

043013 AIR FORCE ASSOCIATION, NATIONAL DEFENSE INDUSTRIAL ASSOCIATION AND RESERVE OFFICERS ASSOCIATION CAPITOL HILL FORUM WITH ADMIRAL WILLIAM BURKE, DEPUTY CHIEF OF NAVAL OPERATIONS WARFARE SYSTEMS, ON "NAVY PERSPECTIVES ON TRIDENT STRATEGIC MODERNIZATION" (For additional information on NDIA/AFA/ROA seminars contact Peter Huessy at phuessy@afa.org).

[This is a rush, unofficial transcript provided by National Security Reports.]

MR. PETER HUESSY: I want to welcome you here in the next in our series of seminars that are sponsored by the Reserve Officers Association of America and the National Defense Industrial Association and the Air Force Association. We are honored today to have Admiral Burke, who is the Deputy Chief of Naval Operations for Warfare System. I also noticed that he is a graduate of the War College of the National Defense University who, you know, use to sponsor these series for over 20 years.

I also want to acknowledge our friends from Russia and from Britain. Thank you, for being here today.

A reminder of next week, we have two seminars. One from – Dr. Cook is going to speak from NNSA on the 7th of May. Please let Sarah know if you're going to sign up. And Mark Schneider and Steve Blank – Mark from the National Institute for Public Policy – and Steve Blank from the War College in Carlisle, Pennsylvania are going to talk about the strategic nuclear challenges and missile defense challenges from the Russian Federation. And that is May 10th. So please let us know if you want to attend those.

And for those of you who want to take a trip to Minot, on the 2nd of May on Thursday we're having a tour of the bomber and ICBM base. And on the 3rd, I have put together another triad conference at which we're going to hear from Ambassador Lehman, General Frank Klotz, General Don Alston, General Harancek, General Kowalski, Ambassador Joseph, Senator Hoeven from North Dakota, as well as the Congressman from North Dakota. And if she can do it, the gentlelady from North Dakota, Senator Heitkamp, is going to talk to us from Afghanistan by video.

So we hope that that will work. And that is on May 3rd. If you would like to attend, let me know. I can get you an invitation.

I also want to thank our sponsors that are here today as well. And Admiral Burke – excuse me, Admiral Burke is also going to be speaking at our Minot conference on the 3rd of May. So let us know if you're going to attend next week.

And Admiral burke, I want to thank you on behalf of our sponsors, ROA, AFA and NDIA, for coming here and talking to us about the Trident program, and SSBN and the view from the U.S. Navy. Would you all give a warm welcome to Vice Admiral Burke?

(Applause).

VICE ADM. BURKE: Thank you, Peter. I don't know why you'd want to go to Minot and listen to all those generals when you can go out and listen to me.

(Laughter).

I appreciate the kind introduction. I'd like to thank Peter and all the sponsors for allowing me to be with you this morning. And also, thanks for holding this series. I've learned a lot over the last several years from your past speakers. And I appreciate the opportunity to speak on two topics about which I'm passionate: one, the strategic nuclear triad, specifically the undersea portion; and its intersection with our shipbuilding plan.

My first operational tour was aboard the Fleet Ballistic Missile Submarine USS Lafayette. I reported aboard in late '79. Lafayette was one of 41 SSBNs at the time – 41 for freedom, as we said back in the day. Our mission was singularly focused on conducting strategic deterrence patrols focused on our Cold War adversary the Soviet Union. And for those of you here from Russia, I am retiring in a couple of weeks and I'm working on going to Russia. So if you could accelerate my visa process, I'd –

(Laughter).

Our fleet of SSBNs was and continues to be relied upon as the survivable leg of the nuclear triad, discouraging a surprise first strike via an assured retaliatory strike. The SSBN is the ultimate insurance policy in deterrence, with sufficient lethality to make our adversary pause. To this day, strategic deterrence continues to be the foundation upon which the rest of our national defense posture resides.

