forward tremendous capability and life-cycle cost advantages compared to the NIMITZ-class it will replace. However, the design, development and construction efforts required to overcome the technical challenges inherent to these advanced capabilities have significantly impacted cost performance on the lead ship. The Navy continues implementing actions from the 2012 detailed review of the FORD-class build plan to control cost and improve performance across lead and follow ship contracts. This effort, taken in conjunction with a series of corrective actions with the shipbuilder on the lead ship, will not recover costs to original targets for GERALD R. FORD, but should improve performance on the lead ship while fully benefitting CVN 79 and following ships of the class.

With more than half of the service life of the NIMITZ-Class still remaining, the Refueling and Complex Overhaul (RCOH) continues as a key enabler for the enduring presence of the aircraft carrier Fleet. This year's budget request includes \$1.75 billion for the last year of funding for the RCOH of USS ABRAHAM LINCOLN and \$246 million for advance procurement for the RCOH of USS GEORGE WASHINGTON.

Submarines

Submarines have a unique capability for stealth and persistent operation in an access-denied environment and to act as a force multiplier by providing high-quality Intelligence, Surveillance, and Reconnaissance (ISR) as well as indication and warning of potential hostile action. In addition, attack submarines are effective in anti-surface ship warfare and anti-submarine warfare in almost every environment, thus eliminating any safe-haven that an adversary might pursue with access-denial systems. As such, they represent a significant conventional deterrent. While our attack submarine Fleet provides considerable strike capacity already, our guided missile submarines provide significantly more strike capacity and a robust capability to covertly deploy special operations force (SOF) personnel. The Navy is mitigating an impending attack submarine force structure gap in the 2020s through three parallel efforts: reducing the construction span of VIRGINIA-Class submarines, extending the service lives of selected attack submarines, and extending the length of selected attack submarine deployments.

With the support of Congress in Fiscal Year 2013, the Fiscal Year 2014 President's Budget requests funding for two VIRGINIA-Class submarines (\$5.3 billion), with one of these two submarines funded between Fiscal Year 2014 and Fiscal Year 2015 using advance appropriations. The request also includes advance procurement and economic order quantity funding for the Fiscal Year 2015 through 2018 boats. The Fiscal Year 2014 boats are the first two submarines under the Block IV Fiscal Years 2014 through 2018 Multiyear Procurement (MYP) contract.

Ballistic missile submarines are the most survivable leg of the Nation's strategic arsenal and provide the Nation's only day-to-day assured nuclear response capability. They provide survivable nuclear strike capabilities to assure allies, deter potential adversaries, and, if needed, respond in kind. The Nuclear Posture Review completed in April 2010 determined that the U.S. would retain a nuclear triad under New START and that, for the near-term, the Navy would retain all 14 OHIO-Class SSBNs in the current inventory. To maintain an at-sea presence for the long term, the U.S. must continue development of the follow-on to the OHIO-Class submarine, the 12-ship OHIO Replacement. On December 21, 2012, the Navy awarded the research and development contract for OHIO Replacement. This contract focuses on meeting the program's stressing performance requirements while reducing costs, in not only design and production, but also operation and sustainment.

The Fiscal Year 2014 budget requests funding to continue development of the OHIO Replacement SSBN and ensures Common Missile Compartment (CMC) efforts remain on track to support the United Kingdom's Successor Program's schedule. All aspects of the OHIO Replacement Program will continue to be thoroughly reviewed and aggressively challenged to responsibly drive down engineering, construction, and operations and support costs. However, Navy will need the means to resource, in particular, construction of the next generation nuclear ballistic missile submarine.

Today the Navy has four guided missile submarines (SSGN). To mitigate the loss of strike capacity when SSGNs retire in the next decade, the Navy requests Fiscal Year 2014 Research and Development funding to continue the design for a modification to the VIRGINIA-Class SSN, the VIRGINIA Payload Module. Modified Virginia-Class SSNs could be procured starting no earlier than Fiscal Year 2019. Our challenge will be executing this option affordably alongside competing priorities within the overall shipbuilding program.

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

Large Surface Combatants

Guided missile cruisers (CGs) and guided missile destroyers (DDGs) comprise our large surface combatant Fleet. When viewed as a whole, these ships fulfill broad mission requirements both independently and in conjunction with a strike group. The demands for increased capability and capacity in Ballistic Missile Defense (BMD), Integrated Air and Missile Defense (IAMD) and open ocean anti-submarine warfare (ASW) have resulted in a shift of focus on the type and quantity of these ships.

The Fiscal Year 2014 President's Budget requests funding for one Flight IIA DDG 51 ARLEIGH BURKE-Class destroyer as well as additional advance procurement and economic

order quantity funds in support of the ongoing Fiscal Year 2013 through Fiscal Year 2017 MYP for nine ships with the option for a tenth ship. The Flight IIA ships will incorporate IAMD, providing additional BMD capacity to the Fleet. The Navy projected in excess of \$1.5 billion in savings for the ships across the MYP contract and has leveraged these savings in the procurement of the ships. The Department's objective is to procure the tenth DDG 51 in the MYP, however is examining options to resolve funding shortfalls resulting from the Fiscal Year 2013 sequestration reductions.

The Navy is proceeding with the Air and Missile Defense Radar (AMDR) program to meet the growing ballistic missile threat by greatly improving radar sensitivity and longer range detection for engagement of increasingly complex threats. This scalable radar is on track for installation on DDG 51 Flight III ships to support joint battle space threat awareness and defense, including BMD, area air defense, and ship self defense. The AMDR radar suite will be capable of providing simultaneous surveillance and engagement support for long range BMD and area air defense. The Navy intends to introduce AMDR on DDG 51 Flight III in Fiscal Year 2016.

The Fiscal Year 2014 President's Budget request includes funding for the modernization of two cruisers and three destroyers. To counter emerging threats, this investment is critical to sustain combat effectiveness and to achieve the full expected service lives of the Aegis Fleet. Destroyer and cruiser modernization programs include Hull, Mechanical, and Electrical (HM&E) upgrades, as well as advances in warfighting capability and open architecture combat systems to reduce total ownership costs and expand mission capability for current and future combat capabilities.

The DDG 1000 ZUMWALT-Class guided missile destroyer will be an optimally crewed, multi-mission surface combatant designed to provide long-range, precision naval surface fire support to Marines conducting littoral maneuver and subsequent operations ashore. The DDG 1000 features two 155mm Advanced Gun Systems capable of engaging targets with the Long Range Land Attack Projectiles (LRLAP) at a range of over 63 nautical miles. In addition to providing offensive, distributed and precision fires in support of Marines, it will provide valuable lessons in advanced technology such as signature reduction, active and passive self-defense systems, and enhanced survivability features. The construction of DDG 1000, 1001, and 1002

continues. The DDG 1000 deckhouse and hangar have been integrated into DDG 1000 and the lead ship is progressing towards her launch and christening later this year. DDG 1001 and DDG 1002 have both started fabrication. The Fiscal Year 2014 President's Budget requests \$232 million to continue production.

Small Surface Combatants

The Navy's Fiscal Year 2014 President's Budget requests \$1.8 billion to procure four Littoral Combat Ships (LCS) with a total of fourteen to be procured across the FYDP. These ships expand the battle space by complementing our inherent blue water capability and filling war fighting gaps in the littorals and strategic choke points around the world. LCS design characteristics (speed, agility, shallow draft, payload capacity, reconfigurable mission spaces, air/water craft capabilities) combined with its core C4I, sensors, and weapons systems, make it an ideal platform for engaging in Maritime Security Operations. Each ship brings unique strengths and capabilities to the mission and each has been designed in accordance with overarching objectives for reducing total ownership cost.

Affordability remains the key factor in acquiring the needed future capacity of these highly flexible and capable ships. The Navy remains on course to deliver these ships in the quantities needed through the execution of the two competitive block buy contracts (for 10 ships of each version) awarded in Fiscal Year 2010.

LCS capabilities address specific and validated capability gaps in Surface Warfare, Mine Countermeasures, and Anti-Submarine Warfare. The concept of operations and design specifications for LCS were developed to meet these gaps with focused mission packages that deploy manned and unmanned vehicles to execute a variety of missions. Two Mine-Countermeasure (MCM) Mission Modules (MM), four Surface Warfare (SUW) MMs; and one Anti-Submarine Warfare MM have been delivered. The Fiscal Year 2014 President's Budget requests approximately \$347 million in Research and Development and Other Procurement funding for continued development of mission modules, procurement of common mission module equipment and procurement of four mission packages. The Navy will continue to incrementally field additional mission package capabilities to the Fleet as they mature. Mission

package production will remain in phase with ship deliveries to ensure that each LCS is able to execute its required missions.

Amphibious Ships

Amphibious ships operate forward to support allies, respond to crises, deter potential adversaries, and provide the nation's best means of projecting sustainable power ashore; they also provide the best means for providing humanitarian assistance and disaster relief. Amphibious forces comprised of Sailors, Marines, ships, aircraft and surface connectors provide the ability to rapidly and decisively respond to global crises without a permanent footprint ashore that would place unnecessary political or logistic burdens upon our allies or potential partners. There are two main drivers of the amphibious ship requirement: maintaining the persistent forward presence, which enables both engagement and crisis response, and delivering the assault echelons of up to two Marine Expeditionary Brigades (MEB) for joint forcible entry operations.

The Chief of Naval Operations and Commandant of the Marine Corps have determined that the force structure for amphibious lift requirements is 38 amphibious ships. Balancing the total naval force structure requirements against fiscal projections imposes risk on meeting this requirement. Based on the footprint of a 2.0 MEB assault echelon force, a minimum of 30 operationally available ships are necessary to provide a force made up of ten Amphibious Assault Ships (LHD/LHA), ten Amphibious Transport Docks (LPD) and ten Dock Landing Ships (LSD). Planning factors call for a force of 33 ships to achieve this availability. Today, the Amphibious Force Structure stands at 30 ships, which includes nine LHD/LHAs, nine LPDs, and 12 LSDs.

The Navy is commencing recapitalization of the large deck amphibious assault ships with the construction of AMERICA (LHA 6). AMERICA is now more than 80 percent complete and is scheduled for delivery in Fiscal Year 2014. The Fiscal Year 2014 President's Budget request includes a funding request to complete construction of AMERICA. Beginning with LHA 8, which is planned for procurement in Fiscal Year 2017, the Navy will reintegrate the

well deck into the large deck amphibious assault ships to provide necessary surface lift capacity. Funding to design this reintegration of the well deck is included in the President's Budget.

The SAN ANTONIO-Class LPD (LPD 17) provides the Navy and Marine Corps team with modern, capable amphibious lift, and has transitioned into a mature production program. Eight of the eleven authorized and approved ships of this class have been delivered to the Navy. Lessons learned from the effort to resolve material reliability concerns identified in the early ships of the class are being applied to ships currently under construction. Quality continues to improve with each ship delivered as the Navy continues to work closely with the shipbuilder to address cost, schedule, and performance issues. The utility of this class was demonstrated by USS MESA VERDE as she recently returned after 19-months of deployed operation over a twenty five-month period.

LX (R) will replace the aging LSD 41/49 WHIDBEY ISLAND/HARPERS FERRY-Class vessels and will perform an array of amphibious missions. An Analysis of Alternatives (AoA) is being conducted in Fiscal Year 2013. The Fiscal Year 2014 President's Budget requests Research and Development funds required for technology development and initial design efforts resulting from the AoA. Affordability will be a key factor in acquiring the needed future capacity and operational capabilities of this highly flexible multifaceted ship.

A fully funded LSD mid-life program, to include repairs, is essential for ensuring the LSD 41/49 ships are able to meet their readiness for tasking requirements and their expected service life. Seven of the twelve ships in the class have completed their mid-life upgrade. Funding for LSD mid-life is included in the Fiscal Year 2014 President's Budget request, with a total of four mid-life upgrades scheduled to be completed or begin in Fiscal Year 2014.

Auxiliary Ships

Combat Logistics Support ships fulfill the vital role of providing underway replenishment of fuel, food, repair parts, ammunition and equipment to forward deployed ships and their embarked aircraft, to enable them to operate for extended periods of time at sea. Combat Logistic Support Ships consist of T-AOE fast support ships, T-AKE auxiliary dry cargo ships, and T-AO Fleet oilers. The T-AO and T-AKE ships tend to serve as shuttle ships between

resupply ports and their customer ships, while the T-AOE tends to serve as a station ship, accompanying and staying on-station with a Carrier Strike Group (CSG) to provide fuel as required to customer ships.

The Fiscal Year 2014 President's Budget requests Research and Development funds to mature the Navy's concept for the replacement T-AO Fleet oiler in Fiscal Year 2016. The Analysis of Alternatives (AoA) was completed in Fiscal Year 2012. The Navy has recently awarded multiple contracts to perform industry studies related to design alternatives for the ship. The new oilers will have a double-hull design to ensure compliance with the modern commercial environmental protection requirement.

