

[H.A.S.C. No. 112-50]

**HOW DOES THE NAVY GET READY, AND
WHERE ARE WE TODAY?**

HEARING

BEFORE THE

SUBCOMMITTEE ON READINESS

OF THE

COMMITTEE ON ARMED SERVICES
HOUSE OF REPRESENTATIVES

ONE HUNDRED TWELFTH CONGRESS

FIRST SESSION

HEARING HELD

JULY 12, 2011



U.S. GOVERNMENT PRINTING OFFICE

68-158

WASHINGTON : 2012

SUBCOMMITTEE ON READINESS

J. RANDY FORBES, Virginia, *Chairman*

MIKE ROGERS, Alabama	MADELEINE Z. BORDALLO, Guam
JOE HECK, Nevada	SILVESTRE REYES, Texas
AUSTIN SCOTT, Georgia	JOE COURTNEY, Connecticut
FRANK A. LoBIONDO, New Jersey	DAVE LOEBSACK, Iowa
CHRIS GIBSON, New York	GABRIELLE GIFFORDS, Arizona
VICKY HARTZLER, Missouri	LARRY KISSELL, North Carolina
BOBBY SCHILLING, Illinois	BILL OWENS, New York
JON RUNYAN, New Jersey	TIM RYAN, Ohio
TIM GRIFFIN, Arkansas	COLLEEN HANABUSA, Hawaii
STEVEN PALAZZO, Mississippi	
MARTHA ROBY, Alabama	

JAMIE LYNCH, *Professional Staff Member*
VICKIE PLUNKETT, *Professional Staff Member*
CHRISTINE WAGNER, *Staff Assistant*

CONTENTS

CHRONOLOGICAL LIST OF HEARINGS

2011

	Page
HEARING:	
Tuesday, July 12, 2011, How Does the Navy Get Ready, and Where Are We Today?	1
APPENDIX:	
Tuesday, July 12, 2011	35

TUESDAY, JULY 12, 2011

HOW DOES THE NAVY GET READY, AND WHERE ARE WE TODAY?

STATEMENTS PRESENTED BY MEMBERS OF CONGRESS

Bordallo, Hon. Madeleine Z., a Delegate from Guam, Ranking Member, Subcommittee on Readiness	2
Forbes, Hon. J. Randy, a Representative from Virginia, Chairman, Subcommittee on Readiness	1

WITNESSES

Burke, VADM William, USN, Deputy Chief of Naval Operations, Fleet Readiness and Logistics (N4)	4
McCoy, VADM Kevin, USN, Commander, Naval Sea Systems Command	7

APPENDIX

PREPARED STATEMENTS:

Bordallo, Hon. Madeleine Z.	41
Burke, VADM William, joint with VADM Kevin McCoy	43
Forbes, Hon. J. Randy	39

DOCUMENTS SUBMITTED FOR THE RECORD:

Department of the Navy, May 11, 2011, Memorandum for the Record, Subject: Fleet Readiness Review Panel Report (One Year Later)	57
OPNAV 43, February 2011, unclassified Report to Congress on Impact of Training and Crew Size on Surface Force Material Readiness	65
Two slides submitted by Admiral Burke	80
Three charts submitted by Mr. Forbes	82

WITNESS RESPONSES TO QUESTIONS ASKED DURING THE HEARING:

Ms. Bordallo	87
Mr. Forbes	87
Dr. Heck	88
Mr. Kissell	88
Mr. Palazzo	89

QUESTIONS SUBMITTED BY MEMBERS POST HEARING:

Mr. Forbes	93
Mr. Kissell	95

HOW DOES THE NAVY GET READY, AND WHERE ARE WE TODAY?

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ARMED SERVICES,
SUBCOMMITTEE ON READINESS,
Washington, DC, Tuesday, July 12, 2011.

The subcommittee met, pursuant to call, at 3:12 p.m., in room 2212, Rayburn House Office Building, Hon. J. Randy Forbes (chairman of the subcommittee) presiding.

OPENING STATEMENT OF HON. J. RANDY FORBES, A REPRESENTATIVE FROM VIRGINIA, CHAIRMAN, SUBCOMMITTEE ON READINESS

Mr. FORBES. The hearing will come to order.

I want to welcome all of our members and our distinguished panel of experts to today's hearing that will focus on how the Navy gets ready and the current state of Navy readiness.

I want to apologize to both our admirals for being a few minutes late. We just had a long series of votes, as you know, and our members will be coming in, I am sure, on a sporadic basis.

No one will dispute that we have the most capable Navy in the world. However, a dichotomy exists when you contrast the decline in our Navy readiness posture due to decreased funding, with the increase in military capabilities of many emerging powers.

In January of this year, then-Secretary of Defense Robert Gates admitted that Beijing's military modernization caught the U.S. intelligence community off-guard. This committee and the China Caucus have been trying to alert them to that fact for years, but to no avail.

I juxtapose that against a backdrop of looming defense cuts in the United States that are expected to be submitted by the Administration in the very near future. Our Navy already has insufficient resources to preserve its current fleet, let alone reverse the negative trends of years of underfunding, deferred maintenance, and gaping holes in Navy readiness.

According to the Pentagon's quarterly readiness report to Congress, in many areas the Navy has not met their goals and is not prepared even with the current level of funding. For example, currently only 45 percent of our deployed Navy aircraft are fully combat ready for the hours that they are sailing.

Everyone can do the math, but I am startled by the fact that fewer than 5 aircraft out of every 10 in combat are prepared for their mission. We continue to see shortfalls throughout the fleet, including an ominous 16 percent backlog for aircraft and engines,

fewer spares available, and more than \$850 million of unfunded maintenance requirements, to cite a few examples.

During inspections in the last 2 years, more than one in five Navy vessels were deemed less than satisfactory or unfit for combat. Coupled with manpower shortfalls, an increased number of commanding officers being relieved, greater cannibalization of parts from other vessels, and insufficient training, all of these statistics add up to glaring deficiencies that are nothing short of alarming.

Earlier this year before this very subcommittee, Vice Admiral Bruce Clingan admitted that in his opinion the Department of Defense, and certainly the Navy budget, is carrying a level of risk this year, fiscal year 2012 and in the out-years, that would cause me to suggest that one of the solutions to the deficit spending that I would not advise is to diminish DOD [Department of Defense] and certainly the Navy's budget.

Admiral Clingan went on further to suggest that to decrease the funding at a time when we are trying to reset and reconstitute the force and meet an evolving security environment, would invite multiple concurrent diverse crises and would in fact increase risk.

Fundamentally, I am very disturbed because over the horizon I see our adversaries continuing to expand their military might, while a masthead of a \$400 billion cut to national defense is looming.

In the last few years, the press reported that after meeting with Admiral Mullen, China's top general recommended that the U.S. should reduce its military spending, which is consistent with what we anticipate from the Administration in the very near future.

And while some in Congress may agree, this is not a position that I am prepared to accept. Unfortunately, this is exactly the direction we are headed if we do not take strides to preserve the budget and our critical investments.

It is incumbent upon this subcommittee to focus on today, and it is our obligation to preserve and defend strategic investments for the future. I look forward to hearing from our witnesses today not only how the Navy gets ready, but delving into detailed discussions regarding the current state of Navy readiness.

Joining us today to discuss these issues are two very distinguished individuals: Vice Admiral William Burke, who is the Deputy Chief of Naval Operations, Fleet Readiness and Logistics; and Vice Admiral Kevin McCoy, Commander, Naval Sea Systems Command.

Gentlemen, as we mentioned earlier, we thank you both for being here. We are looking forward to your testimony.

And now I would like to recognize the ranking member, my friend Ms. Bordallo, for any remarks she may have.

Madeleine.

[The prepared statement of Mr. Forbes can be found in the Appendix on page 39.]

STATEMENT OF HON. MADELEINE Z. BORDALLO, A DELEGATE FROM GUAM, RANKING MEMBER, SUBCOMMITTEE ON READINESS

Ms. BORDALLO. Thank you very much, Mr. Chairman.

To both our witnesses, Vice Admiral Burke and Vice Admiral McCoy, I look forward to your testimony this afternoon.

Today, we are going to take a more comprehensive look at the United States Navy's fleet readiness posture. The readiness of our Navy's surface fleet has been a topic addressed in detail by this subcommittee over the past 2 years under former chairman Solomon Ortiz.

The Navy has slowly come to realize that it has accepted too much risk in the maintenance of our non-nuclear surface fleet over the past decade. These significant risks are due in part to organizational decisions made by the Navy regarding ship manning, ship maintenance capability, and crew training as the Navy responded to institutional pressures to reduce spending.

While the subcommittee appreciates the Navy's recognition that its past decisions contributed to the current high risk in maintenance of the non-nuclear surface fleet, we hope that the testimony provided by our witnesses today will address when we can expect to see tangible progress and improvement in the overall readiness of our Navy fleet.

This subcommittee takes very seriously the material readiness of our surface fleet. As a result, we increased funding for the Navy's operation and maintenance account by \$440 million in our fiscal year 2012 authorization bill.

Now, this funding will make whole both the ship depot maintenance and aviation depot maintenance accounts. I hope that our witnesses can outline how this additional funding will reduce risks and what specific benefits this funding would have on maintenance activities in fiscal year 2012.

Finally, given the results of the Balisle Report, significant challenges remain for improving Navy readiness. I have seen the May 11, 2011, memorandum from Fleet Forces Commander Admiral Harvey regarding changes to address the issues outlined in the Balisle Report. And I hope our witnesses today can discuss how these recommended changes will be institutionalized in the Navy and over the coming years.

[The information referred to can be found in the Appendix on page 57.]

Ms. BORDALLO. Further, what is the cost of implementing and sustaining these recommendations? Will these recommended changes be reflected in the budgets for Navy operations and maintenance over the Future Years Defense Program? What challenges will possible reductions in the Defense and the Navy budgets present to implementing these changes?

We do not have a fleet of 313 ships yet, so it is critically important that we maintain our current fleet of 288 ships for the next near-term. Even though the wars in Iraq and Afghanistan are beginning to ramp down, our Navy's role in projecting force across the globe will not decrease.

In fact, in many instances, I see the role of our Navy increasing, particularly in the Asia-Pacific region. So maintaining our fleet is of utmost importance.

And again, I thank you, Mr. Chairman, and I look forward to our witnesses' testimony today.

[The prepared statement of Ms. Bordallo can be found in the Appendix on page 41.]

Mr. FORBES. Thank you for those remarks, Madeleine.

And as we discussed prior to the hearing, I ask unanimous consent that we dispense with the 5-minute rule for this hearing and depart from regular order so that members may ask questions during the course of the discussion. I think this will provide a round-table-type forum and will enhance the dialogue on these very important issues.

Without objection, that is so ordered.

As I mentioned earlier, we have got two very distinguished individuals who have served their country very well, bring to this committee a great deal of expertise.

And gentlemen, we are both very proud of the service you have done to your country and grateful that you would take time to come here and be with us today.

Vice Admiral William Burke, as I mentioned, is the Deputy Chief of Naval Operations, Fleet Readiness and Logistics, and Vice Admiral Kevin McCoy is the Commander of Naval Sea Systems Command.

So with that, we look forward to hearing your initial statements. And Admiral Burke, I am assuming we will start with you. And please feel free to address the committee.

STATEMENT OF VADM WILLIAM BURKE, USN, DEPUTY CHIEF OF NAVAL OPERATIONS, FLEET READINESS AND LOGISTICS (N4)

Admiral BURKE. Chairman Forbes, Congresswoman Bordallo, and distinguished members of the Readiness Subcommittee, it is my honor to participate in today's hearing representing the Navy men and women—Active Duty, Reserve and civilian—who work to ensure our Navy is ready to deliver the full range of capabilities we possess to defend the Nation.

On their behalf, I also want to express our great appreciation for the work of this committee in support of their service, and in particular I appreciate what you just said, Madam, about the plus-ups in 2012 in the readiness account. Certainly, we appreciate those and I am happy to address how those will help us.

I was asked to begin today by discussing briefly how we generate ready Navy forces to meet the requirements of the combatant commanders for named operations, presence, or major combat operations.

Back in 2003, then-Chief of Naval Operations Admiral Vern Clark directed the fleets to develop a new approach to preparation and deployment of Navy forces. The idea was to figure out how to get more of them out there at any given time.

So what came out of that was what we called the Fleet Response Plan. And what it replaced was the IDTC or the Inter-Deployment Training Cycle.

I would like to begin with a simple slide that explains the elements of the plan.

Do you have those slides? You do. Okay, good.

So as you look at that first slide, you can see that the Fleet Response Plan consists of four phases, each designed to produce or sustain a certain readiness output.

[The slide referred to can be found in the Appendix on page 80.]

Admiral BURKE. On the left, it starts with basic training, and that provides unit-level training to a single ship or aviation squadron, with training in—focused on being safe and basic warfare skills.

At the completion of this phase, a ship or squadron is qualified for certain limited operations, like humanitarian assistance or counternarcotic.

The next phase is the integrated training phase, and that provides additional training for Navy forces to be ready for major combat operations. It is focused on training at the task group level, with units working together to accomplish combat objectives.

It culminates with a task force exercise which trains group commanders in command and control.

At the completion of the integrated phase, the task force and its associate elements are what we consider a 30-day surge asset, and they are qualified for the full range of maritime operations.

Next comes the sustainment phase. That is where the task force will conduct virtual and live training as necessary to maintain a high state of readiness, and will normally be scheduled for one or more rotational deployments, depending on the length of the sustainment phase and the Global Force Management requirements.

And I am happy to discuss the Global Force Management requirements later if that is desired.

Now, after they come back from deployment, ships and squadrons and the task force in general will maintain themselves at a readiness level to be a 30-day surge asset for the length of that sustainment phase.

Then the maintenance phase is set aside to accomplish maintenance. But from a ship perspective that is when many of the individual members go off to schools and get individual training to allow them to contribute to the unit training later on.

Okay, so the IDTC was focused on building readiness in the minimum time required—that is the old system—prior to a single scheduled deployment. The new system is designed to build readiness over a period of time and sustain readiness for a significant period of time.

So if you will move to the second slide, you can see two different schedules on there, the top one being the IDTC. And what you see there is—in yellow is a maintenance period, a notional maintenance period of several months, and then a kind of an open period. And in that area, we didn't have the direction we had in the current system.

[The slide referred to can be found in the Appendix on page 81.]

Admiral BURKE. So ships would do a bunch of things. They might be a bunch of exercises or operations, but they weren't focused on getting to a certain level of training.

Then you would go into this work-up phase, which was dedicated to getting the ship ready to deploy, and then the single deployment.

And so you can see there is a couple opportunities in there, circled in red, where those are lost opportunities for operations.

In the FRP [Fleet Response Plan], on the other hand, you have the same sort of maintenance period, followed by a basic phase, where you go through exactly what I just explained. You build basic skills in the unit level, then go to the intermediate where you—or the integrated where you build skills for the task force.

Finally, to the sustainment period in which you can see that is a significant period of time. It is more than a year in length. And so there is an opportunity for one deployment, or two deployments, or a long deployment.

So, we think that that FRP scheme is the right way to go because it generates the opportunity for greater forward presence.

Now, the readiness challenge that we have today is that the continuing demand for forces exceeds that which we have, which we can provide. So, we have the combatant commanders in a situation where they drive demand, and their demand is relatively unconstrained except by the Global Force Management process. And we have a limited supply of forces.

So, the Global Force Management process addresses that, but then there is a request for forces that is outside that process that we have to deal with, and I would be happy to talk about that as well.

But when you have these additional deployments, you sometimes impact the maintenance or you impact the training, which will impact the maintenance. So, what we have is one event cascading into another and so we don't get either of them quite right.

And on the family side, an average of 50 ships a year since 2005 have violated one or more of the OSD [Office of the Secretary of Defense] or Navy standards such as deployment length, dwell time, or time in home port, compared with an average of 5 in years prior to that.

Now, my responsibility is the sustainment of our current force, including Navy shore infrastructure. We must deliver the expected service life of our current platforms to provide future capacity to meet the Navy and Nation's needs. And our shore infrastructure must support our warfighting platforms and our sailors.

For fiscal year 2012, we focus first on supporting our deployed forces, and then on achieving expected service life of all our platforms.

The President's budget for fiscal year 2012 balances risk across the entire Navy program to achieve the strongest current and future readiness outcomes.

Again, I appreciate the opportunity to be here with you and look forward to discussing the Navy's sustainment programs with you.

Thank you, sir.

[The joint prepared statement of Admiral Burke and Admiral McCoy can be found in the Appendix on page 43.]

Mr. FORBES. Thank you, Admiral Burke.

Admiral McCoy.

**STATEMENT OF VADM KEVIN MCCOY, USN, COMMANDER,
NAVAL SEA SYSTEMS COMMAND**

Admiral MCCOY. Chairman Forbes, Ranking Member Bordallo, distinguished members, it is a pleasure to be here with you this afternoon with Admiral Burke to discuss this topic.

When I came into my command 3 years ago, the readiness and sustainment of our surface forces was my number one priority. I had just come from 3 previous years as the Navy's chief engineer, and I saw what the increased OPTEMPO [operating tempo] was doing to our ships.

Where today, for example, on any given day 50 percent of our surface ships are underway, our ships are reaching midlife in terms of our major combatant ships, and so therefore they are going to get more maintenance intensive.

As well as, we build a lot of robustness and redundancy into our ships early on, and you can underfund and underdo maintenance early on in the ship's life and you may not necessarily see it and then it catches up to you, and then realization that we simply can't build our way to 313 ships.

And in fact, the cheapest way to afford our Navy with the force structure that we need is to maintain the ships that we already have.

In fact, over 70 percent of the 313-ship Navy out in the 2020 timeframe we own today. It is out there, it is underway, it is deployed, it is sitting pierside.

So we brought all of our attention on solving this problem. And the last piece was a recognition that we have a disparity between how we were maintaining and sustaining our surface, non-nuclear surface forces, compared to our submarines and our aircraft carriers.

So, we implemented three initial series of actions. The first was to make sure that, just like we do for submarines and aircraft carriers, we build rigorous, class maintenance plans, engineering-based, with the fundamentals.

They are required to get each one of our ships to their full expected service life. And every one of our ships has a defined service life when we go ahead and build the ship.

For example, a DDG 51 Flight IIA ship we are expecting to get to 40 years, and LCS [Littoral Combat Ship] is 25 years, a cruiser is 35 years. And each one of our ships has a defined—and we base our future force structure plans and our shipbuilding plan on getting those ships to their expected service life.

We have no problem doing that with submarines and aircraft carriers. Matter of fact, I am proud to say that today USS *Enterprise* is 49 years and 8 months old, and it is underway on deployment. Its first deployment was associated with the Cuban missile crisis. And submarines routinely reach their end of service life.

And so how do we build that engineering rigor? And we have stood up an organization, it is today in Norfolk. We have 120 people that build the engineered class maintenance plants and keep track of the requirement maintenance on our surface ships every day. And we have funding laid in now to go ahead and do that.

The second piece was, we had to build a comprehensive assessment and sustainment plan for our surface ships. Quite frankly, we

stopped looking in an organized manner through the late 1990s and the early part of the 2000s. We start looking with outside eyes and detail at our ships.

And so one of the first things we did was we partnered with the American Bureau of Shipping and said we want to use what they use to keep about 10,000 ships in class around the world every year. And we didn't want to reinvent the wheel, and we built a very efficient process. And so far we have put about 20 ships through that process.

Actually when the ship goes in dry dock, we do about 5,000 to 6,000 ultrasonic tests on key structure and tanks, and we inspect distributed systems. The things you need to make sure a ship will last 30 or 40 years, we go do that now.

And we have a plan through the end of 2017 to just about get every one of our surface ships through that process.

We also built rigorous assessment and sustainment plans around the deployment cycle that Admiral Burke just talked through. So for example, before a ship comes into major availability, we now send people down to do hand-over-hand inspections to make sure we thoroughly understand the work package and pick up any last minute things. Prior to deployment we do grooms and things like that.

And so the last piece of it, the third leg of the stool, if you will, was to rebuild capacity and capability at the regional maintenance centers, and that was for twofold. One was to oversee contractor cost performance and quality performance, and the second was to reestablish the intermediate level capability that we had let atrophy.

And that is so important for ships right next to where they tie up, to have repair capability so that we don't build this backlog of little things that become bigger things. And so sailors can come off the ships and see their equipment tore down and have a better capability to repair their stuff underway and be more self-sufficient when they get underway.

And I am happy to say just 2 weeks ago, with Admiral Harvey, the Atlantic Fleet Forces Commander, we went down to Mayport and we re-stood up the eye-level capability, and reopened the shops that we had closed a number of years ago to service the 19 surface ships that are in that area.

So, I would tell you, for 3 years now we have been working this. I worked very closely with Admiral Balisle when he was working on the Balisle Report. And he did a great job of tying these issues together with other things in terms of manning and training to build a comprehensive story.

And then, the last piece is we have been working very closely, have received great support from the two surface type commanders, the two fleet commanders, the CNO [Chief of Naval Operations] staff and the CNO himself to build the resources necessary to fund the programs that I just talked about.

So, I am very happy to answer any questions you may have. And thank you for your interest in this subject.

[The joint prepared statement of Admiral McCoy and Admiral Burke can be found in the Appendix on page 43.]

Mr. FORBES. Thank you, Admiral McCoy.

And to both you gentlemen, I just want to tell you a little bit of the logistics.

Our members ask their questions a little bit different than some of the committees that have a more formal structure, where one member will ask something for 5 minutes and then they alternate. If they have anything related to that subject matter, they may chime in, so we can have kind of a dialogue and discussion.

And I want you guys to have all the time you need to respond. So it is not a gotcha thing. You get a chance to look at your answers and bring them back.

We want to begin by reiterating what I said at the beginning, and that is how much we appreciate all you have done for the service to our country. We recognize that. We thank you. Both of you bring an enormous amount of expertise to this hearing.

Admiral Burke, as I understand, in your role, you are basically in charge of all of the maintenance operations for our carriers, all of our ships, our aircraft, all of our naval facilities. All of it is kind of under your auspices.

Is that pretty much accurate?

Admiral BURKE. My job, sir, is to get the resources for those areas, such that Admiral McCoy, his counterparts in the aviation, can execute the maintenance and execute the readiness.

Yes, sir.

Mr. FORBES. And, Admiral McCoy has that with everything other than the carriers. But you have the surface ships and the subs. Is that correct?

Admiral MCCOY. I am responsible for all of the engineering and maintenance on the aircraft carriers, submarines and surface ships. I don't have airplanes. My compadre, Vice Admiral Architzel, who is Commander of Air—runs the airplanes.

Mr. FORBES. One of the concerns that this committee has is that oftentimes we are trying to make sure we are answering one key question, and that is, are we ready?

We see where—I mentioned in my opening statement, in January the Secretary of Defense said that Beijing's military modernization caught the U.S. intelligence community off-guard. Whether he meant that or not, we can only go by his words.

But one of the things that is so frustrating to us is for years, we sat in hearings just like this and said this is happening, and we saw guys sitting where you are sitting saying, "No, no, no, it is all under control and we don't see it happening that much."