Each leg of the triad has a unique role in our deterrence posture. Our SSBNs, the survivable leg, assure national security decision-makers the ability for a second-strike. As General Dempsey said recently, that capability is indispensable. For all their differences, each leg of the triad has one aspect in common, each is facing recapitalization or service life extensions with the goal of minimizing their fiscal burden on our country.

I'm going to focus on what I know pretty well, our SSBNs and our need to recapitalize them. Our Ohio-class submarines have been in the fleet now since 1981. The majority were commissioned between '84 and '97. The Navy maintains the Ohio-class ships at high levels of material readiness, ensuring operational availability.

Recently we determined that we can extend the life of our Ohio's for an additional 12 years. That's a pretty significant undertaking. And we conducted a detailed engineering analysis. And after evaluating the material condition of the SSBNs, the remaining nuclear fuel levels and the expected future operational demands, we determined that 42 years is as far as we should push these hulls.

We had originally planned for about 30. Reaching 42 years with the Ohio-class will mean we will have extended these subs more than 25 percent beyond the life of the longest-lived nuclear submarines. To try and extend that any further would not be prudent from either an engineering or a fiscal perspective.

Beginning in 2027, the Ohio's will decommission at a rate of about one per year through 2040. As a result, our Ohio force structure will decrease below the operational requirement of 10 SSBNs at about 2031. That's just our Ohio's that I'm talking about.

So this means we'll need the Ohio replacement designed, built, delivered, with shakedown complete and certified for nuclear deterrence patrols within 10 years of the start of construction to maintain our force level above the 10 requirement. Both Navy and StratCom leadership already believe there is moderate operational risk associated with this plan. Further delays should not be considered.

Initially, we planned to begin construction of the lead ship in FY '19, providing a two year margin to account for any potential construction or shakedown challenges. Due to fiscal constraints we pushed the start back two years to FY '21. Let me stop here and explain why we need a total force structure of 12 Ohio replacements. Why should we not go any lower?

For the Navy, the StratCom requirement is about the number of SSBNs we have at sea and are able to put to sea. Our principle objective is to ensure survivability of our payload and assure leaders that they have a second-strike capability. This requires we have a certain number of ships, with a certain number of missiles, underway at all times.

Accordingly, our force structure is not determined by the number of deployed warheads. If we have too few SSBNs at sea, we may encourage an adversary to try to find them. Now contrary to what Clark Murdock said last week, the range of our missiles is important to ensure a greater operating area, making the SSBNs more difficult to find.

So at any given time, to meet StratCom demands, we need to have 10 operational SSBNs. That allows our dual crew manning model and our operational leaders to assure that the actual number of ships and warheads underway meets the needs of the combatant commander. Could you do it with less? Of course you could do it with less. But the challenge

is if you do it with less you make it easier for somebody to find them; or, you encourage somebody to try to find them.

So, for instance, right now we have seven SSBNs deployed in the Atlantic and the Pacific conducting strategic deterrence patrols. We have been making these patrols every day, every hour, for over 50 years. The Ohio replacements will conduct strategic deterrence patrols into the 2080s. To meet that objective, these ships must be reliable, reconfigurable and operationally relevant for their entire service life.

These recapitalizations happen only every 40 or so years, and so we must do it right. But we also must be as cost-conscious as possible. As we develop the Ohio replacement, we rigorously challenge every assumption and eliminate unnecessary components to reduce the life-cycle and procurement costs to a responsible level. We lowered the SSBN required force structure from 14 to 12.

Now the way we did that is we altered the design requirements to increase the operational availability of the Ohio replacement by eliminating one refueling overhaul, such that we have a reactor core that lasts the life of the ship. And then we've also engineered the ship for shorter maintenance periods. These modifications avoided about \$20 billion in acquisition, sustainment and manning costs for the program.

So far, we've eliminated about \$1.1 billion from the price of each hull. As a result, for hulls two through 12 our cost position at milestone A is \$5.6 billion. And we have since further reduced the cost to \$5.3 billion. Our goal is to get acquisition costs below \$4.9 billion in FY '10 dollars for the follow-on hulls.