Support vessels such as the Mobile Landing Platform (MLP) and the Joint High Speed Vessel (JHSV) provide additional flexibility to the Combatant Commander within the operating area. The MLP enables at-sea transfer of vehicles from cargo ships and facilitates the delivery of these vehicles, equipment, personnel and supplies between the sea and restricted access locations ashore. The Navy has three MLPs under construction and has requested a fourth MLP in Fiscal Year 2014. The JHSV provides a high-speed, shallow-draft alternative to moving personnel and materiel within and between the operating areas, and to support security cooperation and engagement missions. The final JHSV contract option was exercised for the tenth ship in December 2012. In support of the enhanced Maritime Prepositioning Ship Squadron (MPSRON) concept of operations, two T-AKE auxiliary dry cargo ships have been allocated to the Maritime Prepositioning Squadrons (MPS) to provide sea-based logistic support to Marine Corps units afloat and ashore.

There remains a valid and enduring requirement for an Afloat Forward Staging Base (AFSB) capability with capacity for mine warfare and special operations support. In the past, the Navy has provided Fleet assets to address the AFSB demand. In order to avoid diverting a Fleet asset to fulfill this request, the Department converted the USS PONCE to provide an interim AFSB capability until Fiscal Year 2017. To meet the enduring AFSB mission and provide the capabilities specified by the Joint Staff, the Navy will sign a detail design and construction contract modification for the MLP 3 (Fiscal Year 2012 ship) to become a dedicated AFSB asset, and has requested MLP 4 in Fiscal Year 2014 as an additional AFSB variant. MLP 3 is planned

for delivery in order to replace USS PONCE by Fiscal Year 2017. This will result in a class of four MLPs, with two dedicated to the two MPSRONS and two dedicated to the AFSB mission.

Naval Aviation

Naval Aviation forces move at will across the world's oceans, seas and littorals, and extend the effects of the sea-base deep inland; provides our nation's leaders with "offshore options"; enables global reach and access, regardless of changing circumstances; and will continue to be the nation's best option for deterrence through global presence, sea control, mission flexibility, and when necessary, interdiction.

Illustrating the realization of the Navy/Marine Corps vision are several central themes to the Department's 2014 Naval Aviation Budget plan: 5th generation fighter/attack capability; persistent multi-role intelligence, surveillance, and reconnaissance; supporting capabilities such as electronic attack, maritime patrol, and vertical lift; and robust strike weapons programs.

Tactical Aviation

First, the Department is acquiring F-35 5th generation fighter/attack aircraft while maintaining sufficient legacy aircraft inventory capacity. The Navy/Marine Corps plan will integrate 5th generation technologies into the carrier air-wing and expeditionary forces while maintaining and modernizing the capability of the legacy fleet.

The F/A-18E/F will continue to receive capability enhancements to sustain its lethality well into the future. Future avionics upgrades will enable network-centric operations for situational awareness and transfer of data to command-and-control nodes. Electronic Attack capabilities, both carrier-based and expeditionary, will continue to grow with plans to field sixteen EA-18G squadrons, to include the addition of two new E/A-18G squadrons filled by the addition of twenty-one E/A18G aircraft in Fiscal Year 2014. We also continue support of E/A-6B Prowlers and development of the Next Generation Jammer (NGJ) to replace the legacy ALQ-

99 Tactical Jamming System. In total, this capability represents an investment of approximately \$5 billion dollars in Fiscal Year 2014.

Unmanned Aviation

To meet the demand for persistent, multi-role intelligence, surveillance, and reconnaissance (ISR) capability, the Navy and Marine Corps are building a balanced portfolio of manned and unmanned aircraft: The Unmanned Carrier Launched Airborne Surveillance and Strike (UCLASS) air system will provide a persistent aircraft carrier-based reconnaissance and strike capability to support carrier air-wing operations beginning by the end of Fiscal Year 2020; MQ-4C Triton will provide persistent land-based maritime surveillance and complement our P-8 Multi-Mission Maritime Aircraft (MMA); MQ-8 Vertical Takeoff and Landing Tactical Unmanned Aerial Vehicle (VTUAV) will provide ISR support to the LCS platform; and smaller unmanned systems such as the RQ-21A Small Tactical Unmanned Aircraft System (STUAS) and RQ-7B Marine Corps Tactical UAS (MCTUAS) will provide the shorter duration, line-of-sight reconnaissance capability essential for the unit level.

The Fiscal Year 2014 President's Budget supports completion of Navy UCAS-D efforts to research a tactical jet-sized, carrier-suitable, low-observable-relevant, unmanned aircraft system. The UCAS-D program is demonstrating UCAS carrier operations and autonomous aerial refueling and the project has matured the required technologies in support of follow-on unmanned aviation acquisition programs. The X-47B has completed envelope expansion testing, land-based carrier control area, and catapult testing, and is now completing the land-based approach and trap build-up to conduct launch and recovery operations aboard the USS GEORGE H. BUSH (CVN-77) in this spring. UCAS-D will then conduct an autonomous aerial refueling surrogate demonstration in the Fall of 2013. UCAS-D is an essential first step toward full-scale development of a carrier-suitable unmanned ISR/strike platform.

UCLASS, the planned full-scale capability, will enhance carrier capability and versatility for the Joint Forces Commander through integration of a persistent and mission flexible unmanned aircraft into the Carrier Air Wing. UCLASS will provide persistent ISR with

precision strike in a range of missions ranging from permissive counter-terrorism operations, to missions in low-end contested environments, to providing enabling capabilities for high-end area denied operations as an integrated portion of the carrier strike group. UCLASS will have the ability to pass command and control information along with sensor data to other aircraft, naval vessels, and ground forces. The Fiscal Year 2014 President's Budget requests supports continued UCLASS air system development efforts. In total, this capability represents an investment of approximately \$675 million dollars in Fiscal Year 2014.

Early Warning/Maritime Patrol

The Fiscal Year 2014 Budget request enables Naval Aviation to continue recapitalization of our aging fleets of airborne early warning and maritime patrol aircraft. The Department is recapitalizing our fleet of E-2C airborne early warning aircraft with the E-2D that provides a two-generation leap in technology with the capability to detect and track emerging air and cruise missile threats in support of IAMD. Utilizing the newly developed AN/APY-9 Mechanical Electronic Scan Array radar and CEC, the E-2D AHE works in concert with surface combatants equipped with the Aegis combat system to detect, track and defeat air and cruise missile threats at extended range and provide Battle Group Commanders required reaction time. This system-of-systems architecture, known as Navy Integrated Fire Control-Counter Air, or NIFC-CA, provides vital force protection and allows the Navy to safely project forces into the littorals and overland to ensure access in contested areas. The 2014 budget requests sustained RDT&E and continued Full Rate Production for the E-2D program. Additionally, the Secretary of Defense certification for the Fiscal Year 2014-2018 Multi-Year Procurement (MYP) was sent to Congress for approval on March 1, 2013. If approved by Congress, this MYP will allow the Department to save more than \$500 million.

Our aged fleet of P-3C maritime patrol aircraft will continue to be replaced with a modern, commercially-based P-8A equipped with a sensor suite to provide persistent undersea and anti-surface warfare capabilities. The P-8A combines the proven reliability of the commercial 737 airframe and avionics with an open architecture that enables integration of modern sensors and robust communications. The program is on track for IOC in late 2013 when

the first squadron will have completed transition and is ready to deploy. The P-8A program is meeting all cost, schedule and performance parameter requirements. The Navy will award the final LRIP contract no later than the fourth quarter of Fiscal Year 2014. The first Fleet squadron (VP-16) has completed P-3C to P-8A transition training, and the second squadron transition (VP-5) is underway and on-track. Patrol Squadron 16 continues preparations for the first operational P-8A deployment in December 2013. The Fiscal Year 2014 President's Budget supports planned procurement of sixteen Full Rate Production (FRP) P-8A Poseidon aircraft which are scheduled to begin delivery in May 2016.

The aging, legacy P-3C fleet continues to provide ASW, ASUW, and ISR support for Joint and Naval operations worldwide. The P-3C is being sustained to maintain warfighting capability and capacity until completion of P-8A transition in Fiscal Year 2018. The Fiscal Year 2014 budget request supports continued P-3C airframe and mission systems sustainment, including wing modifications to support the Chief of Naval Operation's "P-3 Fleet Response Plan", as well as supporting EP-3E requirements, which are executed within the P-3 Airframe Sustainment Program.

In total, this capability represents an investment of approximately \$4.8 billion dollars in Fiscal Year 2014.

Special Purpose Aircraft

The EP-3E ARIES is the Navy's premier manned Airborne Intelligence, Surveillance, Reconnaissance, and Targeting (AISR&T) platform. The Joint Airborne SIGINT Common Configuration includes Signals Intelligence (SIGINT) spiral upgrades, which, in conjunction with Secretary of Defense and the ISR Task Force (ISR TF) surge efforts, are fielding a robust Multi-Intelligence (INT) capability inside the Future Years Defense Program. Operating around the globe, the EP-3E continues to satisfy critical Joint, Combatant Commander, and Service airborne ISR priorities and requirements. The Navy is in the process of developing the AISR&T Family of Systems construct to recapitalize the EP-3E AISR&T capabilities within existing Program of Record platforms: MQ-4C Triton, VTUAV, P-8A, H-60, and E-2D. The strategy

has been refined to focus on module systems and payloads required for the Navy to conduct AISR&T on a variety of vehicles, providing Combatant Commanders with scalable capability and capacity. In Fiscal Year 2014, the President's Budget request supports EP-3E Aries Replacement/ Sustainment, and the procurement and installation of multi-intelligence capabilities and modifications necessary to meet emergent classified requirements. These efforts are necessary to keep the platform viable until the EP-3E capabilities are recapitalized. In total, this capability represents an investment of approximately \$56 million dollars in Fiscal Year 2014.

Vertical Lift

The Department also continues to modernize vertical lift capability and capacity with procurement of MH-60R/S, AH-1Z, UH-1Y, CH-53K, MV-22B, and the fleet of Presidential Helicopters (VXX program). In total, this capability represents an investment of approximately \$4 billion dollars in Fiscal Year 2014. Of note, the new-build CH-53K will fulfill land and sea based heavy-lift requirements not resident in any of today's platforms, and contribute directly to the increased agility, lethality, and presence of Joint Task Forces and Marine Air-Ground Task Forces; the modernization of UH-1Y/AH-1Z is a key effort designed to resolve existing safety deficiencies, enhance operational effectiveness, and extend the service-life of both aircraft; the continuation of the MH-60R/S multi-year procurement for the airframe, mission systems, and a common cockpit enables affordable capabilities that support sea-control and the defeat of area-denial strategies; and V-22 continues execution of a follow-on multi-year procurement contract for this critical assault support aircraft.

Expeditionary Warfare

Ensuring the Nation retains its critical amphibious capability remains a top Department of the Navy priority. The Marine Corps remains first and foremost a naval service, operating in

close partnership with the United States Navy. Together, the two naval services leverage the seas, not only to protect the vast global commons, but also to project our national power and influence ashore where that is required.

The future security environment dictates that the Department maintains a robust capability to operate from the sea, placing special demands on our equipment. A core capability of expeditionary forces is the ability to project forces ashore from amphibious platforms and to maneuver once ashore. The Marine Corps is committed to developing and fielding an Amphibious Combat Vehicle (ACV) that meets this critical need. The ACV is the Marine Corps' top ground modernization priority and the Fiscal Year 2014 President's Budget request includes \$137 million for support of this effort. To ensure that the Department is able to maintain this critical capability in the current budget environment, the Marine Corps is conducting only essential modernization, focusing on those areas that underpin our core competencies. The Marine Corps is mitigating costs by prioritizing and sequencing equipment modernization and sustainment programs to maintain their readiness in a fiscally responsible manner. Based on the Department's ten-year investment plan, the intent is to address modernization priorities sequentially-both before and after development of the ACV. The Department's Joint Light Tactical Vehicle (JLTV) strategy depends on procuring those vehicles with the most demanding mission profiles. The Marine Corps PM request include \$50.3 million to continue Engineering Manufacturing and Development (EMD) efforts and reach Milestone C before the Marine Corps procurement focus is turned towards the ACV. If JLTV is delayed, an opportunity will be lost and as a result the ACV procurement may not occur until the late 2020's. To complement future ground and amphibious vehicles, the Marine Corps is investing in other key support areas such as the Ground/Air Task-Oriented Radar (G/ATOR). Fiscal Year 2014 President's Budget includes \$177.5 million to complete EMD and enter LRIP in FY14.

During the interval in which the design, build and field of the ACV occurs, the Department must also ensure the continued safety, reliability, and operational capability of the legacy Assault Amphibious Vehicle (AAV). The current AAV platform faces significant maintenance challenges and obsolescence issues. Accordingly, the Marine Corps is investing \$32.3 million in AAV sustainment efforts, to include the AAV upgrade program. Both of these

efforts remain a top Marine Corps recapitalization effort priority until fielding of the ACV. The Marine Corps plans to upgrade between 350-400 of existing AAVs to ensure they are survivable on the modern battlefield.

