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ON

NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEAR 2020

AND

OVERSIGHT OF PREVIOUSLY AUTHORIZED PROGRAMS

BEFORE THE

COMMITTEE ON ARMED SERVICES
HOUSE OF REPRESENTATIVES
ONE HUNDRED SIXTEENTH CONGRESS

FIRST SESSION

SUBCOMMITTEE ON SEAPOWER AND PROJECTION FORCES HEARING

ON

DEPARTMENT OF THE NAVY FISCAL YEAR 2020 BUDGET REQUEST FOR SEAPOWER AND PROJECTION FORCES

HEARING HELD
MARCH 26, 2019



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DEPARTMENT OF THE NAVY FISCAL YEAR 2020 BUDGET REQUEST FOR SEAPOWER AND PROJECTION FORCES

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ARMED SERVICES,
SUBCOMMITTEE ON SEAPOWER AND PROJECTION FORCES,
Washington, DC, Tuesday, March 26, 2019.

The subcommittee met, pursuant to call, at 2:44 p.m., in room 2212, Rayburn House Office Building, Hon. Joe Courtney (chairman of the subcommittee) presiding.

Mr. COURTNEY. I call the meeting to order.

Good afternoon, everyone, and welcome to the Seapower and Projection Forces Subcommittee hearing on the Department of Navy fiscal year 2020 budget request for seapower and projection forces.

So, again, obviously, we are now—the fat is in the fire, in terms of the budget that came out a couple weeks ago. And, clearly, we have a compressed schedule in terms of the NDAA [National Defense Authorization Act] markup as well as the appropriations process.

So I appreciate all the witnesses for being here today—Under Secretary Geurts, Admiral Merz, General Berger—to, again, allow us to have an opportunity to have a dialogue about the budget.

And members, I think, are making their way over after the last vote series, but we just wanted to sort of get right into it. So, you know, again, I have a prepared statement, but I am going to actually have it just entered for the record so we can just really get into your opening remarks and then Q&A.

And, with that, I will yield to the ranking member.

[The prepared statement of Mr. Courtney can be found in the Appendix on page 33.]

Mr. WITTMAN. Thank you, Mr. Chairman. Thanks again for your leadership.

I want to thank our witnesses for being here today. Thank you for the great job that you all are doing.

And I, too, am going to put my statement into the record so we can get underway.

[The prepared statement of Mr. Wittman can be found in the Appendix on page 35.]

Mr. COURTNEY. Great.

So it looks like you have a combined opening statement. So, Mr. Geurts, the floor is yours.

STATEMENT OF HON. JAMES F. GEURTS, ASSISTANT SECRETARY OF THE NAVY FOR RESEARCH, DEVELOPMENT AND ACQUISITION, DEPARTMENT OF THE NAVY; ACCOMPANIED BY VADM WILLIAM R. MERZ, USN, DEPUTY CHIEF OF NAVAL OPERATIONS FOR WARFARE SYSTEMS (N9), DEPARTMENT OF THE NAVY, AND LTGEN DAVID H. BERGER, USMC, COMMANDING GENERAL, MARINE CORPS COMBAT DEVELOPMENT COMMAND, AND DEPUTY COMMANDANT FOR COMBAT DEVELOPMENT AND INTEGRATION, UNITED STATES MARINE CORPS

Secretary GEURTS. Thank you, sir.

Chairman Courtney, Ranking Member Wittman, distinguished members of the subcommittee, thanks for the opportunity to appear before you today to address the Department of the Navy's fiscal year 2020 budget request.

Joining me here today are Vice Admiral Bill Merz, Deputy Chief of Naval Operations for Warfare Systems, and Lieutenant General Dave Berger, Deputy Commandant for Combat Development and Integration.

With your permission, I intend to provide a few brief remarks for the three of us and then submit our formal statement for the record.

Mr. COURTNEY. Without objection.

Secretary GEURTS. Thank you, sir.

I would like to start by thanking this subcommittee and all of Congress for passing the fiscal year 2019 budget on time. On-time receipt of the full budget allowed us to expedite the delivery of lethality and readiness to our sailors and Marines while achieving cost savings through more efficient contracting. It also helped stabilize the industrial base and the supplier base, both of which are keys to our success.

The 2019 budget allowed us to continue to build the naval force the Nation needs. This year, we will commission 12 ships, compared to an average of 5 ships per year over the last 20 years. By the end of the year, we will have 296 ships in our battle force inventory. Not only are we building more ships, but their quality and capability continue to increase with each delivery.

We continue to improve our acquisition and contracting strategies to maximize the output for every taxpayer dollar, including saving more than $4 billion for the construction of our third and fourth *Ford*-class carriers and over $700 million for our next set of DDG 51 destroyers.

Our fiscal year 2020 request continues our commitment to build a 355-ship Navy, as well as the other capabilities the Navy and the Marine Corps require to meet the National Defense Strategy.

Our request is the largest shipbuilding request in over 20 years and funds 12 battle force ships in fiscal year 2020, reflecting the critical role the Navy and the Marine Corps team plays in the National Defense Strategy. It funds 55 battle force ships within the Future Year Defense Program [FYDP], which results in a smooth, continuous ramp to achieving 355 ships in the year 2034, a 20-year acceleration over last year's plan.

This year's shipbuilding plan continues to reinforce the powerful combinations of a strong, stable industrial base and predictable

funding, as well as our initial estimates of the enduring cost of sustaining a larger Navy.

Recognizing the effective and efficient sustainment of the fleet is absolutely critical, we have also submitted the first-ever long-range plan for the maintenance and modernization of the fleet to complement the 30-year shipbuilding plan. It outlines the growing maintenance requirements and the many initiatives the Navy is executing to improve the on-time completion of maintenance activities. It complements the many other actions the Navy and the Marine Corps have taken to improve the overall readiness of the force.

Finally, the Department of the Navy continues to place a priority on fielding the new technology and capabilities needed to compete and win in the future. These include a wide range of unmanned capabilities in the air, on the sea, and below the surface, as well as new capabilities enabled by directed energy, hypersonics, artificial intelligence, and advanced sensor system technologies.

Thank you for the strong support this subcommittee has always provided to our sailors and Marines. And thank you for the opportunity to appear before you today. We look forward to answering your questions.

[The joint prepared statement of Secretary Geurts, Admiral Merz, and General Berger can be found in the Appendix on page 37.]

Mr. COURTNEY. Thank you, Mr. Geurts. And, again, I am going to just have a couple questions, and then, again, we will, I am sure, have lots more to follow.

One item that is in the budget, which, you know, there has been actually about 3 years of back-and-forth or 4 years of back-and-forth with this subcommittee, is the *Virginia*-class program. You know, last year, again, we put out a mark and there was a floor debate in terms of boosting the production to three *Virginia* class a year, and that was unsuccessful. The Department opposed that at the time. It was about 8 or 9 months ago.

The budget that came over this year, I think a number of us are pleased to see that it actually included funding for a third submarine in the 2020 budget. And I am wondering if you could, again, just sort of explain the thinking behind the Department's position, both in terms of a strategic, you know, aspect as well as industrial base.

Secretary GEURTS. Certainly, sir. And I will start out, and I will ask Admiral Merz to perhaps jump in from a requirements and a warfighting concept.

You know, *Virginia* continues to be our most successful acquisition program. As you know, we started out with an 84-month span time on those ships. We have been able to bring that down to 66-month span time, as well as get to two ships a year. And so, you know, that has provided us some opportunities.

Our goal is still to continue to shrink that span time. We have been a little bit challenged getting below the 66-month span time. But we have been delivering those subs kind of on that 66-month cycle.

So when we took a look at it, we identified opportunities to add that third sub in. We are by far the shortest on submarines compared to any of our other battle force ones, and so we took, you

know, a little more risk than we did last year by adding that into the plan.

As you know, we funded that all in this first year, which means it will deliver out a little bit differently than the ships in the block-buy contract. But we are comfortable we can include that and feather it in with deliveries to try and—you know, our goal is to do everything we can to not get caught up in the bathtub that is facing us. This is one of the components of that strategy.

Mr. COURTNEY. Okay.

Admiral MERZ. Yes, sir. The *Virginia*-class program—as a matter of fact, the entire submarine production program is also a great example of what happens when you walk away from your acquisition profiles like we did in the 1990s. So we have been fighting very hard to get that program back on track. And no matter what we do, even with a third submarine in 2020, it is still going to be the furthest away from its validated requirement for the next 20 years.

So we have been motivated to fit that in. I think the great work with Secretary Geurts, with you, with the shipyard, we gained the confidence to invest in it. We believe it is executable. We know it is going to execute over a longer period of time, but based on the requirement gap, it was the right thing to do.

Mr. COURTNEY. And just to touch on the requirement gap, again, the force structure assessment that came out at the end of 2016, can you just state for the record the requirement that was identified?

Admiral MERZ. Yes, sir. The requirement was 66 submarines from the force structure assessment. And that was up 13 submarines from the prior assessment.

Mr. COURTNEY. And the fleet today is roughly at around 50 or 51. Is that right?

Admiral MERZ. Fifty-one. Yes, sir.

Mr. COURTNEY. So, again, just to sort of underline the point that you just made and Secretary Geurts made, is that that sort of delta is actually the widest of any of the Navy's platforms within its fleet. Is that correct?

Admiral MERZ. Yes, sir. The SSNs [attack submarines] and the CVNs [aircraft carriers] will take the longest to reach the requirement.

Mr. COURTNEY. Right.

So one last question is, again, some of the reporting since the budget came out—and, Mr. Geurts, you sort of touched on this—is that the funding is a little different than in the block contract model that has been, you know, successful, certainly, you know, going back to the mid-2000s.

So the way this funding works is, again, we are going to fund the full cost in this budget. Is that correct?

Secretary GEURTS. Yes, sir. Our request is for the full funding.

Normally, if it was part of the block-buy, it would have been included with the economic order quantity and with some advance procurement. The challenge was, we have already set up that economic order quantity for the 10-ship block-buy. And so this one, by design, will have to be a little bit different, in that we won't have the benefit of the economic order quantity and we will fund it all together in one fiscal year.

Mr. COURTNEY. So the narrative that somehow that is going to, you know, be not able to execute, because people are looking at it in the lens of it is just all going to happen in 2020, I mean, the fact of the matter is the ship is really a 2023 ship. Is that correct?

Secretary GEURTS. Yes, sir. If you were to compare it that way, again, it will be different by design, because we don't have the normal economic order quantity and advance procurement. And because of that, we put it all in one fiscal year.

It will execute. I mean, the challenge for us is finding the right spot in the production cycle. And our sense right now, it will look about as a 2023 ship.

The other thing that is important—and, last year, when we talked about it—is keeping in mind *Columbia* coming along and making sure, you know, as we looked at it, by loading it now, it gives us the most time to figure out how to use that efficiently as a risk-reduction element for *Columbia*—i.e., we can get some of the additional workforce trained up, get some more of the supplier base, and get some of the supplier builds out of the way before *Columbia* gets here.

So we are working to put all of those together. Our analysis that year wasn't mature enough to commit to that. This year, we felt more comfortable, recognizing both the state of the program and the urgency of the requirement.

Mr. COURTNEY. And Admiral Merz, you are comfortable, again, with the industrial base capacity?

Admiral MERZ. Yes, sir.

Mr. COURTNEY. Great. Thank you.

With that, I will yield to the ranking member, Mr. Wittman.

Mr. WITTMAN. Thank you, Mr. Chairman.

I want to thank the witnesses for joining us today.

Secretary Geurts, I want to begin with you. A couple weeks ago, we were actually at Newport News Shipbuilding. We were on board the USS *Gerald R. Ford.* What an amazing ship. What absolutely fantastic capability. As you know, it is there for maintenance availability, for post-shakedown work that needs to be done.

As I talked to the shipyard workers there, they had concerns about the timeframes regarding post-shakedown availability. And we know that there is work going on engineering systems and going on the advanced weapons elevators.

So I wanted to get from your standpoint, where are we in relation to scheduled time for the ship to be available to the fleet?

Secretary GEURTS. Yes, sir. So, as you recall, we had that schedule as of 12-month availability, where we were going to both complete some nuclear propulsion work on a plant, do some more of the ship alts, and then finish up the elevators. Right now, my current estimate is that is going to be an October delivery, vice July, so about a 3-month delay.

All three of those causal factors—making the adjustments to the nuclear power plant we noted during sea trials, fitting in all of the post-shakedown availability workload, and finishing up the elevators—they are all trending about the same time. And so October right now is our best estimate.

The fleet has been notified of that. They are working that into their train-up cycle afterwards.

Mr. WITTMAN. Okay. So you are confident that you will meet the October timeframe?

Secretary GEURTS. With the information I have right now, sir, that is where we are sitting right now.

Mr. WITTMAN. Gotcha.

Secretary GEURTS. Obviously, we would have liked to have gotten out in July.

Mr. WITTMAN. Yeah.

Secretary GEURTS. That was with our plan. I am never happy delivering a ship back to the fleet late.

Mr. WITTMAN. Yeah.

Secretary GEURTS. And so we have all hands on deck working on that. But that is where I see things right now.

Mr. WITTMAN. Okay. Very good.

Vice Admiral Merz, I am going to start with you. I am just going to ask a series of questions. And I would just, in the sake of time, because I want to make sure we get to our other committee members, I would just ask you if you will just answer with a yes or no. I want to culminate with trying to get a little more deep dive on information.

But I want to ask you, can you confirm that the latest force structure assessment requires 12 aircraft carriers?

Admiral MERZ. The latest of 2016 force structure assessment still is a 12-carrier requirement.

Mr. WITTMAN. Okay. Can you confirm that this force structure requirement supports combatant commanders—or, excuse me, additional carriers available during potential times of conflict?

Admiral MERZ. So the actual—those numbers are actually sensitive.

Mr. WITTMAN. Gotcha. Gotcha.

Admiral MERZ. So we can talk about that in a classified forum. But, yes, that 12-carrier requirement is based on the force generation model that is in place now.

Mr. WITTMAN. Gotcha.

And, finally, do you believe that the carrier today is more survivable than it has been in the past 70 years since we began to deploy aircraft carriers?

Admiral MERZ. With absolutely no doubt.

Mr. WITTMAN. Gotcha.

Secretary Geurts, does the 2030 shipbuilding plan indicate that we will have nine carriers in 2027?

Secretary GEURTS. Yes, sir, it does.

Mr. WITTMAN. Okay. If the Navy force structure assessment doesn't support this reduction in aircraft carriers and that they are more survivable and lethal than they have been in history, it seems to me to be a counter as to why we are finding ourselves on a path to go to nine with early retirement of the *Truman,* when it seems to be running counter to what our combatant commanders say, what the force structure assessment says we need, with the lethality and capability that that platform provides to us.

And why, then, would we retire the *Truman* 25 years early in relation to the demands that we see around us and with our adversaries building carriers at a pretty brisk pace?

Secretary GEURTS. Yes, sir. I will start on that and ask Admiral Merz if he wants to join in.

When we look at it, you know, we are all in on the *Ford* carrier and moving to that carrier as fast as we can. It has increased survivability. It has increased capability. It will allow us to fly the air wing of the future. And so, you know, the first thing you saw us do just prior to the budget release was award that two-carrier buy to solidify that production line, get that moving.

Then we looked at how are we going to provide—you know, what are our options to provide fires and compete at that kind of future conflict, which led to some tough choices. One of those was to retire that ship early in favor for looking at other technologies, other larger cost-imposing strategies as we look at the competitive landscape.

Tough decision. We tried to do it early enough so that we could have a robust discussion about it, given the weight of that decision. And so, while it doesn't have a huge budget swing in the 2020 budget, it does impact the out-year budgets, where we are looking to transform the Navy and integrate some of the newer capabilities into the Navy of the future.

Mr. WITTMAN. Very good.

Admiral Merz.

Admiral MERZ. Yes, sir. So the *Truman* decision was not a warfighting decision; it was more of an investment decision.

We know, the signals are clear, we have to move on to alternate investments, distributed lethality, cost-imposing measures. When we were directed to do the studies in the same NDAA 2016 that the RFSA [Ready for Sea Assessments] supported, it directed us to move out on future force architectures. And every study since then has validated the need to move on to these other capabilities.

The effect of *Truman* will be felt in about 2027 to 2029, which it would have come out of the yard. So the initial question on force generation, if we do nothing between now and then, yes, it will affect the force generation model.

The way we have structured this, the investments we are going after, we will continue to study it. We will continue to experiment with it. We elected to make this bold decision early. Every year counts. We could have waited. We decided that we didn't want to lose that year to figure out which direction we want to go with these alternate investments.