To accomplish these reductions, we reduced the number of missile tubes from 20 to 16. Sixteen tubes meets the StratCom requirements and provides sufficient flexibility to handle unforeseen problems. We also reduced the number of antennas in the sail from 10 to six. We had planned to increase the missile tube diameter to 97 inches, but we decided to stay at 87 inches.

We reduced acoustic sensors to a purely defensive posture. And we increased commonality of components between the Virginia-class and the Ohio replacement SSBN. All these changes have been rigorously vetted by Navy leadership, and none of our ways to reduce costs have risked the effectiveness of the platform.

The recapitalization of our SSBN force will impact our ability to fund investment in other future force structure. As the most survivable leg of the triad, the SSBN is also our nation's most necessary ship, and we must build it. The Navy has the resources to procure these national assets, but doing so will pressurize our procurement accounts. In order to maintain a

300-ship battleforce, shipbuilding requests during the 2020s will average about \$19.3 billion per year. This is \$4 billion more per year than in the current FYDP, and about \$7 billion more per year than the average ship procurement funding levels of the last 10 years.

A crude but important metric for navies is the number of ships. Today we're at 283. CoCom demand, if met, would require more than twice that number. We are trying to reach and maintain 300 ships because that is what we assess we need to meet the most important CoCom requirements for warfighting – war plans and presence.

We spent about \$12 billion per year on new construction of ships over the last 10 years. We need \$16 billion in the next two years to meet our shipbuilding needs. We need \$20 billion in the subsequent 10 years when the SSBN is being procured to meet our shipbuilding needs. Of course, CBO says we need even more than Navy projects to buy what we plan for in our 30 year shipbuilding plan. If accurate, the picture only gets direr.

If we don't buy the SSBN replacement, we will become a dyad without a survivable leg, leaving us with questionable deterrence capability. But if we buy the SSBN within existing funds, we will not reach 300 ships. In fact, we'll find ourselves closer to 250. At these numbers, our global presence will be reduced such that we will only be able to visit some areas of the world episodically. Sequestration will only make this worse, causing us to both reduce procurement as well as retire existing ships, leaving us with a navy in the vicinity of 200 ships, at which point, we may not be considered a global navy.

Let me close with a quick summary. The triad is the foundation of our defense posture, the bedrock of our nation's security. All legs of the triad are important. The SSBN, as the most survivable leg, is necessary.

We must build the SSBN. Unless we find additional shipbuilding resources, buying the SSBN will significantly impact the size and quality of our Navy. But, we must build the Ohio replacement SSBN.

Thanks for your time and I look forward to your questions.

(Applause).

Yes, Ma'am?

MS. : I was wondering if you could share your thoughts on what is going on right now in Britain today – (off mike) – given how much cooperation the U.S. – (off mike) – submarines to NATO's deterrent. Isn't that – also, the budget constraints – (off mike). What are your thoughts on whether the expense of – (off mike) – the Vanguard bombers, if that would mean sacrificing some budget funds for renewing conventional military capabilities that enabled the

UK to partner with the United States in foreign missions – sacrificing some of that conventional capability? Do you have any thoughts on that?

ADM. BURKE: You want me to comment on what the UK should do? Is that what you're saying?

(Laughter).

MS. : I'd like your comment on what is the U.S. -- given how the UK has been such a partner for foreign missions with the U.S., given the level of engagement and compatibility between the two militaries in the conventional realm -- if the cost of renewal removed some funding for real conventional capabilities, does the U.S. have a perspective on that at all?

ADM. BURKE: Well, the United States and the UK have been well aligned on their nuclear weapons programs for a long time. Secondly, I'd say that we certainly appreciate what the UK does with their nuclear weapons. We value their nuclear deterrent, and I suspect they value it as well.

Thirdly, I would say that we also value their contribution to conventional work that we do around the world. They've been a great partner in that area as well. I believe it's up to the UK to decide whether they value one over the other. But I will say that we have agreed with the UK to work on a common missile compartment, such that we are somewhat linked from a R&D and procurement perspective on that, on the Vanguard as well as on the Ohio replacement.