While the AAV upgrades will provide a bridge of sorts, the ACV is needed to replace this aging fleet. The ACV Analysis of Alternatives was completed in July 2012. The results of this analysis are expected in October 2013 at which time a decision will be made whether to pursue a HWS vehicle.

Affordability and the Industrial Base

Navy continues to explore the most affordable means to acquire our ships, aircraft, and vehicles. Stability in our plans is fundamental to any weapon system procurement because it allows industry to effectively plan the work, train and retain their unique workforce, invest in facility and process improvements, and sustain the critical sub-vendor base. For stable programs, the Department has leveraged fixed-price multi-year procurements and block buys. These two methods alone are resulting in over \$11.5 billion of savings in current procurements of major Navy weapons systems. Competition is a key element for many of our programs, and savings achieved from competition often allow the Department to buy at more economic rates. We will continue to engage early in a program's life to get the requirements right, hold firm to those requirements, design for affordability, complete designs before start of production, and mandate use of open system designs. As a result of these actions, the Department's procurement rates are increasing, competition and stable procurements are the norm, affordability has improved, and the industrial base on the whole is sustainable. It is critical to sustain this progress particularly as we confront the otherwise destabilizing impacts associated with sequestration.

Summary

The Department of the Navy continues to instill affordability, stability, and capacity into the shipbuilding, aviation, and combat vehicle plans and to advance capabilities to become a more agile, lethal and flexible force to address the challenges and opportunities facing the nation. The ships requested in the President's Budget request for Fiscal Year 2014 are required to support the National Security Strategy. These ships are in keeping with the Force Structure

Assessment which calls for a 306-ship Navy. Naval Aviation is aligned to meet our international responsibilities and national imperatives. Our force is focused on global reach and access with investments to enable global presence, sea-control, mission flexibility, and when necessary, interdiction. Naval Aviation will continue to focus on balancing the challenges of national defense within the margins of tighter budget constraints. As America's Expeditionary Force in Readiness, the Marine Corps moderation investments will ensure continued capability to project power from the sea and provide a powerful response and credible deterrent to aggression anywhere in the Littorals. A modern survivable Amphibious Combat Vehicle (ACV) is a critical component of our amphibious capability and the Department of the Navy is committed to embarking on this program with full awareness of the required capabilities, technical maturity, and affordability of this once in a generation acquisition program.

Budget uncertainties may slow progress toward our goals, but the tenets which guide our decisions remain firm. The Navy and Marine Corps, on the high seas and closing foreign shores, stand ready to answer the call of the Nation. We thank you for your continued support of the Navy and Marine Corps and request your approval of the Fiscal Year 2014 President's Budget request for Department of the Navy's program.

**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

Vice Admiral Allen G. Myers Deputy Chief of Naval Operations, Integration of Capabilities and Resources (N8)

A 1978 graduate of the U.S. Air Force Academy and a northern Virginia native, Vice Adm. Myers most recently served as commander, Naval Air Forces from 2010 to 2012, leading naval aviation during its centennial celebration. Prior to that, he completed two tours in Washington, as director, Warfare Integration/Senior National Representative (OPNAV N8F), and director, Air Warfare Division (OPNAV N88). He also served as commander, Carrier Strike Group Eight, commanding Expeditionary Strike Force 5th Fleet, Combined Task Force 50 and 152, and the *Eisenhower* Carrier Strike Group during an extended deployment in support of Operations *Iraqi Freedom* and *Enduring Freedom* 2006/2007. Myers has also previously served in flag tours as the senior military assistant to the secretary of the Navy and deputy director for Requirements, Assessments Division (OPNAV N81D).



He also commanded *USS Kitty Hawk* (CV 63), the Navy's forward deployed naval forces aircraft carrier, in Yokosuka, Japan, and *USS Sacramento* (AOE 1), which deployed to the Western Pacific and Persian Gulf with the *Constellation* Battle Group, and was awarded the Battle "E" and CNO Safety "S" under his command. He also commanded Fighter Squadron (VF) 32, flying F-14 Tomcats aboard *USS Dwight D. Eisenhower* (CVN 69) while deployed to Bosnia and the Persian Gulf. The squadron also was awarded the Battle "E", the Clifton Award and the Fleet Fighter Adversary Readiness Program Trophy under his command.

Prior squadron and sea tours include: VF-143, VF-14, VF-101 and VF-103. Tours ashore have also included: executive assistant to commander U.S. Fleet Forces; Organizational Policy Branch chief in the Strategic Plans and Policy Directorate, J-5, Joint Staff; deputy executive assistant to the chief of naval operations; chief staff officer, Fighter Wings Atlantic; and deputy special assistant to the chief of naval personnel for flag officer matters. He holds master's degrees in National Security Affairs from the Naval War College and Salve Regina University.

Myers is currently assigned as deputy chief of Naval Operations, Integration of Capabilities and Resources in Washington.

During his career he has accumulated more than 3,600 flight hours and over 900 arrested landings. Decorations include: Distinguished Service Medal; Defense Superior Service Medal; Legion of Merit (eight awards); Meritorious Service Medal (two awards); Air Medal; Joint Service Commendation Medal; Navy and Marine Corps Commendation Medal (two awards) and Navy and Marine Corps Achievement Medal (two awards), in addition to various campaign and unit awards.



Lieutenant General Richard P. Mills
Deputy Commandant for Combat Development
and Integration



A native of Huntington, New York, Lieutenant General Mills was commissioned via Officer Candidate School. As a Lieutenant he served at the battalion level in two Marine Divisions as a rifle platoon commander, weapons platoon commander, rifle company executive officer, and adjutant. As a Captain he attended Amphibious Warfare School, served at Parris Island as a series officer and commanded a recruit company before joining the 6th Marines, 2d Marine Division, as the Commanding Officer of Alpha Company and Regimental Assistant Operations Officer.

As a Major, he was assigned to the Officer Assignment Branch, Headquarters Marine Corps, attended the Marine Corps Command and Staff College, was a Military Observer with the United Nations Truce Supervision Organization in Palestine, and served as the Air/Ground Liaison Officer, Marine Air Group 29, 2d Marine Aircraft Wing.

Lieutenant Colonel Mills served as Operations Officer, 26th Marine Expeditionary Unit (Special Operations Capable) (MEU SOC) taking part in operations off Bosnia and Somalia, was assigned as the Amphibious Exercise/Operations Officer on the staff of the Commander, United States Sixth Fleet in Gaeta, Italy, and as Commanding Officer, 3d Battalion, 6th Marines (deploying as Battalion Landing Team 3/6, 24th MEU (SOC)).

While a Colonel, he studied at the Royal College of Defense Studies, London, England, was the Officer-In-Charge of the Special Operations Training Group, II MEF before commanding the 24th MEU (SOC). While under his command the 24th MEU (SOC) participated in Operations Joint Guardian in Kosovo, Enduring Freedom, and combat operations ashore in Iraq as part of Task Force Tarawa.

Next Colonel Mills went to Headquarters, United States European Command (EUCOM) in Stuttgart, Germany for duty as the Assistant Chief of Staff then, selected to Brigadier General, was the Deputy Director of Operations at EUCOM. Subsequently he was Director, Manpower Management Division at Headquarters Marine Corps before assuming command of the 1st Marine Division.

From 2007 to 2009 Brigadier General Mills served concurrently as Assistant Division Commander, 1st Marine Division and upon promotion to Major general as Commander, Ground Combat Element, Multi-National Forces - West, Al Anbar Province, Iraq. Upon returning from Iraq he again assumed command of the 1st Marine Division and then was selected to command the I Marine Expeditionary Force (Forward) which deployed to Afghanistan as part of the International Security Assistance Force (ISAF). In June 2010, he assumed command of the newly-created Regional Command (Southwest) and in October 2010 he relinquished command of the 1st Marine Division. In March 2011 he relinquished his duties as the Commander, Regional Command (Southwest). Lieutenant General Mills is the first Marine Corps General Officer to command NATO forces in combat. In July 2011 and upon promotion Lieutenant General Mills assumed the duties as the Deputy Commandant for Combat Development and Integration.

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HOUSE ARMED SERVICES COMMITTEE
UNITED STATES HOUSE OF REPRESENTATIVES

DEPARTMENT OF THE AIR FORCE

PRESENTATION TO THE
SEAPOWERS AND PROJECTION FORCES SUBCOMMITTEE
HOUSE ARMED SERVICES COMMITTEE
UNITED STATES HOUSE OF REPRESENTATIVES

SUBJECT: OVERSIGHT OF U.S. NAVAL AND U.S. AIR FORCE ACQUISITION
PROGRAMS IN THE FISCAL YEAR 2014 NATIONAL DEFENSE AUTHORIZATION
BUDGET REQUEST

STATEMENT OF: Lieutenant General Robert R. Allardice
Vice Commander
Air Mobility Command

April 24, 2013

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HOUSE ARMED SERVICES COMMITTEE
UNITED STATES HOUSE OF REPRESENTATIVES

Introduction

Chairman Forbes, Ranking Member McIntyre, distinguished Members of the sub-committee; we greatly appreciate being here today given the timeline of the work that lays ahead for you crafting the FY14 National Defense Authorization Act. We very much understand and appreciate the important work of defending the Nation is truly a team effort. To that end, in addition to being joined by Lieutenant General Charles Davis, our Air Force acquisition expert, I'm pleased to be here today with the Honorable Sean Stackley, Vice Admiral Allen Myers and Lieutenant General Richard Mills. The 2012 Defense Strategic Guidance and its focus toward the Pacific will require ever greater cooperation between all of our joint partners.

Central to our concept of a joint force is the tenet that each service brings unique solutions to our strategic and operational challenges. The sheer geographic distances of the PACOM AOR will require the careful planning and resourcing of the Air Force's Rapid Global Mobility (RGM) capabilities. The Air Force, and more specifically air mobility, will be central to our Nation's ability to project power well into the future. No doubt the same holds true for our Navy and Marine counterparts joining us here today. Last week we celebrated the 71st anniversary of Airmen in B-25s led by Lieutenant Colonel James "Jimmy" Doolittle departing from the deck of the USS Hornet to strike our adversaries. We certainly have a long track record of working together to solve our security challenges. As our focus has rightly been on other parts of the world over the last decade, your Air Force and Navy have kept a steady vigilance in the Pacific with joint exercises and operations. The Air Force's continuous bomber presence, made possible by a robust air refueling capability, has proven itself to be an invaluable tool for our National Security Strategy (NSS).

That's the remarkable capability the 134,000 active duty (AD), Air Force Reserve (AFR) and Air National Guard (ANG) Airmen who comprise our air mobility forces provide their fellow citizens; the ability to project forces anywhere around the world in a matter hours. And we don't do this alone, we do it in conjunction with our industry and commercial partners who provide our Airmen the tools they need and augment our airlift capacity every single day. Our air mobility capability is a true national treasure; it makes us a true global power.

You do not regularly hear about our Airmen who are working quietly providing airlift, air-refueling and aeromedical evacuation for our Nation. That's exactly the result our Airmen work tirelessly to achieve. We measure our success by the soldier in the forward operating base in Afghanistan who has enough ammunition, food, water and fuel to fight another day delivered using precision airdrop by Airmen operating our tactical and strategic airlift aircraft. We see worldwide recognition of our efforts with a B-2 bomber originating from the middle of Missouri and flying non-stop across the globe to demonstrate resolve against our adversaries and solidarity with our allies; we know you on this committee appreciate in order to fly that single bomber nearly 13 thousand miles in 37 and a half hours required several of our Global Reach air refueling tankers, we all just assume their success! Even at home in the United States, our neighbors feel the impact of this national mobility treasure when an ANG C-5 transports civilian utility power trucks across the country to an Air Reserve Base just outside of Boston where they are needed in the wake of Hurricane Sandy. We see the impact of our efforts on the faces of the families of our wounded warriors who received medical care; in some cases all the way from the point of injury to a stateside medical facility. We like to think we make these things look easy, but as your Airmen and this committee know they are immensely complicated endeavors.

Americans never question; but we absolutely count on air mobility. What we seemingly do with ease is a result of Airmen who are ready to answer the call of the Nation at a moment's notice. Our Air Force can project American power, either humanitarian or kinetic, within hours, to any place on the planet relying on our air mobility projection capacity. Our Airmen are the heart of who we are and we owe them the best tools possible to ensure they can accomplish what we've asked them to do. That's what brings us here today, ensuring we have ready and equipped Airmen so future generations enjoy the same strategic choices we have today. It is an ever evolving discussion between meeting the needs of our NSS but also being ready to respond now. The FY14 President's Budget Request (PBR) ensures total force air mobility forces are ready today to execute our Nation's strategy and remain viable tomorrow.