Today, it is important for us, because every time we see somebody come over here with a uniform on, we just assume that they are coming over to give us their best military expertise and the experience that they bring to bear with all the great stuff that they have done.

But I need to ask you how you perceive your role as witnesses today, so begin, so our committee understands that.

And the reason that I have to ask that question is just a few weeks ago, the Chairman of the Joint Chiefs of Staff, Admiral Mullen, was over here. And we were a little surprised, because we asked the chairman, we said, "We know that your role to the President is being a military adviser and bringing the collective informa-

tion that you are getting from all of the Joint Chiefs to him. Is that the same role you have when you come testify to Congress?"

And he quickly said no. And we tried to find out what his role was. And he couldn't tell us. It was kind of like obscenity—you know it when you see it.

But what we didn't understand was he could come over here and tell us on Don't Ask, Don't Tell. Before anybody even asked him the question, he wanted to say what his personal opinion was.

But when we asked him about troops in Afghanistan, where he had mentioned that some of the policies that were taken posed a greater risk than he was willing to accept, a risk to our men and women in uniform and our mission, he said he didn't want to answer those questions, to give us that expertise.

So, I guess my first question for you guys today, so the committee knows just in how to phrase our questions, today as witnesses, are you coming supporting the President's budget? Are you coming as support of the Pentagon's position? Or are you coming with an independent military assessment?

And we don't put a right or wrong on that. We just need to know which hat we are wearing when we listen to your testimony.

Admiral Burke, maybe you could start off with that, and then, Admiral McCoy.

Admiral BURKE. Yes, sir. I come as a member of the U.S. Navy to tell you what the President's budget says. And I will give you my personal opinion if I think that is warranted.

In some cases my personal opinion is probably not warranted, because I made my personal opinion known in the deliberations, and it was either not accepted or my view wasn't broad enough. Because, you know, I have my area of expertise and there are other people that have a different area, and there is only so much money to go around.

And so you end up with kind of a mix.

Mr. FORBES. And Admiral, we would still like to hear your opinion, because we put a great deal of respect on that opinion.

And one of the concerns that you know, in our oversight role—we know what our role is. Our role is, first of all, to represent our constituents, but secondly to do an oversight role on the Navy. And for that, we need that kind of expertise and those opinions.

Admiral McCoy, any difference on how you view your role?

Admiral MCCOY. Mr. Chairman, I am here, first as a naval officer. I am also an engineer and probably a lifelong maintainer of ships.

I intend to give you a straight story on what we need. I will also tell you what I think the impacts if we don't get what we need.

But I also—as Admiral Burke said, I also understand that in the higher roll-up of the budget, that the priorities may not exactly have come out the way I would have selected it. But I think I can give you an honest assessment of what the shortfall will translate into.

Mr. FORBES. And that is what we are asking for—thank you, both, for that.

Oftentimes, I have found that our services speak a language that sometimes they don't even, each other, understand, you know, and we speak a language that the American people don't understand.

So we try to bring it down to a language that, perhaps, unifies us all.

When we talk about readiness, the average person listening to that doesn't really know what we are talking about, because we sometimes talk around them.

But as I look at readiness, it seems to be our ability to supply the resources our combatant commanders need to meet their current and future missions.

Is that a fair assessment, Admiral Burke, or how would you change that?

Admiral BURKE. I am sorry. I think that is probably a fair assessment.

I do think, though, that the combatant commanders live in a different world than we do, in that they are not constrained by resources and we are.

And I don't mean to make that sound like we don't have, but I think we only have so many ships today. They can't be in all the places they are asked for.

And I think the services, in particular the Navy in this case, has to be stewards of that resource for the future. So using it up today puts a future combatant commander at risk if we don't husband that resource in the near term.

Mr. FORBES. And Admiral Burke, and I don't want to belabor this but, but these are important issues for us. That is why I am taking a few more minutes than I normally would.

But when we are looking from this committee at making sure we are ready, that we have the readiness we need as a nation, we have got to not only look at today's missions, but our future missions as well.

But our goal for readiness is to make sure those combatant commanders have what they need to be able to fulfill their missions.

Now, we may be restrained by budgets and have to say how do we deal with that.

But isn't that the essence of readiness, to make sure that those combatant commanders have what they need to fulfill their missions, whatever those missions might be?

Admiral BURKE. Sir, I would agree that in general that is true. I am just simply making the point that there is a combatant commander today and there is a combatant commander tomorrow.

If the combatant commander today uses it all up, then it won't be there for the combatant commander tomorrow.

So it is—I know it sounds like I am hedging, but I am trying to say that there is a future readiness piece to this as well.

Mr. FORBES. And I don't disagree. What I have a hard time with is when our combatant commanders are on the field, trying to fulfill the missions that we have tasked them to fulfill, we want to make sure they have the resources to do those missions.

That is what this committee should be about, I would think, as a Readiness Subcommittee.

And do you disagree with that?

Admiral BURKE. I don't disagree with it. I am just saying there is a caveat to it that I think the committee ought to recognize.

Mr. FORBES. Admiral McCoy.

Admiral MCCOY. I think the piece that I would probably elaborate on a little further is, for example, if a combatant commander decides he needs the force structure such that we don't do maintenance availabilities for 2 or 3 or 4 or 5 years. There is a cost to that, such that that ship is no longer a 35- or a 40-year ship.

And that has to be accounted for in the shipbuilding plan and in our ship inventory for future years. That is the piece.

And it may be to the point where we technologically, you know, we have to be on a cycle, a maintenance and sustainment cycle, that with our inventory of ships that doesn't allow us to provide the readiness at very high levels for sustained periods of time.

Mr. FORBES. When are you going to look at our combatant commanders and say, "You shouldn't have the resources you need to fulfill your mission?"

I don't understand that.

I understand that you may differ with them on what those resources may be. But I just don't understand, when we have a combatant commander anywhere in the world that we are going to look at him and say, "We are not going to give you the resources you need to fulfill your mission."

That is different than saying, "We are going to give you everything you want."

But shouldn't we be about saying we are going to give them all the resources they need to fulfill their mission?

Or are we saying that we are making budgetary decisions here today and we are making them over at the Pentagon that are not giving them the resources they need to fulfill their mission?

I guess that is my question. And that is where I am having a hard time getting a yes or no answer.

Admiral Burke.

Admiral BURKE. They should have the resources to do their mission. The process in the Pentagon is such that there is a Global Force Management process that adjudicates the requests from the combatant commanders.

And so, that is a way of taking the resources and allocating them to the level of what we have. So trying to take what we have, divvy it up in an appropriate fashion, you get X, you get Y, you get Z, et cetera.

But then there is a piece outside the process, where there are requests for forces that we try to address. But they come in outside of the process, and so in doing some of that, we end up with what Admiral McCoy is talking about with potentially using up our fleet.

It is not so obvious with ships, but it is very obvious with aircraft. Aircraft only have a certain amount of life in them. They can only fly so many hours. When you use those up today, you don't have them tomorrow.

Mr. FORBES. And, Admiral, I don't disagree with that at all. I mean, that is kind of the given. We understand that.

What I am saying is it looks like to me, this committee and the full committee should be asking ourselves this question when we are looking at readiness. Do our combatant commanders have the resources they need to fulfill the missions we task them with?

If we don't have those resources, we shouldn't be tasking them with the missions. But if we task them with the missions, don't we

have an obligation to make sure they have the resources necessary to fulfill those missions?

That seems to me to be a pretty straightforward question for us. And we shouldn't be back over here in the Pentagon or over here saying, "No, we are just going to give you a portion of what you need to fulfill your mission, because we don't want to spend the money to do it."

So my question to you is at what time do we look at any combatant commander and say, "We are giving you a mission, but we are not going to give you the resources to fulfill your mission?"

That is different than a wish list. That is when do we look and say, "We are not going to give you the resources you need to fulfill your mission?"

Admiral BURKE. I don't think we do. I think if they don't have the resources, then we would change the mission or—

Mr. FORBES. So then, it would be fair to say that from our perspective as the committee, we should be looking to determine readiness based on whether or not we are able to give the resources that our combatant commanders need to fulfill their missions, both today and the future missions they have.

Admiral BURKE. Yes, sir.

Mr. FORBES. Is that fair?

Admiral McCoy, would you disagree with that?

Admiral MCCOY. No, that is fair. Yes, sir.

Mr. FORBES. Okay. Now in making that assessment, do we have any objective bars, thresholds, or standards we use to make it, or is all this just kind of subjective, that we kind of know it when we see it?

Admiral BURKE. We have a—it is not "we will know it when we see it." We have, as I described in my opening, a process by which we generate maintenance—or generate readiness.

That process has specific requirements that the units complete, that the task group or task force completes before it is certified by the Second or Third Fleet Commander to go forward and do its deployed business.

Mr. FORBES. In determining our readiness, do we rely on the QDR [Quadrennial Defense Review] at all?

Admiral BURKE. No, sir.

Mr. FORBES. So you don't look at the QDR at all to determine—how do you know what the missions are going to be for our combatant commanders, both today and in the future? What do you use as your touchstone to measure those missions against?

Admiral BURKE. Let me make sure—the Quadrennial Defense Review?

Mr. FORBES. Yes.

Admiral BURKE. No, sir. When the COCOM [combatant commander] requests forces, he has some idea what he wants those forces to be able to do, and that allows us to tailor the training package, if necessary.

But what we endeavor to do is train the deploying force to a wide variety of missions, because what we think is going to happen isn't always what happens, so we want them to be ready for—

Mr. FORBES. So, what role does the QDR play? In other words if we are looking at this laydown of what we believe our risk assessment is, what role does that play?

Does that play no role at all in determining our readiness posture?

Admiral BURKE. I think the QDR, sir, is designed to look at what the future might be and what the force is necessary to deal with the QDR would be. So I believe it is more a force planning document than a force readiness document or force readiness generating document.

Mr. FORBES. So, do you not use the QDR to know the forces that you are going to need to be able to do your planning with?

Admiral BURKE. I think we are talking past one another, sir, and I will try to remedy that.

The QDR helps us decide what forces we procure. The COCOM demand signal helps us determine how we prepare those forces to deploy.

Mr. FORBES. Okay. I am going to hold off now and come back, because I have got a series of questions I would like to follow up with you on that and some of the reports that we have from that.

But I would like to recognize the ranking member now, Ms. Bordallo, for any questions that she has.

Ms. BORDALLO. Thank you very much, Mr. Chairman.

My first question is for either of the admirals.

I do know the Navy has been operating at a very high operational level for the past 10 years. And in order for the Navy to meet the ongoing, intense operational requirements, are we increasing our fleet deployment schedule too much?

Or are we investing sufficient time into preventative maintenance, training our sailors, and building an adequate, managed structure to maximize our fleet readiness in the future?

I guess I will hear from both of you.

Admiral BURKE. I will take it.

That is one of my concerns, madam. And it gets back to a conversation I was just having with the chairman.

It is the potential overuse of our platforms. And so, that overuse makes them last less time or precludes the opportunity to do the necessary maintenance, and what the ground forces will call reset, and we call "reset in stride."

That is, they need to get a certain amount of maintenance every so often at the engineered required level. And if we don't do that, we are not going to achieve service life. That is the ships side.

On the air side, we are going to fly the wings off them. They only have about 6,000 or 8,000 hours in those planes, if we don't get them—if we use that up in 10 years or 12 years. But we plan on them lasting 20, 25 years.

The other thing that happens with some of the deployments we had is those deployments optimize for the combatant commanders' requirements.

That is what we have done, and so now what happens is you run into a maintenance issue gets shortchanged or a subsequent [inaudible]. So one cascades into another, which cascades into another, which cascades into another, and you end up with a less ready ship or less ready [inaudible] because of that.

Ms. BORDALLO. Admiral.

Admiral MCCOY. No, it is—I think this is an issue, something that we are working closely with surface maintenance, particularly now that we are putting the resources and the focus on it.

One area where you have a series of smaller compressed availabilities is you can't efficiently do the deep maintenance that you need to do.

Looking at a cycle similar to what we do with aircraft carriers, where we have, say, a certain cycle that allows us a 6-month period in there to do deep maintenance. What is the right mix in there for surface ships? This is one issue that we are tackling right now inside of Navy.

Ms. BORDALLO. Thank you.

My next question also is for both of you. I am not familiar with the technical nuances of combat operations of the ship, but I have heard repeatedly about the tactical data link coordination and standard protocol on board our surface combatants.

I think the network is called [inaudible] 16, and I am wondering if you plan any improvements to establishing a high fidelity, common operational picture to ensure a more stable, dependable depiction of the domain operations at any point in time.

And I would like to hear from both of you.

Admiral BURKE. Madam, there are technologies in that area. You have it absolutely right.

We are working on that one. I don't know specifically what the progress is that we have made. And I would be happy to get back to you on that.

Ms. BORDALLO. All right.

Admiral.

Admiral MCCOY. It is an area that we are working on, madam. It has to do with interoperability between sea and air assets. And we would like to take that one for the record and get you and up-to-date response.

[The information referred to can be found in the Appendix on page 87.]

Ms. BORDALLO. Thank you very much.

And I yield back, Mr. Chairman.

Mr. FORBES. Thank you.

The gentleman from Mississippi is recognized.

Mr. Palazzo.

Mr. PALAZZO. Thank you, Mr. Chairman.

I would like to thank our witnesses for being here today. For your service to our country, thank you very much.

Our U.S. Navy is the world's greatest power projection force, and despite being at the lowest ship levels in decades, the fleet remains one of our greatest national assets. This is an asset that we should be nurturing and ensuring. And we must continue to grow this asset to meet all of our current requirements and ensure that future capability needs are met.

In my opinion this means continuing to grow our fleet, supporting a robust shipbuilding plan, and ensuring that our current ships meet their projected service lives without major problems.

One thing I am curious about is the use of composite materials in our Navy as both replacement parts and original parts.

So, Admiral McCoy or Admiral Burke, whoever is the most knowledgeable on the subject, while much of the discussion has been focused on the Navy's past performance with respect to the operation and maintenance of the surface fleet, I would like to shift the topic slightly to talk about, you know, composites.

So, I have a number of material manufacturers in my district, composite materials, and I am aware that composite materials have been introduced in several Navy ship programs.

What is the Navy's experience to date with composites?

Admiral MCCOY. Yes, sir. We are trying to use composite replacement parts everywhere we can. Great examples are, for example, topside electrical boxes, telephone boxes, electrical plug-ins all over the ship.

Great success stories—composite deck gratings. Every place we can, we are trying to use composite. So particularly on, for example, LCS-1, we see in the waterborne mission zone that use of composites really improved corrosion performance.

Corrosion is one of our biggest cost drivers in the Navy, and so we are trying to use composites everywhere we can, sir.

Mr. PALAZZO. I understand that these composites offer some valuable advantages as far as strength and weight efficiency. And some studies have concluded that composites are able to meet Navy service life requirements on several ship classes.

Do you anticipate the Navy will rely on these types of materials even more in the future?

Admiral MCCOY. I do. And in fact, you know, we are building a ship right now, the DDG 1000, with an all-composite deck house that we will get valuable experience on.

But at the component level, it is the way to go, particularly for replacement of steel enclosures and things, and topside structure.

Mr. PALAZZO. Are you satisfied with the amount of composite materials going into the future ship plans, or could we do more?

Admiral MCCOY. I think we could always do more. And I think that is the partnership that we have to continue to have with the shipbuilders, who are really, kind of, the deck plate experts, and they are giving us ideas and opportunities on how to further expand the composite use.

Mr. PALAZZO. All right. Is there anything I can do or our colleagues on this committee can do to help the Navy use more composite materials?

Admiral MCCOY. No, I will get back to you. If I see the opportunity, I will tell you.

[The information referred to can be found in the Appendix on page 89.]

Admiral MCCOY. You know, for example, I just spent a day—twice a year, there is a big group of Navy and industry folks that get together. It is called Mega Rust. And I go at least once a year.

It doesn't sound very exciting, but there is hundreds of people. Some people estimate 20 percent of, you know, all DOD budget goes to fighting corrosion.

But I regularly have people coming into my office showing me their products, and we try and fast-track it. It is not just composites. It is things, different metal treatments for corrosion-resistant. This is one of those things that gets an open door to my office.

Mr. PALAZZO. Let us know how we can help.

Admiral MCCOY. Yes, sir.

Mr. PALAZZO. Thank you, gentlemen. Appreciate it.

I yield back.

Mr. FORBES. Thank you.

And the chair recognizes now the gentleman from Connecticut, Mr. Courtney, for 5 minutes.

Mr. COURTNEY. Thank you, Mr. Chairman, thank you for holding this hearing. And thank you to both witnesses.

At the outset, first of all, I just want to state that I have had an opportunity to work, over the last 2 years, with Admiral McCoy's office, dealing with issues regarding repair and maintenance work up at the Groton Shipyard at Electric Boat.

And I just want to say I think we are blessed to have your service.

And again, I just think your balancing act that you perform constantly is really impressive. And on behalf of the people in southeastern Connecticut, I just want to publicly thank you for your great work.

You know, one of the things that I did, sort of, get a peek at during that whole process of, you know, trying to figure out availabilities that some of the workers could, you know, fit into was when we went through the CR [continuing resolution] process last spring.

You know, when we talk about, you know, readiness and making sure that, you know, the maintenance requirements that your testimony describes is really going to be part of the effort to get to 313 ships.

I mean, when there is these sort of uncertainties regarding funding, that obviously has got to be a factor. And I just wonder if you could talk about that for a little bit, in terms of, you know, what was going on last spring when the CR was up in the air and what that meant in terms of availabilities, and how that would affect readiness, if Congress really doesn't operate in regular order as far as getting budgets passed?

Admiral MCCOY. Yes, first of all, thank you very much for your kind remarks, Congressman.

As you know, I think it is a waste to have any qualified mechanic, particularly a submarine mechanic, not doing his trade. And we have been very successful at using the folks at EB [Electric Boat] to really help our tremendous needs on the Navy side.

The CR process was incredibly disruptive. I think, luckily, we will be able to come out of it with the majority of the availabilities that we wanted to accomplish, most of that maintenance done. But it is incredibly disruptive.

For example, *Peleliu* was supposed to be done in the early spring at NASSCO [National Steel and Shipbuilding Company] in San Diego, and it is getting done at the end of the year.

We were not able to let contracts. We had to defer maintenance, and we had to change ship schedules around. We were not able—for example, we needed help in our public shipyards to do some work and we were not able to write the contracts to the Electric Boat workers to have them come down and help us.

And so, to the extent we can have a budget on time, boy, you really help us out with the maintenance and sustainment piece and keeping the fleet schedules on track.

Mr. COURTNEY. And—go ahead, Admiral.

Admiral BURKE. Yes, sir, Mr. Courtney.

It also impacts ship operations as well. So there are some deployments that are lesser deployments than others. And so we are forced to decide whether to do those or not and try to, you know, kind of, bet on the come there will be a budget or not.

Ship visits, you know, a number of those are canceled to various wonderful ports around the east and west coasts that—you know, not too many as it turns out, but it also creates churn.

You know, what are we going to do with the schedule? What is the ship going to do? And so that, the combination of maintenance and operations are—they are both impacted by a continuing resolution.

Mr. COURTNEY. Thank you.

And Admiral McCoy, I was wondering if you could just, sort of, describe for the committee again the process that you use with that, sort of, you know, industry working group, in terms of looking at, maybe, shortfalls of workers in one yard versus another and how that operates.

Because, frankly, I think that is helpful for us to understand how you are trying to balance the maintenance needs.

Admiral MCCOY. Yes, sir.

We have inside NAVSEA [Naval Sea Systems Command] is about 60,000 civilians. About half of them turn a wrench every day for a living. About a little less than 30,000 turn a wrench for a living, and work on our nuclear ships or submarines and our aircraft carriers.

We experience peaks and valleys through the year. And we rely heavily on augmentation of our organic workforce at the four nuclear shipyards. We rely on Electric Boat and Huntington Ingalls down in Newport News.

The folks that work on nuclear ships are highly skilled. They have a significant amount of experience. And it is not somebody that you can just hire off the street.

As a matter of fact, we tell people it takes longer to train a nuclear welder in this country than it does a surgeon, because of the level of experience that they have.

And so, we meet every single month with the four naval shipyards, Electric Boat, and Huntington Ingalls, and we go through not only at the trade, you know, Shop 38 mechanic, an outside machinist mechanic, but also the individual trade skills below that, an air conditioning and refrigeration mechanic, a hydraulics mechanic, all within that Shop 38.

And we project out for the year how many people we need at each place and how many people we have. And we are constantly moving workers around.

On any given day, there are about 200 workers in the six nuclear yards, the four public yards, and the two private yards. There is about 200 or so workers. Some months, it is more.

For example for the next couple of months, 170 Electric Boat workers will be required to augment the public shipyards to get the Nation's nuclear work done.

And so, we treat the workforce of the six nuclear yards as a very precious commodity and are constantly balancing the pluses and minuses and sending folks here and sending folks there. And we have been very successful at doing that, and we continue on.

Mr. COURTNEY. Thank you.

I yield back now. I will save a question for later.

Mr. FORBES. Okay. Thank you, Mr. Courtney.

Now, the chair recognizes Dr. Heck from Nevada.

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

And interested to see the Navy go into the Fleet Response Plan, I think you will find it very successful, as the Army has found the ARFORGEN [Army Force Generation] model to be very successful in a similar pattern. And that will be my only gratuitous Army comment for today. Hooah.

You know, we have talked a lot about hardware ships. But I tend to concentrate more on the personnel readiness side, considering that we can have the best hardware in the world, but if we have got nobody to man it or staff it, it really doesn't do us any good.

In the final report of the Fleet Review Panel of Surface Force Readiness from last February, some of the corrective actions that were to be taken for manning were to increase billets, primarily—I think it was, what, 1,120 personnel billets for optimally manned ships in order to perform preventive and corrective maintenance, and then an additional 285 shore billets.

Where are those billets coming from? Is that within the current manning caps? Is that a movement of billets from one location to another?

But where are you going to find those available billets?

Admiral BURKE. Sir, those are within the current caps. So, they will come from things that we consider less important.

Dr. HECK. So the risk analysis has been done to identify which billets can be given up without incurring any risk in those other areas where you are going to shift over to shore up these areas?

Admiral BURKE. I wouldn't say that there is no risk. I would say that—

Dr. HECK. But the risk-benefit analysis says that the risk is acceptable to move those billets?

Admiral BURKE. Yes, sir.

Dr. HECK. The other thing I found interesting was that there was only a 61 percent fit classification on board ships. Why such a low percentage?

And the goal was to get it up to 85 percent. What eats away that only has you at a 61 percent fit classification?

Admiral BURKE. This is not my area of expertise, but I will take it for the record. But let me tell you roughly what I think on this one.

[The information referred to can be found in the Appendix on page 88.]

Admiral BURKE. For years, we operated on a fill model. So that was essentially, you have a billet, we will put a person in it. Fit

says that not only will we put a person in it, but we will put the right person in it, and that will be both rate, Fire Controlman, and NEC [Navy Enlisted Classification], which is specific schools or specific capability within that.