MS. : What's the Navy's kind of thinking on prompt global strike and its ability to conventional Trident?

ADM. BURKE: We certainly see the value of prompt global strike. Particularly, there's a couple of versions of it. If you look at it as a prompt global strike weapon from a ship or a submarine, then that creates challenges for others that force them to have to build forces that can actually find submarines. And we know how challenging – in the United States – we know how challenging ASW is, and how costly it is.

So there's certainly opportunity there, but we have not linked prompt global strike to any of our Navy platforms. So we see – we don't see that as linked to the SSBN or to the SSN or to other ships. We see it as a program that is potentially a cost driver for our adversaries.

MR. HUESSY: Admiral, could you address two issues? At a meeting that we had with Jim Schlesinger and Ambassador Joseph and Michael Edwin (ph), the debate came up over the number of submarines you need to have a two ocean fleet. I think the issue was – I think eight was (the number that occurred ?). Could you address that issue, because there are a number of

people arguing that we could go to a smaller number of ships, but didn't seem to realize that that means you cannot have a two ocean fleet. Could you address that issue?

ADM. BURKE: Sure. I think with certainly a two ocean fleet from a national deterrence perspective is a good idea because now you have your ships spread out in two parts of the world, it makes it harder for somebody to figure out how to find them. So that's the primary reason why you'd want two.

Now the primary reason why you wouldn't want two is because you could consolidate all your resources in one place. And it makes it cheaper to operate if you have them all in one place. So you could certainly have a two ocean situation with a very small number, you would just make it far more expensive to do.

You know, there's the overhead of the maintenance facilities, and we do take very good care of these ships because we want them to last long and we need the operational availability of them. So there's that aspect. There's the off-crew training aspect, because the ships are at sea a lot. When we put a crew onboard they're ready to go.

So, you know, we're approaching the point now where if you get much smaller you're going to go to a single location. You know, we started with 18 of these SSBNs, the Ohio SSBNs. And so we had them split differently than we have today, with 14. But we have shifted some of our emphasis to the Pacific, as well.

MR. JOHN SULLIVAN: John Sullivan of the Defense Nuclear Facility Safety Board. The number of \$5 billion sounds pretty big, but it's – (off mike) – Virginia-class lead me to believe that – (off mike). Can you speak generally to how the Navy does that? And when I look across at other major defense programs – I have some experience now working with the Department of Energy – it's very difficult to deliver a big project on cost and on schedule.

So I'm interested in your thoughts. I know the Virginia program has been very successful. I'm sure you're predicting good success for the Ohio replacement. How did the Navy manage that very difficult task?

ADM. BURKE: You know, when you look at Virginia or Ohio, you have one resource sponsor, one PEO. So there's a relationship between the program executive officer, the program manager and the resource sponsor that is very strong, an awful lot of communication. You know, we as submariners are generally a bit paranoid, so we spend a lot of time making sure the requirements are actually the requirements, and we follow up. We spend an awful lot of time making sure that what we want is what we – and what we pay for – is what we get.

And I'd say the – also a very important piece is that we have contractors in Electric Boat and Newport News that work together extremely well and have delivered a good product. They were also significantly incentivized over the course of the last 10 years before this program began, which said if you get the cost down to \$2 billion, we will buy two of these a year. And so there was tremendous pressure to get there.

I'll say the thing I appreciate at least as much about getting the procurement cost down on the Virginia-class, is not only did we do that, but we focused on getting the sustainment cost down as well. And so not only do these ships cost less than what they were planned to cost at the beginning, but they're costing less over the life cycle than they were. And we are currently looking at ways to further increase the operational availability of Virginia and thereby actually reduce even further the sustainment burden.

So as you point out, a tremendous success story on Virginia. We've got the same contractor, the same contractors, the same people in place, the same design organization in place to continue that success. There is no program in DOD today that has gotten the scrutiny in its life than the Ohio replacement.