Supporting Forces

In our role as the air component to United States Transportation Command (TRANSCOM) we are a force provider. We do not determine requirements; instead we rely on TRANSCOM and its work with the Geographic Combatant Commanders (GCC) to ensure the logistics requirements of planned operations are fully understood and accounted for. Many times our airlift capabilities are best maximized when used in conjunction with land and sea-lift, and TRANSCOM provides the flexibility to maximize the entire Defense Transportation System (DTS). We saw this when we transported Mine-Resistant Ambush Protected (MRAP) vehicles into Afghanistan and TRANSCOM is exploring every option to maximize the efficiency of Afghanistan retrograde operations.

When we consider future fleet sizes, crew ratios and active and reserve component make-up, we work closely with Headquarters Air Force and the Office of the Secretary of Defense to perform the analysis required to make informed decisions. Even before sequestration entered into

the Nation's vocabulary, the Department of Defense was in the midst of reducing its total budget authority by \$487 billion over ten years. Again as a force provider, we attempted to make the best decisions based on the analysis provided. The Mobility Capabilities and Requirements Study 2016 (MCRS-16) served to underpin our force structure decisions over the last three years. Added to this in the FY13 budget cycle was the Joint Staff's Operational Availability 2012 Force Planning Construct (OA-12).

Given the numerous studies and analysis that have been conducted during these times of change, we fully support the need to accomplish a new Mobility Requirements and Capabilities Study-2018 (MCRS-18) as required by the FY13 National Defense Authorization Act.

Perspective

As part of the FY13 PBR, the RGM portfolio included substantial adjustments to the strategic and tactical airlift fleets as well as a small reduction in our aging KC-135 air refueling fleet. This was a deliberate decision on the part of the Air Force to become smaller to assure readiness and modernization. We deeply appreciate the committee's willingness to work with the Air Force and all of the stakeholders in crafting a way forward that was mutually acceptable to all.

The Total Force Proposal (TFP) incorporated into the final FY13 National Defense Authorization Act serves as a great example of how we can partner to drive toward solutions. The air mobility portion of the TFP included the retirement of 16 KC-135R aircraft from the Total Force: three from the Active component; eight from the ANG; and five from the AFR. The committee's inclusion of our request to lower the strategic (inter-theater) airlift floor to 275, upon completion of the FY13 NDAA directed MCRS-18 study, will allow us to continue funding modernization of the remaining fleet. Maintaining the current fleet of 301 inter-theater airlift

aircraft while awaiting the results of the MRCS-18 will cause the Air Force to complete only one of five planned C-5A retirements in FY13, which will come from the AFR.

The additional 32 intra-theater aircraft required to be maintained in the inventory came to us with discretion of airframe and location. In response, the Air Force formed the Intra-Theater Airlift Working Group (IAWG) to determine how to best position these additional aircraft for the Total Force. As we indicated with the FY13 PBR the C-27J provided a niche capability that could be accomplished with existing C-130 force structure and the Secretary opted to continue the C-27J divestiture and meet the 32 aircraft requirement with C-130s. The Air Force is currently working with the defense committees on a way forward on this action in light of the FY13 Defense Appropriations which directed the execution of procurement funds for the C-27J.

We have an obligation to provide you what we believe is the best military advice on the posturing of our forces for today and for years to come, but we also know we must be open to a range of opinion and we believe the TFP testifies to that. As we continue to have this conversation over the coming years, we believe it is important to remember the dramatic transition your Air Force has made even while engaged in combat operations around the world. We are the most capable Air Force in history and we're doing it with far fewer Airmen and far fewer aircraft than has historically been the case. Our air mobility forces are no exception.

We are constantly working to strike the right balance between capacity and capability. As we move forward with the discussion about the future of our Air Force and more specifically our air mobility forces, all of us will have to re-evaluate the bond between Airmen and the machines they fly. In many ways we have innovated our way past some of our traditional notions of how we deliver a sufficient force for air mobility.

There is no better example than our program of record C-17A fleet of 223. In simple terms, these aircraft are twice as capable as the C-141Bs they replaced, which at its height was a fleet of 270. This is a remarkable increase in capability that has allowed us to reduce the size of the C-5A fleet and still meet the Nation's requirements. It is not just the aircraft that have evolved, but how our Airmen employ them. One example is an effort we call precision delivery; ensuring that not just every pallet position is filled but those pallets are built to maximize the cargo space and still fit on any aircraft in the airlift fleet.

Although not the focus of this hearing, we would be remiss if we didn't outline some of the actions we've taken to manage sequestration. Across the mobility portfolio we've had to make difficult decisions and prioritize what we are able to support. Support for the warfighter is our single focus between now and the end of FY13, as it should be. To ensure we meet that standard, we've reduced our training flying hours for our line units. Even with the creativity of our Airmen to squeeze every ounce of training out of flying-hours; we will ultimately face a readiness challenge in the future. The FY14 PBR puts us on a path to solving this challenge.

Perhaps the most visible example on the impacts is with CONUS air refueling, which has been substantially curtailed. This impacts not only the Air Force but our joint partners as they move assets across the country. As this committee knows all too well, we are navigating un-chartered territory, but you would be amazed at how your Airmen have responded.

Air Mobility - A Total Force

Air mobility forces have a long history of Total Force Integration through vibrant associations. In fact, the very first mobility total force effort was at Norton AFB in 1968 and we've never stopped. Today nearly 65% of our air mobility capability resides in the air reserve component (ARC), the Air Force Reserve and Air National Guard. I can tell you from personal

experience over the last 12 years of combat operations you simply cannot tell a difference between our AD and ARC members as they execute the mission. While traditionally we would place ARC units at AD bases, what we refer to now as a classic association, in the last decade we have placed AD units at ARC bases, what we call an active association. Our active associations have proven very successful, helping us build and mature AD aircrews and maintainers with the experience of their more seasoned ARC counterparts. The FY14 PBR continues this by establishing new associate units.

We are also active participants in the Air Force Total Force Task Force (TF2) that is taking an enterprise wide look at the future balance of AD and ARC force structure over the coming years. This is an important national conversation to have and one that is an evolution of the events leading up to the creation of a separate Air Force in 1947. Our Airmen take great pride in our history of innovation, and air mobility's efforts in the Total Force are no exception. Ultimately, the Airmen, Soldiers, Sailors, Marines and civilians we support in their time of greatest need only know that hope was delivered from above; they aren't terribly concerned whether it came from an AD or ARC aircraft and aircrew. We owe you and the Nation thoughtful analysis and recommendations that reflects everyone's voice based in data and facts. This is always a difficult challenge, because we also know how this affects the communities that surround and support our Airmen.

Inter-theater (Strategic) Airlift

We generally look at our programs through three broad core competencies; inter-theater (strategic) airlift, intra-theater (tactical) airlift and air refueling. Underpinning all three is our significant en-route structure that allows us to operate from fixed airfields around the world.

Even where there is no established DoD presence, our Contingency Response Wings allow us to quickly establish airfield operations anywhere they are needed.

The FY13 NDAA mandated a strategic airlift floor of 301 until the completion of the MRCS-18, when it would then be lowered to 275. The 275 strategic aircraft fleet is programmed to consist of 223 C-17A and 52 C-5M aircraft by FY17. This organic strategic fleet will be capable of providing 30.4 million ton miles per day (MTM/D). Based on the most recent analysis we have available, this capability along with our commercial partners meets GCC requirements.

This year will see the completion of the C-17A program of record with aircraft number 223 scheduled for delivery in August. We will continue to focus our investment resources on maintaining a modernized and efficient strategic airlift fleet. The FY14 PBR continues our efforts to bring a 52 aircraft C-5M fleet on line with a request of \$1.1B to procure the final 11 kits required for conversion. The retirement of our remaining C-5As is phased between now and FY16 to ensure the strategic airlift fleet has the flexibility to meet GCC requirements as the C-5M achieves fully operational capable (FOC) status. The C-5M combines advanced avionics with the Reliability Enhancement and Re-engining Program (RERP). With the ten aircraft delivered; we've already seen an impact on how we execute our missions around the world. The increased range and payload of the C-5M will allow more point to point delivery from the CONUS to the PACOM AOR, giving us additional en-route options.

Our Global Reach Improvement Plan (GRIP) continues in FY14 PB with a \$372M request. This investment ensures our oldest C-17As have the same capabilities as the last one off the line. The GRIP accomplishes this by retro-fitting extended range fuel tanks and the Onboard Inert Gas-Generating System (OBIGGS II). Even with the current fiscal environment, the Air

Force has worked diligently to ensure the strategic airlift fleet continues to be viable for many years to come. We thank the committee for its continued support of these programs. As I alluded to earlier; because of the tools you have provided Airmen, the 275 aircraft strategic airlift fleet will offer more capability than the one we possessed on September 11th, 2001. It's an unmatched capability for the Nation we believe meets all warfighter requirements for contingencies and full wartime mobilization.

Intra-theater (Tactical) Airlift

The composition of our tactical airlift fleet was the greatest focus of interest by this committee during the FY13 budget cycle and for very good reason. In addition to supporting our NSS these aircraft are ideally suited for Homeland Defense and civil support. We've seen this time and time again; from airdropping bales of straw to cattle that have been cut off by deep snows in the Great Plains to airlifting supplies in and the injured out of earthquake ravaged Haiti. The FY13 PB supported a 318 C-130 fleet, made up of both modern C-130Js and legacy C-130Hs. The TFP restored that number to 326 and we were directed by the NDAA to retain an additional 32 aircraft through FY13. The FY14 PBR supports a C-130 fleet of 358 and the Air Force has pledged to maintain that level of force structure through FY14.

Over the next two years we will analyze what force structure preserves our capability and makes the most sense for the Nation. This includes the fleet mix of C-130Js and C-130Hs, the AD/ARC composition and crew ratios. Our ARC partners with equities in the intra-theater airlift fleet have an equal seat at the table as we explore solutions to these force structure questions. Although we are still working through the disposition of the C-27J, we appreciate the committee's willingness to allow us to meet the additional direct support aircraft directed by the FY13 NDAA with C-130s.

Time Sensitive / Mission Critical Direct Support (TS/MC)

Recently the committee received a briefing from the Air Force on our efforts to integrate the Time Sensitive/Mission Critical Direct Support mission into our doctrine. We've had great success in overseas contingency operations using what we call apportioned airlift. This was based on a 2009 concept of employment (CONEMP) that focused on command relationships, organization and operations. We are currently in final coordination on an updated CONEMP that will build on the lessons we've learned over the last four years. The TS/MC mission is fully accounted for in our Air Mobility Master Plan and Core Function Master Plan. Our next steps are to bring these concepts from the operational to the tactical and integrate TS/MC into our Weapons School curriculum and tactics, techniques and procedures. We expect we'll have that formalized by the end of this calendar year.

Aerial Refueling

Returning, for just a moment, to the previously mentioned operation of Lt Col Jimmy Doolittle and the USS Hornet in the Pacific. That particular mission was the perfect combination of Airmen having medium range bombers and the Navy having a deck from which to launch them. This combination of innovations let our adversaries know they were not out of reach. But it was a one way mission and what followed was a three year slug through the Pacific to move one island and one runway closer to a robust strategic bombing capability. Each runway we built on each island we overran was paid for with the lives of Americans. Imagine a time when everyone in the country knew someone who had given their life in the Pacific pursuing that strategy.

Airmen had experimented with aerial refueling prior to that war and at its conclusion our Nation made a conscious decision that we would never again have to fight island to island at

such a heavy cost. We would never again go through those islands, we would fly over them. Even as the events that led to its creation slowly fade from our Nation's memory, we can never take for granted what our air refueling capability brings us. It demands tremendous investment, but we've seen what the alternatives are and that is a cost we cannot pay again.

Our FY14 programmed air refueling fleet is comprised of 396 KC-135 and 59 KC-10 aircraft. It is frankly the envy of militaries around the world. The KC-46A, the first step of recapitalizing a KC-135 fleet with an average age of over half a century is on schedule and remains the Air Force's number one acquisition priority. That is reflected in the FY14 PBR with \$1.6B, fully funding the program. We've worked closely with the contractor and are anticipating that assembly of the first KC-46A will begin this summer, with the delivery of four engineering, manufacturing and development (EMD) aircraft in 2014. The fixed-price incentive firm contract continues to be a model of a sound fiscal approach to an acquisition program of this size. We are on track to announce the first three basing locations for the KC-46A this summer which will allow for lead items like MILCON to be incorporated into our budget requests. Although we are excited about the KC-46A, our KC-135s will be with us for many years to come and will continue to be the heart of our aerial refueling fleet.