And so in many cases, we now have the right person at the right grade, but we don't have the specific school. So that person may need to go to another level of fire control school. And so that is the challenge we have right now, and so we are trying to remedy that.

Dr. HECK. And I know, if it is anything like the issues that we have in the Army, getting enough school slots is always a problem.

Are you finding that a big—and maybe you don't know, but you can find out. Is part of the issue having enough available school slots to get these individuals in to be trained, or what is the issue with them not attaining the level necessary to be classified as fit?

Admiral BURKE. I will definitely take that one for the record, sir.

[The information referred to can be found in the Appendix on page 88.]

Dr. HECK. Thank you. And I appreciate it.

Thank you, Mr. Chairman. I yield back.

Mr. FORBES. Thank you.

Chair recognizes the gentleman from North Carolina, Mr. Kissell.

Mr. KISSELL. Thank you, Mr. Chairman.

And thank you, gentlemen, for being with us today.

Admiral Burke, you said a couple times, "a limited supply of forces." What were you referring to in the big picture there, and what does that affect?

Admiral BURKE. What I am referring to when I say we have a limited supply is we only have 285 ships. And I as a submariner, I am most familiar with the submarine model, where COCOM demand is for about 16 or 18 sub SSNs at any one time.

We deliver about 10 SSNs at any one time. And why do we only deliver 10? Because that is all we can afford to deliver, so—

Mr. KISSELL. When you were talking about limited supply of forces, you were talking about specifically ships, and not personnel, not aircraft, not missiles, or equipment for the ships? You were talking specifically for ships?

Admiral BURKE. I am talking about ships as a representative of the entire Navy. So the same sort of thing happens with aircraft.

But the aircraft in the Navy are typically on ships. So they are part of that process. So in other words, we frequently get asked to deliver more carrier presence with the carrier and the aircraft than we can deliver.

Mr. KISSELL. So for every ship that we are short, then you are saying there is just a multiplied shortness there of everything that you could want or imagine or need with that ship, and that is what kind of—I was just curious more about, when you say, limited supply of forces, just, you know. So that is kind of a—for every ship, then, what comes with that ship, we are missing?

Admiral BURKE. Yes, sir.

Mr. KISSELL. Okay.

And Admiral McCoy, you mentioned a percentage of ships being deployed. And I know we had some charts here, and I probably—it is on there somewhere and I just missed it.

But is there an optimum level that we operate against in saying this is the percentage that we would like to have deployed at any one time, in order to have the rest and retrofitting and everything else that we need going on at one time?

Is there a percentage that we shoot for, or is it just kind of vary to tempo levels, or—

Admiral BURKE. Let me take that one.

Mr. KISSELL. Okay.

Admiral BURKE. First of all, there are about 12 percent of our forces forward deployed. In other words, it is homeported in Sasebo, Yokosuka, Japan or in Bahrain. So those forces are always forward, if you will.

That number has essentially doubled over the last 10 years, effectively doubled, given the increase in forces forward and the decrease in overall forces. So the 40 percent includes that.

What we have done over the last several years is, by increasing those that are forward deployed, we have taken those that are rotationally deployed—those that deploy from Norfolk and Groton and San Diego and Hawaii to go other places.

We have taken that number and kept it the same, even though the force is dropping, the force size is dropping. So where we are today is we are not at a sustainable level. Forty percent is not sustainable in the long term.

Mr. KISSELL. Is there a percentage that would be, you know, all things being equal, more sustainable?

Admiral BURKE. Well, in the submarine force that number is about 22 percent.

Mr. KISSELL. Okay.

Admiral BURKE. So 22 percent are forward at any one time.

Mr. KISSELL. And one other question, Admiral Burke.

You talked about that with aircraft, that there is a certain number of hours you get to fly them. And with the delayed delivering of the F-35 and the more hours that we are flying on the wings we have now, where are we heading to?

Are we heading towards to the point we don't have the aircraft that we need? And how soon might we be there or the consequences—what do you foresee there?

Admiral BURKE. The delay in the arrival of the F-35 is a challenge for us. It will add hours on those other aircraft that we call legacy aircraft. It will add hours to them. And those hours are costly, particularly at the end of the aircraft's life.

Mr. KISSELL. And how many more hours do you think we have there? When are we going to reach the point where those lines start coming too close to each other?

Admiral BURKE. Well, we are addressing that now. We have a surface life assessment program and a surface life extension—excuse me, a service life extension program for our F-18s.

And we are in the middle of actually assessing and extending some of those aircraft. So they are built as a 6,000-hour aircraft. And we are doing the engineering analysis.

And we think we can get them to 8,000. And then there is additional analysis that is going on, to try to get longer life out of them. But there is only so far you can go.

The other thing we are trying to do in that regard is to add simulation time. So, if we can—a simulator hour is one, cheap—if we can make it effective, we can reduce the hours on the actual airplane.

Mr. KISSELL. Mr. Chairman, I would like to ask the admiral to get some more information on that and to kind of project where these lines may be going. Because if we don't get the F-35 in and we can't get the hours there, you know, how soon is that crisis point coming?

Admiral BURKE. I would be happy to do that.

[The information referred to can be found in the Appendix on page 88.]

Mr. KISSELL. Thank you, Mr. Chairman.

Mr. FORBES. Thank you, Larry.

Admiral, I want to come back to the questions we were asking, because—and I want to just be honest with you.

I do not understand—and these aren't just to you two individuals as much as they are to the Pentagon and to the questions—when we are grappling with trying to make sure we have the right readiness posture, it would seem to me that it would be without question that we would determine readiness to be our ability to supply the resources our combatant commanders need to meet their current and future missions.

It baffles me that we can't even answer that question first and agree on that question.

Now, we might say we just don't have the budget to be able to do it. We don't have the dollars, and we need more dollars to do it.

We might even say that our combatant commanders ask for too much. Maybe they don't need all that they are asking for.

But to suggest that readiness is not our ability to supply the resources our combatant commanders need to meet their current and future missions baffles me, you know. So, I just want to say at the outset, I don't understand that.

The second thing is I don't know why we have the QDR if the QDR isn't going to help us make some assessments on our readiness. We have been asking for, for the longest time, in the full committee, to get a true threat assessment of what we have got out there and the risks that we may have for future missions, as well as current, so we know if we are ready, because we can't turn these things on a dime in 2 years or 3 years. Sometimes it is a longer period of time.

We are constantly told, when the Navy wants something or the Pentagon wants something, well, look at the QDR. So, I would think we would need to look at the QDR for our readiness.

But I want to cite you this, which is disturbing to me. This comes from the independent panel, bipartisan. Everybody agrees that they had a consensus that said this: "The natural tendency of bureaucracy is to plan short-term, operate from the top-down, think within existing parameters and affirm the correctness of existing plans and programs of record."

That is exactly what happened to the QDR process. "Instead of unconstrained, long-term analysis by planners who were encouraged to challenge preexisting thinking, the QDRs became expla-

nations and justifications, often with marginal changes of established decisions and plans.”

I think that is what happens sometimes when we are talking about readiness.

Admiral Burke, yesterday, you and Admiral McCoy were kind enough to come meet with me prior to this meeting. Putting it in a simple language, I asked you on readiness were we good to go. And you said yes.

I want to put up a chart, if you don't mind now on our INSURV [Board of Inspection and Survey] inspections, which I asked you about yesterday, and ask you guys to respond to this.

Assuming that we are not going to just rely on our combatant commanders to tell us what they need, I would think we would have some kind of objective criteria.

If you look at this chart—and I think the members have it in their materials, that they can look at if they can't see up there—if you go back to 2007, 2008, 2009, 2010, 2011, on our INSURV inspections, of the ones that came back either unsatisfactory or unfit for combat, it was 8 percent in 2007, 12 percent in 2008, 18 percent in 2009, 24 percent in 2010 and 22 percent so far this year.

[The chart referred to can be found in the Appendix on page 82.]

Mr. FORBES. Is there any objective goal that we look for, for those failures? Any percentage, Admiral McCoy, that you would say—that you would be looking for us to say we are good to go when it comes to our INSURV inspections?

Admiral MCCOY. Yes. Let me first say, referring back to our conversation yesterday, I told you I thought we had a good plan, that we had built, over the last 3 years, that we were started off on it and that the key is to sustain the funding and to sustain that effort. And I believe that.

We are not good to go today. And I will you that, in the near term, I suspect that some of these indicators will actually, in the near term, turn a little bit harsher.

And the reason I say that is, for a long time, we were not doing the deep, deep looks. And we are doing the deep, deep looks right now. And so that, you know, we are going to see a backlog of CASREPS [casualty reports] actually go up.

We are going to see a backlog of 2-kilos [repair work requests] that need to be completed go up, because we are doing hand-over-hand inspections. We are doing the grooms with the ships in the middle of the period, getting ready for deployment.

And so, I would tell you, one of the things we are trying to answer right now with the two fleet commanders is so what are the key metrics that show we are making progress?

And what do we think that our trajectory is going to be?

That is something that we are working on right now, Congressman Forbes. I think we have the right elements in place. We have laid in the right engineering rigor. We have laid in the right inspections. We have laid in the right staffing at our maintenance facilities.

The type commanders have laid in the additional people that they need shipboard to keep up with the maintenance period. The top-down involvement, from the fleet, in terms of the standards

and hands-on work with the ships, not only to get ready for INSURVs, but to get ready for deployment.

All of that is in the right direction. And, right now, we are trying to figure out exactly what those key measures of success are going to be, and how long it is going to take us to get there. But I will tell you it is going to take us another couple of years.

And we are going to see some of this kind of data for the next year or two, I think, as we get the deep looks, get the inspections done. I will give you a great example, and I think it is kind of the poster child for why we need to continue doing what we have laid in place.

I was on a ship a couple of weeks ago, USS *Chosin*, a cruiser out in Hawaii. And the availability started out at about \$35 million. It was supposed to finish in July.

The availability is now about \$70 million, mostly because of deep structure, tanks, hull that once we put the ship in dry dock that needed to be addressed and it is going to extend the availability about 3 months and add about \$35 million—almost 100 percent growth to the ship.

That is the kind of thing that we are going to see for the near term as we do these inspections, but it will ensure that our ships get to their full service life. I am convinced, because we have put in place for surface ships the same model that we use for submarines and aircraft carriers that we know works.

And now, I think we have to stay the course. We are not where we want to be. We are on the right path. We are moving in the right direction, but we have to stay the course, sir.

Mr. FORBES. And Admiral, I want to repeat what I said earlier. I have the utmost respect for both of you guys. I am not pointing fingers at either one of you. I also have the utmost respect for your opinions.

Here is what concerns us as a committee. We have to look at objective criteria. And when I look at this kind of chart, it worries me that I see this trajectory that I have got up here, and I think you would agree when we look at 24 percent and 22 percent, that is concerning.

The second thing that worries me is exactly what you said with the *Chosin*. We look at a situation where we see folks from the Pentagon sitting on the other side of those tables telling us, “We have got a plan. We are turning it around.”

We watched as time after time they come over here when they have a statutory requirement to audit their financial statements and they said the exact thing. “We have a plan.”

In fact, the Secretary said that in 2007, had it up on his Web site that he was going to have them all audited by 2010—got a plan, taking care of it, it is a high priority. He missed it by 100 percent.

They didn’t audit any of them in 2010 and they said they would do 100 percent.

Chosin, you are right. We had people telling us it was going to be \$35 million, you know. It is coming out \$70 million.

In Guam, when they came in and sat right where you are and told us it is going to cost \$10 billion, the last report we got it is going to be \$18 billion, you know, not \$10 billion. And so, we are

sitting here saying how do we have confidence in the fidelity of these models if we don't see objective criteria turning them.

Now, I would like to put up another—actually, I think it is on the bottom of that. Look at the maintenance that we have a shortfall on.

[The chart referred to can be found in the Appendix on page 82.]

Mr. FORBES. Admiral Burke, this is one I would like to ask you on. I raised it last night, and for the members, it is at the bottom of the chart, I think, that you just had.

We had this year in the President's budget a \$367 million shortfall in our ship maintenance.

Admiral Burke, I am coming back to what you told me at the beginning of today's hearing that if we don't do the maintenance, we are going to have shorter life cycles, and we are going to have greater costs down the road.

Ultimately, this is something that came over. Your office had to look at it. How do we justify having a \$367 million shortfall for ship maintenance if I am looking at INSURVs that are continually growing in terms of failures, and I am looking at your statement that we are going to have shorter life cycles and greater costs?

Admiral BURKE. I am not happy about the \$367 million. However, it was a decision that was made based on a bunch of other priorities. And ship maintenance came out short a few hundred million dollars.

The impact of that is significant. The impact is that we will go without approximately 40 availabilities.

Mr. FORBES. And Admiral, my concern about, first of all, again, you know, I am not pointing at you. Because I know you needed that money and had it in there.

I am just saying when the Pentagon comes over and tells us everything is good to go, it is okay, we are \$367 million short, that is a problem for us, especially when I am looking every day at China growing in the terms of ships they have got. And I know that that is having an impact on us.

Can I put up another chart on our Navy aircraft? Now, these are deployed aircraft.

[The chart referred to can be found in the Appendix on page 83.]

Mr. FORBES. If you would look at that, it is less than 5 out of 10 of our aircraft are fully mission capable. Our goal is 60 percent and we are not reaching 45 percent. And yet I see shortfalls of \$72.7 million for our aircraft depot maintenance and our aviation logistics of \$27 million.

How do we justify those proposed shortfalls in the budget that came over here if we are only at less than 5 out of 10 of our aircraft—these are deployed aircraft. These aren't ones that are sitting back somewhere. They are deployed.

How do we justify those kinds of shortfalls?

Admiral BURKE. There is not a good justification for those shortfalls. I will say that they are within the realm of what we have been doing for years, but it is a problem. We are short on spares and that is part of the issue here is having the parts that are available to fix these aircraft.

Mr. FORBES. So, it would be fair to say that we are not good to go on those?

Admiral BURKE. We are meeting the COCOM demand, sir.

Mr. FORBES. Be careful. You are telling me, are we meeting the demands of our combatant commanders?

Admiral BURKE. We are meeting the missions of the combatant commanders. We are not missing missions today, sir.

Mr. FORBES. All right.

Admiral BURKE. But I will say that—

Mr. FORBES. Admiral, I want to ask you this. Have you read this quarterly readiness report from our combatant commanders?

Admiral BURKE. I would have to look at it to tell you if I have read it.

Mr. FORBES. It is—and let me just say this. I can't talk about all this. This is the unclassified version. We have got the classified version.

I want you just to look at that classified version. I am tempted to go into a classified setting, but I encourage our members to look at it and then come back and let me ask you that question about whether or not you want to say that our combatant commanders feel they are ready to meet those missions.

But let us look at these objective facts, which is not classified. I think you would agree with me we are not reaching the goals we have set for ourselves, which are low goals. They are only 60 percent. But we are just at 45 percent. So that is a concern, isn't it?

Admiral BURKE. It is definitely a concern.

Mr. FORBES. Okay. Now, the next thing I would like to put up is on our Naval facilities. I think we have a chart.

We don't have a chart on that, but let me just say this. I come back to what you said, which I agree with you, if we don't do our maintenance we have shorter life cycles and greater costs.

This year, the budget that came over from the Pentagon required that we only do 20 percent of the required maintenance on all of our facilities. All the facilities—I am sorry, 80 percent, that we didn't do 20 percent of it. We only did 80 percent.

We had a shortfall of \$349 million. How do we justify that kind of shortfall and not doing the maintenance on those facilities?

Admiral BURKE. The model that we used for that is a resourcing model that doesn't necessarily relate directly to the way in which we do the maintenance. But I will agree with you that in the long term if we don't pay for the maintenance today, we will pay more for the maintenance in the future.

Mr. FORBES. Well, let us come back. You don't disagree that we have a \$349 million shortfall on the facility maintenance, do you?

Admiral BURKE. Well, I think in the past, I think there is—you won't find that anybody is funded to 100 percent because there is some concern about the miles. So, I would say—

Mr. FORBES. That is not my question, though, as you know. My question is, we had—I am taking your numbers. These aren't our numbers. I am taking your numbers of \$349 million shortfall.

Tell me what the numbers are. If this is a hearing on readiness and we need to know whether our facilities are being maintained or we are going to have shorter lives and greater costs down the road, what is the number if it is not \$349 million?

Is it \$300 million? Is it \$280 million? What is the figure?

Admiral BURKE. If you were to fund fully to the readiness model, it would be—I am sure the number you are using is right. It is roughly \$350 million and it is about \$175 million delta between 80 and 90 percent.

Yes, sir.

Yes, that is all I have to say.

Mr. FORBES. And the reason I ask this is not to push on you, but these are the numbers we put in our bill because we want to be good to go. We don't want to be coming in telling our combatant commanders they don't have the resources to meet those missions.

Now, just a couple of other questions—last week, we had a bill, DOD authorization—I mean, not DOD authorization, but a DOD appropriations bill cut \$8.9 billion out of the defense budget that the President submitted.

What impact is that going to have on readiness?

Admiral BURKE. Sir, I am sure it will have some impact, but I don't know what the—I have not seen that, so—

Mr. FORBES. When you get a chance, would you look at that and give us those figures? I am concerned when we start cutting almost \$9 billion.

Because I am assuming you guys had already cut to the bone before you got here, and then to cut \$9 billion, just concerns me. And I would just like to hear it from you as to the impact it is going to have on you.

If it is not going to have an impact, my question would be why didn't we cut the \$9 billion out before the budget came to us? If it is going to have an impact, we need to know what that impact is and we would love to hear you guys just submit that to us for the record.

[The information referred to can be found in the Appendix on page 87.]

Mr. FORBES. The other thing I think you need to be looking at, and we would love to have some insight on, we are just talking about the \$9 billion because we have got shortfalls right now that we have just pointed out. And I am looking over the horizon at all these reports of \$400 billion to \$1 trillion of cuts coming down.

I am really worried about what that does to our readiness posture. And I know you guys have to be concerned about that a little bit.

The last two questions I have for you are these. I have heard rumors. We had one report in a media outlet that said the Navy was thinking about deferring for 2 years, the aircraft carrier that we currently have underway in construction.

Is there any truth to those rumors that you can share with us today?

Admiral MCCOY. I would have to take that one for the record and let ASN-RDA [Assistant Secretary of the Navy for Research, Development & Acquisition] response formally on that, sir.

Mr. FORBES. Okay.

Would you mind getting us a response on that?

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

Mr. FORBES. And also, we heard that they were talking about taking the future carrier off the shipbuilding plan altogether, and

Admiral, if you could just get us a response on that to the extent that you can do it.

[The information referred to can be found in the Appendix on page 87.]

Mr. FORBES. Final thing I want to just close my part with, and then I think Mr. Courtney had an additional—oh, I am sorry, Madeline has a question.

As I mentioned earlier, also we had a Chinese general recommending that—to the Administration, that we cut military spending in the United States. Since you guys told me that we can have your expertise and your experience, I am going to ask you—do you feel we should be cutting military spending in the United States?

Admiral BURKE. I would prefer not to cut military spending in the United States. I would even more prefer not to cut spending on the Navy in the United States.

Mr. FORBES. And will it impact readiness if we do that, Admiral?

Admiral BURKE. So, sir, the answer to this question and the answer to a previous question about cutting \$9 billion or \$8.9 billion, whatever the number was, out of the budget is I don't know whether it will impact readiness per se. It will certainly impact capability and capacity.

I look at readiness as what it takes to get the right platforms out the door with the right training and the right equipment. I suspect we will continue to do the best we can there. The question is, if you cut too much you may not have as many platforms.

Mr. FORBES. And, Admiral, I just want to finish my part up with saying, I thank you for all the balancing act you did, just like Mr. Courtney has said. But our job is not to do just the balancing act.

Our job is to say, if those combatant commanders have a mission that we have tasked them to do, we want to make sure they have the resources so that they will not fail in that mission. And that is what our committee is just trying to do, and we are trying make sure they have those resources.

Ms. Bordallo, I recognize you for whatever time you may need.

Ms. BORDALLO. Thank you. Thank you very much, Mr. Chairman.

There are a few miscellaneous questions for the admirals.

Admiral Burke, it is my understanding that the DOD rates for fuel increased on June 1st from \$126 a barrel to \$165 a barrel. Can you please explain the total cost and the impact to the ship operations and flying hour program accounts?

And if the fuel rates remain high in fiscal year 2012, how will you pay for that deficit?

Admiral BURKE. Madam, you are absolutely right. It is roughly \$39 a barrel. In the last 4 months of 2011, if that price holds, it will cost us an additional \$140 million in the ship operating account, an additional \$204 million in the flying hour account, for a total of \$344 million through the rest of the fiscal year.

The likely source of payment for that will be supplemental funding.

Ms. BORDALLO. Supplemental, okay.

The next one I have is—the Fleet Review Panel had much to say about the inadequacy of the Aegis ship SPY radar readiness. Since

this radar is the backbone of the Navy's air and missile defense capability, what steps has the Navy taken to address this deficiency?

Admiral MCCOY. Yes, madam. About 2 years ago, we undertook a comprehensive look at the SPY radar. That look was finished about a year ago this summer.

Following on that, we took an even more comprehensive look, not only at the radar, but the entire Aegis weapon system, to include what we call wholeness—manning, training, shore infrastructure, spare parts, fit and fill, the adequacy of the coding, the coding standards, interoperability, all of those.

We implemented in the near term, starting in fiscal year 2011, the results of the SPY task force, to include plused-up manning, increased spares, rooms on ships, plus some coding software fixes.

In addition, we have just come through with the two fleet commanders and the resource sponsors and the Chief of Naval Operations, a comprehensive plan for total Aegis wholeness, to include those key elements. We are using some end-of-year funding this year to start that, and we will plan on continuing that through fiscal year 2012 and through the FYDP [Future Years Defense Program].

So we have looked at it from a holistic standpoint. We were not happy with where we were. And we have got a comprehensive plan in place to address those issues.

Ms. BORDALLO. And the funding has been requested?

Admiral MCCOY. The funding has been requested, yes, madam.

Ms. BORDALLO. Another question is, given the issues with the current computer-based training raised by GAO [Government Accountability Office], the Naval Inspector General and the Balisle Report, how has the Navy improved off-ship training for Navy personnel to ensure that sailors arrive at the ship with the necessary skills?

Admiral BURKE. Madam, we probably went a little too far on computer-based training a few years ago. We have since shifted the pendulum back some, so we have a mix of computer-based training as well as instructor-based training. And we have a very good instructor-to-student ratio in that instructor-based training.

And we see benefits in both kinds of training, because there are some people that learn better one way than the other and there are some things that are better taught one way than the other.

But the key point is it is much better to take apart a valve and put it back together in something, you know, where you actually put your hands on a physical valve or physical work on something.

So like I said, we shifted too far. We have come back. And we think we have got the mix about right now. But we have heard from the sailors and heard from the Congress on this one, and we have moved.

Ms. BORDALLO. Good.

My last question, Mr. Chairman, is based on the findings of the Balisle Report, the Navy plans to take a number of actions in many interrelated areas such as training, maintenance, command and control, manning, et cetera.