I mean, we're eight or so years out from even bending metal. And we have reviewed costs so much on this thing and pushed so hard to get it down. You know, people were coming to me a couple times a quarter with ideas on, this is what we're going to do next to reduce the cost. So we're pushing it hard and I'm sure we'll deliver on that.

MR. : You talked about the importance of range in this equation of how many boats we need. Obviously, a big part of range is just the missile. So can you tell us a little bit about what kind of trade-offs you've made and what some of the variables are in terms of improving range – the D-5, D-5 replacement, etcetera?

ADM. BURKE: Well as I mentioned, we looked at the idea of having a 97 inch tube, which would allow us to either get at more weapons per tube or a larger weapon. We ultimately, because of cost, decided that the D-5 is good enough as far as range. It gives us enough area of the ocean to hide, if you will. And so we chose to sort of stay where we are. So we're happy with that range. We think it gives us the flexibility we need.

However, if you now get to a point where you do reduce the number of boats, now that range only – you're hiding a smaller number in that area. And I do think you encourage a potential adversary to look for ways to find them and you put them at risk. And part of our calculations assume we might lose one or two of them for one reason or another.

MR. TOM SHERMAN (ph): You mentioned briefly that some of (the acoustic sensors would be only defensive on Ohio ?). Does that mean that the torpedo load will be smaller or zero?

ADM. BURKE: The torpedo load will not be zero. It will not be – I don't think it will be smaller than in Ohio today. We value that ability to carry a certain number of weapons and to provide for your own defense. And you know, let's face it, we're talking about this ship going into the 2080s.

Those torpedo tubes may be your only interface with the ocean and who knows what we might come up with that we can launch out of those torpedo tubes besides torpedoes. You know, UUV – you can imagine (self-delousing ?) and all sorts of things that you might do with those torpedo tubes. So we will need not only the four tubes, but we will need a torpedo room that has the opportunity to have torpedoes and other devices in it. So I suspect we will be very close to the same sized torpedo room as we've been in the past.

MR. CARL LUNDBERG: Carl Lundberg from Jonah Speaks. You mentioned the vulnerability of subs to possible adversaries. And I guess one question I have is, what are the circumstances where they might be vulnerable, such as being in port or being in shallow waters or deep ocean or however? And also, why are the Russian and Chinese less confident of the ability to protect their subs, as we are of our own subs?

ADM. BURKE: Well, I think to your first part, our way of operating is to put these ships to sea. We think that by being at sea it is more challenging for a potential adversary to find them. And given the range of our missile, we feel like there's plenty of play of water in which we can hide.

Other countries have chosen to operate their SSBNs in a different fashion. And whether that's because of their concern about their abilities or because that's the way they chose to operate them for a variety of good reasons, I wouldn't want to speculate on that.

MR. HUESSY: Admiral, could you explain a little bit about the joint work between the Navy and Air Force with respect to joint missile components and that effort that is now part of both programs?

ADM. BURKE: Yeah, first of all I'd say it's a nascent effort, but we are taking a look at options to essentially build the same missile. As I said, it's nascent. We're just getting started. So I don't know what will come out of it. On the one hand you get that commonality of component and commonality of system, which could lead to a vulnerability. On the other hand, if you don't do it, you're adding cost. So we're kind of exploring the tradeoffs there right now.

MS. : I remember the last CNO, Admiral Boorda, talking about how the Ohio replacement program needed to be a national program because it would overwhelm the Navy budget and shipbuilding accounts. Is there any progress on that, since you talked about the costs are staggering, especially the production part of Ohio.

ADM. BURKE: I would say there's no real progress on that. I don't think that -- given its so far away at this point, I don't think we as a Navy or DOD or a nation have decided to come to grips with what that means.

MR. HUESSY: Admiral, thank you.

(Applause).

We will see you here next week on the 7th with Dr. Cook, and then with Steve Blank and Mark Schneider. Thank you all very much.