The FY13 NDAA allowed us to retire 16 KC-135s as part of the Total Force Proposal. Like airlift requirements, air refueling requirements have been the subject of continuous analysis and study over the last few years. Again we believe the new MRCS-18 required by the FY13 NDAA will help us, as the force provider, program for a fleet that will meet the Nation's requirements. To ensure fleet viability, the FY13 PB request continues to invest in upgrades in both the KC-135 and KC-10 fleet. The KC-10 is currently beginning a communication, navigation surveillance (CNS) and air-traffic management system (ATM) upgrade that will

ensure peacetime airspace access for years to come. The KC-135 continues its Block 45 avionics upgrade and 95 aircraft will be upgrading their engines for greater fuel efficiency. The FY14 PBR continues to support a more modern and capable air refueling fleet.

Conclusion

On any given day our Airmen average around 700 airlift and air-refueling sorties. That means one of our aircraft, maintained, loaded, fueled and controlled by your remarkable Airmen is taking off or landing every two minutes somewhere in the world. Right now they are moving supplies in and out of Afghanistan, and they are ensuring protection for our ground forces by refueling combat aircraft overhead. We owe them the best the Nation can provide. Every day they amaze me; it is humbling to work alongside them. I think Jimmy Doolittle would be right at home with the Airmen who serve today, and he would be proud of what they've accomplished. We should all be proud of our Airmen who power the greatest Air Force on the planet. It's an honor to serve with them. Thank you for your enduring support of our Airmen and the air mobility capability of the Nation.

LIEUTENANT GENERAL ROBERT R. ALLARDICE



BIOGRAPHY

UNITED STATES AIR FORCE

LIEUTENANT GENERAL ROBERT R. ALLARDICE

Lt. Gen. Robert R. Allardice is Vice Commander, Air Mobility Command, Scott Air Force Base, Ill. The command is responsible for the bulk of the U.S. Air Force's strategic transportation assets and mission. From 12 major air installations in the United States and nearly 100 active-duty, Air National Guard and Air Force Reserve locations worldwide, AMC provides rapid, flexible, global reach for America. More than 141,500 people comprise the Total Force air mobility community, operating combat delivery and strategic airlift, air refueling, and aeromedical and special mission aircraft for national interests.



General Allardice entered the Air Force in 1980 as a graduate of the U.S. Air Force Academy, earning a Bachelor of Science degree in civil engineering. His career includes command at the numbered air force, joint, wing, group and squadron levels. Additionally, he has served in a wide variety of operational and staff assignments. He deployed three times in support of operations Iraqi Freedom and Enduring Freedom. In 2001, he commanded the strategic humanitarian airdrop which began on the first night of combat operations in Afghanistan. In the opening days of Operation Iraqi Freedom, he commanded and led the airdrop of the 173rd Airborne Brigade, seizing vital territory in northern Iraq. In 2007, he deployed to Iraq as Commander, Coalition Air Force Transition Team. There, he was responsible to the Multi-National Security Transition Command-Iraq for standing up the Iraqi air force. Prior to his current assignment, the general was the Commander, 18th Air Force, Scott AFB, Ill.

General Allardice is a command pilot with more than 5,000 hours in the C-141, C-5, C-17, KC-135 and C-21.

EDUCATION

1980 Bachelor of Science degree in civil engineering, U.S. Air Force Academy, Colorado Springs, Colo.
 1985 Squadron Officer School, Maxwell AFB, Ala.
 1987 Master's degree in systems management, University of Southern California, Los Angeles
 1993 Air Command and Staff College, Maxwell AFB, Ala.
 1998 Air War College, Maxwell AFB, Ala.
 2003 Senior Executive Fellowship, John F. Kennedy School of Government, Harvard University, Cambridge, Mass.
 2006 Program for Senior Managers in Government, John F. Kennedy School of Government, Harvard University, Cambridge, Mass.

ASSIGNMENTS

1. September 1980 - August 1981, student, undergraduate pilot training, Williams AFB, Ariz.
2. September 1981 - September 1986, instructor pilot and flight examiner, 86th Military Airlift Squadron, Travis AFB, Calif.
3. October 1986 - September 1987, Air Staff Training officer, Deputy Chief of Staff for Plans and Operations,

LIEUTENANT GENERAL ROBERT R. ALLARDICE

Headquarters U.S. Air Force, Washington, D.C.

4. October 1987 - August 1990, instructor pilot and flight examiner, 57th Military Airlift Squadron, Altus AFB, Okla.
5. September 1990 - July 1992, joint training and operations officer, Director of Operations, Headquarters U.S. European Command, Stuttgart-Vaihingen, Germany
6. August 1992 - June 1993, student, Air Command and Staff College, Maxwell AFB, Ala.
7. July 1993 - September 1993, student, Armed Forces Staff College, Norfolk, Va.
8. October 1993 - June 1997, Chief of Safety, 436th Airlift Wing, and Commander, 9th Airlift Squadron, Dover AFB, Del.
9. July 1997 - May 1998, student, Air War College, Maxwell AFB, Ala.
10. June 1998 - October 1998, Chief, War and Mobilization Plans Division, Directorate of Operations and Training, Deputy Chief of Staff for Air and Space Operations, Headquarters U.S. Air Force, Washington, D.C.
11. October 1998 - May 2000, Chief, Expeditionary Air Force Implementation Division, Directorate of EAF Implementation, Deputy Chief of Staff for Air and Space Operations, Headquarters U.S. Air Force, Washington, D.C.
12. May 2000 - June 2002, Commander, 437th Operations Group, Charleston AFB, S.C.
13. June 2002 - June 2004, Commander, 62nd Airlift Wing, McChord AFB, Wash.
14. June 2004 - October 2005, Director of Personnel, Headquarters Air Force Materiel Command, Wright-Patterson AFB, Ohio
15. October 2005 - March 2007, Director of Airman Development and Sustainment, Deputy Chief of Staff for Manpower and Personnel, Headquarters U.S. Air Force, Washington, D.C.
16. March 2007 - March 2008, Commander, Coalition Air Force Transition Team, Baghdad, Iraq
17. April 2008 - July 2009, Director, Strategy, Plans and Policy, Headquarters U.S. Central Command, MacDill AFB, Fla.
18. August 2009 - September 2011, Commander, 18th Air Force, Scott AFB, Ill.
19. September 2011 - present, Vice Commander, Air Mobility Command, Scott AFB, Ill.

SUMMARY OF JOINT ASSIGNMENTS

1. September 1990 - July 1992, joint training and operations officer, Director of Operations, Headquarters U.S. European Command, Stuttgart-Vaihingen, Germany, as a captain and major
2. March 2007 - March 2008, Commander, Coalition Air Force Transition Team, Baghdad, Iraq, as a brigadier general and major general
3. April 2008 - July 2009, Director, Strategy, Plans and Policy, Headquarters U.S. Central Command, MacDill AFB, Fla., as a major general

FLIGHT INFORMATION

Rating: Command pilot
 Flight hours: More than 5,000
 Aircraft flown: C-141, C-5, C-17, KC-135 and C-21

MAJOR AWARDS AND DECORATIONS

Air Force Distinguished Service Medal
 Defense Superior Service Medal
 Legion of Merit with three oak leaf clusters
 Distinguished Flying Cross
 Bronze Star Medal

EFFECTIVE DATES OF PROMOTION

Second Lieutenant May 28, 1980
 First Lieutenant May 28, 1982
 Captain May 28, 1984
 Major Oct. 1, 1991
 Lieutenant Colonel March 1, 1994
 Colonel Sept. 1, 1998
 Brigadier General Oct. 1, 2005
 Major General Feb. 25, 2008
 Lieutenant General Aug. 19, 2009

(Current as of November 2011)

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HOUSE ARMED SERVICES COMMITTEE
SUBCOMMITTEE ON SEAPOWER AND PROJECTION FORCES
U.S. HOUSE OF REPRESENTATIVES

DEPARTMENT OF THE AIR FORCE

PRESENTATION TO THE
HOUSE ARMED SERVICES COMMITTEE
SUBCOMMITTEE ON SEAPOWER AND PROJECTION FORCES
U.S. HOUSE OF REPRESENTATIVES

SUBJECT: OVERSIGHT OF U.S. NAVAL AND U.S. AIR FORCE ACQUISITION
PROGRAMS IN THE FISCAL YEAR 2014 NATIONAL DEFENSE
AUTHORIZATION BUDGET REQUEST

STATEMENT OF: Lieutenant General Charles R. Davis
Military Deputy, Office of the Assistant
Secretary of the Air Force (Acquisition)

April 24, 2013

NOT FOR PUBLICATION UNTIL RELEASED BY
HOUSE ARMED SERVICES COMMITTEE
SUBCOMMITTEE ON SEAPOWER AND PROJECTION FORCES
UNITED STATES HOUSE OF REPRESENTATIVES

Introduction

Chairman Forbes, Ranking Member McIntyre, distinguished Members of the Subcommittee, thank you for the opportunity to provide you with an update on U.S Air Force acquisition programs. As one of our critical core missions, our joint team is committed to fielding rapid global mobility capabilities while exercising a disciplined approach to our financial resources. On any given day, the Air Force's mobility aircraft deliver critical personnel and cargo and provide airdrop of time-sensitive supplies, food, and ammunition on a global scale. America's mobility fleet averages one take-off or landing every two minutes, every day of the year.

C-17

The C-17 is the only aircraft that combines tactical capability with strategic range into austere airfield environments. It provides our Nation unmatched flexibility to conduct direct delivery, airdrop, aeromedical, and special operations airlift missions. In March 2013, we accepted our 220th C-17. The final three production aircraft are expected to be delivered by the end of September 2013. Our partnership with Boeing is adapting processes and procedures to smartly operate in a post-production environment. In order to increase budget and schedule predictability, we are working to bundle modernization and sustainment activities. Agile and efficient software and hardware updates will pace timely readiness, safety, and capability improvements as this premier airlift platform protects our national interests and achieves our national security objectives.

On April 1, 2013, we released a formal Request for Proposal for the F117 Engine Overhaul and Supply Chain Management program. This action formally starts the source

selection process. We are committed to ensuring a fair, open, and transparent, competitive sustainment environment for this critical C-17 system component. This acquisition will provide F117 engine overhaul and depot supply chain management to ensure serviceable, ready-to-install, spare engines are available to support Serviceable Propulsion Systems and War Readiness Engines levels. The overhaul effort is comprised of key logistics and maintenance processes to include engine receipt, induction, disassembly, inspection, required maintenance, reassembly, test, transportation, and packaging. The supply chain management effort consists of forecasting, repairing, acquiring, stocking, storing, issuing, and transporting all the parts necessary to support F117 depot overhaul.

The Air Force intends to utilize \$225 million in fiscal year (FY) 14 funding to continue critical modifications and upgrades to the C-17 fleet. This includes the Block 13-17 upgrade, which brings the older C-17s into a common configuration with newer C-17s. Among other things, it also increases the aircraft's range by adding a fuel tank to the center wing section. We continue to add Large Aircraft Infrared Countermeasures (LAIRCM) systems to the C-17 fleet to detect, track and jam incoming infrared missiles. Our request of \$109 million in Research, Development, Test and Evaluation (RDT&E) funding will address obsolescence issue requirements for global civil airspace access.

C-5

The C-5 Reliability Enhancement and Re-engining Program (RERP) is a comprehensive effort to improve C-5 aircraft performance, reliability, maintainability, availability, and payload capability/cargo throughput. It also enables communication, navigation, surveillance/air traffic management (CNS/ATM) operations by replacing the engines and other unreliable

systems/components. Overall, one C-5A, 49 C-5Bs, and 2 C-5Cs will receive the RERP modification for a fleet of 52 C-5Ms. Aircraft availability is projected for a 75% mission capable rate two years following initial operational capability. The program is currently in low rate initial production with 7 of 16 production aircraft delivered as of April 1, 2013.

The C-5 Core Mission Computer/Weather Radar (CMC/WxRdr) is the other major effort to modernize the C-5 fleet. It will replace the current radar system, which has severe diminishing manufacturing source (DMS) issues, and upgrade the processor of the core mission computer to restore a safe operating throughput margin. The selected radar replacement is the same as the one used on the KC-46. Additionally, the current CMC cannot host additional software changes or processing requirements without further encroachment on safe operating margins. The CMC operating margin is near critical and code optimization of the existing hardware is already at maximum. Further delays in processor upgrade will increase risk of system failure. C-5 aircraft are projected to become non-worldwide capable beginning in FY14 Quarter 3 based on current projections of known DMS sources. A total of 52 C-5B/C/M aircraft are planned for modification.

The FY14 President's Budget (PB) requests nearly \$1.2B for 11 RERP kit buys, 11 kit installs, and associated equipment. \$62M in RDT&E funding will support core mission computer/weather radar (CMC/WxRdr) and mission systems equipment (MSE) modifications.

KC-135 and KC-10

Our tanker fleet, the backbone of global mobility, is comprised of 396 KC-135 Stratotankers and 59 KC-10 Extenders. On average, the KC-135 is 51 years old and the KC-10 is 28.7 years old. Both airframes are continuously challenged by obsolete parts and diminishing

manufacturing sources. We are executing aggressive modernization initiatives to ensure the aircraft remain viable until the tanker fleet is recapitalized.