So this is about distributed lethality to complement the force, not to replace the force.

Mr. WITTMAN. Uh-huh. Do these independent studies also support a 12-carrier force structure?

Admiral MERZ. These independent studies supported a larger Navy. So, if you remember, we had RFSA plus the other 3, so there was some degree between roughly 350 and 400 ships of varying mixes. I don't recall if anyone went below 12. Regardless, we went with our assessment of 12 carriers, and that is still the requirement. And our commitment to that is the *Ford* class.

Mr. WITTMAN. Very good.

Thank you, Mr. Chairman. I yield back.

Mr. COURTNEY. Thank you.

And now we will turn to Mrs. Luria, the vice chair.

Mrs. LURIA. Well, thank you.

And I am going to continue along the same line of questioning about the aircraft carrier. So you did acknowledge that the current law requires us to have 11 operational aircraft carriers. What we didn't touch on is the air wing. So it requires us to maintain nine operational air wings through October 1 of 2025. And then, after that point, we should maintain 10.

Is that correct, Mr. Geurts?

Secretary GEURTS. I believe so. Bill, any comment on that?

Admiral MERZ. Yes, ma'am. There are actually a couple legislation directions out there. One is the 9 now and then to have 10 by 2025 or——

Mrs. LURIA. Okay. So, I mean, I just still am really baffled at how the Navy can submit a budget that decommissions the *Harry S. Truman* halfway through their life cycle. And, moreover, the 30-year shipbuilding plan from 2025 on has no more than 10 operational carriers, and sometimes it only has 9.

And so I am really confused as to your choices in funding in the budget, because I believe that any budget that the executive branch submits has to start with the things that are mandated by Congress to be fully funded. And it seems as though, you know, you are coming before Congress and this could be some sort of shell game, where, you know, you request to not fund the *Truman,* but you are looking for unmanned surface vessels?

I mean, I don't think that the President is going to turn to the Secretary of Defense and say, "Where are my unmanned surface vessels?" when a conflict breaks out in the world. They are going to turn and ask, "Where are my aircraft carriers?"

And so we base this off of a force structure assessment that tells us, you know, we need the 11 carriers. And if we look back at what Captain Burke, the N43 [Director, Fleet Readiness], said at a hearing like this several years ago, he said, the cheapest ship we have out there is the ship we already have. We just have to take care of that ship, make sure it lasts for its full expected service life. And so that is step number one.

So I just can't even comprehend the thought process that we are, quote/unquote, saving money by decommissioning a ship halfway through its life. If you look at the amortized cost of this ship over 25 years versus 50 years, we have really sunk a lot of taxpayer money into an asset that we are not going to fully utilize.

So how do you explain that?

Admiral MERZ. Yes, ma'am. So, certainly, in isolation, divesting at 50 percent of the service life is a tough comprehensive investment strategy. But when you put it in the context of the threat factors, the evolution of the Navy, the way we operate as a forward-deployed Navy, the need to be more distributed——

Mrs. LURIA. Well, I would stop there. Operate as a forward-deployed Navy. So we go into the OFRP [Optimized Fleet Response Plan], and now, instead of generating forces that are deployed and on station, we are generating surge capability.

We have met with several combatant commanders recently. I asked CENTCOM [U.S. Central Command] if he got his required requested carrier presence. Although he didn't give me an exact number, I know it is about one-fifth of what he requests. I asked

the commander of EUCOM [U.S. European Command] the same thing. He said he gets less than half of what he requests.

So, you know, in an unclassified setting we can't get any more into the numbers than that, but I can tell you that I personally know that we are not meeting that forward-deployed presence. So how can you justify further reducing the number of carriers?

Admiral MERZ. Yes, ma'am. So we are not meeting the presence in a lot of ship lines. You can have the same discussion with the destroyers, with the submarines, with the aircraft carriers. So what we are compelled to do is to find alternate investments to improve the lethality, to distribute the nature in the way we operate, the survivability, the cost-imposing effects, and if it comes to it, a more attritable force.

Mrs. LURIA. So do you attribute that to our choice to go to the OFRP, the Optimized Fleet Response Plan?

Because, before, we were getting 6 out of roughly every 24 months deployed. We would go to 6 out of 36 months deployed. That gets us 17 percent on-station time versus roughly 25 percent on-station time. If you do the math backwards and you figure out how many ships we need, instead of 355, we would need 251 if we were on station 25 percent of the time.

So, you know, the Navy came to Congress, they briefed this OFRP plan, but there was really no price tag or operational impact associated with that. So are you looking at whether that is effectively generating the forces that we need?

Admiral MERZ. Yes, ma'am. We look at that all the time.

So the OFRP is a supply-based model based on the force structure that we have. The requirements are driven by the OPLANs [operations plans] and the actual combat operations that we are going to have to surge when we need them. So, you know, there is a seeming disconnect between the peacetime rotation of the forces versus what we can surge in combat, which drives the actual requirement.

Mrs. LURIA. So, you know, I had sat down with the CNO [Chief of Naval Operations] recently to have this discussion, and I am still very interested in and I will request again the analysis as to how you have come up with the 355-ship Navy as the appropriate size. Is it the most limiting OPLAN? Is it based off combatant commander requirements?

So, you know, as part of this hearing, I would still like to follow up and understand how you came to that calculation.

I yield my time.

[The information referred to can be found in the Appendix on page 65.]

Mr. COURTNEY. Thank you, Congresswoman.

And next up is Mr. Bergman.

Mr. BERGMAN. Thank you, Mr. Chairman.

And thank you all for being here today.

Numbers matters, but lethality matters more. And as we—I know I am telling you what you already know, because we are counting on you to be honest brokers when it comes to being forward deployed as a Navy and Marine Corps but lethal in such a way that, in a best-case scenario, any adversary would choose not to fight us because they know it would be a bad outcome for them.

So, you know, having said that, you know, I have several questions here, but let's start with something, you know, near and dear to my heart. We used to call it Gator Navy and Brown Water Navy, and whatever we call it now, the bottom line is we were Marines being hauled or not hauled, that sort of thing. You know you are getting old when the ship you were deployed on to Vietnam is now a diving reef off Hawaii.

But, anyway, having said that, General Berger, the President's budget does not include a request for any large-deck amphibs. Do you think that our legacy forces can operate in a contested environment? Are there improvements that need to be made? Does the Navy have sufficient capacity to support our Marine Corps operations?

General BERGER. Thank you, sir.

The two parts of that, as you outline, are capacity, the number, and the capability of the ships themselves. Over the FYDP in this budget, there are three amphibs that will be procured. The requirement for the Navy for the Nation remains 38 based on the 2016 force structure assessment. Now, there is an ongoing force structure assessment now that I think will be done by the end of the year, which we will see how that plays out; but right now it is 38.

And the second part of the 38 is not just the aggregate number but the breakdown of the types of ships, centered on the big-deck amphibs. The bottom line on more modern ships are, for us, they give us the capability that the legacy older ships—you can't retrofit back into them. And it begins with command and control systems and the ability to defend the ship, and an offensive arm as well.

So all of them, to a degree, you can put in the *Wasp*s, you can put in the *Essex,* but you really need the new ships in all type/model/series that give us another level of capability.

Mr. BERGMAN. Okay. So you need the survivability of the new capability the ships bring.

General BERGER. Yes, sir, we do.

Mr. BERGMAN. I understand that the Marine Corps has also done extensive studies and analysis on the expeditionary advanced base operations [EABO]. This concept relies heavily on the ability to seize, establish, and operate on widely dispersed bases.

Since a critical function for the logistics network will be to sustain these bases, do you feel that the CH–53 Kilo gives you much more capacity and capability over the legacy CH–53 Echo or any other logistical system to support the EABO concept?

General BERGER. Sir, I do. I think to—and we are learning about expeditionary advanced base operations as we go. This is a large part of our exercises and experimentation. We are going to need every bit of vertical lift and surface connector that we have. Absolutely, the Kilo gives us range and payload that the Echo does not. And it is going to give us a level of reliability that you would expect in a new aircraft as well.

Mr. BERGMAN. So, as you talk about that, I mean, obviously, you have commanded I MEF [I Marine Expeditionary Force], you have commanded MARFORPAC [Marine Corps Forces, Pacific], any additional insight on how the force struggles with the CH–53 Echo readiness, the availability now? Because you now only have a force of, what, 142 53 Echos against the requirement for 200 to 220 53

Kilos. Any thoughts on where the mismatch is in here, where the gap is?

General BERGER. I think last, probably, spring or early summertime, our aviation department looked into what got us to where we are and made some significant changes in the 53E reset program. And like all reset programs, it is not an overnight venture, but over a 6-month period we are seeing a climb back up in the 53 Echo readiness from reset program.

And a part of that was a really brilliant move to move together not just the work that you would normally do in a depot, but after the depot you would return it back to the squadron, and then they would have to do more work on the work that the depot wasn't—it wasn't depot-level work. So we merged them together as part of the reset program, and it has really benefited us.

Mr. BERGMAN. Okay. Well, thank you.

And I see my time has expired. Thank you very much to all of you for your continued service.

Mr. COURTNEY. Thank you, Mr. Bergman.

Next up is Mr. Golden.

Mr. GOLDEN. Thank you, Mr. Chair.

Thank you for being here, gentlemen.

You know, I am pleased to see that the Navy is pursuing its plan for a fleet of 355 ships, but I do want to note with concern that the administration might not be investing sufficient resources in our shipyards to support an expansion, which will require sustained attention and support not only to the fleet but to fleet maintenance over a period of many years.

I specifically want to note that the Navy 2020 shipbuilding plan calls for aggressive growth and service select extensions of current vessels. At the same time, in December, a GAO [Government Accountability Office] report noted that the Navy has been unable to complete ship and submarine maintenance on time, resulting in continuing scheduling delays that reduce time for training and operations—something we have talked about quite a bit already in this Congress—and also creating costly inefficiencies in a resource-constrained environment.

The report elaborated that facility and equipment limitations at shipyards resulted in significant maintenance delays and that shipyards would be unable to support an estimated one-third of maintenance periods planned over the next 23 years. I think this is particularly important given your plan of getting to a Navy of 355 ships.

So I wanted to, for whichever of you you feel is most appropriate to take the question, please describe what steps you feel are necessary to ensure that our shipyards are adequately resourced to provide the support and maintenance that we need for a larger fleet but also to support an increase in vessels undergoing service-life extensions.

Secretary GEURTS. Yeah. Thank you, sir. I will start out with that.

And as you appropriately note, you know, constructing ships is important; maintaining them is critical and really leads to our warfighting capability today. And so we are tackling that, I would say, in two or three different lines of activity, and I would be happy to

sit down with you to go through those in some more detail as time allows.

For the public yards, we have accelerated hiring of the public shipyard workforce. We have done that a year early, so we are now at our full strength there. We are now attacking the infrastructure. I think the average age of our 1,300 buildings in the shipyard is 62 years old. Particularly problematic are the dry docks.

So, in the public yards, we are doing three things: replacing and revitalizing the dry docks which are aging and failing. We are now looking at restructuring the yard for efficiency. We think we can get 65 percent improvement in cycle time just by resequencing where the work is occurring on those yards in terms of that. And then the third piece is recapitalizing the equipment. That is on the public yard.

On the private yard, a whole host of initiatives, mostly for the surface side, so that we can achieve that.

And, finally, we have documented that in the first years—first time we have ever done a 30-year maintenance plan. And so it is a generation-one product. We will continue to improve that to ensure we are putting a focus on it.

Mr. GOLDEN. Thank you. Clearly, this is really important both for submarines and large surface combatant ships like the DDG 51 *Arleigh Burke*-class destroyer, which I know is a big part of your plan on how you are going to get to 355 sooner.

You know, I just want to make note for the record, you know, having sat through our earlier full committee hearing and not having had the opportunity to ask questions—this is not directed to any of the three of you—that I want to reiterate my concerns, shared by many of my colleagues here in the House and the Senate, that funds that we have appropriated for our shipyards for that maintenance upgrades and ensure that they are able to do that work, expand this fleet, and do those service-life extensions is potentially at risk and being raided for purposes that have nothing to do with our naval capabilities and ability to deal with growing threats from China and Russia. Just noting my opposition and real concern about that and to the health of our national security as a result.

I also wanted to ask—seeing in your testimony that you noted that the Flight III DDG 51 vessels are going to feature enhanced integrated air and missile defense, which is going to help the Navy meet the growing ballistic missile threat by improving radar sensitivity and enabling longer-range detection of increasingly complex threats.

To the extent that you can, whoever wants to take this question, could you elaborate on how these systems on the upcoming DDG 51s aid the surface fleet in addressing the threats posed by improved ballistic missile capabilities with China and Russia?

Admiral MERZ. Yes, sir. If I may, I will kind of address your previous question just for a second here. You mentioned aggressive growth. So the SSN, third DDG, both those are aggressive growth options. But the most important imperative in any of this—and it gives me an opportunity to thank the committee—is get that budget approved on time. And we saw the magic of a detailed shipbuilding plan—long horizon, steady funding, and the ability to plan, not

just plan shipbuilding but plan maintenance, the enablers, the recruiting, everything that goes behind it.

As far as the DDG 51, I think you are referring to the Flight III DDG. From where we sit, it is the most powerful warship on the planet. It is going to have the best of everything we have. We are even expanding the facilities to make it an air warfare command ship. It will be dual role. I can't get into all the details, but it will be able to do air defense and ballistic missile defense at the same time. So a very powerful addition to the ship.

They start entering the fleet at fiscal year 2023, and then DDG Flight III is all the way through. We are very much looking forward to getting that ship in the fleet.

Mr. COURTNEY. Thank you, Mr. Golden.

And next up is Mr. Gallagher.

Mr. GALLAGHER. Thank you, Mr. Chairman.

Vice Admiral Merz, this time last year, I believe, you testified before the subcommittee that the Navy would be taking a fresh look at the December 2016 force structure assessment due to changes that were coming out of the National Defense Strategy. And you said at the time that, quote, "We have to move out aggressively as we go forward."

Then in September you again announced that the Navy would be conducting a new FSA along with an interim assessment that I believe is due sometime in 2019.

Given the urgency that you rightly noted last March before this committee, can you walk me through what progress has happened on the new FSA between March and September of last year?

Admiral MERZ. Yes, sir. So this FSA that is coming up, it turns out, has a lot more moving parts than the previous FSA. Most notably, our shift in our employment of the force under this distributed maritime operations, which really kind of gets to one of your interest items on the distributed logistics that have to support that type of force, which pulls in a lot of capabilities into the smaller shipyards on what we are going to be able to do going forward. So all this has to feed back into the FSA.

We had some four-star and three-star turnovers that influenced the OPLANs and the planning scenarios. All those have to be accounted for into the FSA.

I think it is always important to remind everybody that the FSA tends to service two, three, or four budget cycles. That is typically reflective of, you know, just the ability of the shipbuilding industry to respond to an FSA. It typically does not tell us things like we don't need submarines anymore or we don't need DDGs or frigates. It is more of a quantity-based look at what we already have on how you would fight the conflicts today.

We are expecting a pretty hard look at the mix of ships this year. We know we are heavy on large surface combatants. We would like to adjust that to a more appropriate mix, especially with the lethality we are seeing coming along with the new frigate. All shipyards have agreed that they can give us the lethality we need.

I mentioned the distributed logistics. We also discussed, if you recall, last year, the medical support to our fleet, which is very limited by two hospital support ships when you start talking about a distributed maritime operation.

All these requirements are still percolating along. So we expect some growth in a lot of these areas, and that will all be reflected on how this FSA actually views the force.

Mr. GALLAGHER. So do you anticipate that when the FSA is signed and delivered that the fleet size requirement will remain constant at 355?

Admiral MERZ. I don't know if it will remain constant. I would find it highly unlikely to come over the lower number, based on the growing threat challenge.

Mr. GALLAGHER. Yeah. And given the anticipated shift or sort of emphasizing things below the level of large surface combatants, would you anticipate any change to the requirement for small surface combatants at 52?

Admiral MERZ. I would expect that number to change.

Mr. GALLAGHER. Interesting. Upward or downward? I would assume upward, given what you said.

Admiral MERZ. I suspect it would go up.

Mr. GALLAGHER. And, General Berger, I don't want the Marine Corps to get off easy today. So I understand that the Marine Corps is developing currently a long-range direct fires capability that could provide the Marine Corps with a mobile antiship capability.

What would that mean for the ability of the Navy and Marine Corps team to counter maritime threats and implement the NDS [National Defense Strategy], especially as it relates to the expeditionary advanced base concept?