What is not clear, however, is who will be responsible for making sure that the actions are coordinated and implemented to avoid the problems of the past where the Navy wasn't looking at things holis-

tically to see whether the changes it was making were compatible and did not have unintended consequences.

The Navy will need to take accountability clear and have some kind of integration mechanism across the areas, whether it be one senior-level official who is the focal point supported by an interdisciplinary group or another approach.

So, how does the Navy intend to proceed from here in taking corrective actions, including establishing leadership and organizational accountability?

Admiral BURKE. Last summer, last July, I think it was, in front of this committee, Admiral McCoy and I were here—in between us was Admiral Harvey.

And Admiral Harvey was and is the Commander at Fleet Forces down in Norfolk. Admiral Harvey said he was the responsible person to do exactly what you talked about.

Now, he can't do that without Admiral McCoy and Admiral Architzel and me doing our jobs to support him. So in military parlance, we see him as the supported commander and we are the supporting commanders. And as long as we do our jobs to give him the resources to do it, he will deliver.

Ms. BORDALLO. So, he is the focal point.

Admiral BURKE. Yes, madam.

Admiral MCCOY. And if I could chime in, I am on a regular every 60- to 90-day drumbeat with Admiral Harvey. I also report to Admiral Walsh, the Pacific Fleet Commander.

I am responsible to deliver the engineering and maintenance associated with the actions in the Balisle Report.

I can also tell you that the two surface type commanders are also held accountable by the fleet, Admiral Harvey and Admiral Walsh, for their pieces of manning, training and standards and things like that that were in the Balisle Report.

So, we are on a regular drumbeat. And so, I think that is often moving and being well cared for.

Ms. BORDALLO. Thank you very much. And I thank you both for service to our country.

I yield back.

Mr. FORBES. Thank you, Madeleine.

Mr. Courtney is recognized for a question.

Mr. COURTNEY. Thank you. Actually, I wanted to ask two questions, if that is okay.

One is, you know, we talk about spending in the top line of the defense budget, which, again, I share a lot of Mr. Forbes' concern. Obviously, that doesn't mean there is a blanket approval for any kind of spending. I mean, the fact of the matter is, any system can always be more efficient.

And, you know, the SSBN reconfiguration that brought the price tag down by almost \$2 billion a copy that was worked through over the last year or so, you know, is an example of where, you know, I think that is a healthy thing, to make sure that we are really spending the money as efficiently and smartly as possible.

Another question that came up over the last year was the JSF [Joint Strike Fighter] alternate engine, you know, never-ending, perpetual debate in this building.

But one of the arguments that Secretary Gates and Admiral Roughead talked about was the impact, not just on production costs, which was about \$3 billion in additional spending for the alternate engine, but also the repair and maintenance impact of having two separate engine systems, particularly in places like aircraft carriers, where, I mean, you are really creating—Admiral Roughead argued pretty passionately was a pretty inefficient arrangement that was going to cost money.

So, I guess, you know, again, I share many of Mr. Forbes' concerns, but on the other hand I think that, you know, I think—let me ask you. Do you agree that it still behooves us to look at spending issues, you know, thinking through, again, the way these sort of play out over the life cycle in terms of impact of cost down the road, because we don't want to waste money under almost any scenario over the next few years or so.

Admiral BURKE. Yes, sir. I fully agree with you.

And I spend much of my time and my team spends much of its time scrubbing those things that come to us from Admiral McCoy, Admiral Architzel and others as requirements. So, we dig into them to try to figure out if there is a different way to skin the cat.

Once it goes past me, the same thing happens with some of our budgeteers who have much experience in particular accounts and look for ways to either save money that might be spent in a duplicative fashion or to look at efficiencies like you are talking about, Congressman.

Mr. COURTNEY. Because I think, you know, we want, you know, testimony that is very upfront about whether we are unnecessarily cutting spending, but we also, I think, would encourage input about ways that we could do things better and maybe save money as well.

Admiral MCCOY. Can I chime in there for a second?

Mr. FORBES. Yes.

Admiral MCCOY. We see it as our obligation, particularly given all that we deal with maintaining this and procuring this fleet, to cut what we call total ownership costs. And it is everything to do from using composites on ships to single-coat paints instead of three-coat paints.

Sounds like a small, small thing, but it is huge when you multiply it over 288 ships.

For example, we recently saved \$600 million by one study of whether we could take a class of ships from 4-year maintenance intervals to 6-year maintenance intervals. And that was \$600 million over the FYDP.

And on any given day across NAVSEA, we have 200 to 300 of those efforts ongoing. Some of them don't pan out. Some of them are almost a no-brainer, because the return on investment is so big. And we are constantly feeding those out.

Matter of fact for the first time starting in the fiscal year 2012 budget, we actually across the Navy went and invested heavily to put seed money to a number of initiatives that will actually reduce spending in the long run.

Mr. COURTNEY. Good, last point, Admiral McCoy.

You testified earlier again that you have this monthly meeting process. I hope that will continue. Again, a few notices go out this

week, and as you know, my office will be calling in just to check in with you.

And again, I want to thank you for your great efforts to try and make sure that talented people get used and not wasted. And I hope that will continue.

Admiral MCCOY. Yes, sir. And we are heavily relying on the excess labor, if you will, at Electric Boat for the next 6 to 12 months to help us with the public shipyards.

Mr. FORBES. And let me finish up by saying that what Mr. Courtney said is really apples and oranges. There is no one who says that we shouldn't look at the most efficient means possible.

Here is what I will stand on, and I think it is very difficult to argue with this. We hear the Secretary come in and talk about efficiencies. It is not an efficiency when you cut your maintenance down to doing only 80 percent of the maintenance that you need. That is just kicking the can down the road. And as you have admitted, it is going to be greater cost and shorter life expectancies when we do it.

This committee needs to be on top of that. That is not good to go.

It is not cutting costs when we say that we are going to cut the cost on aircraft maintenance, and we see that we have the problems that we have with only 45 percent of our naval aircraft in a mission-capable ready to fly. That is not a cost efficiency.

It is not a cost efficiency when we look at our cannibalization rates, which have been above the maximum accepted level for the fourth consecutive quarter. That means we are taking parts off of one ship to put on another ship so we can meet the inspections.

The other thing that I am really concerned about, and I don't think it is a cost efficiency—I want to put this last chart up so we can get it in the record and let you comment on this—but our casualty reports, which indicate—if it is a C-3 or C-4, indicates a primary mission degradation with mission-essential systems or equipment have failed.

[The chart referred to can be found in the Appendix on page 84.]

Mr. FORBES. We have had on the average 40 percent of the time that our ships have been deployed, they have had at least one major equipment or systems failure. That is not a cost-cutting measure.

And I know yesterday when we were talking, you said, "Well, that is not necessarily a failure for that particular mission that they are doing." But that would be like saying, "I am going down the road, and the windshield wipers on my car aren't working, but it is not raining right now."

The reason we put that equipment on is so they are ready for those missions when they come up.

And that is the kind of thing, Mr. Courtney, I think this committee needs to be on top of, because when we come in here and say we are good to go for readiness, we are not good to go for readiness. We have got some big shortfalls that we need to fill, if we are going to make sure that our combatant commanders have the resources they need to meet the missions that they need.

And the final question I want to do is just one follow-up. Ms. Bordallo raised a very good question on the fuel, and you talked

about the supplemental. But what are you going to do to address the fiscal year 2012 costs that you are going to be having?

How are we going to pay for those shortfalls due to the increased prices that you know you have already got?

I am sorry, Larry—okay.

The supplemental won't come for that, but.

Admiral BURKE. Is that a question?

Mr. FORBES. Yes, sir, please.

Admiral BURKE. I don't know yet how we will pay for it. I suspect we will—because much of that fuel use will be in the CENTCOM [Central Command] area supporting operations in Afghanistan and in the Gulf, that we will pay for that with OCO [Overseas Contingency Operations] funding.

Mr. FORBES. Mr. Kissell, one final question, and then we are done.

Mr. KISSELL. Thank you, Mr. Chairman.

Just a couple of follow-ups and the information we talked about on our aircraft and kind of like the convergence, you know, where does the eventual demise of the legacy aircraft and the lack of the F-35, you know, where are we going with that?

But especially in terms of safety for our airmen and, you know, how far are we going to be pushing that envelope in terms of safety. I would like to have, you know, consideration for that.

And the last thought is when you look at these readiness numbers and recognizing that we are operating in what I would call a harsh environment, but we are not operating in a hostile environment, you know. And I hope we don't.

I hope we don't have active warfare involving our ships, other than what we are doing in terms of launching attacks.

But it does concern me. If we did get into a hostile situation, and we have these maintenance situations, you know, without being fired upon, then, you know, where might we go?

And the idea that switching from computer-based training to more realistic training—I applaud that. And I remember when Admiral Harvey said that last year, that it falls on him, and we do need these numbers getting better.

And with that, Mr. Chairman, I yield back.

Mr. FORBES. Thank you, Mr. Kissell.

I thank all the members of the committee.

And I want to also, before we adjourn, once again thank our witnesses again for their service to the country and also for appearing before the subcommittee today.

I want to also take a moment to highlight for our membership an opportunity to continue this dialogue by joining me in a visit to some of our key shipyards that we are going to be trying to arrange in the near future. And I think this will facilitate a first-hand assessment of our capabilities. And I welcome your participation.

Thank the Navy in advance for organizing those visits for us.

And with that, if there is nothing else, we are adjourned.

Thank you all very much.

[Whereupon, at 4:55 p.m., the subcommittee was adjourned.]

A P P E N D I X

JULY 12, 2011

PREPARED STATEMENTS SUBMITTED FOR THE RECORD

JULY 12, 2011

Statement of the Congressman Forbes Chairman, Subcommittee on Readiness

Navy Readiness

July 12, 2011

I want to welcome all of our members and our distinguished panel of experts to today's hearing that will focus on how the Navy gets ready, and the current state of Navy readiness. No one will dispute that we have the most capable Navy in the world. However, a dichotomy exists when you contrast the decline in our Navy readiness posture due to decreased funding with the increase in military capabilities of many emerging powers. In January of this year, then Secretary of Defense Robert Gates admitted that Beijing's military modernization caught the U.S. intelligence community off guard.

Juxtapose that against a backdrop of looming defense cuts in the U.S. that are expected to be submitted by the Administration in the very near future. Our Navy already has insufficient resources to preserve its current fleet let alone reverse the negative trends of years of underfunding, deferred maintenance, and gaping holes in Navy readiness.

According to the Pentagon's "Quarterly Readiness Report to Congress," in many areas the Navy has *not* met their goals and is not prepared even with the current level of funding. For example, currently only 45% of our deployed Navy aircraft are fully combat ready. Everyone can do the math, but, I am startled by the fact that fewer than 5 aircraft out of every 10 in combat are prepared for their mission. We continue to see shortfalls throughout the fleet including an almost 16% backlog for aircraft and engines, fewer spares available, and more than \$815 million of unfunded maintenance requirements to cite a few examples. During inspections in the last two years, more than 1 in 5 Navy vessels were deemed less than satisfactory or unfit for combat. Coupled with manpower shortfalls, an increased number of Commanding Officers being relieved, greater 'cannibalization' of parts from other vessels, and insufficient training, all of these statistics add up to glaring deficiencies that are nothing short of alarming.

Earlier this year before this very Subcommittee, Vice Admiral Bruce Clingan admitted that in his opinion, "the Department of Defense, and certainly the Navy budget, is carrying a level of risk this year, fiscal year 2012, and in the out years ... That would cause me to suggest that one of the solutions to the deficit spending that I would not advise is to diminish DOD, and certainly the Navy's, budget." Admiral Clingan went further to suggest that to decrease the funding "at a time when we are trying to reset

and reconstitute the force and meet an evolving security environment, [would] invite multiple concurrent diverse crises, [and] would in fact increase risk.”

Fundamentally, I am very disturbed because over the horizon I see our adversaries continuing to expand their military might, while a masthead of a \$400 billion cut to national defense is looming. In the last few days, the press reported that after meeting with Admiral Mullen, China’s top general recommended that the U.S. should reduce its military spending; which is consistent with what we anticipate from the Administration in the very near future. And, while some in Congress may agree, this is not a position that I am prepared to accept. Unfortunately, this is exactly the direction we are headed if we do not take strides to preserve the budget and our critical investments.

It is incumbent on this subcommittee to focus on today, and it is our obligation to preserve and defend strategic investments for the future. I look forward to hearing from our witnesses today not only how the Navy gets “ready,” but delving into detailed discussions regarding the current state of Navy readiness.

Joining us today to discuss these issues are two distinguished individuals:

Vice Admiral William Burke
Deputy Chief of Naval Operations, Fleet Readiness and Logistics

Vice Admiral Kevin McCoy
Commander, Naval Sea Systems Command

**Opening Statement by Ranking Member Madeleine Bordallo
Readiness Subcommittee hearing on
How Does the Navy Get Ready, and Where are We Today?
Tuesday, July 12, 2011**

Mr. Chairman, thank you.

To both our witnesses, I look forward to your testimony.

Today we are going to take a more comprehensive look at the U.S. Navy's fleet readiness posture. The readiness of our Navy's surface fleet has been a topic addressed in detail by this subcommittee over the past two years under former Chairman Solomon Ortiz.

The Navy has slowly come to realize that it has accepted too much risk in the maintenance of our non-nuclear surface fleet over the past decade. These significant risks are due in part to organizational decisions made by the Navy regarding, ship manning, ship maintenance capability, and crew training, as the Navy responded to institutional pressures to reduce spending.

While the subcommittee appreciates the Navy's recognition that its past decisions contributed to the current high risk in maintenance of the non-nuclear surface fleet, we hope the testimony provided by our witnesses today will address when we can expect to see tangible progress and improvement in the overall readiness of our fleet.

This subcommittee takes very seriously the material readiness of our surface fleet. As a result, we increased funding for the Navy's Operation and Maintenance account by 440 million dollars in our Fiscal Year 2012 authorization bill. This funding will make whole both the ship depot maintenance and aviation depot maintenance accounts.

I hope our witnesses can outline how this additional funding will reduce risks and what specific benefits this funding would have on maintenance activities in Fiscal Year 2012.

Finally, given the results of the Balisle Report, significant challenges remain for improving Navy readiness.

I have seen the May 11, 2011, memorandum from Fleet Forces Commander Admiral Harvey regarding changes to address the issues outlined in the Balisle report. I hope our witnesses today can discuss how these recommended changes will be institutionalized in the Navy and over the coming years.

Further, what is the cost of implementing and sustaining these recommendations? Will these recommended changes be reflected in the budgets for Navy operations and maintenance over the Future Years Defense Program? What challenges will possible reductions in the Defense and Navy budgets present to implementing these changes?

We do not have a fleet of 313 ships yet, so it is critically important that we maintain our current fleet of 288 ships for the near term. Even though the wars in Iraq and Afghanistan are beginning to ramp down, our Navy's role in projecting force across the globe will not decrease.

In fact, in many instances, I see the role of our Navy increasing, particularly in the Asia-Pacific region. So, maintaining our fleet is of utmost importance.

Again, I thank the Chairman and look forward to our witnesses' testimony today.

NOT FOR PUBLICATION UNTIL
RELEASE BY THE SENATE
ARMED SERVICES COMMITTEE

STATEMENT OF
VICE ADMIRAL WILLIAM BURKE
DEPUTY CHIEF OF NAVAL OPERATIONS
(FLEET READINESS & LOGISTICS)
AND
VICE ADMIRAL KEVIN MCCOY
COMMANDER, NAVAL SEA SYSTEMS COMMAND
BEFORE THE
HOUSE ARMED SERVICES COMMITTEE
SUBCOMMITTEE ON READINESS
ON
NAVY READINESS

JULY 12, 2011

NOT FOR PUBLICATION UNTIL
RELEASE BY THE HOUSE
ARMED SERVICES COMMITTEE

Chairman Forbes, Congresswoman Bordallo, and distinguished members of the House Armed Services Committee, Readiness Subcommittee, it is our honor to be with you today representing the over 600,000 men and women of the United States Navy, active, reserve, and civilians. Their dedicated service helps ensure the security of this Nation every day. Today, as always, our Navy is deployed globally, with over half the Fleet at sea and more than 24,000 personnel serving in the U.S. Central Command (CENTCOM) area of responsibility (AOR).

The readiness of the Navy to provide the maritime resources needed by our Combatant Commanders (CCDRs) is a function of both combat capability and force capacity. Achieving the required levels of each requires a fine balance between acquiring the right force structure along with new warfighting capabilities, and properly sustaining existing capabilities and platforms to achieve their expected service life. In developing our FY12 budget to accomplish that balance, the Navy first ensured our front line warfighters have the resources they need to accomplish their planned operations – and that is reflected in a continued high state of readiness of our deployed forces in their key mission areas.

The President's Budget for Fiscal Year 2012 provides the balanced funding necessary for the Navy to support today's force while developing the future capabilities and capacity necessary to continue to execute Navy missions in support of the National Military Strategy. Navy programming continues to be informed by our Maritime Strategy – "A Cooperative Strategy for 21st Century Seapower" or CS21. Since its publication in 2007, CS21 has provided a clear vision of the core capabilities the Navy must provide for the Nation. Based upon this foundation, the Chief of Naval Operations provides annual guidance on his principal focus areas for executing the Maritime Strategy – which have become enduring imperatives. They are:

- Build the Future Force. In previous testimony before this committee, Secretary Mabus and Admiral Roughead outlined our plans to build the Navy required to deliver our core capabilities into the future. The Navy budget submission balances these plans with acceptable risk across all our requirements to deliver a Navy program that most effectively employs the resources entrusted to us.
- Maintain Warfighting Readiness. The CCDRs demand for the capabilities delivered by Navy forces continues to grow. Concurrently, we continue to reset in stride to deliver our Global Force Management (GFM) commitments while taking proactive steps to improve the readiness of our forces, particularly our surface ships.
- Develop and Support our Sailors, Navy Civilians, and Families. We continue to expand our capabilities to support our Sailors and families. The service and sacrifice of our returning warfighters, particularly our Wounded Warriors and their families, place a special obligation upon us, one we will not shirk.

Our testimony today centers on the second of the CNO's focus areas and the contribution of Navy readiness accounts in maintaining our overall warfighting readiness. We will also address the ongoing actions to improve the readiness of our Surface Force ships, and plans to maintain our public shipyard infrastructure. The FY12 budget provides the resources to deliver Navy units ready today, and to sustain our ships, aircraft, equipment, and supporting capabilities to be ready for tomorrow.

Navy Units – Ready Today

Global trends in an uncertain world portend an increased demand for sea power. The safety and economic interests of the United States, its allies and partners rely upon the unimpeded trade and commerce that traverse the world's oceans. U.S. vital national interests are tied, therefore, to a secure maritime environment, which places global responsibilities on our Naval forces. The FY12 budget, including Overseas Contingency Operations (OCO) funding, supports Navy operations across this broad spectrum of responsibilities. Our readiness and operational support programs will meet the anticipated CCDR demand for Navy forces within force structure constraints and provide surge forces in support of operational plans, with an acceptable level of risk.

The Fleet Response Plan

The Fleet Response Plan (FRP) is the Navy's construct for the generation of ready forces. It was developed to improve Navy readiness to respond in unanticipated crisis situations and to ensure the ability to provide the surge forces required in the CCDR's war plans within the prescribed timelines. Prior to FRP implementation, training for the majority of our forces was focused almost exclusively on scheduled rotational deployments. Until forces entered a three to four month window prior to deployment, they were in a limited state of readiness which was not fully restored until 30 days prior to deployment. This was often referred to as "the readiness bathtub." Our personnel processes were also aligned to this cycle, resulting in a loss of key skills after deployment as well as a significant drop in overall crew experience levels.

The FRP cycle runs from the end of one depot maintenance period to the end of the next – and varies in length by ship type. It provides phased training beginning immediately after completion of a ship's depot maintenance period. "Basic phase" training prepares individual units for limited operations in a crisis situation, and positions them to be available for surge requirements within a 90 day window. The subsequent "integrated training phase" prepares units to work together at the task group level, as Carrier Strike Groups or Amphibious Ready Groups. This training culminates with a Joint Task Force exercise that emphasizes command and control in a Joint context and hones warfighting skills as part of a Joint force. In the follow-on "sustainment phase," these units are available to meet requirements to surge forces within a 30 day window for Combatant Commander war plans, and conduct scheduled deployments in support of named operations or presence requirements. Navy personnel processes were also realigned under the FRP to limit the previous swings in key skills and experience levels.

Another key readiness aspect of FRP is that units remain in the "sustainment phase" following return from deployment. They remain organized and trained to a level to respond to a 30 day surge requirement, or to conduct additional deployments, until the beginning of their next maintenance phase. In the past, the readiness of these units was allowed to degrade a short time after return from deployment, even if many months of potential employability remained prior to entering depot maintenance.

The availability of forces generated under the FRP is simply described as operational availability (Ao) in the following equation: $Ao = X + Y + Z$, where:

- X = units deployed (driven by the Global Force Management (GFM) plan)
- Y = units available for surge within 30 days (Integrated Phase Training complete)
- Z = units available for surge within 90 days (Basic Phase Training complete)

The principal driver for the required Ao at any given time is the GFM plan in effect. When the requirement for deployed forces (X) exceeds what can routinely be generated within Navy force structure, then surge readiness (Y + Z) will be used.

Current Readiness and Trends

As described above, implementation of the FRP delivered an improvement in overall Navy readiness and provides flexibility in the employment of Navy forces in response to Combatant Commander requirements. However, the current level of demand across the Joint force has resulted in many types of Navy units deploying and re-deploying at a rate that impacts readiness to surge additional forces for Combatant Commander war plans, and reduces the time available for training and organizational level maintenance. In other words, readiness available for surge is being used for presence. This is unsustainable over the long term, and is reflected in a slight downward trend in overall readiness which began in 2007 and continues to the present.

Since the Navy is a traditional rotational force, our standing practice of reset-in-stride has resulted in a near steady overall readiness profile during the continuing operations in the CENTCOM AOR. However, the overall pace of operations has impacted both Navy personnel and equipment readiness, reducing the readiness of non-deployed forces, and requiring mission-tailored training for some deploying forces. To achieve the Expected Service Life (ESL) of our ships and aircraft over the long term, and to stabilize the surge readiness available under the FRP, operational demand and force structure must be rebalanced.

Developing Readiness Requirements

The Navy uses four budget models to determine the financial resources necessary to meet readiness goals for our primary operational forces:

- The Ship Operations model is used to determine the cost of meeting presence and training requirements for U.S. Navy ships and submarines.
- The Ship Maintenance model is used to determine the cost of meeting maintenance requirements at the intermediate and depot levels in both public and private repair facilities.
- The Flying Hour Program (FHP) model determines the cost of operational, training and support flights as well as the cost of flight crew training.
- The Aviation Depot model is used to determine the cost of depot maintenance for airframes and aircraft engines.

These models improve the accuracy of budget estimates by relying on data to produce verifiable and repeatable results. The model inputs are updated at least annually and incorporate the actual financial data from prior years as each year is closed out. Each of the models has been in operation for several years and has been certified by Johns Hopkins University.