The primary modernization effort for the KC-135 is the Block 45 program. Block 45 is an obsolescence modification that includes a new Digital Flight Director, Autopilot, Radar Altimeter and Electronic Engine Instrument Displays. The program is wrapping up the engineering, manufacturing and development phase and is expected to receive a low rate initial production decision in July 2013.

In FY14, the KC-135 program requests \$47 million for the aircraft's ongoing modifications. The bulk of this funding supports the Block 45 effort, which addresses obsolescence, reliability and maintainability issues. By doing this, we will reduce operations and maintenance costs while increasing capability.

The primary modernization effort for the KC-10 is the CNS/ATM program. CNS/ATM brings the analogue KC-10 into the digital world. The modification gives the KC-10 worldwide civil airspace accessibility beyond 2015 by upgrading the KC-10 with satellite-based navigation, datalinks, pilot/controller communication and improved surveillance. Two prototype aircraft have been inducted and ground testing will begin in late April 2013. Flight test will follow in late June 2013, with Milestone C expected in November 2013.

KC-46

Recapitalizing our tanker fleet continues to be one of our top acquisition priorities. A little more than two years ago, we awarded the Boeing Company an engineering, manufacturing and development (EMD) contract for the KC-46. The KC-46 Program is making excellent progress toward delivering the KC-46 to the Air Mobility Command. The design phase is nearly

complete and the Critical Design Reviews are on track to complete later this year, as planned. The test program is also moving forward. The Office of the Secretary of Defense (OSD) approved the Test and Evaluation Master Plan (TEMP) in January 2013. The FY14 PB requests nearly \$1.6 billion for the ongoing KC-46 EMD effort. Most of this funding is for the tanker aircraft development which includes building four EMD aircraft, procuring live fire assets, simulator and maintenance data, and developing technical manuals.

The base selection process is under way. Candidate bases were announced in January 2013 and site surveys will be completed this spring to support the selection of the Field Training Unit and Main Operating Bases 1 and 2, in the spring of 2014.

We appreciate the Committee's efforts to ensure that vital programs like the KC-46 were authorized the funding that they needed to meet their contractual obligations and other program requirements. We continue to execute the program to the cost and schedule baselines that we established with Boeing and are confident we will deliver a new tanker, ready for war on day one.

C-130

The mobility combat delivery C-130 fleet is comprised of legacy C-130H and C-130J aircraft. The C-130H and C-130Js are medium-size transport aircraft capable of completing a variety of tactical airlift operations across a broad range of mission environments. The fleet delivers air logistic support for all theater forces including those involved in combat operations.

The C-130J aircraft, with its extended (by 15 feet) fuselage, provides extra cargo carrying capability for our combat delivery mission, compared with legacy C-130E/Hs and the C-130J (short). Special mission variants of the C-130J conduct airborne psychological operations (EC-

130J), weather reconnaissance (WC-130J), search and rescue (HC-130J) and special operations (MC-130J and AC-130J).

We will maintain the necessary intra-theater airlift capacity by completing the recapitalization of older C-130E/H aircraft with the C-130J. The remaining legacy C-130H aircraft are being modernized to ensure fleet viability, reduce sustainment cost, and global airspace access. Current modification efforts include Center Wing Replacement (CWR); Large Aircraft Infra-red Countermeasures (LAIRCM); Communication, Navigation, Surveillance/Air Traffic Management (CNS/ATM); and many smaller modifications to keep the fleet combat-viable into the future.

The FY14 PB requests multi-year procurement authority for C-130J aircraft. Funding for 16 aircraft is included in the request. The Air Force is also requesting \$58 million in procurement funding the legacy C-130 fleet. This includes funding for 3 center wing box replacement kits and 4 installs.

C-27

The FY14 PB reflects our position to divest the C-27J weapon system. No funding is requested for the C-27J in 2014. While preparing our FY13 budget request, we evaluated our force structure with respect to the Defense Strategic Guidance and the fiscal limitations imposed by the Budget Control Act of 2011. Our analysis showed that there is excess capacity in the intra-theater airlift fleet. As a result, we made a strategic choice to divest the entire C-27J fleet.

To implement the direction provided in the FY13 National Defense Authorization Act, we reviewed our FY13 PB analysis and the C-27J versus C-130 cost-benefit comparison delivered to Congress in August 2012, which included a direct comparison of the cost,

capability, and capacity of like-sized C-130 and C-27J units, and confirmed both a lower life-cycle cost and a performance advantage for the C-130. As a result, we elected to continue with its plan to divest the C-27J.

As we implement the C-27J divestiture, we screened the aircraft for reuse in accordance with the procedures outlined in Department of Defense disposition regulations. We have received letters of intent from multiple agencies within the U.S. government to accept our C-27Js. We are currently working with these organizations to develop plans to transfer C-27J aircraft, along with ground support equipment and spare parts owned by the Air Force, to them by the end of FY13. Any remaining aircraft not transferred to another federal agency this year will be delivered to the Aircraft Maintenance and Regeneration Group (AMARG) at Davis-Monthan AFB, Arizona, and preserved for future reuse or sale.

The Air Force is also currently evaluating how to best comply with Section 8118 of the 2013 Consolidated and Further Continuing Appropriations Act, which requires the Air Force to obligate and expend funds previously appropriated for the procurement of C-27J aircraft for the purposes for which such funds were originally appropriated. Because the contract vehicle for C-27J procurement has expired, we must assess the best means to comply with this requirement, including the disposition of aircraft once procured, and we will provide details at a later date.

LRS-B

We are continuing to invest in the development of the Long Range Strike Bomber (LRS-B)—one of our three top acquisition programs—to provide future Joint Force Commanders with the flexibility and capacity for worldwide conventional and nuclear operations, especially in anti-access/area-denial environments. We are committed to leveraging mature technologies and

existing systems to deliver 80-100 affordable LRS-Bs beginning in the mid-2020s, to start replacing the aging B-1 and B-52 fleets, which are increasingly at risk to sophisticated air defense networks. We are requesting \$379.4 million for LRS-B in FY14.

In accordance with Congressional direction set forth in 2013 Consolidated and Further Continuing Appropriations Act, we will certify the LRS-B for nuclear weapons employment within two years after initial operating capability. The baseline aircraft will be built with the features and components necessary for the nuclear mission to ensure an efficient nuclear certification effort, conducted with a mature aircraft.

Conclusion

The Air Force remains committed to excellence and ensuring our global reach programs continue to reflect the needs of our Nation. I am confident the air mobility fleet and modernization efforts reflected in the FY14 President's Budget will support the mission set forth in the Defense Strategic Guidance and continue to provide world class rapid global mobility to our warfighters on the ground.

LIEUTENANT GENERAL CHARLES R. DAVIS



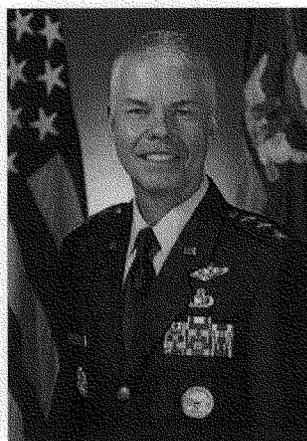
BIOGRAPHY

UNITED STATES AIR FORCE

LIEUTENANT GENERAL CHARLES R. DAVIS

Lt. Gen. Charles R. Davis is the Military Deputy, Office of the Assistant Secretary of the Air Force for Acquisition, the Pentagon, Washington, D.C. He is responsible for research and development, test, production, and modernization of Air Force programs worth more than \$40 billion annually.

General Davis was commissioned in 1979 from the U.S. Air Force Academy as a distinguished graduate with a bachelor's degree in chemistry. His assignments include flying duties in the T-38, F-15, A-7, F-117A and F-16. He has also served on the Air Staff under the Director of Air Force Test and Evaluation. The general led divisions in both the F-16 and F-15 program offices, served as Director of the F-15 and Flight Training System Program Offices, and was the Joint Primary Aircraft Training (T-6A) System Program Director. The general commanded the 410th Flight Test Squadron, F-117A Combined Test Force and 412th Test Wing. He also served as Program Executive Officer for the F-35 Lightning II Program Office.



As the Commander, Air Armament Center, and the Air Force Program Executive Officer for Weapons, Air Force Materiel Command, Eglin AFB, Fla., he oversaw development, acquisition, testing, deployment and sustainment of all air-delivered weapons. He also directed and conducted test and evaluation of U.S. and allied air armament, navigation and guidance systems and command and control systems. Prior to his current position, Gen Davis was the Commander, Electronic Systems Center, Hanscom Air Force Base, Mass. and the Air Force Program Executive Officer for Command, Control, and Communications Infrastructure and Networks. His duties encompassed the acquisition of command and control and combat support information systems for the Air Force comprising more than 12,000 people located at six sites throughout the United States while managing more than \$5 billion in programs annually in support of the Air Force and joint and coalition forces.

General Davis is an experimental test pilot with more than 3,400 flying hours in 53 types of aircraft.

EDUCATION

1979 Distinguished graduate, Bachelor of Science degree in chemistry, U.S. Air Force Academy, Colorado Springs, Colo.

1983 Distinguished graduate, Squadron Officer School, Maxwell AFB, Ala.

1984 Marine Corps Command and Staff College, by correspondence

1986 Air Command and Staff College, by correspondence

1988 Distinguished graduate, Experimental Test Pilot Course, U.S. Air Force Test Pilot School, Edwards AFB, Calif.

1991 Master of Science degree in mechanical engineering, California State University, Fresno

1995 Distinguished graduate, Master of Science degree in national resource management, Industrial College of the Armed Forces, Fort Lesley J. McNair, Washington, D.C.

1997 Program Manager Course, Defense Systems Management College, Fort Belvoir, Va.

LIEUTENANT GENERAL CHARLES R. DAVIS

2004 United States - Russia Security Program, John F. Kennedy School of Government, Harvard University, Cambridge, Mass.

ASSIGNMENTS

1. July 1979 - August 1980, student, undergraduate pilot training, Williams AFB, Ariz.
2. August 1980 - March 1983, T-38 instructor pilot, flight scheduler, and squadron standardization and evaluation officer, 97th Flying Training Squadron, Williams AFB, Ariz.
3. March 1983 - July 1984, assistant executive officer to the Inspector General, 82nd Flying Training Headquarters, Williams AFB, Ariz.
4. July 1984 - June 1987, F-15 pilot, flight commander, Chief of Scheduling, and weapons and tactics officer, 48th Fighter Interceptor Squadron, Langley AFB, Va.
5. June 1987 - June 1988, student, U.S. Air Force Experimental Test Pilot Course, U.S. Air Force Test Pilot School, Edwards AFB, Calif.
6. June 1988 - February 1989, A-7 and T-38 experimental test pilot, 6512th Test Squadron, Edwards AFB, Calif.
7. February 1989 - May 1991, F-16 experimental test pilot and assistant operations officer, 6516th Test Squadron, Edwards AFB, Calif.
8. May 1991 - May 1992, F-16 experimental test pilot and test systems safety officer, Safety Directorate, Air Force Flight Test Center, Edwards AFB, Calif.
9. May 1992 - March 1994, Chief, Tactical Air to Air Systems Policy and Programs Division, Air Force Test and Evaluation Directorate, Headquarters U.S. Air Force, Washington, D.C.
10. March 1994 - August 1994, executive to the Director, Air Force Test and Evaluation Directorate, Headquarters U.S. Air Force, Washington, D.C.
11. August 1994 - June 1995, student, Industrial College of the Armed Forces, Fort Lesley J. McNair, Washington, D.C.
12. June 1995 - July 1997, Commander, 410th Flight Test Squadron, F-117A Combined Test Force, Air Force Plant 42, Palmdale, Calif.
13. July 1997 - November 1998, Chief, F-16 Combat Air Force Programs, F-16 System Program Office, Aeronautical Systems Center, Wright-Patterson AFB, Ohio
14. November 1998 - July 1999, Director, Development and Acquisition, F-15 SPO, ASC, Wright-Patterson AFB, Ohio
15. July 1999 - April 2001, Director, Flight Training SPO, ASC, Wright-Patterson AFB, Ohio
16. May 2001 - April 2003, Director, F-15 SPO, Warner Robins Air Logistics Center, Robins AFB, Ga.
17. April 2003 - June 2004, Commander, 412th Test Wing, Edwards AFB, Calif.
18. June 2004 - July 2006, Deputy Program Executive Officer, Joint Strike Fighter Program, Arlington, Va.
19. July 2006 - May 2009, Program Executive Officer, F-35 Lightning II Program Office, Arlington, Va.
20. May 2009 - August, 2011, Commander, Air Armament Center, and the Air Force Program Executive Officer for Weapons, Air Force Materiel Command, Eglin AFB, Fla.
21. Sept. 2011 - May 2012, Commander, and Program Executive Officer for Command and Control and Combat Support, Electronic Systems Center, Air Force Materiel Command, Hanscom AFB, Mass.
22. May 2012 - present, Military Deputy, Office of the Assistant Secretary of the Air Force for Acquisition, the Pentagon, Washington, D.C.