General BERGER. Under the distributed maritime operations construct on top and the Marine operating construct on top, underneath that it is expeditionary advanced base operations the way you described it, which is a very distributed way of using the naval expeditionary forces.

Heretofore, the amphibious ships were largely protected by surrounding ships around them. In a distributed manner, you want as much lethality and survivability on every craft as you can get. So, to your point, the ability to put longer-range, if not organic then perhaps containerized weapon systems on an amphib ship in an offensive manner just complements the rest of the picture. Because in a sea control and sea denial sort of scheme, you would like for the forces that are at expeditionary advanced bases not just to refuel, rearm, but also to reach out and pose a threat.

Mr. GALLAGHER. Uh-huh. Quickly, how much are you spending on F–35B/C and the CH–53K versus amphibious ships?

General BERGER. I don't have that number off the top of my head, sir, but if I could take that for the record, I will make sure I get the info to you.

Mr. GALLAGHER. Okay. I think the quick math looks like $94 billion on those two short-range expensive platforms versus $76 billion on ships. But, yeah, please take that for the record, and would love to follow back up with you.

I am out of time.

General BERGER. Sure.

[The information referred to can be found in the Appendix on page 65.]

Mr. COURTNEY. Great. Thank you, Mr. Gallagher.

Mr. Langevin.

Mr. LANGEVIN. Thank you, Mr. Chairman.

Gentlemen, I want to thank you for your testimony and thank you for your service to the country.

So I just want to express my appreciation to the Department and recognize the critical need for the third *Virginia*-class submarine in the fiscal year 2020 budget request.

And with regards to *Columbia* class, if I could just touch on this, can you provide us with an update right now on the common missile compartment project they are working on with the United Kingdom [U.K.]? And how is this strategic partnership being leveraged? And I would like to know what best practices we are learning as you work with one of our closest allies.

Secretary GEURTS. Yes, sir. Obviously, our work with the U.K., across the board but in particular in this mission area, is critical and one of our most trusted and longest relationships. And so we continue on *Columbia* and with their associated project. I have a very close relationship. We are using common hardware, where we are, you know, developing the missile tubes, producing missile tubes, shipping them over, and the compartment, to help them derisk their initial builds while they build up some similar capability.

We have an absolutely close technical relationship. And as we work through some of the issues we have seen on early missile tube builds on the welds, kept them closely informed so they can look for the similar thing on any of their activities.

I would also say best practice has been, you know, this really frank dialogue and then going after high-risk parts of a program like the *Columbia* very early. And, yes, we found some issues in those missile tubes. Even finding those issues and doing a rework, we still have at least 7 months of margin to schedule. And so that, I would say, best practice of finding the most risky elements of a program, staging those well before you get into actual construction is paying great dividends.

Mr. LANGEVIN. Thank you, Mr. Secretary.

On another topic, I am concerned about the resilience of Navy and Marine Corps bases, in particular, due to the effects of climate change and rising sea levels. We know that—and not getting into the reasons why climate change is happening, but let's just look at the fact that it is happening and it is self-evident. Last year, Camp Lejeune was heavily damaged by a major storm. And I am concerned that the Navy and Marine Corps are not considering resiliency in their installation master plans.

So I want to ask, you know, what are the investments that you are making today in order to mitigate risk that we still face in the short, medium, and the long term to our CONUS [continental United States] and OCONUS [outside continental United States] installations? And how are you evaluating those risks as they evolve?

Secretary GEURTS. Sir, maybe I will give a kind of brief sense of it and then turn it over to the two gentlemen here for the service-specific.

But I think your strategic view of how do we build resiliency to climate, to cyber, to counter-UAS [unmanned aerial system], to all the sorts of things is absolutely critical, because protecting a garrison is part of protecting the force. It is not a luxury we can just

assume, that the garrison will be, you know, immune to all the different types of threats to it, you know, weather and climate being one of them.

So I would say that is something, at the Department, we are looking across the board, not just at the climate. But I will turn it over to Admiral Merz and General Berger for any thoughts they may have.

Admiral MERZ. Yes, sir. So I certainly agree with Admiral Davidson's testimony from INDOPACOM [U.S. Indo-Pacific Command] of climate change and the effect it is having not just on land but also at sea. And we are certainly seeing the effects of that at home.

Unfortunately, I will tell you that most of our investment is probably in repair and recovery from the damage. But that has been the wake-up call as we recalculate our MILCON [military construction] investments as we go forward.

General BERGER. And, sir, I think it won't be any surprises for the Marine Corps either. The damage to the buildings at Camp Lejeune that you note, sir, were largely from the buildings that were 40 to 50 years old. The newer buildings, in the 2000s and 2010s, all fared very well. So part of it certainly is the location; part of it is the design of the buildings themselves.

But I don't think there are any misperceptions between the Navy and Marine Corps about the need to address, whether it is MILCON or the location of a base, the effects of climate change and other factors. If you don't, then the risk, as you point out, sir, is pretty high.

Mr. LANGEVIN. We are just going to be throwing good money after bad if we are repairing bases or building new bases and not factoring in the changing weather patterns and seriousness of climate change. So that has to be a forethought and primary concern going forward. Again, we are going to be throwing good money after bad.

So my time has expired. I have an additional question I will ask for the record, but thank you for your testimony.

I yield back.

Mr. COURTNEY. All right. Thank you, Mr. Langevin.

Mr. Byrne.

Mr. BYRNE. Thank you, Mr. Chairman.

Gentlemen, I was fascinated by the expenditure you proposed on the medium and large unmanned vessels. I tried to do my homework on this. This is a new thing for me. I do think it is a good idea for the Navy to do this.

And I know before you go through the R&D [research and development] it is hard to know a lot about the details of it, but can you give me some sort of an understanding of what the Navy's plan would be to transition from the R&D phase to actual production?

Secretary GEURTS. Yes, sir. And, as you know, doing R&D and figuring out exactly the capabilities we need is critical.

I would say what is a little bit different in these ships versus a traditional ship is, largely, I think we can leverage more traditional, conventional design versus having to redesign a whole new ship. And so the real R&D is in a lot of the guts—the autonomy, the decision making, how are we going to command and control it, how we are going to do those things—and less about what does the

hull form look like. And, quite frankly, I think we can build the ships at a reduced price because it opens up a lot more shipyards to a lot more of designs they are comfortable with right now.

And so we have, as you know, a lot of activity going on. Our medium unmanned vessel did a transit to Pearl Harbor and back autonomously. We learned a lot from that. We have a lot of activity going on with the Special Capabilities Office. We have done phase-one testing on the large unmanned surface vessel.

The really, I think, science we have to work out is the level of autonomy, the level of command and control, the level of protection we are going to need depending on the capabilities we put on those ships.

As we work our way through that, I would anticipate going in the future—right now we have all of those loaded in R&D across the FYDP. My guess is we will probably in a future budget year transition some of that to procurement as we understand exactly when that cutover point is and where it makes the most sense. I think we are still a couple years away from that.

Mr. BYRNE. And I can understand that. I just wanted to try to get a little bit better understanding. I want to encourage you in this. I think this is the future, in many respects, for our Navy. I know there are some unknowns when you go into something like this, but I think spending this money through our R&D budget is a smart thing.

Admiral Merz, I want to talk to you about—I think I understood what you were saying earlier. It looks like EPF 14 is going to be a medical transport ship. So do you see the Navy going more in that direction with future production?

Admiral MERZ. Yes, sir. So when we did the—we called it the Common Adaptable Small Ship Study and we looked at all the logistics—as a matter of fact, somewhere north of 11 different mission sets we evaluated that would have to come online to support the distributed maritime operations concept, medical was a big piece of that.

We have funded to EPF 13. That will be the first emergency medical transport. And then 14 is in the unfunded priority list, ranking very high, you will notice, because we consider that a warfighting capability, not just a medical support capability.

So a preponderance of all those requirements were feeding back into the FSA. We know we need to get out—like I said earlier, the FSA doesn't really tell you what capabilities you need. It kind of gives the efficacy of the ones that you have projected forward.

We do the actual capability studies through, you know, a very detailed process of analysis of alternatives, these requirements and evaluation teams, and we come up with a capability. We know we need this. How much of it we need long term, the FSA will inform us on that, but we have to get started. Very similar to the unmanned vessels that you cited earlier.

I think while you were out we had the discussion about every study we have done has told us we need to have these capabilities. So we are shifting our investments, and we are moving out on them.

Mr. BYRNE. Good. Thank you.

And, finally, General Berger, some of the other members of the committee have heard me say this before. I am not sure you were here when I said it. I led the HASC [House Armed Services Committee] CODEL [congressional delegation] out to RIMPAC [Rim of the Pacific Exercise] last summer. It was a great trip. We were supposed to go on one of our amphibs, but one of our amphibs had a problem, so we went on an Australian amphib. It was great. Loved being with the Aussies. They were great hosts. But I was kind of disappointed we didn't go on one of ours.

So I just want to register my concern and echo General Bergman. I want to make sure we have enough amphibs to meet the mission requirements that we have placed upon you. And if there is anything we need to do to help you get to that point, please let me know. I would like to be supportive of that.

General BERGER. Sir, I remember seeing you out there. It was a pretty amazing show——

Mr. BYRNE. Yeah.

General BERGER [continuing]. And demonstration of kind of all the capabilities in the Pacific.

I think to your point, sir, the capacity part of 30–A we discussed earlier. But one lens that we use, perhaps useful to look through.

In terms of how useful are amphibs in the world we live in now and the world we are going into, I think you can boil it down into three areas. One is the steady-state operations around the world. That is deterrence and ability to react. Second, a global cost imposition strategy if we are forced to fight. And, third, the ability to project the force from the sea and sustain that force from the sea if you are told to do so. Nothing else does that that I have seen so far other than an amphibious force.

Mr. BYRNE. Thank you, gentlemen.

I yield back.

Mr. COURTNEY. Great. Thank you, Mr. Byrne.

Next up is Mr. Cisneros.

Mr. CISNEROS. Thank you, gentlemen, for being here this afternoon.

Secretary Geurts, the Navy, I believe, currently has 289 ships, and we have a goal of getting to 355. Through testimony we have had in earlier weeks about manning issues on Navy ships, the Navy has a shortfall of 6,500 people. If we are going to get to 355 ships, what are we doing to get more sailors? Ships need sailors. How are we going to be able to man these ships?

Secretary GEURTS. Yeah, I will maybe start with that and ask Admiral Merz to chime in.

One of the things you have noticed in the shipbuilding plan over the last two cycles is broadening out from more than just the construction of ships and starting to look at both the cost to maintain them and the people to man them and be efficient in there. And that is something we are going to have to continually go after. You are seeing some manning changes in this year's budget. We still have work to go.

Part of the other thing Admiral Merz and I worked on very closely in this year's shipbuilding plan is smoothing the ramp. Before, it was a little bit jumpy, and that makes a hard manpower issue

almost impossible to work, because you can't work the transition between platforms.

And so we are doing all we can to be as efficient as we can, to take manning into account as we transition to this 355 Navy. We still have work to go on overall manning.

And, Bill, if you want to add anything.

Admiral MERZ. Yes, sir. Just real quickly, we are probably as equally proud of smoothing that ramp than the acceleration by 20 years, because it makes everything more executable.

Manpower is a funny thing. You touch the spigot; you have to wait around a couple years to see if you got the desired effect. This allows you to touch the spigot less frequently when you have a—it literally is a continuous ramp to 355.

Last year's shipbuilding plan highlighted a lot of historical examples of the damage of a boom-bust cycle of the shipbuilding plan. We revisited that history a little more in this shipbuilding plan, but we have already seen the effect of continuous funding over the cycle starting to naturally smooth out the ramps. And then with the service-life extensions, we are able to create the macro ramp up to 355 gradually and persistently. So the enabling accounts are going to be in a much better predictive posture to support the 355.

Mr. CISNEROS. And how exactly are we going to ramp that up? I mean, is it just more recruiters? Bigger bonuses?

Admiral MERZ. Sir, I would tell you and Admiral Burke would tell you that we have already ramped up. Now it is just staying on that ramp between now and the predictive approach to 355 in 2034.

Mr. CISNEROS. Okay.

Second question. In testimony earlier today during a full hearing, Secretary Shanahan mentioned the decision to retire the *Truman* early could be revisited.

It was my understanding that retiring the *Truman* wasn't something that the Navy wanted to do. And I know from earlier testimony, as well, from some of the commanders that that is not something they want. They want carriers out there. They want to be able to have that show of force.

What would it take to revisit that and to basically change that decision so that we keep the USS *Truman*?

Secretary GEURTS. Yes, sir. The Navy fully supports the President's budget and the plan we brought over here. And, again, as we talked about, some pretty hard decisions in terms of trading off existing capability versus pivoting to some new capability.

Having said that, the real effort to buy the long-lead parts and all the things we need for the refueling wouldn't start until next year. And so we have this year to continue those analyses, continue the debate, and understand whether that technological is going to have merit in terms of that transition versus the capability we currently have with the *Truman*.

Mr. CISNEROS. All right.

I yield back my time.

Mr. COURTNEY. Thank you, Mr. Cisneros.

And now up is Mr. Moulton.

Mr. MOULTON. Gentlemen, thank you very much for being here today.

Admiral, I would like to ask you about the Navy FSA. Keeping in mind that the Navy will complete another FSA sometime this year, I will use the 355 number that has been around for the last year or so.

Why have we not included USVs [unmanned surface vehicles] and UUVs [unmanned underwater vehicles] in our force structure analysis? In other words, why are we just looking at the traditional ships of the United States Navy rather than unmanned systems, which are clearly going to be such an important part of future warfare?

Admiral MERZ. Yes, sir. We discussed earlier about the added complexity to this next FSA, and that is one of them. We are going to account for these capabilities.

The threat vectors have already told us we need to do these things. The FSA will give us more clarity on how many of them ultimately we are going to need. And it is not just the FSA. We have done, starting with the three directed studies by Congress in the authorization act of 2016, and every study since then, has identified these capabilities as being force enablers that complement the battle force.

We have already rolled them into war games. We have done some limited real-world operations with them, including the fight to Hawaii of our unmanned surface vessel. So they are very much a part of the calculus now in this upcoming FSA, and you are going to see a requirement coming out for them.

Mr. MOULTON. So what is the—I mean, obviously, this is a new weapons system that is just coming online. What do you anticipate to be the tradeoff between unmanned ships, whether they be surface or underwater, and the traditional ships that you have in the Navy?

Admiral MERZ. Sir, one of the persistent questions are when are these things going to start replacing battle force ships. So this is where we have to be very pragmatic on our approach.

Yes, we are moving out very aggressively on developing the capability. And, yes, we are probably pumping the brakes a little bit on when these things are actually going to replace ships until we get them out there, test them, and see what they can do. Can they get through a typhoon? Is the policy going to allow us to use them? Separating humans from weapons—a lot of things have to come in line before we start counting them as battle force ships.

So right now we are looking at them as enablers. As we field them and use them and better insight on their true capability they bring, very evidence-based like——

Mr. MOULTON. That is a totally reasonable answer, and, I mean, I don't disagree with it in principle. But, I mean, how soon are the Chinese integrating these types of ships into their Navy?

Admiral MERZ. I can't really comment on that. That is an intel assessment. I know they are working on it as well. But whether we integrate them or use them as adjunct enablers, the capability is still coming online.

Mr. MOULTON. I mean, just as—you know, a RAND report on Chinese drones released in 2017 found that Beijing is funding at least 15 different university research programs into unmanned undersea and surface vehicles, with a particular emphasis on UUV

projects. Russia has begun sea trials of the long-range UUV capable of carrying a nuclear warhead. In October 2016, the U.K. and France announced that they had awarded a $164 million contract to a group of European defense firms to develop a UUV for mine countermeasures.

This year's request for small and medium UUVs is $40 million. Explain how we are going to compete, with such an incredibly small investment.

Admiral MERZ. Well, this year's investment is actually about $450 million, and we have $3.7 billion in the FYDP. So this is kind of——

Mr. MOULTON. Okay. So maybe I have the wrong number. It is $450 million.

Admiral MERZ. This is the essence of, you know, why we are shifting to these investments and the diversity of these investments. A huge shift for us in this particular budget.

Mr. MOULTON. So if this is a huge shift, then why are we still fixated on this 1980s vision of a 355-ship Navy? I mean, why does that number even have any relevance today if some of these things are going to be coming on in the next few years, long past the lifetime of the ships that we are building to meet this 355 number?