Current Operations Accounts

Ship Operations

The FY12 budget (baseline plus OCCO) provides the Ship Operations account with funding for an average ship's OPTEMPO of 58 steaming days per quarter (deployed) and 24 steaming days per quarter (non-deployed). This OPTEMPO enables the Navy to meet FRP training/certification requirements with acceptable risk. Measures, such as increased use of simulators, concurrent training and certification events while underway, and the judicious use of fuel, are used to mitigate risk. While the Navy met all

GFM commitments in FY10, including the operational requirements in support of Operation Iraqi Freedom (OIF)/Operation New Dawn (OND) and Operation Enduring Freedom (OEF), we continue to experience high OPTEMPO globally. Sustainment of this OPTEMPO remains dependent upon the receipt of OCO or similar supplemental appropriations.
Air Operations (Flying Hour Program)

The FHP account provides for the operation, maintenance, and training of ten Navy carrier air wings, three Marine Corps air wings, Fleet Air Support (FAS) squadrons, training commands, Reserve forces, and various enabling activities. The FY12 budget (baseline plus OCO) resources the FHP account to achieve Training-rating (T-rating) levels of T2.3 for Navy and T2.0 for the Marine Corps. With this funding, tactical aviation squadrons conduct strike operations, provide flexibility in dealing with a wide range of conventional and irregular threats, and provide long range and local protection against airborne surface and sub-surface threats. FAS squadrons provide vital Fleet logistics and intelligence. The Chief of Naval Air Training trains entry-level pilots and Naval Flight Officers, and Fleet Replacement Squadrons provide transition training in our highly capable, advanced Fleet aircraft. Reserve Component aviation provides adversary and logistics air support; makes central contributions to the counter-narcotics efforts; conducts mine warfare; and augments maritime patrol, electronic warfare, and special operations support.

Navy is increasing the use of simulation to reduce non-deployed flying hours and is continuing to invest in new simulators. We are also investing in improvements to existing simulators to enable further reductions in aircraft flying hours while maintaining requisite training levels for deployed operations.

Ensuring the Navy is Ready for Tomorrow
(Navy Platforms, Equipment, and Supporting Capabilities)

Sustaining the capital assets of the current force is essential to building the future Navy. Using the proven engineered maintenance planning of the carrier and submarine forces, Navy is investing in improvements in surface ship maintenance processes to enhance long-term surface ship material readiness. Investment in future F/A-18 service life extension will assist in managing strike-fighter force structure until sufficient F-35 resources are available in the Fleet. Supporting capabilities are also funded to ensure a ready Navy in the future.

Ship Maintenance

Keeping our ships in acceptable operating condition is vital to their ability to accomplish assigned missions and reach their ESL, a key factor in the Navy's 30-Year Shipbuilding Plan. Surface ships, aircraft carriers and submarines currently in commission comprise approximately 70% of the ships that will be in service in 2020. Reaching ESL requires an integrated engineering approach to plan, fund, and execute the right maintenance.

Improving Surface Ship Maintenance

- **Enhanced Maintenance Planning.** In October 2010, the Surface Ship Life Cycle Management Activity transitioned into the Surface Maintenance Engineering Planning and Procurement Activity (SURFMEPP). SURFMEPP reports directly to Naval Sea Systems Command (NAVSEA - SEA 21) - Navy's overall life cycle manager for surface ships - and is re-establishing surface ship engineered

requirements and Class Maintenance Plans (CMPs), based on disciplined engineering processes similar to those used by our carrier and submarine communities. This cross-enterprise alignment is a significant step forward for the Surface Force, as this rigor will result in proper planning and execution for surface ship maintenance, and achieving ESL.

Based on the CMP and actual ship condition, SURFMEPP is generating individual ship life cycle maintenance plans, from which a Baseline Availability Work Package (BAWP) is developed for each scheduled maintenance availability; all BAWP required maintenance actions are then tracked to completion. If a maintenance action is proposed for deferral, SURFMEPP reviews the request and ensures formal adjudication by the appropriate technical authority. If approved, the deferred action is scheduled for the follow-on availability, or a window of opportunity, as directed.

SURFMEPP is influencing future maintenance requirements through the production of Technical Foundation Papers (TFPs), which assess the ship's entire life cycle. TFPs are used to combine the requirements of the CMP with any known unique ship-specific maintenance requirements to determine the required maintenance for each ship. TFPs for DDG 51 and LSD 41/49 Classes were completed in time to inform the FY12 budget request; TFPs for CG's and LHDs will be completed to inform future budgets. The FY12 budget also includes new requirements for Surface Ship Material Condition Assessments, Fleet Technical Support, and additional oversight of contractor work based on increases in maintenance requirements identified by SURFMEPP in revising the CMPs.

- **Corrosion Control Initiatives.** A robust corrosion prevention and mitigation strategy is essential to minimizing the total ownership cost of our ships, while ensuring they reach ESL. An essential part of executing any corrosion prevention strategy is a clear understanding of the current condition of each asset. Until recently, surface ships did not have a rigorous approach to corrosion control, and though the science of corrosion is well known and methods to contain it are mature, our implementation of those methods was sporadic and usually reactive to the corroding events.

As discussed in testimony last year, the Navy piloted the Achieving Service Life Program, partnering with the American Bureau of Shipping (ABS), to perform detailed surface ship structural surveys using commercially proven processes and procedures. To date, inspections on over twenty surface combatants and amphibious ships, and exercising service life validation models have been completed. The results of this work and the constant review of waterfront maintenance activities will help to prioritize resources, shape the baseline work packages for these ships, and align repairs to enhance service life integrity.

Using ABS' commercial experience and tools, we are gaining knowledge on what is required of our ships to meet their ESL. Through this documentation and analysis, the maintenance community is better able to perform "condition based" planning to avoid serious material conditions that adversely impact a ship's operational availability. Current service life assessments have already demonstrated their value in informing the maintenance community of "corrosion hotspots" by class and will be a key input to SURFMEPP's Corrosion Control Programs.

SURFMEPP is actively involved in managing corrosion and is creating and maintaining a surface ship corrosion tracking database, similar to those used by the carrier and submarine communities, that details the condition of surface ship tanks and voids. Additionally, corrosion prevention and correction is being incorporated into individual ship life cycle maintenance plans and the BAWP as part of availability planning.

Along with the ABS assessments, the Navy is also conducting Maintenance Requirement Card (MRC) assessments, to drive both an engineered solution to the discovered problems and define the maintenance requirements by hull to inform the budget through a structured and defensible analytical process. As we gain knowledge on individual classes of ships, we expect to be able to target the critical areas subject to accelerated corrosion at the proper intervals. MRC assessments are being conducted by the Regional Maintenance Centers (RMCs) to ensure consistency, and uniform application of guidelines.

In addition, Navy has established a Corrosion Knowledge Sharing Network to focus surface ship corrosion control initiatives and address issues across the Fleet. Also, Corrosion Control Assistance Teams (CCATs) have been instituted at five sites with plans to expand to all major ship maintenance locations. They provide tools, technology, expertise and training to improve ship preservation efforts.

- **Enhancing Intermediate Maintenance.** To restore intermediate level maintenance capacity and capability on the waterfront, Navy is increasing both the Sailor and civilian manning at the RMCs. Sailors working at RMCs learn to self-assess, identify, and even correct maintenance issues that are typically more complex, and require a higher level of experience, than those routinely performed at the organizational level - valuable skills that they take with them back to the Fleet.

In December 2010, Navy established a new command, Navy Regional Maintenance Center (NRMC), to lead the operations of all RMCs in the execution of surface ship maintenance and modernization. NRMC is establishing common policies and processes in the oversight of operations and management of RMCs for the execution of private sector depot level repair and modernization, technical and engineering assistance, contract management services, and readiness assessments on Naval vessels.

Ship Maintenance Funding

The FY12 budget (including OCO) resources the ship maintenance account to 94 percent. This funding level represents the best balance between current force readiness and building the future force within available top line funding.

Navy is committed to the right level of ship maintenance at the most efficient cost but remains dependent upon the receipt of OCO or similar supplemental appropriations to fund ship maintenance requirements. We continue efforts to reduce the total cost of ownership of the Fleet, as we have done with SSN 688 and SSN 774 class submarines, through the analysis of engineered technical requirements and assessment of recently completed availabilities. The cyclic nature of ship and submarine depot availabilities from year to year continues to cause variations in budget requests and annual obligation levels.

Surface ship availabilities are conducted almost exclusively in the private sector. Nuclear submarine and aircraft carrier availabilities are primarily conducted in the public sector, with selected availabilities completed by nuclear capable private shipyards. Whenever practical, maintenance is performed in the ship's homeport to minimize the impact on our Sailors and their families. The Navy recognizes that maintenance organizations need a stable and level workload to maximize efficient execution. We will continue to level the workload to the maximum extent practicable within operational constraints.

Public Shipyard Infrastructure

Navy's four public shipyards, along with other elements of the Navy's shore infrastructure, are all critical in maintaining Fleet readiness and supporting ongoing worldwide operations. Naval shipyard infrastructure investments target the recapitalization of dry-docks, wharves, piers, and shops that directly support the Fleet.

While we must balance risk across the Navy to provide the most capability within fiscal constraints, we continue to make investments in our Naval shipyard infrastructure to meet mission requirements through Sustainment (ST), Restoration and Modernization (RM), and Military Construction (MILCON) funding. For fiscal years 2008 through 2010, Navy exceeded the minimum capital investment required by law (10 USC 2476), which mandates a minimum investment of 6% of the average of the previous three years of intermediate and depot maintenance revenue. By this measure, the Navy has provided investments of 9.5% in FY08; 9.9% in FY09; and 14.6% in FY10, and plans to invest 9.8% this year. The FY12 budget request includes \$67.3M for shipyard ST and RM projects and the following MILCON projects are programmed in FY12:

- o Norfolk - \$74.2M Controlled Industrial Facility
- o Puget Sound - \$13.2M Integrated Dry Dock Water Treatment Facility

Aviation Maintenance

Naval aviation maintenance is executed through the use of Reliability Centered Maintenance (RCM). Naval aircraft, engines, systems (i.e., weapons, aircrew escape systems, avionics, and electrical systems), and support equipment (i.e., avionics support equipment, non-avionics support equipment, and aircraft launch/recovery equipment) undergo an analytical process to determine preventative maintenance requirements and other actions necessary to ensure safe operation with cost-wise readiness. This approach ensures the proper balance of preventive maintenance (PM) tasks, prognostics and diagnostics (i.e., predictive and detective sensing devices), corrective maintenance, operational procedures, maintenance improvements, design changes, and training.


The process of developing PM requirements, with an auditable documentation package, is based on the reliability of the various components, the severity of the consequences related to safety and mission if failure occurs, and the cost effectiveness of the task. Thus, aircraft, engines, and systems have an established maintenance cycle documented in maintenance publications, which are based on flight hours, calendar days, or cycles (e.g., landings, take-offs, carrier landings, operation hours, prognostics, etc.). PM is accomplished by either by organizational, intermediate or depot level maintenance personnel, as specified in the maintenance publications.

The Aviation Depot Maintenance account ensures operational aviation units have sufficient Ready for Tasking aircraft to accomplish assigned missions. The FY12 budget request (baseline plus OCO) resources the Aviation Depot Maintenance account to 95 percent of requirement, and funds the repair and overhaul of 742 airframes and 2,577 engines. The shortfall results in a projected backlog of 23 airframes and 162 engines, which is moderate, but acceptable risk and below our one year red-line backlog of 100 airframes and 340 engines. The Naval Aviation Enterprise AIRSpeed strategy continues to deliver cost-wise readiness by focusing efforts to reduce the cost of end-to-end resourcing, increase productivity, and improve the operational availability of aircraft. This strategy provides a robust capability to use efficiencies to manage the highest priority requirements.

Conclusion

The President's Budget for Fiscal Year 2012 provides the balanced funding necessary for the Navy to support today's force while developing the future capabilities and capacity necessary to continue to execute Navy missions. Sustaining the capital assets of the current force is essential to building the future Navy. Using the proven engineered maintenance planning of the carrier and submarine forces, Navy is continuing to invest in improvements in surface ship maintenance processes to enhance long-term surface ship material readiness.

Together with the U.S. Marine Corps and the broader Joint force, our long term allies, and newer partners, the Navy remains ready to defend our Nation, and the common interests of the community of nations, from those countries or other actors who would seek to harm us. In the FY12 budget, we have balanced our resources to sustain Navy readiness today within acceptable risk in each of the core capabilities defined in our Maritime Strategy, while building the capacity to sustain the Navy of the future. We appreciate the Committee's consideration of our budget request and thank you again for your support of the Navy's mission and particularly for your commitment to the welfare of our Sailors, their families and our Navy civilians.



United States Navy Biography

Vice Admiral William R. Burke Deputy Chief of Naval Operations for Fleet Readiness and Logistics (N4)

Vice Admiral Burke, a native of Hornell, N.Y., graduated from the United States Naval Academy in 1978 with a Bachelor of Science in Systems Engineering. In 1985, he completed an MBA at Marymount University. In 1999, he earned an MS in National Security Strategy at the National War College in Washington, D. C. He is a graduate of MIT Seminar 21 Program in International Politics.

His submarine assignments include USS *Lafayette* (SSBN 616), USS *Key West* (SSN 722), USS *Omaha* (SSN 692), USS *Cavalla* (SSN 684), and command of USS *Toledo* (SSN 769). He commanded Submarine Squadron 2 from July 2001 to July 2003.


His Washington D.C. shore assignments include a tour in chief of naval operations' Attack Submarine Division, assistant deputy for House Liaison in the Navy Office of Legislative Affairs, chief of Training, Doctrine, and Assessment and assistant deputy director for Combating Terrorism (JCS J34), and head of Warfighting Assessments Branch (N812) followed by a tour as the executive assistant to the vice chief of naval operations.

Promoted to rear admiral in September 2005, his flag assignments include commander, Logistics Group Western Pacific / commander, Task Force 73 / commander Navy Region Singapore; director, Assessment Division (N81/N00X) and the director, Quadrennial Defense Review (QDR/N00X).

In April 2010 he was promoted to vice admiral and reported for duty as deputy chief of naval operations for Fleet Readiness and Logistics (N4).

Burke wears the Defense Superior Service Medal, Legion of Merit (three awards), Meritorious Service Medals (three awards), the Navy Commendation Medal (four awards), and the Navy Achievement Medal (two awards). While on board *Cavalla*, he received the Admiral Chick Clarey Award for the 1992 Outstanding Navy Officer Afloat from the Honolulu Council of the Navy League.





United States Navy Biography

Vice Admiral Kevin M. McCoy Commander, Naval Sea Systems Command

A native of Long Island, N.Y., Vice Admiral McCoy graduated from the State University of New York at Stony Brook in 1978, with a Bachelor of Science Degree in Mechanical Engineering.

At sea, McCoy served aboard USS *Daniel Webster* (SSBN 626) and as repair officer aboard USS *L. Y. Spear* (AS 36). In these assignments he earned his submarine engineering duty qualification and his surface warfare qualification. He was also awarded the Claud A. Jones Award from the American Society of Naval Engineers as "Fleet Engineer of the Year" during his tour onboard *Ly Spear*.

Ashore, McCoy served in numerous assignments in the Naval Shipyards, including assignment to Mare Island, Charleston, Norfolk, Puget Sound and Portsmouth Naval Shipyards. From 2001-2004, he served as the 80th commander of Portsmouth Naval Shipyard. McCoy earned a master's degree in Mechanical Engineering and an engineer's degree in Naval Engineering from the Massachusetts Institute of Technology. He also earned a Masters in Business Administration Degree from Emory University.

Upon selection to flag rank, McCoy served as assistant deputy commander of Industrial Operations of the Naval Sea Systems Command from 2004-2005. From 2005-2008, he served as the Naval Sea Systems Command's chief engineer. In June 2008, he was confirmed by the U. S. Senate for promotion to the rank of vice admiral and was assigned as the 42nd commander, Naval Sea Systems Command.



Updated: 14 April 2011

DOCUMENTS SUBMITTED FOR THE RECORD

JULY 12, 2011



DEPARTMENT OF THE NAVY
COMMANDER
U.S. FLEET FORCES COMMAND
1562 MITSCHER AVENUE SUITE 260
NORFOLK, VA 23551-2487

3501
Ser N00/135
11 May 11

MEMORANDUM FOR THE RECORD

Subj: FLEET READINESS REVIEW PANEL REPORT (ONE YEAR LATER)

Ref: (a) Fleet Readiness Review Panel Report of 26 Feb 10
(NOTAL)

1. In February 2010, a senior panel of subject matter experts led by Vice Admiral (retired) Phillip M. Balisle completed a comprehensive assessment of Surface Force readiness. Admiral Willard (then Commander, U.S. Pacific Fleet) and I had directed this effort in September 2009 because our observations had convinced us that Surface Force readiness and material condition was declining.

2. In short, the Fleet Review Panel report confirmed what Admiral Willard and I had suspected. The report also added detail and context that helped us determine how to make readiness improvements that would sustain near-term operational commitments while achieving ship wholeness and expected service life.

3. Even before the Fleet Readiness Review was completed, the Fleets and Surface Type Commanders had started taking steps to address concerns that required immediate action. In order to build upon this preliminary work and to sustain the Fleet Readiness Review's momentum, U.S. Pacific Fleet and U.S. Fleet Forces Command established a senior executive body, the Fleet Review Panel Senior Leadership Oversight Council (FRP SLOC), to guide and oversee our efforts to improve Surface Force readiness and wholeness.

4. Over the past year, this group has made significant headway in addressing many of the shortfalls cited in the report. Improvements include:

a. Clear administrative control. The Ship Class Squadrons established in 2007 performed important work in readiness metrics development, trend analysis, and ship class advocacy. However, since most of the CLASSRONS operated outside their

Subj: FLEET READINESS REVIEW PANEL REPORT (ONE YEAR LATER)

assigned ships' chain of command, they confused authority, responsibility, and accountability for ship readiness. Because of that organizational defect, we disestablished the Ship Class Squadrons last year and reinforced ISIC and TYCOM direct ownership of Surface Force readiness. The Fleets also clarified the supported-supporting relationships between Strike Group Commanders and Type Commanders. Today, there is no doubt as to who is responsible and accountable for the readiness of every ship on the waterfront.

b. Adherence to standards. Through renewed emphasis on the fundamentals of our profession and strict adherence to established procedures, we are putting our crews back in charge of their own destiny and increasing their ability to identify and correct deficiencies. Through the implementation of the Surface Force's Redlines Program, we are changing the attitudes that supported "answering the bell at any cost." Many years of doing whatever was necessary to meet operational commitments artificially suppressed the Surface Force's requirements for people, maintenance, training, equipment, and logistical support. Another unfortunate byproduct of this approach was the perception that broken and degraded equipment, inadequate proficiency, and poor risk management were tolerable. Our crews now understand that they are not.

c. Improved manpower and manning. Next year, we will begin restoring billets to units that had been optimally manned (CG, DDG, LHD, LPD-17, LSD). These restorations will put more trained Sailors in those ships that tend to bear the brunt of high-tempo Fleet operations. Additionally, we have designated specific NECs as critical for safe and effective operations at sea. In partnership with the Navy Personnel Command, we're also launching pilot programs to implement a billet-based distribution system that will generate enlisted requisitions that capture the unique nature of the work associated with specific billets. We expect to implement this model fully by 2016.

d. Increased maintenance. We have extended CNO maintenance periods from 9 to as long as 15 weeks in order to give government and commercial maintenance communities time to execute the repairs and upgrades necessary to achieve ship expected service life. We drove down the backlog of ship's

Subj: FLEET READINESS REVIEW PANEL REPORT (ONE YEAR LATER)

force capable (TA4) work, funded Corrosion Control Assist Teams, and reduced our repair work request (2-kilo) screening time by 75% - initiatives that are paying dividends today. We realigned our Regional Maintenance Centers underneath the Naval Sea Systems Command and placed our Port Engineers underneath our Type Commanders - moves that put the right talent in the right places to drive ship maintenance. Additionally, we expect to increase the manning at our Regional Maintenance Centers in the near future in order to provide greater capacity and capability to effect mission-essential repairs between major repair periods.

e. Expanded training. The Surface Force Type Commanders have instituted a Division Officer Introduction Course in Fleet Concentration Areas to expose our junior officers to the fundamentals of shipboard operations, maintenance, and administration. Similarly, the Center for Surface Combat Systems has introduced Advanced Warfare Training to give our technicians and operators in-depth, hands-on training on the finer points of weapon system maintenance and employment. We have extended Basic Phase training from 16 to 20 weeks (and to 21 weeks for BMD-equipped ships). The Senior Officer Ship Material Readiness Course (SOSMRC) at SWOS has been reinstated and we have embedded elements of material technical training in other Surface Warfare Officer curricula in order to give every officer a better understanding of what it takes to maintain shipboard systems properly. Next year, as more billets are aligned to Regional Maintenance Centers, Sailors will have greater opportunities to enhance their technical skills while serving ashore. The Afloat Training Group - the Surface Force's principal waterfront training agency - is shifting its focus from assessing shipboard training teams to providing true "over the shoulder" training for shipboard watch standers. We have launched a revised Basic Phase Pilot Program, which focuses on training to deployed mission requirements with a sequenced, integrated, building block approach; a standard, predictable path; training standards that are achievable, executable, and sustainable; and defined exit criteria for each phase.

f. Enhanced Aegis readiness. Last year, amid expanding operational demands for our Cruisers and Destroyers, growing challenges associated with maintaining and operating their complex Aegis weapon systems, and indications of degraded Aegis reliability and functionality, I convened a senior oversight

Subj: FLEET READINESS REVIEW PANEL REPORT (ONE YEAR LATER)

body to determine the state of Aegis readiness, identify material and training shortfalls, and propose solutions that would improve the reliability and wholeness of our Aegis platforms and systems. As a result of these efforts (and related work undertaken by NAVSEA), we took action to correct operability and maintenance challenges associated with Commercial, Off-The-Shelf (COTS) Aegis components; to increase SPY radar operability; to restore Cruiser superstructure integrity; and to strengthen our ability to execute Ballistic Missile Defense tasking.

5. Putting Sailors back in our ships, training commands, and maintenance centers will go a long way toward fixing many of the shortfalls that the Fleet Review Panel identified. These programmed manpower increases, however, won't begin to increase manning until October 2011, so more Sailors will not arrive in meaningful numbers until late 2012. I'm acutely aware of this "flash to bang" difference that separates flagpole and shipboard perceptions of progress, and don't wish to give the impression that the tide has suddenly turned. Some remedies are in place and others are on the way, but most of today's readiness challenges are the same ones that our ships have faced for years. These challenges include striving to operate and maintain systems that were not ready for Fleet service; operating with smaller, more junior crews that have less training and experience; overcoming years' worth of reduced organizational-level, intermediate-level, and deep maintenance; and making do with fewer spare parts and less technical support.