SUMMARY OF JOINT ASSIGNMENTS

1. June 2004 - July 2006, Deputy Program Executive Officer, Joint Strike Fighter Program, Arlington, Va., as a colonel and brigadier general
2. July 2006 - May 2009, Program Executive Officer, F-35 Lightning II Program Office, Arlington, Va., as a brigadier general and major general

FLIGHT INFORMATION

Rating: Command pilot
 Flight hours: 3,431 hours
 Aircraft flown: F-15, F-16, F-117A, A-7, T-38, and 48 other aircraft types

MAJOR AWARDS AND DECORATIONS

Distinguished Service Medal
 Defense Superior Service Medal with oak leaf cluster
 Legion of Merit with oak leaf cluster
 Meritorious Service Medal with three oak leaf clusters
 Aerial Achievement Medal with three oak leaf clusters

LIEUTENANT GENERAL CHARLES R. DAVIS

Air Force Commendation Medal
Air Force Achievement Medal
Combat Readiness Medal

OTHER ACHIEVEMENTS

1980 Distinguished graduate, undergraduate pilot training
1985 Top graduate and top academic student, F-15 Fighter Training Unit

EFFECTIVE DATES OF PROMOTION

Second Lieutenant May 30, 1979
First Lieutenant May 30, 1981
Captain May 30, 1983
Major June 1, 1990
Lieutenant Colonel March 1, 1994
Colonel Sept. 1, 1998
Brigadier General Oct. 1, 2005
Major General Dec. 20, 2007
Lieutenant General Sept. 1, 2011

(Current as of May 2012)

DOCUMENTS SUBMITTED FOR THE RECORD

APRIL 24, 2013



THE ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

APR 22 2013

The Honorable J. Randy Forbes
Chairman, Subcommittee on
Seapower and Projection Forces
House of Representatives
Washington, DC 20515-6035

Dear Mr. Chairman:

The Report to Congress on the Annual Long-Range Plan for the Construction of Naval Vessels for FY 2014 is continuing its review within the Department of Defense. In the interim, pending final concurrence, the enclosed data tables from the report are provided to your committee. The final report will be submitted once the review has been completed.

A similar letter has been sent to Chairmen Levin, McKeon, Durbin, and Young. Please let me know if I can be of further assistance.

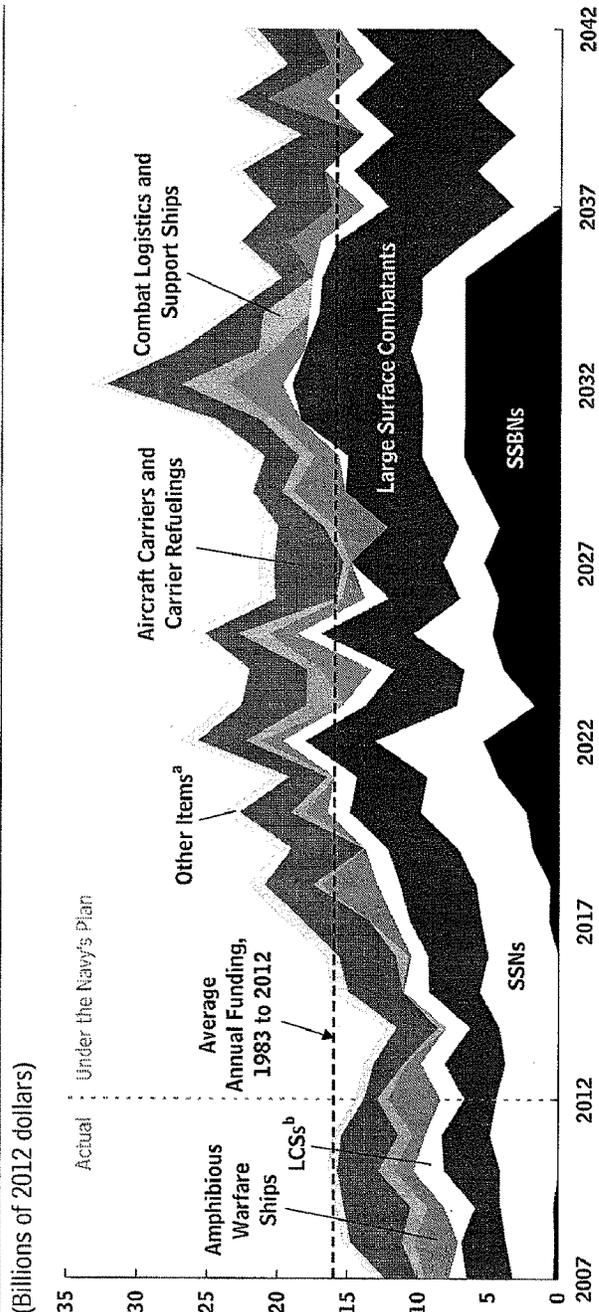
Sincerely,

Sean J. Stackley

Enclosure:
As stated

Copy to:
The Honorable Mike McIntyre
Ranking Member

CBO's Estimates of Annual Shipbuilding Costs Under the Navy's 2013 Plan



Source: Congressional Budget Office based on data from the Department of the Navy.

Note: LCSs = littoral combat ships; SSNs = attack submarines; SSBNs = ballistic missile submarines.

a. Other items include funds for ship conversions, construction of ships that are not part of the Navy's battle force (such as oceanographic survey ships), training ships, outfitting and postdelivery costs (which include the purchase of many smaller tools and pieces of equipment needed to operate a ship but not necessarily provided by the manufacturing shipyard as part of ship construction), and smaller items.

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

APRIL 24, 2013

RESPONSES TO QUESTIONS SUBMITTED BY MR. FORBES

Secretary STACKLEY. The Budget Control Act (BCA) of 2011 established caps for discretionary spending and reduced funding using two methods.

The first method immediately reduced discretionary spending by \$900 billion across the 10-year period from FY 2012 to FY2021. This reduction was divided between “security” and “non-security” functions. The Department of Defense (DOD) share was \$487 billion. This reduction was included in the President’s Budget submission for FY 2013.

The second method reduces discretionary spending by \$1.2 trillion over 10 years. The first step was the creation of a Joint Committee to recommend legislation to meet the reduction goal. In the event the Joint Committee did not propose legislation, or Congress failed to pass the recommended legislation, a sequester would take place to reduce “defense” and “non-defense” discretionary spending. This reduction is being implemented in the FY 2013 budget, but is not included in the President’s Budget submission for FY 2014. [See page 10.]

Admiral MYERS. To my knowledge, Navy leaders have not said “Too many cuts, we shouldn’t be taking this.” We have been consistent in describing how senior DOD leaders conducted an assessment of the ability of our force to implement the new Defense Strategic Guidance (DSG). The Navy also assessed the capabilities, training, and the number and type of ships and aircraft required to execute the strategy. We determined the force supported by the FY13 and FY14 President’s budget submissions was able to execute the strategy with acceptable risk. [See page 11.]

Admiral MYERS. The Navy submitted an unfunded requirements list for FY12 to the HASC that included \$367 million for depot-maintenance work on surface ships and \$317 million rotary and fixed-wing aircraft spare parts. An unfunded requirements list was not submitted for FY13 because the Navy’s FY13 budget request was balanced to requirements and aligned with the new Defense Strategic Guidance. [See page 25.]

General MILLS. On 6 June 2013, the Secretary of Defense submitted the Services’ unfunded priorities in a letter to Chairman McKeon; enclosed was a letter from General Amos to Chairman McKeon describing the Marine Corps’ unfunded priorities. These unfunded requirements would enable the Marine Corps to meet FY2014 emergent, priority mission requirements should additional funds above those already requested in the FY2014 President’s Budget be made available.

The Marine Corps’ unfunded requirements list is composed of four programs: Special Purpose Marine Air Ground Task Force—Crisis Response (SPMAGTF–CR), the Marine Security Guard (MSG) program, Joint Strike Fighter (JSF), and Marine Forces Cyber. SPMAGTF–CR is a new, regionally based Marine Air Ground Task Force that provides immediate crisis response capability in support of Geographic Combatant Commanders, portions of which have already been deployed to Libya. The expansion of the MSG program follows the need for, and Congressional direction to provide, expanded support to U.S. State Department diplomatic missions abroad. Restoral of funding for the JSF would buy-back one F–35B aircraft lost as a result of sequestration in FY2013 and return the program to pre-sequestration procurement levels in FY2014. Additional funding for Marine Forces Cyber would allow the Marine Corps to fully support mandated requirements for U.S. Cyber Command in FY2014.

While each of these programs is crucial to the Nation’s defense, it must be reiterated that additional funds for these emergent FY2014 requirements and critical capabilities cannot come at the expense of programs and capabilities resourced through the FY2014 President’s Budget Submission. Any changes to that submission would adversely impact operational capability and readiness. [See page 11.]

General ALLARDICE. Chairman, during the Fiscal Year 2013 Air Force Posture Hearings, the Service supported the Fiscal Year 2013 Presidential Budget which included cuts mandated by the Budget Control Act of 2011. This act reduced Department of Defense funding by \$487 billion over 10 years. As part of those hearings we highlighted the Budget Control Act cuts came with increased risk and any fur-

ther cuts or reductions would challenge our ability to maintain readiness and long-term modernization requirements. [See page 11.]

General DAVIS. During the FY13 AF Posture Hearings, the Service supported the FY13PB which included cuts mandated by the Budget Control Act of 2011 which reduced DOD funding by \$487B over 10 years. We highlighted the BCA cuts came with increased risk and any further cuts or reductions would challenge our ability to maintain readiness and long-term modernization requirements. [See page 11.]

RESPONSE TO QUESTION SUBMITTED BY MR. LANGEVIN

Secretary STACKLEY. The development and ship integration of energy-intensive systems such as directed energy weapons (DEW) (e.g. high-energy lasers (HEL) and High Powered Radio Frequency (HPRF)) and Electromagnetic Railgun (EMRG) weapons require careful engineering considerations. Naval shipboard integration considerations include space, weight, services (e.g., power, cooling) and stability effects as well as impacts on the combat systems and fire control capabilities and interfaces. Continued technical maturity and future shipboard integration will be accomplished through a measured approach to the allocation or upgrade of shipboard services and integration of weapon capabilities with interfacing shipboard systems.

The Navy's near-term focus is on the solid state laser quick reaction capability (SSL-QRC) program, which will field a pre-production combat prototype based on the Laser Weapon System (LaWS), and the Solid State Laser Technology Maturation (SSL-TM) program. SSL-QRC (LaWS) is planned to deploy to the Persian Gulf in 2014 onboard the USS PONCE to demonstrate the ability to meet operational gaps in ship self defense missions against armed small boats and unmanned aerial vehicle threats. Long-term (beyond the current FYDP) Navy DE plans include the development of weaponized HPRF systems operating in the radio frequency spectrum and development of the Free Electron Laser (FEL) that has the potential for operations at much higher power levels.

SSL-TM will help determine the load capacity and most effective means to integrate a HEL on other naval surface combatants, such as DDG-51 and the Littoral Combat Ship. The SSL-TM goal is to demonstrate a one hundred to one-hundred and fifty (100-150) kilowatt Advanced Development Model (ADM) prototype with much greater ranges of effectiveness/lethality suitable for long-term shipboard installation by 2016. The SSL-TM program is expected to address key technical challenges in ruggedized laser subsystems, optics suitable for long-term maritime environmental exposure, and the capability to repeatedly propagate lethal power levels to viable targets through difficult maritime atmospheric conditions. The SSL-TM prototype will include sufficient maturity to commence an acquisition program of record.

Concurrent with SSL-TM, The Navy will conduct an Analysis of Alternatives (AoA) in FY14 on the feasibility and utility of developing a laser-based DEW system. This analysis will provide benchmarks for cost, schedule and performance requirements including shipboard integration issues of a shipboard laser weapon system. The AoA will also analyze various laser weapon options and assess those options against current kinetic weapons for effectiveness, engagement cost, and system life-cycle costs. Laser options will be based on the projected capability of ONR's SSL-TM program and lethality data derived from the SSL-QRC (LaWS) deployment on USS PONCE. Based on the results of the AoA, Capability Development Documents will be written for systems selected for transition to an Acquisition program for development, testing and then to be installed in the Fleet.

The Office of Naval Research (ONR) initiated the EMRG Innovative Naval Prototype (INP) in FY05 to explore maturation of electromagnetic technologies. INP Phase 1 demonstrated the technical feasibility of the launcher barrel life, industry manufacturing of prototypes, single-shot pulsed power and projectile components at a relevant energy level to 32MJ. INP Phase 2 (FY12-FY17) will validate the repetition-rate capability of 10 rounds per minute for the barrel and pulsed power including the thermal management and auto loader. INP Phase 2 will produce the tactical barrel and repetition rate pulsed power matured to a Technical Readiness Level (TRL) of 6, consistent with size, weight and volume required for navy ship applications.