Admiral MERZ. Yes, sir. So we think it is completely relevant. And I would probably have to get with you and walk you through the analysis of how we construct the FSA and how these capabilities will both enable and——

Mr. MOULTON. But, I mean, you would agree that using a sort of 1980s type of measure for the strength of the Navy is not really relevant if you have different capabilities today. I mean, it is not like we are talking about, you know, how many, you know, square-rigged frigates that we need in the Navy.

Admiral MERZ. I would agree if that is what we did, but we use a much more current assessment model and wargaming and experimentation model to determine the composition of the battle force.

Mr. MOULTON. Okay.

Secretary GEURTS. Sir, if I could just add?

Mr. MOULTON. Yes, please.

Secretary GEURTS. If I could just add, you know, I would say it is similar to aviation. I don't know if I view it as an either/or. It is going to be an either/and. And when we have this working right, both capabilities will complement each other versus——

Mr. MOULTON. No, look, I totally—I love either/and, and you won't meet a service chief who doesn't love either/and. But sometimes in budgeting you have to do either/or. And, you know, these tradeoffs are what we have to get to the heart of with this discussion.

Secretary GEURTS. Yes, sir.

Mr. MOULTON. Thank you.

Secretary GEURTS. I think you saw the Navy make that hard tradeoff by decommissioning the *Truman* early. And that was a hard tradeoff we made in this budget cycle.

Mr. MOULTON. Well, I would not be quick to disagree.

Thanks.

Mr. COURTNEY. Thank you, Mr. Moulton.

So, now that we have no votes ahead of us, you can't leave. Sorry. And we are going to, I think, do a second round and, again, welcome all the subcommittee members to join in.

I just had a couple quick follow-ons just, you know, from the first run-through which I just wanted to go through quickly, which is, again, we haven't really talked much about the Fast Frigate Program. I just wanted you to confirm for the record that program and planned contract award is proceeding on schedule. Is that——

Secretary GEURTS. Yes, sir. We released our draft RFP [request for proposal] a few months early, and we are on it or ahead of our schedule for the full RFP in the competition.

Mr. COURTNEY. And so the RFP is sometime in this calendar year, 2019?

Secretary GEURTS. Yes, sir. We originally planned to draft the RFP in June. We released that in March. So we are taking all the inputs from our potential competitors, and we intend to put the RFP and start the competition out this summer, well ahead of our plan by the end of the fiscal year. That will position us well to make that award next year and award the first frigate as proposed in the 2020 budget.

Mr. COURTNEY. Great. Thank you.

And so the unfunded priorities list came over, and one item that sort of jumped off the page to our subcommittee was the funding for the *Boise* and *Hartford* avails [maintenance availabilities] are on the unfunded list.

Again, you know, there has been a lot of talk about, you know, them being kind of in the queue for an awful long time. Could you just sort of explain why that is showing up on that list?

Secretary GEURTS. Yes, sir. And, you know, obviously, submarine maintenance—we have talked about the criticality of submarines. Submarine maintenance is something we are really working on hard. We do not have all the capacity in the public yards or the private yards to get after that, so it is not—again, not an either/or. We need both of those working well against this.

We have seen improvement on the public yard in terms of reducing idle time and buying back maintenance stays. Right now, we have two—actually, now, three subs that are in idle time, awaiting to get in, *Boise* one of them.

The challenge with *Boise* has been delays we have seen with the other submarines in the private yard maintenance. And, quite frankly, we just can't get *Boise* in until we get the current submarines in the docks at Newport News out.

That slipped *Boise* into 2020. We had planned to do it this year. That slipped it into 2020. That occurred after the 2020 budget was put together. That is why it showed up on the unfunded list.

We have a burn-down plan, in terms of months of idle time, that we are driving to reduce that backlog by 2023 so we have no ships with any idle time. That is our goal. We have a burn-down plan to get there.

We are better than we were, but we are not where we need to be yet, in terms of having ships with idle time—i.e., not certified, waiting to get into maintenance. We have a lot of improvement on maintenance delays on the back end but still have some work to go there, particularly with our private yard partners.

Mr. COURTNEY. And the *Hartford*? The USS *Hartford* also was on that list.

Secretary GEURTS. Yes, sir. And, again, that is more of a shortfall of—we have talked about having that one, again, go to the private yards. Our original plan was not to have that in the private yards. And so, similarly, unfortunately, those are private yard—if we don't have it funded properly when we do the budget year as a private yard avail, then that causes us to have an unfunded requirement that we have to deal with.

Mr. COURTNEY. Okay. Thank you.

And, lastly, you know, regarding the funding for the third sub, which we discussed earlier, I mean, if those funds are deferred as a part of any final budget result, you know, does that sort of put that at risk in terms of, again, trying to find that sweet spot in 2023 that you described earlier?

Secretary GEURTS. Yes, sir. I mean, this is somewhat of a unique time, because we can fold it in. As we get later in the 2020s, you start to run up against *Columbia,* causing problems as we grow to *Columbia.*

And if I can go maybe circle back to the other issue, we have seen some overruns on the private yard maintenance. Some of the dollar adjustments you see in *Boise* was we had to slip the availability. Some of the lesser dollars were more that we have had overruns in the current availability, which are slipping into 2020.

Mr. COURTNEY. Right. Thank you.

Mr. Wittman.

Mr. WITTMAN. Thank you, Mr. Chairman.

Lieutenant General Berger, I wanted to touch base with you on some issues involving our amphibious fleet. And thanks for the great work you are doing there at Marine Corps Combat Development and Integration. I know lots of challenges, looking what the future force will be and what the needs are there.

I want to look at where we are today. We are at 33 ships going into 2020, as far as the components of amphibious ships within the fleet. The requirement is at 38.

If you take a little bit deeper look under the hood, you heard Representative Byrne's comments about one of our amphibious ships not being available, so the issues of maintenance and the readiness state of our amphibious ships also becomes an issue.

If you look at a 30-year shipbuilding plan, you see no large-deck amphibs there, as far as time-wise, in order to meet that component of the requirement and where we would need to be. And this year's budget request, we see no amphibious ship request, no amphibious connectors.

So there is some concern about, you know, where are we going to be with the necessary capability within the Navy for our Marine Corps operations. And I wanted to get your idea and your best professional military judgment.

Do you believe the current track will impact the Marine Corps' capability of doing amphibious expeditionary operations in a contested environment?

That, I think, is going to be a significant capability that is necessary there in the future no matter what scenario you look at,

manned versus unmanned. I know that you all look at all these different scenarios.

But I wanted to get your best professional military judgment about where we are on the current track with the total composition of the amphibious fleet, the composition of large-deck amphib, and the composition of what you believe you need to prosecute the efforts that you will undertake if we find ourselves having to do amphibious operations in a contested environment.

General BERGER. Thanks, sir.

The impact on the industrial base, I will ask if Mr. Geurts has any comments there.

On the operational side, which was the point of your question, under the hood, as you described, sir, under the 38 is 12 big-decks, then 13, and then 13.

And that type/model/series, that breakout is based on the 2016 force structure assessment. And I don't know how the 2019 will look. It could go north also, because 2016 was before the National Defense Strategy, before the Defense Planning Guidance, and before the National Military Strategy.

It was frustrating at Pearl Harbor watching that ship be pierside when all the other countries pull out with their ships. And that is a very capable ship. It was just really frustrating. I know the Congressman was frustrated when he saw it happen also.

But, frankly, sir, part of that is our fault. Part of that is, when we rode the force hard and deferred maintenance and did that again and again, it didn't just affect the condition of the ships as you hit that; it also sent messages to the industrial base where we were all over the map in terms of our maintenance.

So just like our cars, if we don't change the oil on time, we are going to pay a bigger price later. We have to do them on time. We cannot defer maintenance. We took risk in that consciously, deliberately, but now we cannot afford to do that.

Right now, based on the requirement, we have got to have 12, 13, and 13. And they have got to be ready to go, with the right systems on board.

Mr. WITTMAN. Very good.

Let me ask you to elaborate a little bit. Of course, you talk about how much risk is accepted. If we found ourselves today having to operate doing amphibious operations in a contested environment, would the Marine Corps be capable of prosecuting that fight? And if so, how much risk are we taking on?

Because you talk about the capabilities that do get limited by maintenance availabilities, the ships that are on call, available to go tonight.

General BERGER. This morning, I looked at the availability of the amphibs, as I am sure other folks do too. This morning, I think it was 19, perhaps, out of 32 that were ready to go. I think over time that will climb, just like aviation does, as we reset the force that we—the maintenance that we deferred for a decade and a half.

But the risk—probably two parts, real quickly, sir. One is, the way we think we will need to fight—and we are talking expeditionary advanced base operations and distributed maritime operations—that is a vision for where we will need to go and compete

and win. The force we have this afternoon, while we are sitting in here, will not do that to the degree we need it to.

So the risk, to your point, operationally, tactically, it takes you longer. You don't have the capabilities that you need for the commander to pull off the missions in the way that he wants to do it, so his choices are constrained. And, lastly, the reliability. When you need the availability of your ships, you need to know what you have.

Mr. WITTMAN. Yeah. Thank you.

I wanted to thank you, too, for the great job you are doing there at MCCDC [Marine Corps Combat Development Command] and also for your family's legacy of service, with your dad, who we all know well, also a Marine. So thank you so much for your family's legacy of service.

Secretary Geurts, I just want to circle the square here with all that we have heard. It is great to talk about 355 ships, building new ships. And we even talk about the manning of those ships, having sailors. But one of the things, too, that is critical, the Navy has just come out with this 30-year ship maintenance program.

And I think, as we have seen this theme come up, with not doing the RCOH, the refueling complex overhaul, on *Truman,* we see the delays in maintenance on amphibs, we see what is happening with the *Boise,* who is going to be tied up at the pier for another year, we see the demand signal for subs, I want to make sure that at the top of the list for the Navy is that sustainment element of making sure that we are not extending these maintenance availabilities, that maintenance availabilities are kept.

The 30-year ship maintenance plan, I would argue, becomes as important, if not more important—you are never going to get to 355 if we don't maintain the ships that we have.

So I don't expect a comment back, but I just want to emphasize how extraordinarily important that is. You know, it is nice to talk about building new. It doesn't make the headlines to talk about maintaining what we have. But if we are going to have the capability necessary to counter our adversaries—you have heard this theme among every class of ship today—we don't get anywhere to where we need to be, whether it is requirement in different ship classes or the overall requirement, we do not get there if we do not really ramp up our efforts on the ship maintenance side and make sure, too, that we look at everybody, the public yards and the private yards, as partners in that effort. Seeing some things develop into adversarial relationships have not been good for where we find ourselves today.

So I urge you to make sure that that is at as an important a level as shipbuilding and the manning components of what we have talked about today.

Secretary GEURTS. Yes, sir. It is actually the number one piece on my job right now.

As you say, we still have work to go on new construction. We have a lot of work to go on this sustainment, getting at affordable, getting at reliable, and getting at credible, so fleet commanders have confidence that we will get ships in and out when we say we are going to get them in and out, so that they can go plan operations and be ready to go. It has my number one attention.

The committee's adding sustainability to my job jar helped emphasize your point greatly. And I take that very seriously.

Mr. WITTMAN. Right. In on time, out on time. Very good.

Thank you, Mr. Chairman.

Admiral MERZ. Sir, if I may——

Mr. WITTMAN. Yes, please.

Admiral MERZ [continuing]. Just kind of reinforce my Marine brother at the end of the table here on Navy's commitment, as well, to the amphib fleet.

We were very motivated to accelerate the LHA [large-deck amphibious assault ship] for a lot of reasons, notwithstanding that warfighting is number one, but also just the program on where that ship is going to be piling up on other procurement programs.

But the sustainment piece is big. I mean, all three of us here, it drives our day. If you recall, the committee directed us to comment on sustainment in this year's shipbuilding plan, so we added an appendix to talk about the challenge of not just today for a 300-ship Navy but what is it going to look like for a 355-ship Navy.

So we are with you 100 percent on that and the maintenance plan, which is the partner in that sustainment plan as we are going forward.

Mr. WITTMAN. Very good. Thank you.

Thank you, Mr. Chairman. I yield back.

Mr. COURTNEY. Thank you, Mr. Wittman.

Congresswoman Hill.

Ms. HILL. Hello, and thank you. My brother is a future sailor who is going off to BUD/S [Basic Underwater Demolition/SEAL] imminently. So thank you for your service, and I look forward to being part of the Navy family.

I understand that the average age of the sealift fleet is very old and it is not a large fleet. What investments do we to need to make in order to make sure that our warfighters can respond on time to a large-scale hypothetical crisis situation in either the Korean Peninsula or the Baltic States?

Secretary GEURTS. Yes, ma'am. I will start out with that, and, again, either of my partners can jump in from a warfighting capability.

So that is absolutely critical and, quite frankly, not something we had paid as much attention to as we needed to in the past, both keeping our current Ready Reserve Fleet modern and ready to go as well as thinking about the challenges ahead.

For the current fleet, we are looking at kind of a three-prong attack, using the authorities that Congress has given us to procure some used ships as kind of an immediate stopgap. We have one programmed in 2021 and then another one in 2022. And then looking at a lot of service-life extensions to extend wherever we can the service life. And then, finally, a new procurement towards the end of the budget year.

That is kind of on the traditional side. I think maybe Admiral Merz can talk about some of the nontraditional logistics, kind of the distributed piece, because we not only have to fix the long-haul big kind of moving the Navy and the Marine Corps and the Army, quite frankly, around; it is also kind of the tactical logistics in a very distributed manner that is going to be a challenge.

Admiral MERZ. Yes, ma'am. It turns out the actual lift portion, the requirement is fairly stable. We just have to recapitalize that fleet. It is literally decaying out from underneath us. So, partnering with Secretary Geurts, we are very committed to that three-pronged approach.

Where the requirement looks to be growing is, when you are in a peer competition and you are a forward-deployed Navy, the ability to push these logistics to the fighting force while they are fighting is an area that we are looking at very closely. And it is really just that distributed, lighter fast force that we are going to see likely a requirement growth.

So, across the board, as we say, in the off season, this has captured a lot of our attention to study our logistics, because it is the sustaining factor for a forward-operating Navy.

Ms. HILL. Thank you.

I yield back.

Mr. COURTNEY. Great. Thank you.

Well, Rob, last call?

Jared, you are all set?

Okay. Thank you.

So thank you all for being here.

You know, one comment I wanted to make regarding Mr. Cisneros' question regarding the manning, and it sort of may be relevant to Congresswoman Hill. During the break, I was out at Great Lakes Naval Training Center and, you know, saw the work that is being done there about, you know, creating the sailors and officers that we need to man a larger Navy. And Admiral Bernacchi is doing just an outstanding job. The, you know, quality and enthusiasm was just—it was unbelievable, just sort of seeing what is going—and the size of what is going on there.

So, you know, to your point, Admiral Merz, that, you know, really, the Navy is very much focused in terms of that whole issue of manpower. It is real, I mean, and certainly, you know, I had a chance to get a glimpse of it.

Anyway, well, thank you all for your testimony here today. I am sure there will be some followup questions as we get closer to the markup.

And, with that, I will close the hearing.

[Whereupon, at 4:01 p.m., the subcommittee was adjourned.]

A P P E N D I X

MARCH 26, 2019

PREPARED STATEMENTS SUBMITTED FOR THE RECORD

MARCH 26, 2019

Opening Statement
Joe Courtney, Chairman
Seapower and Projection Forces Subcommittee Hearing
"Department of the Navy FY20 Budget Request for Seapower and Projection Forces"
26 March 2019

The Seapower and Projection Forces subcommittee meets this afternoon to hear testimony on the Department of the Navy's Fiscal Year (FY) 2020 budget request. Before us today to discuss that request are Assistant Secretary of the Navy for Research, Development, and Acquisition James Geurts, Deputy Chief of Naval Operations for Warfare Systems Vice Admiral Bill Merz, and Deputy Commandant for Combat Development and Integration Lt. Gen. David Berger.

The Department of the Navy's budget request for FY20 is a reflection of the collaboration and "productive disagreement" between the Navy and Congress about the future of our naval forces. In previous years, this subcommittee has been presented budgets which did not address force structure requirements in a meaningful amount of time or did not achieve them at all within the time horizon of the thirty-year shipbuilding plan. Accordingly, this subcommittee has worked to find efficiencies and savings to ensure that we are keeping pace with retirements and working towards a force structure of 355-ship navy.