6. One example that illustrates how many of our recent efforts have begun to coalesce involves the April 2011 underway material inspection (UMI) of USS OAK HILL (LSD 51). A year ago, OAK HILL was in poor material condition. But over the past twelve months, the ship's crew - supported by a very engaged chain of command - worked diligently to return OAK HILL to compliance with Fleet standards of operational capability, safety, preservation, and material condition. This task was no easy feat: OAK HILL required much additional oversight, funding, training, and repair resources to correct a long list of deficiencies. But the crew recognized and accepted these challenges, rolled up their sleeves, and executed a complex plan that produced the best INSURV score of any Atlantic Fleet surface ship in the past year.

Subj: FLEET READINESS REVIEW PANEL REPORT (ONE YEAR LATER)

7. My commitment to the Fleet is to secure the resources that our crews need to get their ships ready to conduct sustained operations at sea. What I expect of my crews in return is that they uphold established Fleet standards and treat their ships like the national assets that they are. OAK HILL has shown that a determined, well-led crew supported by a properly focused support structure can achieve remarkable results, even with a ship that has not benefitted from consistent, analytically-based maintenance throughout its Fleet service.

8. As we assessed Surface Force readiness improvement progress over the past year, we also identified a number of areas that require additional attention. These include:

a. Achieving wholeness upon delivery. New ships and shipboard systems must arrive on our doorstep ready to operate, not as component pieces that lack the testing, integration, manning, training, maintenance, and logistical support required to make them effective. With those objectives in mind, I established the Fleet Introduction Program (FIP) last year as a vehicle for informing program managers and resource sponsors of issues that risk the viability - i.e., the functionality, interoperability, maintainability, or sustainability - of new systems. By noting potential gaps, omissions, and shortfalls earlier in the acquisition process, the Fleet can influence the delivery of new capabilities, and will stand a better chance of getting assets that can be put to immediate Fleet use. Our OPNAV, PEO, and SYSCOM colleagues are determined to help us get this right.

b. Reducing fluctuating execution year maintenance funding. We must collectively do a better job of budgeting for surface ship maintenance. While responding to global events (e.g., earthquake in Haiti, earthquake and tsunami in Japan, air and strike operations in Libya) will always stress maintenance execution, fluctuating maintenance resourcing complicates availability planning, injects uncertainty and risk into the industrial base, drives up the price of ship maintenance, and ultimately jeopardizes the expected service life of our capital assets.

c. Strengthening third-party assessments and assist visits. The TYCOMs have taken steps to reinstitute shipboard assessments and assist visits that help to maintain standards while

Subj: FLEET READINESS REVIEW PANEL REPORT (ONE YEAR LATER)

providing superb training for Sailors and junior officers in the finer aspects of shipboard maintenance, administration, and operations. In 2010 the Surface Force added a Command Inspection as well as assessments involving corrosion control, maintenance (3M) effectiveness, BMD readiness, advanced warfighting proficiency, and total ship readiness (a four-phased process that occurs at various points in the FRTP cycle). Also instituted last year was assist visits focused on INSURV preparations, organizational-level maintenance, and engineering readiness. Much of the capacity for executing these visits will ultimately reside in Afloat Training Groups, the Center for Combat Systems, and Regional Maintenance Centers. Until the additional end strength programmed for those activities materializes, the Fleet will have to rely heavily upon TYCOM and ISIC staffs and existing waterfront training activities (and execution year funding) to perform this intrusive, time-consuming, and vital work.

d. Codifying availability completion and work certification processes. We have initiated pilot programs with a number of ships in different homeports to determine how best to conclude repair periods in a manner that assigns clear accountability and ensures that our ships get the maintenance that we pay for. After we have assessed the results of these pilots, we will modify our approach as necessary and implement these processes Fleet-wide. The Fleet cannot afford to pay more than once to fix what's broken, and cannot allow poor maintenance execution to jeopardize follow-on training and operational commitments.

e. Resourcing engineering (HM&E) and combat systems sustainment. Sustainment programs preserve the reliability and effectiveness of critical shipboard systems throughout their expected service life. These initiatives focus on the core life cycle activities of performance metrics derivation; engineering, logistics, training, and obsolescence analysis; and emergent Fleet support issues. We are working with OPNAV and NAVSEA to fund these activities in order to ensure that the systems that provide the Surface Force's mobility, adaptability, flexibility, survivability, precision, and punch will yield the outputs that the Combatant Commanders require.

f. Sustaining Surface Maintenance Engineering Planning and Procurement (SURFMEPP). We established the SURFMEPP activity last year to provide the engineering, surveying, and planning

Subj: FLEET READINESS REVIEW PANEL REPORT (ONE YEAR LATER)

necessary to identify and scope deep maintenance - repairs involving preservation and corrective maintenance on tanks, voids, piping systems, and similarly "hard to reach" components. SURFMEPP has completed its work on the Technical Foundation Papers that identify required ship class maintenance, and is now generating Integrated Ship Class Maintenance Plans (ICMPs). Providing the resources that SURFMEPP requires in the years ahead is critical to the Surface Force's long-term health.

g. Reducing the gap between DH and XO/CO sea tours. Today our post-Department Head officers may spend up to seven years ashore before they return to the waterfront as Executive Officers. The TYCOMs and I will be working with the Navy's manpower and training agencies to determine how we might adjust the Surface Officer career path to avoid such a prolonged gap, which I believe to be detrimental to community health and unit readiness.

9. The least expensive way to expand the Fleet to 313 ships - the Navy's long-term force structure goal - is to ensure that every ship afloat today remains viable throughout its expected service life. Such viability requires consistent, sustained investments in people, maintenance, training, and equipping. As the Fleet Review Panel made clear, near-term savings realized at the expense of long-term effectiveness and sustainability are no bargain.

10. I informed members of the House Armed Services Committee last July that taking the steps necessary to arrest the Surface Force's decline - a decline that was two decades in the making - would take a couple of years. At this stage, there are no easy fixes left, and we're certain to encounter additional challenges along the way as better-trained crews and reinvigorated maintenance and training agencies look more intrusively into surface ship readiness. Moreover, the inherent lag between securing required resources and delivering tangible improvements means that many of our ships will still struggle to meet Fleet standards for the next few years. The good news is that even though the Navy's long-term fiscal outlook remains uncertain, the Chief of Naval Operations is determined to restore the Surface Force to its former luster, and has provided the

Subj: FLEET READINESS REVIEW PANEL REPORT (ONE YEAR LATER)

critical enabling resources needed to push the pendulum back in
the other direction.



J. C. HARVEY, JR.

Distribution:
COMNAVSEASYSOM
COMSECONDEFLT
COMSUBLANT
COMNAVSURFLANT
COMNAVAIRLANT

REPORT TO CONGRESS

**Impact of Training and Crew Size on
Surface Force Material Readiness**

Preparation of this study cost the Department
of Defense a total of approximately
\$17,000 for the 2011 Fiscal Year.

Generated on 2011Jan18 1203 RefID: 0-26F9B8B

Prepared by
OPNAV N43
February 2011

UNCLASSIFIED

I. INTRODUCTION

Pursuant to the Fiscal Year (FY) 2011 House Armed Service Committee (HASC) Report (111-491), the Secretary of the Navy shall submit a report that describes the impact changes in training and reduction in crew size have on the material readiness of its ships, including the ships' ability to perform required maintenance tasks and pass required inspections; any projected effects on the lifespan of individual ships; and any effects on overall reported readiness. Specifically, House Report 111-491 stated:

The committee notes that reduced manning on many Navy surface combatant ships has added risk to achieving expected service, as stated in the Secretary of the Navy's February 1, 2010, report to Congress on Surface Ship Material Readiness. Based on preliminary work by the Government Accountability Office (GAO) the committee is aware that the Navy has reduced enlisted requirements, authorizations, and on-hand personnel levels for its cruisers and destroyers since 1991 but lacks a sound analytical basis for some of these reductions. GAO also noted that shipboard requirements, including force protection and anti-terrorism and ballistic missile defense missions, have grown since the Navy began reducing crew sizes. According to GAO, in-port and underway maintenance and preservation requirements have remained steady as crew sizes have declined. While some Navy officials have noted that automation can reduce underway watch-station requirements, GAO reported it can sometimes increase maintenance requirements.

The committee is also aware of a Department of the Navy Naval Inspector General report dated July 2, 2009, which states, "Relative to other warfare communities, interviews with surface commands continue to reveal significant distress in meeting material and operational readiness requirements." Among the factors cited as contributing to this situation were: a shortage of funding (to the point that Sailors are spending their own money to purchase required tools and supplies to meet operational and certification requirements); manning challenges; reduced training opportunities; deferred maintenance; and greater demands from the Inter-deployment Readiness Cycle.

The committee recognizes the stresses that the increased operational tempo of overseas contingency operations has placed on the Navy's surface combatant fleet and acknowledges that the Navy is taking steps in the fiscal year 2011 budget request to address some of the issues cited above, particularly in the areas of steaming days and deferred maintenance. However, the committee agrees with GAO that the Navy lacks the reliable data it needs to effectively evaluate the impact of the changes it has made to its manning requirements and training programs and how those changes have contributed to declining ship material readiness.

Therefore, the committee directs the Secretary of the Navy to submit with the fiscal year 2012 budget documents a report that describes the impact of changes in training and reductions in crew size has on the material readiness of its ships, including the ships' ability to perform required maintenance tasks and pass required inspections; any projected effects on the lifespan of individual ships; and any effects on overall reported

UNCLASSIFIED

2

UNCLASSIFIED

readiness. The report should include a discussion on methodology, including metrics, which the Navy has used to make this assessment, and based on the results, any adjustments in training and manning that the Navy plans to make to address its findings. The report also should include steps the Navy has taken to establish a stringent tool-control program, though appropriate commands, for all surface combatant ships similar to the tool-control program that exists for aviation squadrons, and describe the funding required to implement such a program.

II. EXECUTIVE SUMMARY

Although there are many aspects to ship material readiness, this report focuses on the impact that changes to training and reduction in crew size have had on readiness. It identifies the critical manning and training root causes for the decline in material readiness, and discusses the steps Navy is taking to improve surface ship readiness. Additionally, the report outlines the steps Navy has made to incorporate a tool-control program in the surface forces.

In the spring of 2008, following two failed inspections by the Board of Inspection and Survey (INSURV) on USS Stout (DDG 55) and USS Chosin (CG 65), the Navy began a comprehensive look at the causes of the failures and the overall material readiness of the surface fleet. The Navy's internal review concluded that the material readiness of the surface force was declining. In September 2009, Commander, U.S. Pacific Fleet and Commander, U.S. Fleet Forces directed a Fleet Review Panel to formally assess Surface Force readiness across the man, train, and equip domain areas, and to provide recommended corrective actions.

The report cited that changes in training and reductions in crew size over the past decade had had unintended consequences that were detrimental to the overall readiness of the surface force. The report specifically cited that reduced manning on board ships and at shore support facilities had placed an unmanageable workload burden on smaller, less trained crews that contributed to a reduction in material readiness. The report also cited a growing ships' maintenance backlog that was indicative of ship crews that were unable to keep up with maintenance requirements, because of a lack of time, lack of training, and increased operational tempo.

The Fleet Review Panel also cited independent reports that indicated that if the surface force continued on its current course that DDGs will achieve 25-27 years of service life instead of the 30 years planned and the 40 years of extended service life desired. The downward trend can partially be attributed to the reduction of manpower from the ships and the supporting maintenance activities ashore. Navy is committed to improving both the manning levels and training necessary to arrest the decline and restore readiness in these areas.

On the training side, Navy is enhancing the training of both officers and enlisted Sailors. In order to provide Commanding Officers with the skills necessary to properly assess material readiness, Navy has re-established the Senior Officer Ship Material Readiness Course (SOSMRC) in Newport, RI. 95 future Executive Officers and Commanding Officers have completed the course in the past year. Junior officers are scheduled to go through more rigorous training in engineering/material readiness during their career. Enlisted Sailors are receiving increased

UNCLASSIFIED

3

UNCLASSIFIED

training through the Apprentice Plus (A+) program, while Human Performance Requirement Reviews (HPRRs) are reviewing training programs in specific rating A and C-schools.

On the manning side, Navy has taken several important steps. Starting in FY 2011, Navy is establishing new goals and guidelines to increase the Surface Navy Enlisted Classification (NEC) "Fit" onboard ships from the current level of 61 percent to a targeted minimum level of 85 percent, increasing the number of technically skilled Sailors onboard. Navy has also reevaluated at-sea manning requirements to perform preventive and corrective maintenance, and plans to increase the number of critical billets in optimally manned ships in FY 2012 and FY 2013 by 1,120 billets. Finally, Navy is creating 285 additional shore billets to re-establish the sea-shore flow between ship and intermediate level maintenance organizations, and to provide skilled craftsmen when Sailors return to surface ships.

Once implemented, the combination of improved shipboard manning, additional shore-based billets, training improvements and other material readiness initiatives not addressed in this report, will improve material readiness. The cumulative effect of these improvements will ensure Navy ships reach their planned service life and remain ready to carry out their assigned missions. The Defense Readiness Reporting System – Navy (DRRS-N) is one mechanism to track material readiness on surface ships. Specifically, equipment material discrepancies can be viewed through the DRRS-N equipment pillar.

Navy is taking aggressive steps to reverse the downtrend in material readiness, and ensure that the expected service life of surface combatant ships is not impacted. There are early signs of a positive trend as the percentage of unsatisfactory inspections has decreased; however, there was an increase in degraded inspections over this period, as shown in figure 1.

UNCLASSIFIED

UNCLASSIFIED

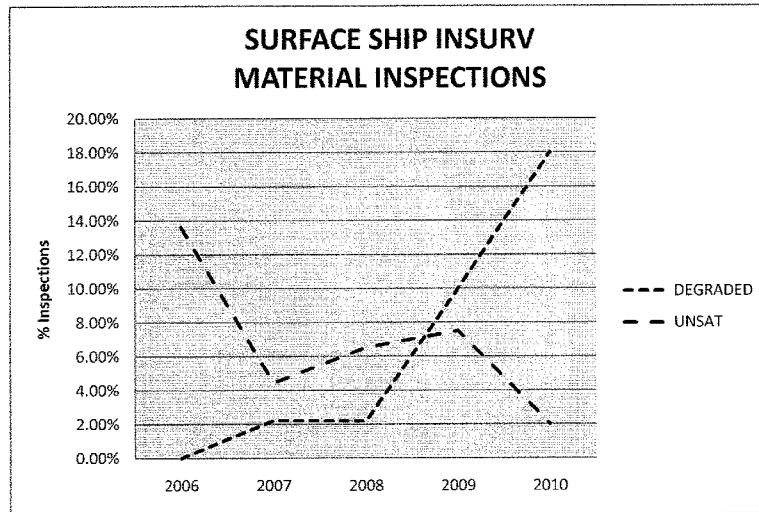


Figure 1

The Fleet has taken steps to implement a more stringent tool control program through the establishment of a shipboard Controlled Equipage Program that includes tracking and monitoring of specialized tools. In addition, tool loan programs have been established for specialty tools from shore facilities across the waterfront. These efforts will help prevent Sailors from using their own money to buy needed tools.

Navy remains committed to improving the material readiness of its surface combatant ships. The funding proposed in the President's FY 2011 Budget and planned increases in future budget submissions for increased ship maintenance, additional manpower, and further training will help improve the material condition of Navy's surface ships, ensuring these ships reach their planned service life. These investments are expected to yield improvements in INSURV inspections over the next few years. If the Continuing Resolution (CR) continues through the entire year, surface ship maintenance will be impacted, potentially deferring 29 surface ship availabilities. The specific availabilities and associated impacts are still being reviewed within the Navy. The manpower and training initiatives in this report are not expected to be affected by the FY11 CR.

III. METHODOLOGY

The methodology for assessing the impacts of training and crew size reductions on ship material readiness included reviews of both total manning numbers and Navy Enlisted Classification (NEC) distribution, training changes relative to maintenance skill sets and self-assessment,

UNCLASSIFIED

5

UNCLASSIFIED

historical data from INSURV inspections, and DRRS-N readiness trends. DRRS-N reporting, as included in the 4th Quarter, FY 2010 Quarterly Readiness Report to Congress (QRRC) reflects a slight but continuing downward trend in personnel, equipment, and training readiness. The degree to which training and manning factors are contributing to this trend is primarily anecdotal, although documented and confirmed by the recent externally-led Fleet Review Panel.

To assess the results of improvements made in training and manning as well as other material readiness initiatives, Navy monitors monthly trends in personnel, equipment, and training as reported through DRRS-N and documented in the QRRC. INSURV trends are monitored as a secondary validation metric. Further, Navy continues to monitor the overall readiness of carrier and expeditionary strike/amphibious ready groups on a weekly basis.

IV. ORGANIZATIONAL CHANGES

To holistically address maintenance, modernization, sustainment, and readiness across the non-nuclear surface fleet, NAVSEA directed the 2007 stand-up of SEA 21, the Surface Warfare Directorate. SEA 21 manages the complete lifecycle support for all non-nuclear surface ships, and is the principal interface with the Surface Warfare Enterprise. The Directorate is responsible for the maintenance and modernization of non-nuclear surface ships currently operating in the Fleet. In 2009, COMNAVSEA and SEA 21 directed the stand up of SEA 21A, the Deputy Directorate for Readiness. SEA 21A addresses material readiness challenges in direct support of the Type Commanders, and performs life cycle management efforts of the surface Navy. In May 2010, the Commander, Naval Surface Forces (CNSF) Surface Warfare Training Strategy (SWTS) Development Plan directed the establishment of the Flag level Surface Warfare Training Committee (SWTC). The SWTC's goals are to:

- Develop, approve, resource, and validate training continuums, and revise training policies to maximize investments; identify funding responsibilities for each area of the training continuum; and initiate reviews of Navy Training System Plans (NTSPs);
- Maintain SWE alignment with Fleet Training Board of Directors (FTBoD);
- Validate and approve resourcing of training systems via a Surface Simulator Master Plan (SSMP); and
- Identify mandatory use of simulators and/or synthetic training, and track execution across the enterprise.

To meet these goals and manage training, the SWTC, in coordination with SEA 21A, directed the stand up of the NAVSEA Surface Single Training Integrator (SSTI) Division at the Washington Navy Yard. SSTI was modeled after the successful Manpower, Personnel, & Training (MPT) organization within TEAM SUBMARINE and NAVAIR, and will serve as the single surface training systems POC for OPNAV, TYCOM, NETC, and Learning Centers. SSTI is the OPNAV single point of contact for strategic program planning, policy, acquisition, life-cycle management, research and development, and technical insertion into all existing and future naval surface training systems.

UNCLASSIFIED

6

UNCLASSIFIED

V. TRAINING

In their assessment of Surface Force readiness across the man, train, and equip domain areas, the Fleet Review Panel cited crew training deficiencies over the past decade as a contributor to the reduction in material readiness. The report specifically cited growing ships' maintenance backlogs as indicative of crews that were unable to keep pace with maintenance requirements, because of a lack of time, training deficiencies, and increased operational tempo.

A. Changes in Training. In 1994, a total of 73 different material readiness and maintenance assist visits and inspections were available to support surface force ships. These events not only supported the commanding officers and higher authority in assessing material readiness, but also, as a second order effect, provided hands-on experience and training for junior officers and enlisted personnel. Because the number of required assessments was viewed as excessive, in 1999 external command inspections were reduced, transferring greater responsibility for material assessments to the commanding officer and crew of the surface ship through self-assessments. By 2001, the number of inspections and assist visits had been reduced by 50 percent.

During the same time period, the Senior Officer Material Readiness Course (SOSMRC), which taught prospective executive officers (PXOs) / prospective commanding officers (PCOs) how to assess and manage material readiness, was removed from the curriculum of Surface Warfare Officers School (SWOS) in Newport, RI in 1997. For enlisted personnel, apprentice level Sailors were trained to an established level, as set forth within Navy Enlisted Manpower and Personnel Classifications and Occupational Standards Manual. However, they were arriving at the ship not fully ready to perform all apprentice level maintenance actions, or to contribute effectively to existing material readiness demands. At the journeyman levels, sailors who have completed 'A' or 'C' School report to the ship with a Navy Enlisted Classification (NEC) that identifies their qualifications in maintenance or repair of specific shipboard equipment/systems. Fleet Navy Enlisted Classification (NEC) "fit" (# of assigned personnel with required NEC / # of required personnel with NEC) had dropped to approximately 61 percent. This resulted in a gap between the required NEC skills for a given unit, and the actual skills held by the crew currently onboard to do the work. Additionally, with fewer journeyman level Sailors holding advanced NECs onboard, development of the apprentice level Sailors was impacted.

B. Current Training Initiatives. The instructor led curriculum at SWOS has enhanced the focus on material readiness from the division officer course through the major command level. Figure 2 illustrates how Engineering / Material Readiness skill sets are progressively developed and maintained through the SWOS officer training continuum. Total classroom time ranges from eight hours to over 90 hours per course, depending on the career milestone, and is reinforced by hands-on application through periodic ship rides designed to provide the right level of training at the right time. SOSMRC was reestablished on January 4, 2010, to provide afloat PCOs the tools needed to self assess, monitor, and improve ship material and combat readiness through specific, targeted training. It emphasizes the full range of requirements, ensuring each student is given the technical standard for operations, maintenance, and material condition, as well as corrosion and

UNCLASSIFIED

7

UNCLASSIFIED

corrosion control techniques. In addition, the students receive training through Maintenance University, a COMNAVSURFLANT sponsored program taught on site by retired USN Captains and Admirals, during the SWOS Division Officer Course (six hours) and the Department Head Course (20 hours).

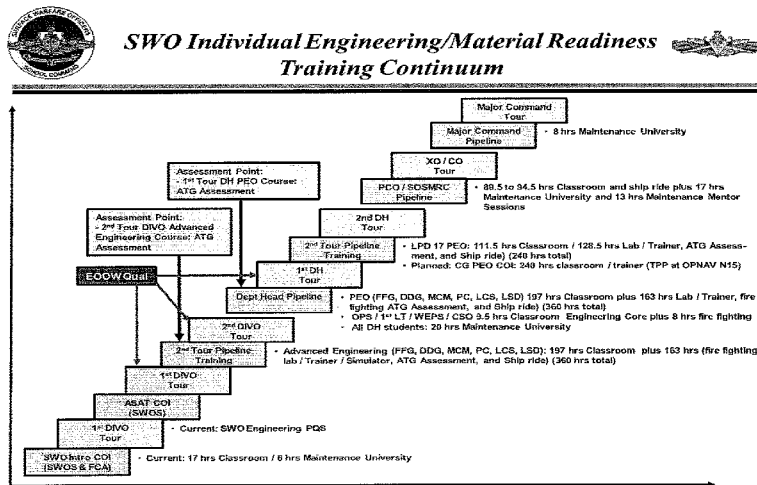


Figure 2

In response to the lack of sufficient skills in junior personnel to perform essential maintenance and repair tasks, the Center for Naval Engineering (CNE) developed Apprentice Plus (A+) training which covered Maintenance Areas of Concern as identified by Fleet Commands. The Apprentice Plus (A+) Training Outline includes:

- Preventive Maintenance System (PMS)
- Tag-out
- Maintenance Item Inspection
- Corrective Maintenance
- Quality Assurance (QA)
- Precision Measuring Instruments

This training augments engineering occupational training received during accession pipeline training, making the Sailor more confident and capable of performing apprentice level maintenance with limited supervision.