DEWs and electric weapons (e.g. EMRG) generally demand significant electric power from the ship's distribution system. Energy storage systems, including batteries, limit the impact of these large transient loads and provide temporary electrical power beyond the ship's generating capacity. These energy intensive systems also represent significant thermal loads that must be mitigated by the ship's cooling

systems. Some current fleet platforms can support these electric weapons, but none without at least some modification. The scope of the modification depends on the desired muzzle energy (EMRG) or optical output power (HEL) and operational concept for the weapon (repetition rate, engagement timeline).

As a result of its current technological progress, the potential to contribute to multiple warfighting gaps, and projected shift of cost curve in favor of U.S. defense against adversaries, our warfighting analysis justifies continued pursuit of EMRG. However, due to the current state of EMRG technology the Navy is still developing a roadmap for integrating EMRG for use aboard surface ship combatants. ONR, Naval Sea Systems Command (NAVSEA), and Office of the Chief of Naval Operations (OPNAV) staffs have explored potential ship and weapon system integration options for EMRG. As a result of these ship studies, Navy is focusing on the most viable options, DDG-51 and DDG-1000, due to their greater available space, weight and services growth margins. Follow-on studies will concentrate on ship configuration; required power and cooling; and the combat systems interface. Platform integration challenges include the power requirements of a 32MJ EMRG, as well as adequate space and/or weight allowance for batteries and capacitors.

While very energy-intensive weapons systems are not currently mature enough for fielding today on U.S. naval combatants, continued progress on the technologies covered in the Naval DE Roadmap efforts (i.e. HEL, HPRF), and the EMRG effort are projected to result in capabilities that can meet future formal requirements. As part of the Navy's Two-Pass Six-Gate review process for major defense acquisition programs, a Gate 6 Configuration Steering Board (CSB) is conducted annually for each ship Class. Once a DEW has reached a sufficient level of maturity, the CSB could review the candidate technology along with the relevant requirements and cost information to determine if transitioning the capability to an acquisition program and incorporation into the ship class is warranted. If inclusion is warranted, the CSB would also determine on which hull the candidate technology would be incorporated. For technology that provides significant capability increase but also presents a significant installation impact to a ship, the capability benefits and costs will have to be weighed with installation occurring during new ship construction to minimize cost, if pursued. If the installation impact is less, the technology could be included as part of a back fit or post delivery installation.

On April 29, 2013 the Commander NAVSEA signed the Naval Power Systems (NPS) Technology Development Roadmap (TDR). The NPS TDR aligns electric power system developments with warfighter needs, including support for DEWs and other energy-intensive weapons and sensors for shipboard use, to ensure that future Navy ships are capable of accepting the power and cooling loads of such systems as they are developed. This roadmap addresses both new construction integration and back fit of technologies into ships already in service. While specific in its recommendations, the NPS TDR is designed to adapt to evolving technical requirements from weapons and sensors system developments as well as changes in the Navy's 30-year shipbuilding plan. The NPS TDR will be updated approximately every 2 years. The NPS TDR¹ represents a roadmap for these ship power technologies, how we plan to mature the technologies and then, how these technologies can support fielding of energy-intensive systems.

To incorporate DEWs and other high powered weapons and sensors into ship platforms, the NPS TDR has introduced the concept of an Energy Magazine to provide the interface and the required power from the ship's electrical system to the high powered weapons and sensors. The Energy Magazine will initially support near-term applications such as a HEL on a legacy platform with a 450VAC ship's power interface. As new mission systems become available for ship integration, the Energy Magazine can be expanded to accommodate multiple loads by providing the appropriate power conversion and energy storage. A standard set of load interface definitions for future weapons and sensors will enable a competitive open architecture approach for a multifunctional Energy Magazine.

The Under Secretary of the Navy approved Naval Directed Energy Steering Group is currently drafting a near-term (2–5 years) Naval DE roadmap based on the approved Naval DE Vision and DE Strategy to establish strategic goals, guiding principles, mission area priorities, roles and responsibilities, and overarching objectives regarding the acquisition and fielding of DEWs across the Navy and Marine Corps. This roadmap will also address the way ahead for the platform requirements (power and cooling) necessary to support these systems. This roadmap is scheduled for approval in the fall 2013. [See page 29.]

¹The NPS TDR is retained in the committee files and can be viewed upon request.

RESPONSE TO QUESTION SUBMITTED BY MR. JOHNSON

Admiral MYERS, Fifth Fleet/U.S. Naval Forces Central Command (NAVCENT) has a robust Continuity of Operations (COOP) program in place to address contingencies in Bahrain. COOP contingencies may be triggered by natural disaster, civil unrest, terrorist activity, technological degradation, belligerent action, pandemic events or any other condition that seriously degrades security or the ability to conduct operations. NAVCENT's COOP Operation Order (OPORD) is designed to provide the capability to continue mission essential functions without unacceptable interruptions during an emergency or disruption. The COOP OPORD includes dispersal of the NAVCENT staff with afloat and ashore options and capabilities. NAVCENT routinely exercises the COOP plan to validate and refine pre-programmed responses and identify gaps in planning and capabilities. [See page 22.]

QUESTIONS SUBMITTED BY MEMBERS POST HEARING

APRIL 24, 2013

QUESTIONS SUBMITTED BY MR. FORBES

Mr. FORBES. The subcommittee understands that the Navy has changed the test program for UCAS in fiscal year 2014 and does not plan to conduct unmanned autonomous aerial refueling with the UCAS aircraft. Given this change to the UCAS test program, what kind of implications could this have for the follow-on UCLASS program if UCAS does not perform autonomous aerial refueling and what kind of risk does this add to the UCLASS program?

Secretary STACKLEY and Admiral MYERS. [The information was not available at the time of printing.]

Mr. FORBES. In fiscal year 2014, the Air Force included funds to restart the B-52 CONECT program, but only for 28 of 76 total B-52 aircraft. What are Air Force plans to modify the remaining fleet of 48 B-52 aircraft in order to maintain a common configuration capability among the fleet as required by law contained in the fiscal years 2007 and 2008 NDAA's?

General ALLARDICE and General DAVIS. The Fiscal Year 2014 President's Budget reinstates the original B-52 CONECT program for a total of 30 B-52s. This includes modification of two test aircraft which were funded with prior year funds. The Air Force plans to address the remaining 46 aircraft (for a total of 76 aircraft) in future budgets.

QUESTIONS SUBMITTED BY MR. LANGEVIN

Mr. LANGEVIN. I'm particularly interested in how you are planning now to have the capability to integrate very energy-intensive weapons systems, such as directed energy weapons, high-power microwave and electronic warfare systems, and railguns into surface combatants. Can you provide the Navy's plan to ensure that the ships we are planning for and procuring now are capable of accepting the power and cooling loads of such systems in the future? During the hearing, you outlined a roadmap structure for the technologies which will show how the Navy is maturing the technologies and then what that means to Naval Platforms. To this end, please provide that roadmap.

Secretary STACKLEY and Admiral MYERS. The development and ship integration of energy-intensive systems such as directed energy weapons (DEW) (e.g. high-energy lasers (HEL) and High Powered Radio Frequency (HPRF)) and Electromagnetic Railgun (EMRG) weapons require careful engineering considerations. Naval shipboard integration considerations include space, weight, services (e.g., power, cooling) and stability effects as well as impacts on the combat systems and fire control capabilities and interfaces. Continued technical maturity and future shipboard integration will be accomplished through a measured approach to the allocation or upgrade of shipboard services and integration of weapon capabilities with interfacing shipboard systems.

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ments from weapons and sensors system developments as well as changes in the Navy's 30-year shipbuilding plan. The NPS TDR will be updated approximately every 2 years. The NPS TDR, attached, represents a roadmap for these ship power technologies, how we plan to mature the technologies and then, how these technologies can support fielding of energy-intensive systems.

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While very energy-intensive weapons systems are not currently mature enough for fielding today on U.S. naval combatants, continued progress on the technologies covered in the Naval DE Roadmap efforts (i.e. HEL, HPRF), and the EMRG effort are projected to result in capabilities that can meet future formal requirements. As part of the Navy's Two-Pass Six-Gate review process for major defense acquisition programs, a Gate 6 Configuration Steering Board (CSB) is conducted annually for each ship Class. Once a DEW has reached a sufficient level of maturity, the CSB could review the candidate technology along with the relevant requirements and cost information to determine if transitioning the capability to an acquisition program and incorporation into the ship class is warranted. If inclusion is warranted, the CSB would also determine on which hull the candidate technology would be incorporated. For technology that provides significant capability increase but also presents a significant installation impact to a ship, the capability benefits and costs will have to be weighed with installation occurring during new ship construction to minimize cost, if pursued. If the installation impact is less, the technology could be included as part of a back fit or post delivery installation.

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Mr. LANGEVIN. As our systems get increasingly complex, interconnected, and interdependent, how are you procuring to ensure that systems are able to function in warfighting environments where datalinks may be degraded or denied, or where networks may be under significant strain from cyberattacks?

Secretary STACKLEY and Admiral MYERS. The Navy currently trains to operate in a communications denied environment. As adversary tactics and capabilities have increased in this area, the Navy has adapted its training and acquisition strategies to defeat them.

The Navy incorporates realistic communications denied conditions into major exercises and Fleet training in order to develop capabilities and refine warfighting skills and tactics for sustained operations in a communications denied environment. Information Dominance (ID) training, to include cyber, Operational Security (OPSEC), Military Deception (MILDEC), and Command and Control in a Denied or Degraded Environment (C2D2E) is being integrated into the Fleet Training Continuum (FTC) as well as the Fleet Response Training Plan (FRTP).

The Department has pursued a resourcing and acquisition strategy to equip the Fleet with protected communications to fight through adversary efforts to inhibit Fleet communications. The ability to operate in Anti-Access Area Denial (A2/AD) environments, where an adversary seeks to prevent U.S. operations in a specific geographic area using broad-based deterrence via electronic or other means, has been a pillar of the Navy Strategic Plan for the past several budget cycles.

Our investments in the Consolidated Afloat Networks and Enterprise Services (CANES), Navy Multiband Terminal (NMT), Advanced Digital Networking System (ADNS) Increment III, Split IP satellite communications, Battle Force Tactical Network–Enhanced (BFTN(e)), Joint Aerial Layer Network (JALN), Advanced Tactical Data Links such as Link 16 concurrent multinetting and Tactical Targeting Network Technology (TTNT)—and among others—are enhancing our abilities to operate in these environments today. These programs are critical to our capability to oper-

ate in the contested battlespace of the future as adversary capabilities advance and proliferate.

Mr. LANGEVIN. Given the potential capabilities that unmanned undersea vehicles promise to provide, please give us a brief update on the Navy's plans for these systems.

Secretary STACKLEY and Admiral MYERS. Navy is producing a family of capable, effective, and interoperable unmanned systems that integrate with manned platforms to provide situational awareness and warfighting advantage to commanders at all levels. Unmanned Undersea Vehicles (UUVs) are a critical component of the future Navy Force and contribute to dominance in the undersea domain. Mission areas/vehicle systems include:

Mine Warfare

- MK18 Mod2: Man-portable system based on a REMUS UUV which collects change detection data to operationally detect, classify, and identify bottomed, buried, and volume mines
- Surface Mine Countermeasure UUV/Knifefish: LCS-based vehicle provides previously unavailable capability employing Low Frequency Broadband (LFBB) synthetic aperture sonar for operations against bottomed and buried mines in high-clutter environments

Oceanography

- Littoral Battlespace Sensing (LBS) Autonomous Undersea Vehicle (AUV): powered vehicles characterizing ocean, bathymetric, and hydrographic properties supporting undersea warfare and safe navigation
- LBS Gliders gather wave column and ocean data supporting high resolution predictive ocean and weather models

Anti-Submarine Warfare (ASW)

- Persistent Littoral Undersea Surveillance (PLUS) System
 - Effective, adaptive and persistent surveillance of multiple quiet targets over large littoral areas
 - Composed of a networked system of UUVs consisting of multiple REMUSs with sensors, SeaGliders, and a Command and Control (C2) station. The C2 station can be located anywhere around the globe. PLUS in-water components can be launched and recovered from a variety of vessels

Multi-mission Future Vehicles

- Large Displacement UUV:
 - Reconfigurable for multiple missions via modular payloads
 - Will leverage advanced energy sources for very long (>60 day) missions and robust autonomy
 - Initial increment of capability (Increment 1) contributes to intelligence and anti-submarine warfare missions
 - Analysis of Alternatives complete to bound capability selection
 - Leveraging innovative prototypes for early fleet utility demos begin in FY16
 - Increment 1 to IOC in the 2020 timeframe. Inventory objective being determined