For example, the Navy has now fully embraced the two-carrier buy which this subcommittee authorized in last year's defense authorization. The projected savings from this approach have only grown since originally proposed and are now estimated at more than $4 billion. Those are significant savings which we can drive into other programs and have the added benefit of supporting the carrier industrial base providing consistency and certainty into the program.

I am particularly heartened that the Navy and the wider Department of Defense have included funding for a third Virginia-class submarine in the FY20 budget. This subcommittee has worked for two years on making that increase in our submarine procurement a reality in order to meet the urgent demand for undersea forces that we have heard from our combatant commanders. We authored language in the FY18 NDAA to include multi-year procurement authority above the two per year build rate — language which was signed into law in both the final FY18 NDAA and in FY18 omnibus appropriations act. The subcommittee last year included both authorization for funding a third Virginia-class submarine and a requirement that the next block contract include options for additional submarines. The attack submarine force will face one of the deepest and most prolonged shortfalls from its requirement over the next three decades and increasing procurement is critical to mitigating that shortfall.

With this budget, we are also beginning to see future procurement programs come into greater and much needed focus. The Columbia-class program enters its final year before procurement, and increasingly utilizes tools that this panel has

provided through the National Sea-Based Deterrence Fund to ensure that we keep this vital program on track. The request includes funding for the first future frigate for which the Navy intends to sign an initial contract in FY20. I know that the schedule to transition from the Littoral Combat Ship to frigate has been aggressive, but I am glad to see that the plan for this year is moving ahead expeditiously and on schedule.

As with any budget request, however, there will be questions and concerns which this subcommittee will continue to have and will influence the defense authorization bill we ultimately draft. I strongly disagree with the Navy's decision to forgo refueling for the USS Harry S. Truman, given both the Navy's own stated force structure requirement and the statutory mandate to sustain a twelve carrier fleet, and I know that some will have questions about the procurement of amphibious ships in this budget request. I also have concerns about the acquisition plan for unmanned surface vessels – which is funded through a research and development account and long before we have a solid understanding of the operational concepts in which they will be employed. Similar initiatives have been pursued in the past that did not serve the Navy well.

And while manpower issues do not fall under the jurisdiction of this subcommittee, I am glad to see the Navy addressing the reality that we must have a sufficient number of Sailors to man the fleet we are building. I had the opportunity earlier this month to address a graduating class of 759 Sailors at Great Lakes Naval Station and thanks to the leadership of Admiral Michael Bernacci, Captain Erik Thors, and all of the personnel at Recruit Training Command, I know that we will continue to produce the best Sailors in the world. Our role will be to make sure we provide the ships, submarines and aircraft they need to fulfill the goals they joined the Navy to accomplish.

With that, I would welcome any opening remarks from Ranking Member Wittman.

Opening Remarks of the Honorable Robert J. Wittman
for the
Seapower and Projection Forces Hearing
on
Department of the Navy Fiscal Year 2020 Budget Request for
Seapower and Projection Forces

March 26, 2019

I thank the gentleman for yielding, and I want to thank Secretary Geurts, Vice Admiral Merz and Lieutenant General Berger for participating in this posture hearing.

I spoke at our last subcommittee hearing about our new National Defense Strategy and our defense policy pivot that accentuates great powers competition. I think this new strategy has been a long time coming, and I am glad to see that we have acknowledged this strategic race. However, we also must acknowledge the nature of warfare and our nation's expectation that we will not fight a future conflict in our homeland or near our coastline. Rather, our citizens expect us to project power to distant shores and bring the conflict to the shores of our enemies. This future conflict will not be like the conflicts of the past where we had time to amass forces at our will and choose the time and place of our intervention. Future conflict will rapidly escalate and involve the forces that are already forward based. This rapid escalation will include some additional forces located in the United States that are rapidly able to surge forward in a very short timeframe. It will require a prompt strike capability to include cyber, space, and electromagnetic spectrums. In essence, forces that take time to generate may be necessary to support our national security, but they do not support great powers competition or our national strategy. Fast, lethal, and forward deployed are watch words that we should use to grade the entirety of the defense budget request.

To this end, I think the administration has done a good job in forwarding this defense strategy of great powers competition with the new budget request. The budget strategy acknowledges that submarines are essential to early conflict and includes a request for a third Virginia-class attack submarine. The budget supports an expansion of our forward deployed forces to include the rapid attainment of the 355 ship Navy by 2034. Moreover, the budget makes efficient use of our industrial base to accomplish our strategic objectives by including a third destroyer and continued support for a two-carrier block contract that will save almost four billion dollars.

However, this budget request is not without fault nor does it measure entirely well against my watch words of fast, lethal, and forward deployed. I think there are two principal issues that I find particularly wanton to include a recommendation to retire the USS Truman (CVN 75) a full twenty-five years before the end of its service life and the continued lack of resources to support of our surge sealift requirements.

As to aircraft carriers, Navy has assessed, and the joint staff has validated, that our nation needs twelve aircraft carriers with the capability to deploy five aircraft carriers in the timeframes necessary to deter aggression and meet great power competitors. That is why I am perplexed with the budget recommendation to retire the USS Truman early. Combatant commanders have been unanimous in their assessment that they do not receive enough aircraft carriers in peacetime and Navy has indicated that the existing force structure is insufficient to deliver power in times of conflict. This short sighted, budget driven recommendation provides us a false choice between Navy priorities. The reality of future conflict requires that we retain and modernize this essential piece of our naval architecture.

As to our surge sealift, the budget request continues to support an antiquated surge sealift force whose average age today is 44 years. It is great to have a lethal Army and Marine Corps, garrisoned in the United States. However, if they can't get to the future conflict in the right timeframe, so what? It is not surprising that our Commander, U.S. Transportation Command, General Lyons has as his number one priority is this important force structure. There is no doubt that we need to rapidly modernize this decrepit surge sealift force structure.

In the end, I think that budget request is a good step toward delivering the capabilities associated with our new national defense strategy. Yes, we have a number of issues that need to be addressed in this budget request and, with the Chairman's support, I think that we will better shape the administration's request to make our military more fast, lethal, and forward deployed.

I thank the Chairman for organizing this important hearing and I yield the balance of my time.

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

STATEMENT OF

THE HONORABLE JAMES F. GEURTS
ASSISTANT SECRETARY OF THE NAVY FOR
RESEARCH, DEVELOPMENT AND ACQUISITION ASN(RD&A)

AND

VICE ADMIRAL WILLIAM R. MERZ
DEPUTY CHIEF OF NAVAL OPERATIONS
FOR WARFARE SYSTEMS (OPNAV N9)

AND

LIEUTENANT GENERAL DAVID H. BERGER
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

THE DEPARTMENT OF THE NAVY FISCAL YEAR 2020 BUDGET REQUEST FOR
SEAPOWER AND PROJECTION FORCES

MARCH 26, 2019

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

Chairman Courtney, Ranking Member Wittman and distinguished members of the Subcommittee, thank you for the opportunity to appear before you today to address the Department of Navy's (DON) seapower programs. A lot has happened since the Navy last appeared before this Subcommittee, and we are excited to talk about the accomplishments of the workforce, the systems, and the processes that form our Navy and Marine Corps team.

First, thank you for the timely approval of the Fiscal Year (FY) 2019 Department of Defense budget. On-time receipt of FY 2019 authorities and funding enabled the DON to expedite delivery of lethality, readiness, and cost savings through our ability to negotiate and award contracts earlier than planned. Such continued support by this committee and the Congress will ensure that the DON can execute our strategies with confidence, while providing the predictability to our industry partners that is critical to our joint success. Based on the stability afforded by a timely budget, our naval forces are on the right vector and, looking forward, remain focused on accelerating to scale in support of the National Defense Strategy.

The Navy and Marine Corps continue to face a dynamic strategic environment that is becoming ever more sophisticated, quickly evolving, and pushing the envelope of conventional technology. As detailed in the 2017 National Security Strategy and 2018 National Defense Strategy, in order to retain and expand our competitive advantage, it is imperative that the Navy proactively works to meet these challenges – and does so with a sense of urgency. The Navy and Marine Corps must remain ready at any time to answer the call and compete on a global scale. It is together as partners that the DON, industry, and this Congress can meet our mission to provide the right balance of readiness, capability, and capacity coupled with budget stability and predictability. The Department is prepared to use all authorities and tools at our disposal to ensure the Navy can sustain and improve our Service as required by the National Defense Strategy.

The Fiscal Year 2020 President's Budget Request

As part of the Joint Force, the maritime dimension of the National Defense Strategy is to increase American naval power by building the *Navy the Nation Needs* and enabling our Marines to be lethal and resilient across all domains. The FY 2020 President's Budget is effective in funding the increasing force needed to get to the 355 battle force ship requirement identified in the 2016 Force Structure Assessment. This year's plan includes procurement of

55 battle force ships within the Future Year Defense Program (FYDP) and rebalances service life extensions to produce a steady ramp to the aggregate goal approximately 20 years sooner than last year's plan. This steadier profile provides a predictable forecast for supporting acquisition programs and reform efforts in shipbuilding, maintenance, and personnel management. The Navy program provides flexibility given the dynamic threat environments captured in the 2017 National Security Strategy, 2018 National Defense Strategy, and further exemplified in the Chief of Naval Operation's Design for Maintaining Maritime Superiority 2.0. and concepts such as the Marine Expeditionary Advance Base Operations Concept. The Navy is responding to this dynamic competitive environment by iterating our warfare analysis and will complete an updated Force Structure Assessment by the end of 2019. This year's budget request is designed to provide adaptability, while maintaining alignment in acquiring the correct mix of ships and capabilities across all phases of warfare. This approach is wholly reliant on stable and adequate funding; any condition for which the Navy must execute its plan under the Budget Control Act or a continuing resolution, poses risk in erasing the momentum the Department has gained and would certainly be detrimental to this balanced approach.

Today, the Navy has 289 ships in its battle force inventory compared to the 282 that were sailing last year at this time, and by the end of the fiscal year end the Navy will have 296 in the inventory of the battle force. The 30-Year Shipbuilding Plan remains focused on utilizing the three principles of shipbuilding: (1) steady, sustainable growth; (2) aggressive growth based on opportunity; and (3) Service Life Extensions. The plan puts the Navy on a path to 314 ships by FY 2024 and 355 ships by FY 2034. The FY 2020 President's Budget adds 12 more battle force ships with a total of 55 over the FYDP. The FY 2020 request represents the largest shipbuilding budget request in over 20 years and includes: three ARLEIGH BURKE destroyers; one guided-missile Frigate; three VIRGINIA Class SSNs; two T-AO refueling ships; and two T-ATS combined towing, salvage, and rescue ships. The FY 2020 request also accounts for the CVN 81 recently contracted with CVN 80 as part of a two-carrier buy. The plan promotes a stable and efficient industrial base that encourages industry investment in capital improvements, capital expansion, and a properly sized world-class workforce. By setting conditions for an enduring industrial base as a top priority, working together with Congress, the Navy is postured to aggressively respond to more investment in any year.

In conjunction with the shipbuilding plan, the DON has developed a new Long-Range

Plan for the Maintenance and Modernization of Naval Vessels. This plan complements the 30-year Shipbuilding Plan and Shipyard Optimization Plan and establishes the framework to effectively sustain our investments in today's fleet. It highlights the requisite development initiatives that will facilitate a more adaptable and reliable industrial base, while providing a foundation to support the workload forecasts of our industry partners. Tools like this are critical to the success of the Navy and will help us build a culture of continuous evaluation of the industrial base capacity and capability; enabling us to meet the requirements of well-laid plans and adapt to any surge demand if the situation arose.

As part of our enduring commitment to accelerating delivery of advanced capabilities to the warfighter in the most affordable manner, the Department continues its pursuits of acquisition and business process reforms. The DON is utilizing accelerated acquisition authorities previously provided by Congress to rapidly prototype and field innovative systems such as directed energy, missiles, and unmanned vessels.

The Department remains committed to the pursuit of strategically key capabilities and is continuously maturing our policies and processes to enable this progress. Streamlining contracting activities to optimize savings are seen in examples like the two-carrier buy resulting in $4 billion in savings, the DDG Multiyear Procurement (MYP) saving $700 million, and pricing options for the FY 2019 LCS that took advantage of the recently awarded FY 2018 LCS for over $60 million savings. Additionally, the Navy is currently negotiating two other multiyear contracts – for VIRGINIA Class submarines and Standard Missile-6 (SM-6) – that will save multiple millions more. The Navy will continue to use these, and other acquisition tools, to speed delivery of lethal capability to the fleet and at a reduced cost to the taxpayer.

As the DON accounts for a large percentage of the total domestic shipbuilding market, the timing of ship procurements is critical to the health and sustainment of the U.S. shipbuilding industry and has economic impact industry-wide. The growing logistics requirement in the context of Distributed Maritime Operations illuminates the challenges to recapitalize the auxiliary fleet, a key enabler for sustaining protracted medical, logistics, repair, command and control, and support missions. Because of industry dynamics over time resulting in an atrophied U.S. commercial industrial base, close partnering with industry and Congress is needed to recover the U.S. commercial market in order to competitively and affordably address the Navy's auxiliary shipbuilding requirement. Coincident is the review of the level of effort

needed to distribute logistics into a contested maritime environment following safe transfer by the logistics fleet – smaller, faster, multi-mission transports likely resident within the future battle force. The DON is committed to maintaining a healthy and robust industrial base in order to meet the Nation's future needs. The 30-Year Shipbuilding Plan encourages industrial efficiencies and recognizes the criticality of protecting workforce skills in the U.S. shipbuilding industrial base so that in the long-term it can remain cost effective and meet the demands of the 355-ship *Navy the Nation Needs*.

After 40 years of a progressively smaller Navy, as we reverse the trend and rapidly grow, the Department faces additional challenges due to the increasing sustainment and logistics costs associated with owning and operating a larger fleet. Consistent annual funding in the shipbuilding account is foundational to sustaining predictable workload and capacity. Equally important will be properly phasing the additional funding necessary to operate and sustain the new ships as they are delivered – the much larger fiscal burden over time. The Navy is partnering with industry to define and establish workable requirements and working with Congress to sustain predictable profiles. These supportive relationships will continue to promote efficiency through capital improvement and expansion, research and development, and sustainment of a world-class workforce.

Summary

It is imperative that the DON retain and expand our competitive advantage, as described in the 2017 National Security Strategy and National Defense Strategy. This budget recognizes the central role the US Navy plays in our National Defense Strategy, and includes the largest shipbuilding dollar request in over 20 years. Continued congressional support of the Department's plans and budgets will help sustain a viable industrial base of naval construction and repair, efficiently execute the National Defense Strategy, and ultimately ensure our military's capability, capacity, and readiness can continue to deliver superior naval power around the world, both today and tomorrow.

Thank you for your continued support of the Navy and Marine Corps and request your support of the FY 2020 President's Budget.

Programmatic details regarding Navy and Marine Corps capabilities are summarized in the following section.

U.S. NAVY AND MARINE CORPS SEAPOWER CAPABILITIES

Ships

Submarines

Ballistic Missile Submarines, coupled with the TRIDENT II D-5 Strategic Weapons System represent the most survivable leg of the Nation's strategic arsenal and provide the Nation's most assured nuclear response capability. Our nuclear deterrent must be modernized to remain credible – delay is not an option. As such, the COLUMBIA Class program remains the Navy's number one acquisition priority program and is on track to start construction in October 2020 and deliver to pace the retirement of our current ballistic missile submarines, deploying for its first patrol in FY 2031. To better align focus and resources and ensure successful delivery of this program to the Fleet, DON has established Program Executive Office COLUMBIA. Additional resources above the Navy's topline will be required for the Navy to fund serial production of the COLUMBIA Class SSBN and maintain its planned shipbuilding profile.

The FY 2020 President's Budget supports the funding required to continue lead ship design and advance construction activities with a plan to achieve a target of 83 percent design completion at construction start, as compared to the 43 percent at start of VIRGINIA Class. In September 2018 DON awarded the COLUMBIA Lead Ship Advance Procurement / Advance Construction and Long Lead Time Material contract to General Dynamics Electric Boat for $481 million. General Dynamics Electric Boat and Huntington Ingalls Industries-Newport News will procure component and commodity material based upon construction start and supplier lead times in order to support lead ship construction start in October 2020. The FY 2020 President's Budget request also funds Continuous Production of Missile Tubes. This effort supports procurement of Common Missile Compartment material for U.K. Dreadnought Class submarines being executed under the Polaris Sales Agreement. The award was coordinated with the VIRGINIA Class program to maximize efficiencies across the procurement of all large diameter tubes.