UNCLASSIFIED

8

UNCLASSIFIED

During his July 28, 2010 testimony to the House Armed Services Committee (HASC), Commander, U.S. Fleet Forces, described his visit to the Fire Controlman A-school and C-school in Dahlgren, VA to observe the changes made there. He noted that previously most of the training for the C-school was computer-based, which while efficient, limited hands-on experience and instructor interaction. The C-school curriculum, now instructor led, has a better balance of hands-on and computer based training. Additionally, the Commander stated that the class size is small so the instructors can interact with students more frequently, providing them intense training on difficult maintenance challenges.

In FY 2010, CNE hosted Human Performance Requirements Reviews (HPRRs) for the Engineman (EN) and Damage Controlman (DC) ratings. The EN and DC HPRRs identified gaps in accession training (A-schools) to include diesel engine propulsion support equipment, and the operations, monitoring, and maintenance of installed firefighting and damage control (DC) equipment. The EN Apprentice training pipeline was expanded by three additional days to include additional objectives in diesel engine support equipment. DC Apprentice training is undergoing revision to expand operations, monitoring, and maintenance of installed firefighting and DC equipment. Additional A+ training was also conducted in Fleet concentration areas, involving training on valve maintenance, pump maintenance, and electrical control devices.

Optimizing performance requires routine data collection and analyses in three areas: organizational factors, process, and individual skills. There is a need to validate data, investigate issues, determine root causes, identify crew requirements, define performance gaps, recommend solutions, and develop the means of evaluating performance gap reduction as well as iteratively manage, evaluate, and make required changes. Therefore, acquisition programs are placing increased attention on life cycle maintenance requirements and determining how to strengthen training programs.

C. Future Training Initiatives. NETC Learning Centers will continue to conduct HPRRs on every course at intervals not to exceed three years to ensure course curricula remains current. HPRR participants include Technical Warrant Holders, Resource Sponsors, Subject Matter Experts (SME), and Fleet representatives.

Fleet feedback on previous A+ training found it to have increased Sailor confidence in executing routine and minor corrective maintenance. Further development of A+ training courses will be determined by existing processes to identify troubled systems, which are prime candidates for this program.

NAVSEA is also investigating patterns of problems to improve NAVSEA policy and processes to better support Fleet readiness and performance. This includes a strategic look at the current state of training as part of the NAVSEA acquisition logistics tail with a focus on integrating and improving training support. These assessments will include defining problems with transitioning training materials to the Fleet, determining "work-arounds" being used in the Fleet, moving towards a cognitive approach to training / performance measurement / feedback, and determining requirements to hold people accountable for the technical adequacy of training products and procedures. Two strategic objectives to build better management practices are: (1) change NAVSEA Surface metrics and standards to certify material readiness for sea trials, including

UNCLASSIFIED

UNCLASSIFIED

defining metrics to assess inherent USN capability to get underway, and (2) determining how test program specifications are currently defined and tested. One step in meeting these objectives is a NAVSEA initiative to review manning and training acquisition requirements as part of the warfare system certification process.

VI. MANNING

During his HASC testimony, Admiral Harvey stated that the most important component of readiness is high quality Sailors. In order for the Navy's Sailors to deploy and accomplish their mission, Navy needs to provide them the tools, training, and time to do their jobs. Also, properly manning our optimally manned ships and creating the billets ashore to re-establish a sea-shore rotation between ship and intermediate level maintenance organizations will help create skilled, experienced petty officers and chief petty officers.

A. Impacts of Crew Size. Over the past ten years, Navy implemented many initiatives to improve efficiencies and lessen the burden on Sailors in the surface force. Each of these initiatives carried risks, and some unintended consequences occurred, specifically with regard to the readiness of the surface force.

In 2001, the optimum manning initiative was introduced, significantly impacting ship manning by reducing the number of Sailors by 4,052 from surface ships (approximately 18 percent and 12 percent reductions in DDG and CG manning, respectively). The optimum manning initiative was envisioned to provide the correct number of personnel with the right skill-set to perform assigned missions.

The primary factors evaluated in establishing optimal manning levels were watch standing and other operational requirements. Requirements, such as man-hours needed to conduct preventive and corrective maintenance, and preservation onboard surface ships, were considered low risk. In order to achieve additional efficiencies in manning, the required operational capabilities/projected operational environments and surface ship manning documents were revised. While this further reduced the number of dedicated maintenance personnel on the ships, the maintenance requirements remained unchanged.

Furthermore, other initiatives including Pay and Personnel Afloat, rating mergers, and the increased Navy Standard Work Week Afloat, further reduced the number of on-board personnel. Workload requirements remained unchanged, shifting additional responsibilities to those remaining personnel.

Unplanned losses greatly affect manning, especially on optimally manned ships. Whether for legal, medical, or educational reasons, unplanned losses have a net effect on ship readiness.

B. Current Manning Initiatives. Navy is establishing a target of 85 percent NEC "Fit" in FY 2011, as well as giving critical NECs (a subset of all NEC's) increased priority in the enlisted Career Management System - Interactive Detailing (CMS-ID) system; developing processes to increase Naval Education and Training Command (NETC) schoolhouse throughput for low

UNCLASSIFIED

10

UNCLASSIFIED

inventory NECs; and reviewing the NEC algorithm (which assigns NECs to enlisted requisitions). Additional FY 2011 goals include:

1. Reduce school missed training opportunities by 5 percent as measured by unfilled seats.
2. Reduce Professional Apprentice Career Track Sailor gaps by 25 percent from FY 2010 baseline.
3. Increase enlisted Rating Control "Fit" by 1-2 percent from FY 2010 baseline.
4. Increase enlisted Critical NEC "Fit" by 5 percent from FY 2010 baseline.
5. Ensure that there is at least one of each required Critical NEC onboard all deploying units.

C. Future Manning Initiatives. The Navy plans to include increased manpower for most surface force combatants in upcoming budget submission in order to reduce the burden on our Sailors and improve the readiness of our ships. Navy also increased billet seniority for several critical skill sets on optimally manned ships.

These increases will provide manpower support for damage control/firefighting readiness, safety of navigation, preservation, material readiness, and underway watch standing. Specifically, across the force, 1,129 end strength (E/S) were added in FY 2012. Manning growth will address the shortage in ship manning and improve readiness by restoring billets in key areas, as follows:

- o LPD-17 Class - 54 E/S in FY 2012 (DC, QM, and BM ratings)
- o LSD-41 Class - 84 E/S in FY 2012 (DC, QM, EN, HN, HTC, OS, BM, EMCS and ET ratings)
- o LHD Class - 124 E/S in FY 2012 (ABH, AE, AS, EN, HT, LS, MA, SH, YN, BM, DC, EM, GM, PS and QM ratings)
- o DDG Class - 656 E/S in FY 2012 (QM, BM, SN, GSE, DC, FC, EN, GM, PS, YN and EM ratings)
- o CG Class - 187 E/S in FY 2012 (QM, BM, DC, EN, FC, GM, GSM, PS, SH and SN ratings)

To improve sea-shore rotation, Navy has established a strategy to realign existing shore billets with a focus on the most sea-intensive ratings. Future budgets will also include additional manpower to support the Fleet's regional maintenance centers (RMCs). RMC billets are particularly valuable because they not only support sea-shore flow, but also support geographic stability within Fleet concentration areas and build in-rate craftsmen skills that can be used when Sailors return to sea. Skilled craftsmen, particularly in the areas of surface engineering, combat systems, and deck ratings, are the backbone in assessing and maintaining ship material readiness.

VII. TOOL CONTROL PROGRAM

Admiral Harvey stated in his HASC testimony that when the Navy provides Sailors with the tools to accomplish their jobs, they have the best probability to achieve success. In the aviation

UNCLASSIFIED

community, the primary reason for its stringent tool control program is to prevent foreign object damage. A by-product of the program is a reduction in lost tools, in effect reducing the amount of money the aviation community spends on tools and their replacements.

The larger numbers and wider distribution of tools required for maintenance on surface ships make the aviation model less than ideal for the surface community. However, due to concerns about tool availability and inventory control, the Fleet has taken several actions and mitigations to ensure Sailors are furnished with the proper tools. COMNAVSURFLANT has established a Controlled Equipage Program (CNSL INSTRUCTION 4400.5 of 05 November 2010) to track and monitor controlled equipage. This instruction provides guidance to Sailors for tracking specialty Anti-Terrorism / Force Protection (ATFP), Visit, Board, Search and Seizure (VBSS), Search and Rescue (SAR), engineering, navigation, damage control, and communication tools. Also, tool loan programs for specialty tools are available from shore facilities, such as Norfolk Ship Support Activity (NSSA) and Corrosion Control Assistance Teams.

VIII. SUMMARY

Navy is aggressively pursuing mitigations to address recent readiness trends due to reduced manning and changes in training. Additionally, Navy is committed to providing its Sailors with the proper tools, training, and time to accomplish their jobs. Readiness begins and ends with high quality Sailors.

Based on a review of the causes of recent readiness trends, specifically training and manning, Navy has identified ways to reverse the downward trend. One of the key areas of emphasis is to provide additional officer and enlisted training to improve ship readiness assessment. Some examples include extensive training on engineering/ material readiness, regardless of billet assignment, from the time of commissioning to major command. Reviews of enlisted rating schools will continue at least every three years. To improve the level of knowledge of enlisted Sailors, Navy will enhance training through programs such as Apprentice Plus. In FY 2011, actions in progress will improve manning "Fit" on Navy surface ships, enhancing the skill set of each crew which will continue in FY 2012 and beyond providing the manning resources necessary to ensure material readiness. Additionally, the Fleet will increase the number of Sailors assigned to RMCs with the added benefit of improved sea-shore rotation opportunity, enhanced waterfront maintenance support, and increased numbers of skilled craftsmen returning to the surface force.

To ensure Sailors are properly equipped, Navy has instituted a Controlled Equipage program that includes specialized tools. Additionally, tool loan programs from shore facilities are providing Sailors with specialized tools necessary to perform their duties. Navy is committed to provide Sailors with proper tools to maintain their ships.

Navy works continuously to collect relevant data in support of identifying and implementing efficiency initiatives. However, Navy is also committed to closely scrutinize near-term budgetary decisions to ensure the material readiness posture of surface combatants is not diminished. Strengthening training programs to optimize Sailor performance, while achieving

UNCLASSIFIED

UNCLASSIFIED

balance in sustainment, modernization and procurement to ensure the material readiness of the Surface Force, remains a paramount priority.

UNCLASSIFIED

List of Acronyms

A +	Apprentice Plus
ABH	Aviation Boatswain's Mate (Aviation Handling)
AE	Aviation Electrician's Mate
AEGF	AEGIS Fire Controlman
AIMD	Aircraft Intermediate Maintenance Department
AS	Aviation Support Equipment Technician
BM	Boatswain's Mate
CMS-ID	Career Management System Interactive Detailing
CNE	Center of Naval Engineering
CNO	Chief of Naval Operations
CNP	Chief of Naval Personnel
COMNAVSURFLANT	Commander, Naval Surface Forces, Atlantic
CPF	Commander, Pacific Fleet
DC	Damage Controlman
DoD	Department of Defense
DRRS-N	Defense Readiness Reporting System-Navy
E/S	End Strength
EM	Electrician's Mate
EMCS	Electrician's Mate, Senior Chief Petty Officer
EN	Engineman
ET	Electronic Technician
FC	Fire Controlman
FFC	Fleet Forces Command
FY	Fiscal Year
GM	Gunner's Mate
GSE	Gas Turbine System Technician (Electrical)
HASC	House Arms Service Committee
HPRR	Human Performance Requirements Review
HT	Hull Technician
HTC	Hull Technician, Chief Petty Officer
INSURV	Board of Inspections and Surveys
LS	Logistics Specialist
MA	Master-At-Arms
MPT	Manpower, Training & Personnel
NEC	Navy Enlisted Classification
NETC	Naval Education and Training Command
OPNAVINST	OPNAV Instruction
PACFLT	Pacific Fleet
PACT	Professional Apprentice Career Track
PB	President's Budget
PCO	Prospective Commanding Officer
PQS	Personnel Qualification Standard
PS	Personnel Specialist
PXO	Prospective Executive Officer

UNCLASSIFIED

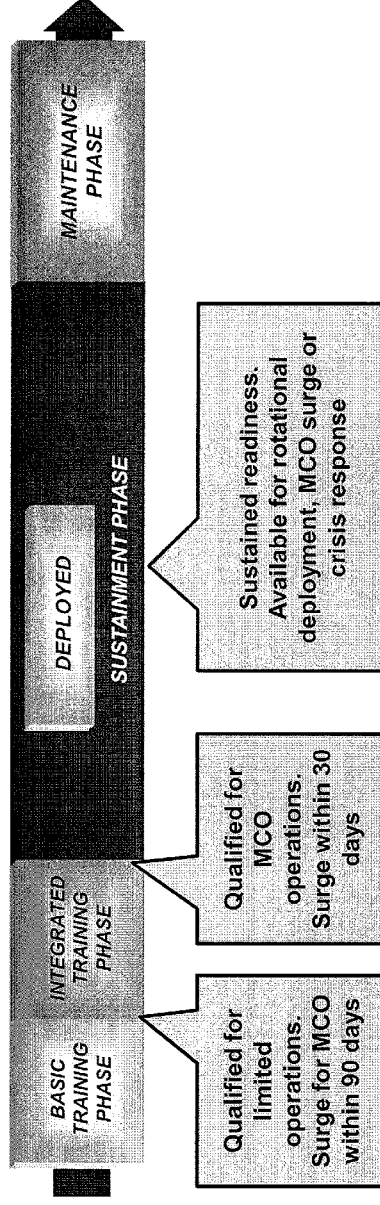
UNCLASSIFIED

QM	Quartermaster
RC	Rating Control
RCN	Rating Change Number
RMC	Regional Maintenance Center
ROC/POE	Required Operational Capability/Projected Operational Environment
S/S	Sea-Shore
SH	Ship's Serviceman
SME	Subject Matter Expert
SN	Seaman
SOSMRC	Senior Officer Ship Material Readiness Course
SWOS	Surface Warfare Officer School
TYCOM	Type Commander
USFF	U.S. Fleet Forces
YN	Yeoman

UNCLASSIFIED

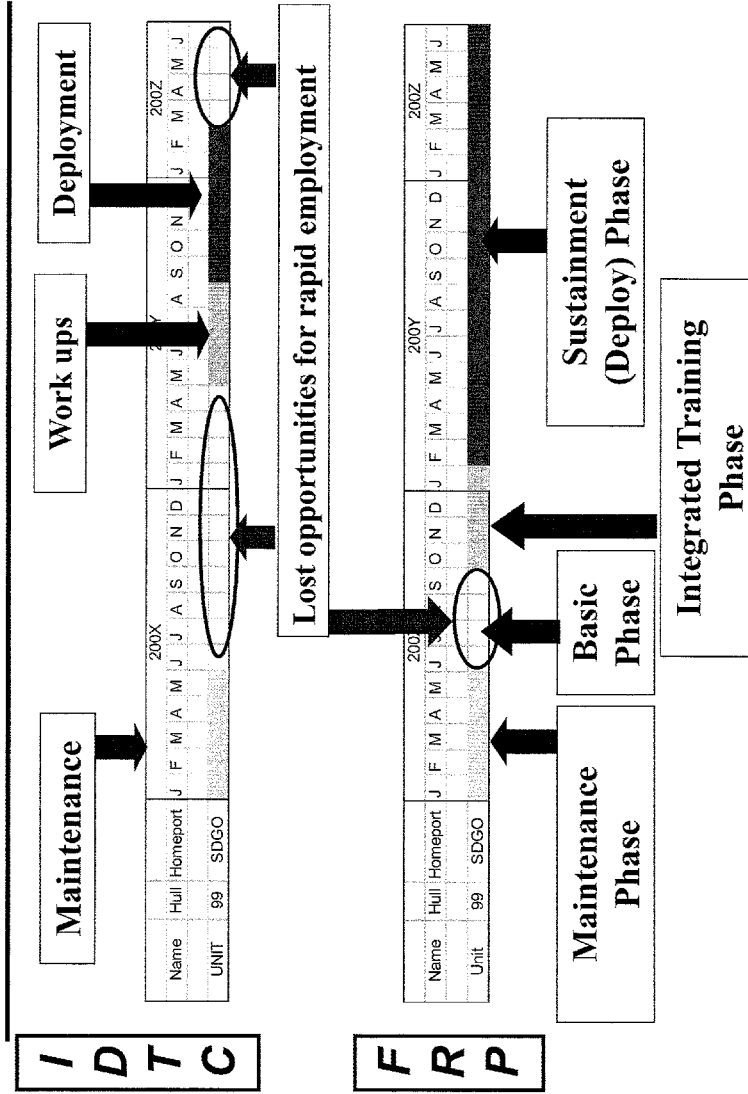
Fleet Response Plan (FRP)

- FRP cycle defined . . . “The Ready Fleet”
 - Basic / Integrated / Sustainment (includes Deployed) / Maintenance



- Capitalize on capacity to increase availability
 - Create flexible deployment options
 - Make forces available for maritime security and homeland defense
- FRP phases tied to mission - thresholds of readiness

Employability Comparison



NAVY BOARD OF INSPECTION AND SURVEY (INSURV)

Conducts material inspections of all Navy ships to determine and report upon a ship's fitness for further service, and to report upon material conditions that limit a ship's ability to carry out assigned missions.

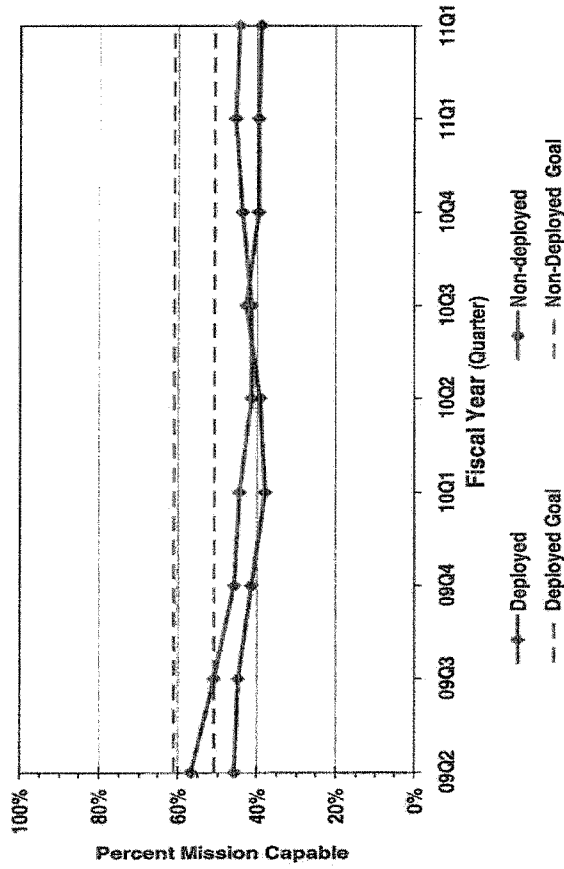
INSURV Inspections by Calendar Year					
	2007	2008	2009	2010	2011
Satisfactory	45	42	35	31	14
Degraded	1	3	4	8	2
	3	3	4	2	2
Total Percentage below satisfactory	8%	12%	18%	24%	22%

NAVY SHIP MAINTENANCE

DON Ship Maintenance Budget History (Dollars in Millions)					
	FY09	FY10	FY11	FY12	
Baseline Request	\$4,100	\$4,300	\$4,800	\$5,000	
OCO Request	\$400	\$600	\$1,300	\$1,000	
Supp Request	\$400	\$400			
Total PB	\$4,900	\$5,300	\$6,100	\$6,000	
Unfunded Request					
Deferred Maintenance*	\$50	\$0	\$173	\$367	

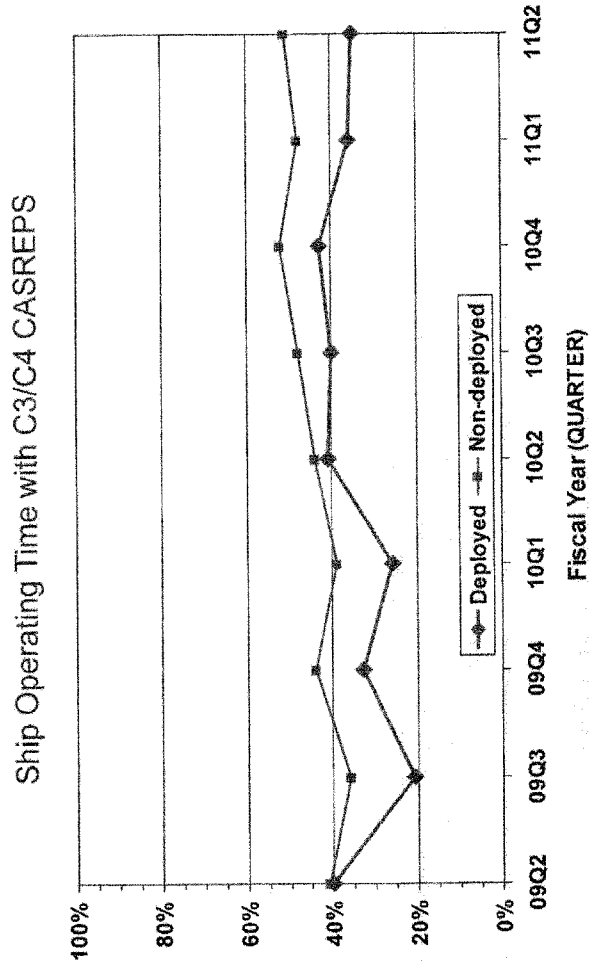
NAVY AIRCRAFT FULL MISSION CAPABLE

Full Mission Capable Rates All Aircraft Summary



This slide shows the Full Mission Capable (FMC) rates for all Naval (including Marine Corps) aircraft – both deployed and non-deployed against the Navy goals.

NAVY EQUIPMENT NOT MISSION CAPABLE



This slide depicts the level of Navy surface ships that are not mission capable. A Casualty Report (CASREP) rating of C3/C4 indicates a primary mission degrading when mission essential systems or equipment have failed.

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

JULY 12, 2011

RESPONSES TO QUESTIONS SUBMITTED BY MR. FORBES

Admiral BURKE and Admiral McCOY. Of the \$8.9B reduction in the House version of the DoD Appropriation Act for 2012 (H.R.2219), Navy's budget request is decreased by a total of \$1,982M. These reductions would impact future readiness, with \$1,795M taken against Navy procurement accounts (APN, OPN, WPN, SCN, and PANMC), and smaller reductions taken against R&D (\$157M), National Defense Sealift Forces (\$26M), and personnel (\$25M). Current readiness accounts (OMN and OMNR) actually increase by a net total of \$21M.