The Navy, the shipbuilders and related suppliers recognize that vigilance in the execution and oversight of the VIRGINIA and COLUMBIA programs is critical. In FY 2020 the Navy will continue to utilize the $225 million provided in FY 2019 for industrial base support to align shipbuilder-procured material procurements with COLUMBIA Class funding with funds budgeted for VIRGINIA Class and CVN for common components and vendors.

Additionally, the Navy is implementing Continuous Production on selected shipyard-manufactured items to reduce cost and schedule risk and help strengthen the industrial base with a focus on critical vendors. Advance Construction activities are set to start in June 2019 at General Dynamics Electric Boat and Huntington Ingalls Industries-Newport News to proactively manage schedule margin and reduce controlling path risks for COLUMBIA.

The Tactical Submarine Evolution Plan is the Navy's long-term procurement strategy for submarines and payloads that paces evolutionary submarine design plans and processes to maintain undersea dominance. The Navy will be building on past success by awarding a Block V MYP contract for 10 ships in FY 2019, with options for additional ships. Starting with the second ship in FY 2019, these submarines will introduce the VIRGINIA Payload Module and all Block V ships will have Acoustic Superiority. The FY 2020 President's Budget supports the required funding to maintain a cadence of two-per-year VIRGINIA construction established in FY 2011 with Block III. Additionally, the FY 2020 President's Budget includes a third VIRGINIA, which will be an option ship on the multiyear contract.

Aircraft Carriers

The aircraft carrier is the centerpiece of the Navy's Carrier Strike Groups and central to Navy core missions of sea control and maritime security. NIMITZ and FORD Class carriers will be the premier forward-deployed asset of choice for crisis response and early decisive striking power in major combat operations for the next half-century. FORD Class CVNs are the first major design investment in aircraft carriers since the 1960s, providing a 33 percent increase in sortie generation rate, 2.5 times electrical generating capacity and a reduction in manning of approximately 600 manpower billets over NIMITZ Class with a $4 billion reduction in total ownership cost per ship compared to NIMITZ Class.

The Navy continues to see progress in the testing of new systems aboard USS *Gerald R Ford* (CVN 78). As of this January, CVN 78 has completed eight underway events and conducted over 700 catapult launches and arrestments with Navy jets, including over a hundred launches and recoveries in one day on two separate occasions. These fixed wing operations were successfully supported by a number of aviation systems, while others will require continued refinement as they continue to support ongoing shipboard testing. CVN 78 Post Shakedown Availability/Selected Restricted Availability is ongoing, and work continues on Advanced Weapon Elevator (AWE) construction and testing along with Advanced Arresting

Gear reliability upgrades. The second of eleven AWEs was turned over to the ship's crew on February 14, 2019, and the joint industry and Navy team remain dedicated to achieving operational readiness of all elevators in the quickest manner. The *John F Kennedy* (CVN 79) is over 53 percent complete with launch planned in late 2019 and delivery in the fall of 2024. When compared to CVN 78, CVN 79 is performing at an 18 percent man-hour stepdown. In January 2019 the Navy awarded the Detail Design and Construction contract for *Enterprise* (CVN 80) and CVN 81 as a two-ship buy realizing savings in excess of $4 billion when compared to the Navy's single ship cost estimates.

The NIMITZ Class Refueling Complex Overhaul (RCOH) is key to both the maintenance and modernization of each carrier in support of the second half of its service life. USS *George Washington* (CVN 73) will be halfway through her mid-life recapitalization in this summer with re-delivery to the Fleet planned for summer 2021. The RCOH is refueling the ship's reactors, modernizing its capabilities, and repairing ship systems and infrastructure. The USS *John C Stennis* (CVN 74) RCOH advance planning began in August 2018 with execution contract award planned for early 2021. The FY 2020 budget eliminates the planned refueling of USS *Harry S Truman* (CVN 75) which was scheduled to begin in March 2024. This decision saves $3.4 billion in the FYDP, and saves more than $1 billion per year from operations, maintenance, manpower, and aircraft. These savings provide an opportunity for the Navy to invest in advanced and distributed systems that will shape future naval warfare to expand our competitive advantage.

Large Surface Combatants

The ARLEIGH BURKE Class (DDG 51) program remains one of the Navy's most successful shipbuilding programs with 67 ships delivered to the Fleet. The FY 2018-2022 MYP maximizes affordability and stabilizes the industrial base. These Flight III ships will provide enhanced Integrated Air and Missile Defense with the AN/SPY 6(V)1 Air and Missile Defense Radar (AMDR) and AEGIS Baseline 10. AMDR meets the growing ballistic missile threat by improving radar sensitivity and enabling longer range detection of increasingly complex threats. The program demonstrated design maturity through its successful completion of all developmental testing. AMDR is in production and on schedule for delivery with the first Flight III ships. The President's Budget funds the procurement for two ships as part of the MYP contract, plus a third Flight III DDG 51 that will be awarded as an option ship.

Complementing the DDG 51, the DDG 1000 ZUMWALT Class guided missile destroyers are optimally crewed, multi-mission surface combatants designed to provide long-range, offensive surface strike capabilities. The DDG 1000 ship continues to complete activation and test of its combat systems in its homeport of San Diego. DDG 1001 was commissioned on January 26, 2019, and is starting the process of combat system activation and test. Construction on DDG 1002 is over 83 percent complete at General Dynamics Bath Iron Works.

In the FY 2020 budget request, the Navy has budgeted $71 million of Research and Development funding for the Large Surface Combatant (LSC). These funds will be used to conduct additional conceptual refinement and preliminary design that will lead to a system requirements review in FY 2020. The LSC will be a new acquisition program that will leverage the DDG 51 Flight III combat system while identifying and evaluating the integration of non-developmental mechanical and electrical systems into a new or modified hull design, incorporating platform flexibility and growth opportunities to meet future Fleet requirements. The Navy intends to evaluate capability areas for integration into the initial LSC baseline that will result in increased flexibility and adaptability features allowing for more rapid and affordable upgrades over the ships' service life.

The Navy will continue to partner with industry to develop and refine requirements for the LSC over the next year. This joint effort will result in a stable requirements baseline and a ship that will have been designed for producibility as well as the flexibility noted above.

Small Surface Combatants

The 2016 Force Structure Assessment revalidated the warfighting requirement for a total of 52 rotationally-crewed small surface combatants, including the Littoral Combat Ships (LCS) and the future, more capable Guided Missile Frigate (FFG(X)). Since last year the DON has worked with industry to ensure full understanding of the requirements for FFG(X), mature design proposals, and seek areas to reduce overall cost and risk. Our requirements for the class are mature, and were approved by Joint Requirement Oversight Council on February 11, 2019. The Navy released a draft Request for Proposal (RFP) on March 1, 2019 - ahead of schedule - and will release the FFG(X) RFP for Detail Design and Construction in the fourth quarter of FY 2019. Having multiple offerors compete will ensure competitive pricing and enable the Navy to select the best value design.

The LCS program is funded for 35 ships, 17 of which have delivered. Of these, four are dedicated test ships, eight are Surface Warfare (SUW) ships, eight are Anti-Submarine Warfare (ASW) ships, and 15 are Mine Countermeasure (MCM) ships. The Navy is beginning to retrofit an Over the Horizon Weapon System (OTH WS) on all LCS for increased lethality. The award in May 2018 of the Naval Strike Missile contract for OTH WS brings a technologically mature weapons system and extends the offensive capability of the ship.

The Navy achieved Initial Operating Capability (IOC) of the final component of the SUW Mission Package (MP), the Surface to Surface Missile module. The Navy worked with the Director, Operational Test and Evaluation to improve the test design, employ best practices, and make data driven decisions. The team jointly delivered a fully compliant test outcome, while simultaneously reducing the number of developmental test and operational test raid events. As a result, the Department reduced costs while completing operational tests of the SUW MP two months early. The ASW Mission Package Pre-Production Test Article was delivered in November 2018 and ASW MP conducted end-to-end testing at the Navy's Atlantic Undersea Test and Evaluation Center in January 2019. All of the MCM Mission Package aviation systems have reached IOC and are being delivered to the Fleet. The modular nature of the Mission Packages enables the Navy to deliver these capabilities now, while continuing to mature the remainder of the systems. Additionally, the Navy continues to evaluate employment of the MCM Mission Package off of Vessels of Opportunity.

Amphibious Ships

LHA 6 AMERICA Class ships are flexible, multi-mission platforms and will replace the aging LHA 1 TARAWA Class ships and LHD 1 WASP Class ships. USS *America* (LHA 6) deployed as the centerpiece of AMERICA Amphibious Readiness Group/Marine Expeditionary Unit, while USS *Tripoli* (LHA 7) is expected to get underway for sea trials within the next few months with delivery planned for later this year. Fabrication has begun on 71 of 216 units that will combine to shape LHA 8 in support of FY 2024 delivery. LHA 8 will include a well deck to increase operational flexibility and includes a reduced island structure that increases flight deck space to enhance aviation capability. All LHAs will be F-35B capable.

The SAN ANTONIO Class (LPD 17) provides the ability to embark, transport, and land elements of a landing force by helicopters, tilt rotor aircraft, landing craft, and

amphibious vehicles. The future *Fort Lauderdale* (LPD 28) is 44 percent complete and planned for delivery in September 2021, while the future *Richard M McCool Jr* (LPD 29) started fabrication in July 2018. LPD 28 and LPD 29 leveraged many design innovations and cost reduction initiatives, including the first install of the Enterprise Air Surveillance Radar (EASR) on LPD 29, as the class transitions to the second flight of high-level capabilities. The Navy intends to place the first Flight II ship, LPD 30, on contract by summer of 2019.

The future amphibious force structure and composition will be evaluated as part of the larger ongoing Force Structure Assessment.

Auxiliary Ships, Expeditionary, and Other Vessels

Support vessels such as the Expeditionary Sea Base (ESB), and the Expeditionary Fast Transport (EPF) provide additional flexibility to the Combatant Commanders. ESBs are flexible platforms capable of hosting multiple mission sets with airborne and surface assets. The USNS *Hershel "Woody" Williams* (ESB 4) delivered in February 2018 and ESB 5 is scheduled for delivery in November 2019. ESB 6 and ESB 7 are scheduled for contract award in FY 2019, with delivery in FY 2022 and FY 2023, respectively. The Navy accepted delivery of the 10th EPF this past November. EPF 11 and EPF 12 are under construction with deliveries planned in FY 2019 and FY 2020, respectively. The final two EPF's have an agreement in place, and will award this spring with delivery planned in FY 2022.

The Combat Logistics Force (CLF) consists of T-AOE fast combat support ships, T-AKE dry cargo and ammunition ships, and T-AO fleet replenishment oilers. CLF ships fulfill the vital role of providing underway replenishment of fuel, food, repair parts, ammunition and equipment to forward-deployed ships and embarked aircraft, to enable them to operate for extended periods of time at sea. The KAISER Class (T-AO 187) fleet replenishment oilers will be replaced with the JOHN LEWIS Class fleet replenishment oilers, designated T-AO 205 Class. Construction of the first T-AO 205 started in September 2018 and construction of the second ship will begin in July 2019. The FY 2020 budget request includes two T-AO 205 ships.

The Department will begin construction this summer of a combined towing, salvage, and rescue (T-ATS) ship to replace the four T-ATF 166 Class fleet ocean tugs, which reach the end of their expected service lives in 2022, and the four T-ARS 50 Class salvage ships, which reach the end of their expected service lives in 2025. Two T-ATS are included in the

FY 2020 budget request.

While by law icebreaking is a Coast Guard mission, the Navy and Coast Guard established an Integrated Program Office in 2016 to rebuild the Nation's heavy icebreaking capability. The Navy is supporting the Coast Guard's efforts to recapitalize the heavy polar icebreaker fleet on an accelerated schedule. The Navy/Coast Guard team plans to award the detail design and construction contract this Spring to support delivery of the first Polar Security Cutter as early as 2023.

Ready Reserve Forces (RRF)

The Navy has begun the first steps in executing its sealift recapitalization plan called *Sealift that the Nation Needs* that was coordinated with the Office of the Secretary of Defense, U.S. Transportation Command (USTRANSCOM), and the Department of Transportation's Maritime Administration. This three-phased approach includes the Service Life Extensions of select Surge Sealift vessels, acquiring used vessels, and a new construction, common-hulled shipbuilding program. The Navy's long-term strategy recommends assigning new construction common hull vessels to the Maritime Prepositioning Force (MPF) as delivered, ensuring the Fleet has the latest capabilities to support employment across the full range of military operations. Existing MPF ships would rotate to surge, preserving capability and maintaining the requisite square footage to meet USTRANSCOM sealift capacity requirements.

Sustainment, Modernization and Service Life Extensions

The FY 2020 Long-Range Plan for the Maintenance and Modernization of Naval Vessels forecasts all in-service maintenance ship-class workloads required to sustain the fleet over the next 30 years as it grows to 355 battle force ships. The intent is to provide stability and identify shortfalls within the public and private new construction and ship repair industrial base. The four key enablers the Navy is addressing to efficiently maintain and modernize the Navy's growing fleet are: the industrial base capacity and capability, shipyard level loading, workforce training, and facilities investments.

The fiscal realities facing the Navy make it imperative to maintain our in-service ships to achieve their expected service lives and also extend the service lives through modernization efforts. The FY 2020 President's Budget includes funding for the modernization of four destroyers to sustain combat effectiveness, ensure mission relevancy,

and achieve the full expected service lives of the AEGIS Fleet. The Navy and industry are collaborating on innovative approaches to conducting modernization of cruisers and dock landing ships.

Service life extensions can be targeted, physical changes to specific hulls to gain a few more years, or a class-wide extension based on engineering analysis. The Navy has evaluated the most effective balance between costs and capability to be the class-wide extension of the DDG 51 class to 45 years and targeted refueling of LOS ANGELES Class attack submarines.

The Navy is implementing changes recommended from the Comprehensive Review that followed the incidents on USS *McCain* and USS *Fitzgerald*, including implementing common bridge designs and installing common equipment across the fleet. At the same time, the Navy is procuring and installing the Next Generation Surface Search Radar in as fast and efficient a manner possible. New ship classes, like the FFG(X), will be built from the ground up with this common capability.

Unmanned Vehicles

Unmanned systems continue to advance in capability and are anticipated to be key enablers through all phases of warfare and in all warfare domains. The Navy is using a Family-of-Systems strategy to develop and employ unmanned surface and undersea capabilities that augment and relieve stress on the manned force and increase the cost imposed on our competitors. In FY 2019 the Navy will commence low rate production of a modular Mine Countermeasures Unmanned Surface Vehicle (MCM USV) and issue an RFP for a medium unmanned surface vehicle (MUSV) to provide distributed sensing capacity to the surface force. The FY 2020 budget initiates the Large USV (LUSV) program to provide distributed lethality as a part of the Future Surface Combatant Force. In the undersea domain, the Navy has commenced fabrication of Orca Extra Large Unmanned Undersea Vehicle (XLUUV) and will soon complete the design of the Snakehead Large Displacement UUV (LDUUV). In FY 2020 the Navy will issue competitive RFPs for initial production of Snakehead LDUUV and Razorback environmental sensing UUVs, and production of Knifefish mine countermeasures UUV. In support of these new capabilities, the Navy is also investing in enabling technologies, such as artificial intelligence, machine learning, energy, and payloads, as well as establishing the interoperable standards and open architectures for

ease of technology transition. These technologies and standards are the foundation necessary to ensure integration and transition to the fleet using a disciplined approach.

The Navy has undertaken an aggressive approach through competitive prototyping in collaboration with industry to accelerate these new technologies utilizing the all the new authorities granted over the past few years such as middle tier acquisitions and acquisition agility legislation. This is affording the Navy the ability to prudently prototype, experiment, and demonstrate new capabilities prior to commencing with Programs of Record. Unmanned vessels are key elements in the future naval force and the Navy fully intends to leverage the progress to date to inform new concepts of operation, new means of integrating unmanned and manned vessels, and new capabilities afforded by these advances.

Combat Systems

The Department continues to field the most capable and lethal surface and submarine combat systems in the world. The AEGIS Combat System Baseline 9 has been fielded on cruisers and destroyers and continues to deliver unprecedented offensive and defensive capabilities, including offensive strike and ASW, and simultaneous air and ballistic missile defense on destroyers and Air Defense Commander capability on cruisers. AEGIS Baseline 10 will incorporate the AN/SPY 6(V) AMDR providing significant performance improvements over the AN/SPY 1D(V) radar and expanding the sensor coverage and enhancing the Navy's ability to perform the Integrated Air and Missile Defense mission. The Navy is leveraging the investment in AMDR to produce the EASR that will become the primary Air Search Radar for carriers, amphibious ships and the guided missile frigate. The use of a common design and support strategy will enable significant life cycle efficiencies in maintenance support, training, and overall cost for the Navy's primary surface ship radars.

The Department continues to aggressively pursue affordable systems that are employable from multiple platforms. Under the Surface Electronic Warfare Improvement Program (SEWIP), the Navy is replacing aging analog electronic warfare systems first fielded in the early 1970's with new, digital systems. SEWIP Block 1 and 2 systems are in Full Rate Production and continue to be installed across the fleet. The SEWIP Block 3 program completed its Milestone C in December 2018 and has begun Low-Rate Initial production of this new capability. The Navy continues to deliver enhanced surface Undersea Warfare capability through the AN/SQQ-89A(V)15 aboard cruisers, destroyers, and LCS Mission

Packages, and the Ship Self-Defense System provides ships with greater capability to defend against anti-ship cruise missile attack and supports a myriad of mission areas on carrier and amphibious ships.

The Navy continued to equip its submarines with the ever-evolving undersea combat system utilizing bi-annual hardware Technology Insertions on even years and software Advanced Processing Builds on odd years. This process leverages commercial off-the-shelf (COTS) technologies via the Acoustic Rapid COTS Insertion (A-RCI) program mitigates COTS obsolescence while providing more capability improvement at lower costs.

Weapons

Missile Programs

SM-6 missiles provide theater and high value target area defense for the Fleet, and with Integrated Fire Control, has more than doubled its range in the counter-air mission. SM-6 Block I declared Full Operational Capability in December 2017 and the Navy plans to award a five-year MYP contract for up to 625 SM-6 missiles this summer. The FY 2020 President's budget also includes funding for the upgraded SM-2 Block IIIC and the SM-6 Block IB missiles, both are rapid prototyping pathway middle tier acquisition projects. The SM-6 Block IB seeks to provide an extended range capability in response to Joint, Fleet and Navy Urgent Operational Needs.

The Evolved Sea Sparrow Missile (ESSM) provides another layer to the Navy's defended battle-space. ESSM Block 2 is on track to achieve IOC for AEGIS platforms in FY 2020 and Ship Self-Defense System platforms in the 2022-2023 timeframe.

The inner layer of the Fleet's layered defense is the Rolling Airframe Missile (RAM) designed to pace the evolving anti-ship cruise missile threat and improve performance against complex engagement scenarios. The RAM Block 2 successfully achieved a Full Rate Production decision in November 2018.

Offensive Missile Strategy

The Department previously developed and submitted a 'Cruise Missile Strategy' to Congress. This strategy delineated the Department's plans for supporting all cruise missile weapon systems such as Tomahawk, the Long-Range Anti-Ship Missile (LRASM), Harpoon, etc. and the development of future next generation weapons. Navy offensive strike systems,

however, consist of a broader family of current and future weapons. These weapons capitalize on key system attributes (e.g. speed, range, lethality, survivability, commonality) with a strong focus on delivering 'multi-domain' capabilities. Under this construct, 'Cruise Missiles' are a subset within the offensive strike weapons family. As a result, the DON has broadened the scope of the 'Cruise Missile Strategy' to include all non-nuclear offensive strike missiles with ranges greater than 50 nautical miles (i.e. the 'Offensive Missile Strategy' (OMS)).

The OMS construct supports a wider, more systematic approach towards delivering a capabilities balance to increase overall force effectiveness to address emerging threats. The DON will evaluate the OMS via an iterative process. The Navy will review existing and developing capabilities, leverage analytical processes/study updates, and assess threat/intelligence report updates to inform annual RDT&E and procurement funding priorities to achieve an optimal mix of offensive strike missile system capabilities.

Our current OMS construct has three pillars. First, the Department will sustain relevant weapon systems. Our objective is to preserve the readiness and capacity of our key strike weapons inventories. Secondly, the Department will pursue strike weapon capability enhancements. Under this initiative, the Navy will develop near-term capability upgrades to enhance existing weapons that provide critical improvements to our current long-range strike weapons capabilities (e.g. Maritime Strike Tomahawk (MST), new Tomahawk warhead (Joint Multiple Effects Warhead System (JMEWS)), LRASM V1.1, SM-6/Block 1B, and the Naval Strike Missile. Thirdly, DON will develop next generation strike missile capabilities to address emerging threats.

To fully inform Congress of next generation weapons development, the Navy has provided classified briefings to the congressional defense committees in order to communicate this approach in the proper forum.

Manned Naval Aviation

With the support of Congress, the Navy and Marine Corps continue to implement our "Vision for Naval Aviation 2025". This framework informs our Naval Aviation investment priorities across the triad of warfighting capability, capacity, and strategic wholeness; placing the right capability in the hands of the warfighter in the most affordable manner possible.

Airborne Early Warning Aircraft

The E-2D Advanced Hawkeye (AHE) is the Navy's premier carrier-based Airborne Early Warning and Battle Management Command and Control aircraft. The E-2D AHE provides Theater Air and Missile Defense capabilities and is a cornerstone of the Naval Integrated Fire Control system of systems enhancements.

The FY 2020 President's Budget requests $232.8 million in RDT&E to continue the Navy's modernization priorities, that include, Naval Integrated Fire Control development and test, Aerial Refueling, Theater Combat ID and National Technical Means integration, ALQ-217 Electronic Support Measures and Survivability updates, Cyber Protection, Counter Electronic Attack, Secret Internet Protocol Router chat, Crypto Modernization/Frequency Remapping, Multifunctional Information Distribution System/Joint Tactical Radio System Tactical Targeting Network Technology, Sensor Netting, and Data Fusion.

In the second year of what will be a 24 aircraft MYP contract covering FYs 2019-2023, the FY 2020 budget also requests $934.7 million in APN for four Full Rate Production Lot 8 aircraft and Advance Procurement for FY 2021 Full Rate Production Lot 9 aircraft.

Maritime Patrol Aircraft

The P-8A Poseidon combines the proven reliability of commercial 737 airframes with modern avionics, robust military communications, and advanced sensors and weapons to provide a range of advanced warfighting capabilities. P-8A warfighting capabilities include full-spectrum, wide area, cue-to-kill ASW; armed Anti-Surface Warfare and networked Intelligence, Surveillance, and Reconnaissance (ISR). Continued congressional support of the P-8A program also enables the planned recapitalization of the aging P-3C Orion aircraft fleet.

In FY 2020 the President's Budget request includes $1.2 billion for six new aircraft. It also includes $198.7 million in RDT&E for aircraft updates to include the addition of Networked Enabled Weapons capabilities, satellite communication updates, track management enhancements, and sensor fusion capabilities.

KC-130J

The KC-130J remains an exponential force multiplier for deployed Marine Air-Ground Task Force (MAGTF) success, bringing increased capability, performance, and survivability with lower operating and sustainment costs for the MAGTF. Today, the KC-130J is in high

demand as it provides tactical air-to-air refueling, assault support, close air support and Multi-sensor Imagery Reconnaissance capabilities in support of Special Purpose MAGTFs and deployed Marine Expeditionary Units with the lowest deploy-to-dwell in Marine Corps aviation at 1:1.5. Targeted improvements include aircraft survivability through advanced electronic countermeasure modernization and obsolescence upgrades to the Harvest HAWK ISR/Weapon Mission Kit. The obsolescence upgrade includes compatibility with additional Hellfire variants and an improved full motion video data-link. The FY 2020 President's Budget requests $28.3 million to upgrade the Harvest HAWK ISR/Weapon Mission Kit with the required modifications.

Tilt-Rotor Aircraft (USMC MV-22 Osprey and Navy CMV-22B)

Marine Corps MV-22 Ospreys currently have a permanent presence in INDOPACOM, CENTCOM, and EUCOM supporting crisis response missions for AFRICOM. At any point, there are no less than five MV-22 squadrons deployed. Marine Corps is planning to procure an additional 16 aircraft through a five-year multi-year procurement package (FY 2018-2022). The MV-22 readiness program, comprised of Common Configuration-Readiness and Modernization (CC-RAM) and nacelle improvements, is the MV-22 community's optimized plan to increase mission capable rates by 15 percent. The FY 2020 budget requests $115.6 million in RDT&E for continued MV-22B development and product improvements, $8.5 million to support advance procurement requirements and $315.3 million for modifications, of which $140.2 million is reserved for CC-RAM.

The Navy is continuing development of Carrier On-board Delivery (COD) mission aircraft. The COD replacement program is leveraging prior Department MV-22 investment to recapitalize the legacy C-2 Greyhound fleet with CMV-22B tilt-rotor aircraft. Navy's CMV-22B aircraft require modifications to the baseline MV-22 design to better suit this platform for carrier operations. Those modifications include, greater fuel capacity in the fuselage and wings to allow the aircraft to carry up to 6,000 pounds for a distance of at least 1,150 nautical miles, beyond line-of-sight high frequency radio, public address system, improved fuel jettison system, improved cargo lighting system and integration of Operations and Safety Improvement Program (OSIP) capabilities. The FY 2020 President's Budget requests $69.5 million in RDT&E for continued CMV-22B development, testing and product improvements; $985.3 million in APN

for procurement of 10 Lot 24 CMV-22Bs and long-lead materials for FY 2021 (Lot 25) aircraft; and $10.1 million for readiness and interoperability OSIPs.

The FY 2020 President's budget for the DoN V-22 program (MV-22 and CMV-22) requests $185.1 million in RDT&E, $993.8 million in APN for procurement of aircraft, and $325.4 million in APN for modification of aircraft.

CH-53K Heavy Lift Replacement Program

The FY 2020 President's Budget requests $516.7 million in RDT&E to continue the CH-53K Engineering Manufacturing Development phase and $1.0 billion in APN for procurement of six Lot 4 LRIP aircraft, including Advance Procurement and initial spares.

The need for a heavy lift replacement aircraft remains vital to supporting the Marine Corps in present and future warfighting concepts. In spite of the recent setbacks associated with the program's development – rate of closure in technical deficiencies – all of the technical deficiencies are solvable issues. To date, the CH-53K has flown more than 1,370 flight hours towards the completion of the program. It has also demonstrated the lifting of 36,000lbs and operational gear like the Joint Light Tactical Vehicle. During FY 2020, the program will continue to execute developmental test flights including propulsion qualification, initial shipboard qualification, aerial refueling, hot/high altitude testing, structural loads demonstration, window/ramp guns testing and fire extinguishing system development.

Unmanned Naval Aviation

The Department has placed a priority on the development and fielding of unmanned systems leading to a fully integrated manned and unmanned fleet. Unmanned technology will not replace our Sailors and Marines; instead it will unlock their full potential as the Navy integrates this technology within our total force structure.

MQ-4C Triton

The MQ-4C is a critical capability and capacity enabler in the Navy's Maritime ISR&T transition plan. Under this initiative, Triton fills a vital role for the Joint Forces Maritime Component Commander by delivering persistent and netted maritime ISR and furthers our plan to retire legacy EP-3E aircraft as MQ-4Cs are delivered to the Fleet. FY 2020 investments are aligned to deliver air vehicles and control station capacity to achieve an

IOC in FY 2021, continue our efforts to deliver five full Triton orbits to meet increasing warfighter ISR demands, and enhance MQ-4C capabilities.

The FY 2020 President's Budget requests $11.8 million in RDT&E to continue Triton baseline development activities; $202.3 million in RDT&E for Multi-INT modernization; and $493.3 million in APN for procurement of Lot 5 LRIP aircraft/spares, retrofit of the LRIP Lot 1 & Lot 2 aircraft to the Multi-INT configuration, and procurement of long-lead materials for Lot 6 LRIP aircraft.

MQ-25 Carrier Based Unmanned Aerial System (UAS)

The Navy is fully committed to unmanned carrier aviation. Reflecting this commitment, MQ-25 has been designated a Maritime Accelerated Acquisition Program with a requirement to deliver the Navy's first carrier-based UAS no later than 2024. MQ-25's primary mission is a carrier-based tanker to extend the range, reach, and lethality of the Carrier Air Wing (CVW). Its secondary mission is as an ISR platform. MQ-25 tanker aircraft will reduce the use of F/A-18E/Fs as mission and recovery tankers, freeing these tactical aircraft to execute their primary strike fighter mission and increasing strike fighter capacity within the CVW. A key MQ-25 enabler for CVW operations is the Unmanned Carrier Aviation Mission Control Station (UMCS) and its associated infrastructure.

The FY 2020 President's Budget requests $671.3 million in RDT&E to continue development of the MQ-25 air system and $32.7 million in OPN for installation of UMCS aboard CVNs.

MAGTF Expeditionary UAS (MUX)

The MAGTF Expeditionary UAS (MUX) will provide a competitive advantage to naval expeditionary forces operating in contested maritime spaces. MUX is currently envisioned to be a weaponized, payload-flexible, shipboard capable and expeditionary system that is runway-independent for all weather conditions. The system will also provide a multi-mission, long-range (690+ NM), long-endurance (24+ hours), platform that will complement MV-22 operations and operate from the sea in an uncontested environment. MUX will facilitate sea denial operations and maritime maneuver globally in support of our fleet commanders. The FY 2020 President's Budget requests $21.2 million for research and development requirements.

United States Marine Corps Expeditionary Warfare

Expeditionary Warfare

The Navy and Marine Corps team provides the Combatant Commanders and our Nation the options needed to engage with our partners, to deter our adversaries and, when needed, to fight and win. That capability is underpinned by our disciplined, well-trained and motivated Sailors and Marines equipped with amphibious ships, aircraft and weapons in our arsenal. The Marine Corps execute their mission under the principle of Expeditionary Warfare: to operate forward, to exploit the seas as maneuver space as a base for global power projection, and to be ready to maneuver to shore when so ordered. Our ability to deploy from the sea in austere environments at a time and place of our choosing gives us significant tactical, operational and strategic advantages over potential adversaries. That ability is provided through the combination of connectors that move forces from the sea base to the objective sites and sustain the organic capability of those forces to maneuver and fight on the objective.

Tactically, the ability to project multiple elements of a landing force ashore via multiple entry points using both vertical and surface means gives us greater flexibility in maneuvering into positions of advantage over an adversary.

Connectors

Marine Corps operations require the movement of personnel, equipment and supplies, from the sea base to the objective and it is connectors that are critical enablers for any naval force by closing the last "tactical mile" with the adversary. Modern aerial connectors are the vertical component, such as the MV-22 Osprey and CH-53K King Stallion, extend operational reach and lift capacity, revolutionizing our ability to operate from the sea, austere locations, and previously damaged airfields within a contested environment. The Navy and Marine Corps also require a surface connector and is in the process of modernizing the connector fleet by replacing the aging Landing Craft Air Cushion (LCAC) and the 50-year-old fleet of Landing Craft Utility (LCU). This system of surface and aerial connectors will enable the Joint Force to establish a web of sensor, strike, decoy, and sustainment locations based on land and sea that complicates the strategic and operational decision-making of our most advanced rivals by defeating any Anti-Access/Area Denial operations. Continued funding of the modernization, maintenance, and service life extension programs of our

existing fleet of connectors is critical to enabling our success in future security environments.

The Ship to Shore Connector program will replace aging LCACs, which have undergone a Service Life Extension Program (SLEP) and a Post-SLEP Extension program. Additionally, tbe FY 2020 President's Budget includes the procurement of 20 LCU 1700 Class craft across the FYDP, which will recapitalize, in part, the aging LCU 1610 Class. These platforms are essential in connecting the combat power and logistics sustainment of the sea bases to the expeditionary forces operating at the tip of the spear.

Combat and Tactical Vehicles

Our Ground Combat and Tactical Vehicle (GCTV) Strategy provides a framework for portfolio management and enterprise decision support. The Marine Corps is investing approximately 29 percent of its modernization resources into GCTV systems within the FYDP. The overarching combat and tactical vehicle investment priority is the modernization of Assault Amphibian capability through the Amphibious Combat Vehicle (ACV) program as the means to incrementally replace the legacy Assault Amphibious Vehicle.

In June of 2018, the ACV program achieved Milestone C and awarded BAE Systems the production and deployment phase contract. During the fall of 2018, ACV 1.1 prototypes demonstrated satisfactory water mobility performance in high surf conditions and in doing so met the full water mobility transition requirement for ACV 1.2 capability. Therefore, the Marines Corps approved the consolidation of increments one and two into a single program to enable continuous production of ACVs to completely replace the AAV. ACV remains on schedule to achieve IOC in the fourth quarter of FY 2020.