Congress' support for our current operational forces and the \$365M increase for ship maintenance funding are greatly appreciated. However, the Navy remains concerned about two readiness items that were marked in H.R. 2219:

1. Public Shipyards were marked \$215M for excessive overhead funding. As Navy ship construction workload is increasing across the FYDP, this OMN reduction detrimentally impacts the execution of all Navy shipbuilding contracts, by forcing reductions in manpower oversight that will degrade mission execution for onsite management of these critical programs at all major shipbuilding private yards. This loss of funding will reverse gains made by the Supervisors of Shipbuilding (SUPSHIPS) over the last five years, and will result in the loss of critical skills. The SUPSHIPS provide contract administration and government oversight to ALL Navy shipbuilding programs and private sector nuclear repair. In FY12, this includes oversight of construction and/or design of SSN 774 Class, CVN 78 & 79, DDG 1000 Class, LCS Variants, DDG 51 Class, LPD 17 Class, LHA 6 Class, JHSV Class, MLP, T-AGM, T-AGS and T-AKE, as well as nuclear repair of submarines and Refueling Complex Overhauls for CVNs. These programs are critical to the Navy's ability to deliver quality ships, control cost, meet schedules, and successfully recapitalize to 313 ships.
2. Deployed steaming days were marked \$25M. Deployed ship underway steaming days directly support Combatant Commander missions, including Joint exercises with allied nations, maritime interdiction operations, and anti-piracy operations. Reduced funding for deployed steaming days will increase costs in other accounts, given deployed ships that are not underway typically must moor/anchor, run generators, and incur additional shore support expenses, nearly equal to the costs of remaining underway. The net effect of this mark would be a 4% reduction in the number of underway days available for Combatant Commander missions (from 45 per ship/quarter to 43 per ship/quarter). [See page 27.]

Admiral McCOY. Fiscal Year 2013 budget discussions on the shipbuilding plan are ongoing. As always, these discussions focus on balancing the overall shipbuilding plan, considering warfighting needs and industrial base considerations. Deliberations of Navy's force structure alignment are subject to a complete review by the Secretary of the Navy and OSD; results are pre-decisional until submitted in the President's Fiscal Year 2013 budget request. It would be inappropriate to discuss internal budget deliberations until officially released in President's Budget 2013. [See page 27.]

RESPONSES TO QUESTIONS SUBMITTED BY MS. BORDALLO

Admiral BURKE and Admiral McCOY. The Navy is taking a three phased approach to address Interoperability issues within its Carrier Strike Groups. Phase I is a "Near Term" solution providing immediate corrections to Aegis platforms and Cooperative Engagement Capability (CEC only). This effort is already fielding and will first deploy with the John C Stennis Carrier Strike Group.

Phase II is a "Mid Term" solution to correct "root cause" Interoperability issues across the majority of Navy ships, to include Aegis, Ships Self Defense System (SSDS), and E-2 aircraft. The main goal of this Mid Term effort is to improve the integration of our CEC sensor netting capability with the Link 16 track data management process to deliver a consistent common operational picture. The Navy plans to demonstrate these interoperability improvements in FY 12 during a Fleet exer-

cise titled Trident Warrior. This fleet exercise is representative of a real world joint operational environment and involves a wide range of Navy and Joint operational platforms (ships and aircraft). Based on successful testing and completion of Trident Warrior 12, the Navy will commence fielding of this improved common operational picture capability starting in FY 13.

Phase III (Far Term) will be a follow on effort to address Interoperability in future Navy platforms that will include implementing design changes learned from the Mid Term development and integrating those changes into future system and platform baselines. [See page 15.]

RESPONSES TO QUESTIONS SUBMITTED BY MR. KISSELL

Admiral BURKE. The Department of the Navy (DoN) is challenged with a strike-fighter shortfall due to F/A-18A-D aircraft reaching the end of their service life before the replacement aircraft (the F-35B/C) can be delivered into service.

In December 2010, the Secretary of Defense made changes to the Programs of Record for both the F-35B/C and F/A-18E/F programs. The DoN's procurement of F-35B/C aircraft was decreased by 60 in the FYDP, creating a requirement for 50 additional F/A-18 E/F to negate the resulting increase in the projected strike fighter shortfall. To address this shortfall, 150 F/A-18A-D service life extensions (SLEP) and 41 additional F/A-18E/F aircraft were added to the Fiscal Year 2012 Navy budget request, and Congress added nine F/A-18E/F aircraft to the program of record of 556 aircraft in the Department of Defense and Full-Year Continuing Resolution Appropriations Act 2011. These nine aircraft, combined with the 41 additional aircraft, satisfied the requirement for 50 that resulted from the changes to the F-35B/C Program of Record. With the new F/A-18E/F procurement total of 565 aircraft, the predicted peak shortfall was reduced to 52 aircraft in 2018.

The DoN has determined that a 52 aircraft shortfall in 2018 is manageable with the mitigations in place. Along with other mitigation efforts, if the JSF delivery profile remains unchanged, and the service life of 150 F/A-18A-D is extended to 10,000 flight hours, DoN will continue to assess the most recent shortfall projection as manageable. However, any further delay in the JSF delivery profile will have a negative effect on the projected strike fighter shortfall in both magnitude and duration, depending on the magnitude, duration, and timing of the delay. [See page 22.]

RESPONSES TO QUESTIONS SUBMITTED BY DR. HECK

Admiral BURKE. In recent years, to enhance operational readiness at sea, we shifted from a supply-driven system, focused on getting the right number of Sailors aboard ships, to a demand-driven system, focused on getting the right number of Sailors in the correct pay grades and with the requisite formal schoolhouse training aboard ships. Establishing new schoolhouse courses of instruction for certain Navy Enlisted Classification (NEC) codes, the timing of which are properly aligned with distribution and assignment practices that deliver a fully trained Sailor to the Fleet on time, are essential to getting us to the overall goal of 85% Fit. The Chief of Naval Personnel has established a Business Improvement Team, which is using proven business models to properly align our supply chain and eliminate inefficiencies in processes for delivering fully trained personnel to the Fleet on time. We are initially focusing on improving Fit in our most critical NEC requirements (i.e., those in which the mission cannot be performed unless the NEC is properly manned), and have increased Critical NEC Fit from 70% to 75% in fiscal year 2011, ensuring that assigned combat missions are properly manned. [See page 19.]

Admiral BURKE. The issue is less about sufficient numbers of school slots than it is about timing of available school slots with the rotation of Sailors. Fit is not currently where it should be as a result of friction in Navy's distributable inventory at pay grades E5-E9, in part due to assignment policies and sea/shore flow imbalance. We are working diligently to optimize use of available resources to improve all Fit measures, and minimize the amount of time Sailors must wait for seat availability. Navy Personnel Command's Quarterly Demand Planning Working Group has been working to synchronize rotation of Sailors with available school quotas to time the arrival of trained Sailors as they are required in the Fleet. In the past year, through numerous distribution and administrative enhancements, we have improved Fit, from just above 60%, to approximately 70%. [See page 20.]

RESPONSES TO QUESTIONS SUBMITTED BY MR. PALAZZO

Admiral McCOY. The Naval Sea Systems Command continues efforts in coordination with industry to identify additional uses of composites in shipboard applications. Additional composite applications currently include gratings, louvers, screens, stanchions, masts, bow domes, cover plates, electrical boxes, shaft covers, and boat deck enclosures. The President's budget directly supports the further development and integration of composite technology in a number of ship acquisition programs. For example, the Navy is currently pursuing several composite applications through the OHIO Replacement program. Evaluation of these applications is based on a business case assessment that includes projected life cycle cost savings. The OHIO Replacement program is also planning to invest in development of new manufacturing techniques for the bow dome and bow dome boot. These manufacturing techniques have the potential to be leveraged for future applications. [See page 16.]

QUESTIONS SUBMITTED BY MEMBERS POST HEARING

JULY 12, 2011

QUESTIONS SUBMITTED BY MR. FORBES

Mr. FORBES. There are many aspects to material readiness; training and manning are only two of them. What are the others?

Admiral BURKE and Admiral MCCOY. Navy reports Fleet readiness in five pillars. In addition to Training and Personnel (manning), the remaining pillars are Equipment, Supply, and Ordnance. From a material readiness perspective, depot, intermediate, and unit-level maintenance programs are all important factors under the Equipment pillar. A key element in the Supply pillar is the availability of spare parts. Ordnance readiness is a product of both acquisition of new weapons and maintenance of existing stockpiles. An additional element, not directly addressed by the Navy readiness pillars, is “time.” To get material readiness right, we must allow sufficient time for:

- Individual sailors’ training and professional growth
- Unit level training
- Execution of maintenance availabilities and unit-level maintenance

When time is compressed, each of these may suffer. The pace of operations over the last ten years is in excess of what Navy can ultimately support within our existing force structure. This has compressed the time available for readiness activities and is reflected in negative readiness trends in several areas, as reported in the Quarterly Readiness Report to Congress.

Mr. FORBES. For the last two years you have discussed the degraded military readiness of the surface ships and the steps you are taking to achieve expected service life on your ships. Given the \$367 million shortfall in ship depot maintenance that defers 44 availabilities in fiscal year 2012, how do you plan on maintaining a ready surface fleet that meets its estimated service life? What is the threshold for risk on surface ship maintenance?

Admiral BURKE and Admiral MCCOY. The cumulative amount of surface ship maintenance that can be deferred, without impacting operations or the expected service life of our platforms, varies from year to year based upon the individual age and materiel condition of our ships, current operations, and the next available opportunity to complete the maintenance. With the recent establishment of the Surface Maintenance Engineering Planning Program, Navy has an improved ability to assess the risk of individual ship maintenance deferrals, track deferred work to completion, and optimize deferral decisions in a budget constrained environment, allowing us to more effectively mitigate shortfalls that do occur.

The Navy remains committed to sustaining the force structure required to implement the Maritime Strategy and to funding the full surface ship maintenance requirement, as evidenced by the increase in the baseline maintenance budget request from \$4.3B in FY 2010 to \$5.0B in FY 2012. The Navy’s total FY 2012 budget submission reflects the best balance of risk and available resources across the Navy portfolio.

Mr. FORBES. How will the stand-up of SURFMEPP help improve the maintenance tracking and planning for surface ships? What are the Navy’s plans for re-establishing further intermediate maintenance activities?

Admiral BURKE and Admiral MCCOY. In 2009, NAVSEA established the Surface Ship Life Cycle Maintenance (SSLCM) Activity, which in 2010 evolved into the Surface Maintenance Engineering Planning Program (SURFMEPP)—a shore command to centrally manage surface ship maintenance assessments and planning.

SURFMEPP will improve maintenance tracking and planning for surface ships by:

- Providing centralized surface ship life cycle management, and discipline of maintenance and modernization requirements.
- Creating individual ship life cycle maintenance plans that are based on the Class Maintenance Plan (CMP) and actual ship condition.
- Using the CMP and individual ship life cycle maintenance plans to build a Baseline Availability Work Package (BAWP) for each scheduled availability that will include a list of non-deviation life cycle work that must be accomplished.

- Tracking the completion of all required maintenance actions to meet ship expected service life.
- Ensuring adjudication of all BAWP deferral requests by the appropriate Technical Warrant Holder (TWH), and if approved, automatically scheduling the deferred work for the follow-on availability or window of opportunity, as directed by the TWH.
- Integrating, tracking, and monitoring organizational level maintenance requirements as part of the surface ship maintenance end-to-end process.

To increase intermediate maintenance capacity, the Navy is adding manning to the Regional Maintenance Centers (RMCs), whose dual mission is to train returning Fleet Sailors in shipboard repairs, and perform intermediate level maintenance and repairs. This training will prepare them to return to sea with enhanced maintenance and repair skills resulting in improved ship readiness.

Increased civilian and military manning allowed the re-opening of selected repair shops at the Southeast RMC in Mayport, Florida in June, 2011. The requested FY12 budget provides a manning increase of 200 military and 385 civilians across all RMCs. Additional civilian and military personnel increases are being considered as part of POM-13.

Mr. FORBES. How will the projected backlog of airframe and engine maintenance events impact aviation readiness and training?

Admiral BURKE and Admiral MCCOY. The projected backlog of airframe and engine maintenance in FY12 is not of sufficient size to cause an impact to the readiness of deployed Naval aviation units.

Mr. FORBES. How are the LPD 17 and other ship construction lessons learned being formally captured and incorporated into the institutional memory and training for all new program managers and key Supervisor of Shipbuilding personnel?

Admiral BURKE and Admiral MCCOY. Government oversight by the Navy's Supervisor of Shipbuilding, Gulf Coast (SSGC) has been revamped with an increase in overall SSGC manning by 21 percent from 2005 through the end of 2010, including an intensive focus on critical waterfront Quality Assurance (QA) billets. All Government QA weld inspectors were required to undergo re-training and re-certification in critical process areas, and QA oversight was increased across all phases of production. Within the last 18 months, the QA organization has been restructured to include more surveillance of in process work and compliance with formal ship construction procedures. A revamped training program has been implemented, providing an "apprentice to subject matter expert" career roadmap for QA specialists. SSGC has implemented a process of "critical process pulse audits" to ensure HII maintains production quality across the critical shipbuilding areas of structure, pipe, electrical, and coatings. Navy critical process metrics have been aligned with the shipbuilder to better assess performance trends leading to earlier identification of issues when they arise.

In addition, Commander, Naval Sea Systems Command (NAVSEA) sent teams of QA experts to assess SSGC ability to provide QA oversight and HII's production quality in Spring 2009, July 2010 and January 2011. The NAVSEA audits confirmed initial improvement by both SSGC and HII. The focus going forward, and a key element of the critical process pulse audits, is ensuring sustainment of that performance.

The LPD 17 Strike Team and INSURV Trial Card databases are two tools that are monitored on a consistent basis and have been made readily available to the other NAVSEA shipbuilding programs. Lessons learned from these two databases are being leveraged across all ship construction efforts to increase focus on pre-outfitting and completion levels at launch, facilitate more efficient production cycles, and further enhance quality assurance processes resulting in improved operational effectiveness, reliability, and sustainability.

Additionally, the program office has recently initiated preliminary discussions with the Defense Acquisition University to ascertain the possibility and value of adding the recent LPD 17 class issues and lessons learned as a case study for inclusion in the program managers' curriculum.

Mr. FORBES. In light of the most recent issues with the LPD 17 maintenance contract, what is being done to ensure that the correct repairs were performed on the ship? What steps are being taken at Norfolk Ship Support Activity to ensure that future availabilities do not face the same setbacks as LPD 17?

Admiral BURKE and Admiral MCCOY. A Navy engineering team from NAVSEA and Norfolk Ship Support Activity certified that all work had been performed correctly by completing a review of all work and objective quality evidence.

More stringent oversight has been put into place to oversee quality of work. For example, all Main Propulsion Diesel Engine work for LPD 17 Class and LSD 41/

49 Class ships is now being conducted under controlled work packages for increased oversight.

Mr. FORBES. As we know, in the recent past, the Navy severely reduced its Intermediate Maintenance Activities (IMAs) by closing some locations and reducing personnel in others resulting in a loss of critical capability and trained personnel. The Navy is currently reversing that trend. How many IMAs does the Navy intend to reestablish and what is the overall manpower increase anticipated?

Admiral BURKE and Admiral MCCOY. The Navy is reconstituting some intermediate maintenance capabilities at existing Regional Maintenance Centers (RMCs). All RMCs are scheduled to receive additional manning to increase intermediate maintenance capacity as well as provide Fleet Sailors the opportunity for training in engineering ratings so they return to sea duty with journeyman-level capabilities.

The FY12 RMC manning increase totals 200 military and 385 civilians. Additional civilian and military personnel increases are being considered as part of POM-13.

QUESTIONS SUBMITTED BY MR. KISSELL

Mr. KISSELL. What is the Navy's projection reflected annually for the next 10 years of potential increased operational maintenance costs on current air platforms that the F-35 is expected to replace?

Admiral BURKE. Navy has reliable projections of maintenance costs across the FYDP. Requirements in the Navy FY12 budget submission are based on assumed aircraft utilization rates and inventory, and they include funding for the Service Life Extension of 150 legacy F/A-18 aircraft. This funding is adequate for maintenance and sustainment of the projected Navy strike-fighter inventory at the time of submission. The costs are also consistent with those reported in the Secretary of Navy SLEP report to Congress, Appendix 3, as required by Public Law 111-383 of May 13, 2011. Maintenance for the nine additional F/A-18E/F aircraft, provided by Congress in the Department of Defense and Full-Year Continuing Resolution Appropriations Act of 2011, will be included in the FY13 Navy budget submission.

Mr. KISSELL. How will this projected maintenance cost be impacted as current air platforms are utilized well past their normal amount of flight hours?

Admiral BURKE. Maintenance costs increase with additional flight hours above planned service life, due to required inspections and modifications. Projected maintenance and sustainment requirements for all strike-fighter aircraft currently in inventory are included in the Navy FY12 budget submission. In addition to all regularly scheduled maintenance for these aircraft, the budget submission requirements include the F/A-18 Service Life Extension Program to extend 150 legacy F/A-18 aircraft to 10,000 hours, with all remaining legacy F/A-18 aircraft extended through high flight hour inspections to 8,600 flight hours.

Mr. KISSELL. At what date does the Navy identify emerging readiness shortfalls due to operational or maintenance requirements as well as critical readiness shortfalls for air platforms that are being utilized for an extensive amount of time beyond their projected use? Please provide a response for aircraft expected to be replaced by the F-35.

Admiral BURKE. The process to identify emerging aircraft readiness shortfalls, as well as critical readiness shortfalls, is continuous across all Naval aviation platforms. Service life, operational utilization, and cost are continuously monitored by Type/Model/Series. As issues are identified, they are prioritized in conjunction with the annual POM process. The FY12 Navy budget supports the operational and maintenance requirements through the FYDP for all aircraft in the Navy inventory. The Navy is challenged with a strike-fighter shortfall, due primarily to F/A-18A-D aircraft reaching the end of their planned service life before the replacement aircraft (F-35B/C) can be delivered into service. Based on a Program of Record to procure 556 F/A-18E/F aircraft and the FY12 President's Budget Request, the current projected peak strike fighter shortfall is 52 aircraft in 2018. The DoN assesses that the shortfall, as currently forecasted, is manageable with acceptable risk for a limited duration. An increase above the current projected shortfall will have a negative impact on operational readiness.

Mr. KISSELL. Specifically, if the F-35 does not reach fully mission capable status as planned, when does the Navy reach a crisis point in short and long term readiness as well as day to day operations as we push our current air platforms well beyond their planned service time line?

Admiral BURKE. The Department of the Navy (DoN) does not currently assess there to be a foreseeable "crisis point", in either short or long term readiness. The DoN has traditionally managed its entire aircraft inventory in a purposeful and re-

sponsible manner, balancing operational requirements with “best practices” for maximum utilization of aircraft service life. The established process of ensuring required preparedness levels are maintained is iterative, and constantly under review as new data and assumptions are evaluated.

Mr. KISSELL. How soon will we see the consequences of overextending our current air platforms? At what date will the Navy reach the point where we do not have the necessary aircraft to fulfill mission requirements?

Admiral BURKE. The DoN continues to meticulously manage the flight hours and fatigue life of our tactical aircraft. Since 2004, we have provided Fleet users guidance and actions to optimize aircraft utilization rates, while maximizing training and operational opportunities. The F/A-18A-D Service Life Extension Program (SLEP) initial request is included in PB-12. The program is designed to extend the airframe life of approximately 150 aircraft from 8,600 to 10,000 flight hours, with all remaining legacy F/A-18 aircraft extended through high flight hour inspections to 8,600 flight hours. Through extensive engineering analysis, the DoN continues to refine its SLEP plan to ensure that those aircraft, whose service lives are extended, satisfy all safety of flight and operational requirements. If the Joint Strike Fighter (JSF) delivery profile remains unchanged, and the service life of 150 F/A-18A-D is extended to 10,000 flight hours (along with success in other mitigation efforts), DoN will continue to assess the most recent shortfall projection of 52 as manageable, allowing the DoN to meet all mission requirements. However, any further delay in the JSF delivery profile will have a negative effect on existing strategies, and the projected strike fighter shortfall in both magnitude and duration.

Mr. KISSELL. Is there or what is the projection for taking current air platforms off line as the F-35 begins to integrate into service? If so, how is that projection adapting to continued delays in the procurement of the F-35?

Admiral BURKE. Both the Navy and the Marine Corps develop separate F-35 transition plans that account for each Service’s assumptions. These transition plans go through periodic reviews that will address any changes, including any delays in F-35 procurement. The Naval Aviation Master Aircraft Plan (MAP) document, and its associated processes, identifies the transition schedule to F-35. The current document, MAP 11-01, reflects all of the Navy’s Type/Model/Series aircraft transitions. This document is reviewed and updated twice a year to account for any changes, including any delay in F-35 procurement.

As current strike-fighter platforms reach the end of their service life, the Department of the Navy (DoN) plans to replace them with the F-35. Planned delivery rates for the F-35 will not keep up with current projected retirements, resulting in the shortfall in the overall number of strike-fighters within DoN. The latest Fiscal Year 2012 President’s Budget DoN inventory shortfall is 52 aircraft, projected to occur toward the end of the decade. The DoN has testified that this shortfall is manageable.

Mr. KISSELL. Is the Navy sustaining its training capability of new pilots on many of these legacy aircraft? If the Navy is transitioning its future needs toward the F-35 how are we mitigating the potential need for a much larger pool of pilots capable of flying our legacy aircraft as the need for continued service of older aircraft remains?

Admiral BURKE. Yes, Navy is sustaining training capability for new pilots on its legacy strike-fighter aircraft. It is not expected that legacy pilot training capacity will be reduced until F-35 transitions have stabilized. Since aircraft are being replaced on a one to one basis in most cases, the number of pilots necessary does not vary much between the present and the future. Our Master Aviation Plan process allows us to forecast the demand for aircrew to support new and legacy platforms. This results in adjustments to Pilot Training Rates at the appropriate Fleet Replacement Squadron (FRS) as a matter of normal execution.

Mr. KISSELL. How is the Navy adapting its training, if at all, to these older aircraft to better ensure the safety of our pilots? What is the risk associated with utilizing our aircraft for thousands of hours beyond what they were originally intended?

Admiral BURKE. The Navy adapts its training for older aircraft as necessary to ensure the safety of our pilots. Safety and mission readiness are not compromised in the service life management of the Fleet’s F/A-18 aircraft. In fact, coincident with the Navy and Marine Corp’s service life management program, aircrew training readiness has been enhanced with improved tactical standardization, a refined training syllabus, and improvements to measurable training objectives on each training sortie flown. There is a recognized and appreciated correlation between aircrew flight hours, flight safety, and combat effectiveness. There has been no decrease in aircrew flight hour requirements or lowering of training standards simply to preserve aircraft life.

Any extension of service life beyond the initial design life is the result of rigorous engineering analysis by NAVAIR, in concert with the Original Equipment Manufacturer (OEM). Any extension that results will include the necessary inspections and modifications to ensure the full operating envelope of the aircraft remains available in support of its mission.