Marine Air-Ground Task Forces

The focus of our ground modernization efforts continues to be our combat and tactical vehicle portfolio, along with the Command and Control (C2) systems needed to leverage the entire MAGTF once ashore.

Critical to the success ashore of the MAGTF is our ability to coordinate and synchronize our distributed C2 sensors and systems. Our modernization priorities in this area are the Ground/Air Task Oriented Radar (G/ATOR) and the Common Aviation Command and Control System (CAC2S). These systems will provide modern, interoperable technologies to support real-time surveillance, detection and targeting and common C2 suite to enable the

effective employment of that and other sensors and C2 suites across the MAGTF.

G/ATOR ensures the Marine Corps will be in full control of MAGTF airspace. It serves as the foundation for Commander, Joint Force Air Component delegation of airspace control to the future MAGTF, and provides MAGTF commanders the freedom of action to employ organic surface and air fires. G/ATOR detects the most challenging air threats for the MAGTF and will pace the threat for years to come.

CAC2S provides the tactical situational display, information management, sensor and data link interface, and operational facilities for planning and execution of Marine Aviation missions within the MAGTF. CAC2S will eliminate the current stove-piped, dissimilar legacy systems and will add capability for aviation combat direction and air defense functions by providing a single networked system. CAC2S will be the primary C2 system that integrates MAGTF aviation operations with Joint, combined, and coalition aviation C2 agencies.

Counter Unmanned Aircraft Systems (C-UAS)

Within the last 18 months the Marine Corps has fielded an assortment of capabilities to the operational forces to ensure that they protect our warfighters both here and abroad. Through a creative approach of taking existing technologies and adapting or modifying them to counter the proliferation of UAS. Marines have fielded nearly 50 unique systems capable of defeating and destroying the current and evolving UAS threats, keeping both our Marines, our bases and many cases our systems safer and better prepared for the fight.

James F. Geurts
Assistant Secretary of the Navy
(Research, Development and Acquisition)
12/5/2017 - Present

On Dec. 5, 2017, Mr. James F. Geurts was sworn in as Assistant Secretary of the Navy for Research, Development & Acquisition (ASN (RD&A)), following his confirmation by the Senate November 2017. As the Navy's acquisition executive, Mr. Geurts has oversight of an annual budget in excess of $60 billion and is responsible for equipping and supporting the finest Sailors and Marines in the world with the best platforms, systems and technology as they operate around the globe in defense of the Nation.

Mr. Geurts previously served as the Acquisition Executive, U.S.. Special Operations Command (USSOCOM), at MacDill Air Force Base (AFB), Florida, where he was responsible for all special operations forces acquisition, technology and logistics. In this position his innovative leadership and technological ingenuity provided rapid and affordable acquisition that positively impacted the USSOCOM acquisition work force and the special operations forces capability on the battlefield. These contributions were recognized by both private and public institutions during his tenure to include earning the Presidential Rank Award, USSOCOM Medal, William Perry Award and Federal Times Vanguard Award for Executive of the Year.

Prior to Senior Executive Service, Mr. Geurts began his career as an Air Force officer where he served as an acquisition program manager with engineering and program management leadership positions in numerous weapon systems including intercontinental ballistic missiles, surveillance platforms, tactical fighter aircraft, advanced avionics systems, stealth cruise missiles, training systems and manned and unmanned special operations aircraft.

He has over 30 years of extensive joint acquisition experience and served in all levels of acquisition leadership positions including Acquisition Executive, Program Executive Officer and Program Manager of Major Defense Acquisition Programs.

Mr. Geurts is a distinguished 1987 ROTC graduate from Lehigh University where he received a Bachelor of Science in Electrical Engineering. He holds a Master of Science in Electrical Engineering from Air Force Institute of Technology, Wright-Patterson AFB and in National Security Resourcing from Industrial College of the Armed Forces, National Defense University, Washington, D.C. Mr. Geurts also attended executive leadership and international studies programs at Harvard Kennedy School and George Washington Elliot School.

Updated: 19 December 2017

Vice Admiral William R. Merz
Deputy Chief of Naval Operations for Warfare Systems (OPNAV N9)

Vice Adm. Bill Merz is a native of San Diego. He graduated from the U.S. Naval Academy in 1986 with a Bachelor of Science in Ocean Engineering and subsequently earned master's degrees from The Catholic University of America and the U.S. Naval War College.

Merz qualified submarines on USS Haddo (SSN 604). He served as engineer officer on USS Boise (SSN 764) and as radiological controls officer on USS Proteus (AS 19). He commanded the deep sea vessel "Submarine NR-1", USS Memphis (SSN 691) and Submarine Development Squadron 12.

His flag assignments included commander Task Force 77 and Naval Mine & Anti-Submarine Warfare Command in San Diego; commander, Task Force 54 in Bahrain; commander, Task Force 74 in Japan; and director, Undersea Warfare Division, Office of the Chief of Naval Operations ([OPNAV] N97) in the Pentagon. Ashore, he conducted submarine design research in Carderock, Maryland, completed two tours in the Pentagon as a budget programmer on both the Navy and joint staffs, served as head of the Naval Reactors' "Line Locker" and as chief of staff for Commander, Submarine Forces Atlantic, Commander, Task Force 144.

Merz currently serves as the deputy chief of naval operations for warfare systems (OPNAV N9) in the Pentagon. In this capacity, he is responsible for the integration of manpower, training, sustainment, modernization, research and development and procurement of the U.S. Navy warfare systems.

He has completed nine overseas deployments in support of U.S., Joint and Coalition submarine operations in the Pacific Command, European Command, Central Command and Africa Command. The crews he served with collectively earned six unit awards, five Battle "E"s and the Atlantic Fleet's Battenberg Cup.

Updated: 25 August 2017

LtGen David H. Berger
Commanding General, Marine Corps Combat Development Command / Deputy Commandant for Combat Development and Integration

Lieutenant General Berger was commissioned as an infantry officer in 1981 following graduation from Tulane University. As a Lieutenant and Captain, he served as platoon commander in 1st Marine Division, and later as Company Commander and battalion Operations Officer in 2d Reconnaissance Battalion during Operation DESERT STORM. He also served as Officer Selection Officer in Roanoke, Virginia.

As a field grade officer, Lieutenant General Berger was an instructor at Marine Aviation Weapons and Tactics Squadron One (MAWTS-1) in Yuma, Arizona; instructor at III Marine Expeditionary Force Special Operations Training Group; and served on the Joint Staff as a policy planner in the Strategic Plans and Policy Directorate, J-5.

Lieutenant General Berger commanded 3d Battalion, 8th Marines from 2002 to 2004, deploying the battalion first to Okinawa, and later to Haiti in support of Operation SECURE TOMORROW. As a Colonel, Lieutenant General Berger commanded Regimental Combat Team 8 in Fallujah, Iraq during Operation IRAQI FREEDOM. While serving as Assistant Division Commander of 2d Marine Division, he was appointed to the rank of Brigadier General. He then deployed to Kosovo, where he served for one year as Chief of Staff for KFOR Headquarters in Pristina. From 2009 to 2011, he served at Headquarters, U.S. Marine Corps as the Director of Operations in the Department of Plans, Policies, and Operations.

In 2012, he deployed to Afghanistan as the Commanding General of 1st Marine Division (Forward) in support of Operation ENDURING FREEDOM.

In July 2014, Lieutenant General Berger was promoted to his current rank and assumed command of I Marine Expeditionary Force and subsequently assumed command of U.S. Marine Corps Forces, Pacific.

On 28 August 2018, Lieutenant General Berger assumed responsibility as the Commanding General, Marine Corps Combat Development Command, and the Deputy Commandant for Combat Development and Integration, Headquarters, U.S. Marine Corps.

In addition to a B.S. in Engineering, he holds a Master of International Public Policy from Johns Hopkins University School of Advanced International Studies, and a M.S. in Military Studies. His formal military education includes the U.S. Army Infantry Officer Advanced Course, U.S. Marine Corps Command and Staff College, and U.S. Marine Corps School of Advanced Warfighting. He is a graduate of the U.S. Army Ranger School, Jumpmaster School, U.S. Navy Dive School, and U.S. Marine Corps Amphibious Reconnaissance School.

WITNESS RESPONSES TO QUESTIONS ASKED DURING THE HEARING

MARCH 26, 2019

RESPONSE TO QUESTION SUBMITTED BY MR. GALLAGHER

General BERGER. In the FY20 FYDP the Marine Corps plans to invest $20.5B on F35 procurement and $11.5B on CH–53K procurement for a planned five year investment of $32B in these two modern aviation platforms. In the FY20 FYDP the Navy plans to invest $5.35B in amphibious warfare ships to procure one LPD Flight II and one LHA. The nation benefits from both aviation platforms in question. The F35 is a 5th Generation aircraft combining stealth, precision weapons and multi-spectral sensors with the expeditionary responsiveness of a Short Take-off and Vertical Landing (STOVL) fighter-attack platform. The CH–53K is the most capable heavy lift cargo helicopter ever built with range, speed and lift capacity to greatly enhance MAGTF vertical maneuver. The new amphibious warfare ships in production will serve our fleet for forty years or more. When postured forward as part of an Amphibious Ready Group/Marine Expeditionary Unit (ARG/MEU) these platforms enable sailors and Marines to carry out a broad spectrum of missions that assure allies and partners while serving as a credible sea based deterrent to aggressive threats. To face the challenges outlined in the National Defense Strategy the Navy and Marine Corps team must invest in modern aviation capability and procure modern amphibious warfare ships- coupled with the other components of the expeditionary warfare team they are the first line in our strategy to defend the forward edge of freedom. [See page 14.]

RESPONSE TO QUESTION SUBMITTED BY MRS. LURIA

Admiral MERZ. The 2016 Force Structure Assessment (FSA) began by collecting the Combatant Commander (CCDR) demands for Naval forces from the Global Force Management (GFM) process. Then, using current/projected fleet architecture (i.e.—where ships are homeported both within the U.S. and overseas, the employment cycle for each type of ship), the fleet size required to meet all these demands was calculated—653 ships. From this point, the FSA became a risk assessment process where CCDR demands were categorized according to the risk associated by not conducting certain missions. The process—informed by strategic guidance—started by taking risk in the provision of forces in theaters with minimal or low risk of military conflict, and progressively taking risk by providing fewer forces for missions in theaters at higher risk of experiencing Major Combat Operations. The warfighting risk was based on campaign analysis of OSD-approved Defense Planning Scenarios and consistent with National, Defense and Navy strategic and planning guidance. Future years Defense Planning Scenarios, vice OPLANs, are used because the FSA must look as far into the future as practicable to afford the defense industrial base the time to deliver the right mix of capacity and capability for the Navy to stay ahead of the continuously evolving threats. Using OPLANs, which focus on existing and near-term forces and threats, would cause us to continually react to changes in the threats and, because it takes years to implement any required changes to force structure, result in Navy constantly falling behind potential adversaries. Ultimately, Navy leadership determined that, based on the National and Defense strategies versus the growing capacity, capability and re-emergence of threats in the future (post-2030), 355 battle force ships is sufficient to achieve national tasking and objectives at acceptable levels of risk. A more detailed discussion of the analysis supporting the 355 ship Navy would require a classified forum. [See page 9.]

QUESTIONS SUBMITTED BY MEMBERS POST HEARING

MARCH 26, 2019

QUESTIONS SUBMITTED BY MR. CONAWAY

Mr. CONAWAY. What is the Navy doing to resolve the lack of carrier strike group anti-submarine protection due to the Ship Surface Torpedo Defense (SSTD) program being cancelled, and the reliability issues that the primary sensor to detect enemy submarines suffers from? Who within the Navy is taking ownership and leading the effort to remedy this gap? What other options or technologies is the Navy exploring to bolster ASW capabilities and protect our CSGs, including those in use by our allied partner navies? What is the cost for upgrading our current ASW sensor platform to ensure its reliable function?

Secretary GEURTS and Admiral MERZ. The Navy has not cancelled the Surface Ship Torpedo Defense (SSTD) program. The SSTD program consists of three major systems: Acoustic Device Countermeasures (ADC), AN/SLQ–25 NIXIE towed acoustic countermeasures, and the Anti-Torpedo Torpedo Defense System (ATTDS) hard-kill counter-torpedo and detection system. A decision to sundown ATTDS was made in FY 2019 due to performance issues, false alarm rates, and limited added value in context with the demonstrated effectiveness of existing and evolving Anti-Submarine Warfare (ASW) and Theater ASW capabilities. The AN/SLQ–25 NIXIE and ADCs remain in use onboard surface platforms across the Carrier Strike Group, including aircraft carriers, for anti-submarine protection. In addition to SSTD portfolio investments, the Navy is heavily invested in layered ASW efforts such as Virginia class submarines, AN/SQQ–89A(V)15 surface ship ASW combat systems, P–8 maritime patrol aircraft, and advanced torpedoes, and does not rely on a single sensor for enemy submarine detection. The Navy's ASW strategy, led by the CNO's Director for Undersea Warfare (N97) and supported by Director, Surface Warfare (N96), is to establish an offensive posture using long range detection, prosecution, and engagement in order to keep threats outside their engagement zone. Failing an offensive posture, close-in defense is provided by the combination of ASW defensive platforms and the speed and maneuver of aircraft carriers and other high-value units. The Navy regularly evaluates domestic and allied technologies to identify potential evolutionary torpedo defense capability improvements. Ongoing Harvest ATTDS studies will help Navy identify opportunities to incorporate algorithms developed with ATTDS into other Navy sensors.

QUESTIONS SUBMITTED BY MRS. LURIA

Mrs. LURIA. Your budget request is $9.5B higher than last year. Does your budget request generate additional deployed presence? Has the presence generated under the OFRP model been adequate for combatant commander's needs? In recent hearings, CENTCOM reported his carrier presence was considerably less than requested, and I happen to know it was 1/5th of requested and EUCOM was less than half. Are the combatant commander's request unreasonable or just not able to be met with the OFRP?

Secretary GEURTS. The presence generated by the OFRP model is sufficient to meet the demand adjudicated by the Joint Staff. For Fiscal Year 2019, Navy is expected to meet 42 percent of COCOM demand. In recent years through OFRP, Navy's ability to meet COCOM demand has fluctuated between 40 percent and 45 percent of their requests for naval forces.

Mrs. LURIA. Under the Optimized Fleet Response Plan, the Navy's goal was to provide more of push model than pull model on presence generation. As part of that, the Navy would be able to generate more ships in the sustainment phase for a longer period of time. Does your budget fully fund the sustainment phase to allow all ships, submarines and aircraft to maintain a C–2 rating during this phase?

Secretary GEURTS. The Navy readiness accounts for ship operations ($5.6 billion), ship depot maintenance ($10.4 billion), flying hour program ($5.7 billion) and air depot maintenance ($1.3 billion) are funded and are focused on increasing operational availability of our ships, submarines and aircraft and is expected to support the sustainment phase of the Optimized Fleet Response Plan. In order to reconstitute private submarine repair capability and to recover the deferred maintenance backlog created in FY 2019, the Navy's unfunded priorities list includes $814 million

for ship depot maintenance—$653 million to move SSN maintenance to private shipyards due to public shipyard capacity constraints and $110 million to recover deferred maintenance backlog for surface ships. The remainder is for Naval Shipyard/TYCOM material and RMC overhead. The Navy is working closely with DOD on readiness and will continue to evaluate mitigation strategies for ship depot maintenance. An above threshold reprogramming may be one solution.

Mrs. LURIA. Does your budget fully fund a carrier strike group model of 2+3, meaning two deployed and three surge capable for the entire fiscal year?

Secretary GEURTS. No, the Navy is not able to sustain 2+3 Carrier Strike Groups (CSG) in FY2020. Sustaining 2+3 CSG readiness depends on several factors. While funding is one element, 2+3 CSG requires adequate force structure as well as recovering readiness in personnel, equipment, supply, training, ordnance, networks and installations. The Navy is continuing aggressive efforts to recover readiness shortfalls accrued from over a decade of wartime operational tempo, fiscal constraints, and budget uncertainty. Readiness recovery requires significant funding, but also time and stability. The FY2020 budget funds the major readiness accounts to executable capacity, with additional investments and efforts to increase future capacity and improve performance and efficiency. Navy's current CSG readiness is also limited by available platforms. To address this limitation, the FY2020 budget balances investments in readiness, capacity and capability to grow a bigger, better and more ready Navy the Nation Needs. The Navy is also implementing the President's recent decision to restore the refueling and complex overhaul (RCOH) for CVN 75 and retain the carrier and air wing.

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