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Before the

Subcommittee on Seapower

COMMITTEE ON
ARMED SERVICES

UNITED STATES SENATE

HEARING TO RECEIVE TESTIMONY ON INDUSTRY
PERSPECTIVES ON OPTIONS AND CONSIDERATIONS FOR
ACHIEVING A 355 SHIP NAVY

Wednesday, May 24, 2017

Washington, D.C.

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5 Wednesday, May 24, 2017
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7 U.S. Senate
8 Subcommittee on Seapower
9 Committee on Armed Services
10 Washington, D.C.
11

12 The subcommittee met, pursuant to notice, at 9:34 a.m.
13 in Room SR-232A, Russell Senate Office Building, Hon. Roger
14 Wicker, chairman of the subcommittee, presiding.

15 Committee Members Present: Senators Wicker
16 [presiding], Tillis, Sullivan, Hirono, Shaheen, Blumenthal,
17 Kaine, and King.
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1 OPENING STATEMENT OF HON. ROGER WICKER, U.S. SENATOR
2 FROM MISSISSIPPI

3 Senator Wicker: This hearing of the Seapower
4 Subcommittee will come to order.

5 The Senate Armed Services Subcommittee on Seapower
6 convenes today to receive testimony on industry perspectives
7 and options and considerations for achieving a 355-ship
8 Navy.

9 We welcome our three witnesses who are leaders in our
10 shipbuilding industry: Mr. Brian Cuccias, Executive Vice
11 President of Huntington Ingalls Industries and President of
12 Ingalls Shipbuilding, representing America's largest
13 shipbuilder with nearly 37,000 employees and with shipyards
14 in Mississippi and Virginia; also, Mr. John Casey, Executive
15 Vice President of General Dynamics Marine Group, which
16 includes 25,000 employees, with shipyards in California,
17 Connecticut, Maine, and Rhode Island; and Mr. Matthew
18 Paxton, President of the Shipbuilders Council of America, a
19 national trade association representing U.S. shipbuilders,
20 ship repairers, and the shipyard supplier base with members
21 in 34 States.

22 Gentlemen, our subcommittee is grateful to you for
23 agreeing to testify today. Your expertise and counsel will
24 be invaluable today and in the future as we consider options
25 for increasing the size of our fleet.

1 We have long argued that the United States Navy's
2 dominant maritime position would not be possible without the
3 unique skills, capabilities, and capacities across the
4 maritime industrial base. So thank you for all you do.

5 Now more than ever, a strong Navy and Marine Corps are
6 central to our Nation's ability to deter adversaries, assure
7 our allies, and defend our national interests. Our sailors
8 and marines are at the forefront of our rebalance to Asia,
9 ongoing operations against the Islamic State, responses to a
10 resurgent Russia, and efforts to deter rogue states such as
11 Iran and North Korea.

12 Yesterday, this subcommittee held a classified
13 roundtable discussion with Navy leaders to discuss current
14 readiness challenges, emerging threats, and the requirements
15 underpinning the 355-ship force structure objective that was
16 established in December of last year. It is clear that our
17 current fleet of 275 ships is insufficient to address the
18 security challenges we face today and that we anticipate in
19 the future.

20 Even with recent shipbuilding increases, many of which
21 were initiated by this subcommittee, the fleet would have
22 peaked at 313 ships in 2025 under the Navy's 2017 30-year
23 shipbuilding plan. We look forward to receiving the Navy's
24 updated 30-year shipbuilding plan, which by law should have
25 accompanied the budget submitted yesterday. We would like

1 to receive that as soon as possible and expect it to contain
2 the recommended path to achieving the 355-ship requirement.
3 We want to help and we want to lead in this regard.

4 This morning, I would like to hear from our witnesses
5 on what I consider four key issues.

6 First, industrial base readiness to increase
7 production. Last week, the Chief of Naval Operations
8 released a white paper entitled "The Future Navy" which
9 identified 29 additional ships that could be procured over
10 the next 7 years, or roughly four additional ships per year.
11 This document states hot production lines can do more
12 economically. I would like to hear your assessments of your
13 companies' readiness, including vendors and subcontractors,
14 to increase production in line with this Navy document, or
15 potentially faster.

16 Second, the importance of stable and predictable
17 workload. Shipbuilding requires a long-term commitment.
18 For example, it takes millions of man-hours over 3 to 4
19 years to build each destroyer and about 5 years to build
20 each fast attack submarine. I would like to hear your views
21 on the importance of a national commitment and budgetary
22 certainty to enable sound decision-making and efficient
23 planning to align our workforce with the anticipated
24 workload.

25 Third, options to improve efficiency and cost

1 effectiveness. While this subcommittee will continue to
2 exercise its oversight responsibilities on each shipbuilding
3 program, there are certain authorities to save time and
4 money that only Congress can authorize. In addition, I
5 recognize companies of all sizes across the supply chain
6 will need to invest in facilities, equipment, and workforce
7 to meet higher demand if we are to get this done. I am
8 interested in your recommendations on what the subcommittee
9 can do this year to enable the companies you represent to
10 reduce unit cost and deliver ships the Navy needs and
11 deliver them faster.

12 And finally, best practices to ensure success. Similar
13 to the Reagan buildup, in which 91 ships were added to the
14 fleet between 1980 and 1987, to reach 355 ships will be an
15 increase of 80 ships compared to today's fleet. So with our
16 witnesses' considerable experience in all facets of
17 shipbuilding, I hope you will describe those best practices
18 that are absolutely essential to get right as we grow the
19 Navy.

20 In closing, let me say that I am open to all options to
21 meet the Navy's 355-ship objective as soon as possible.
22 This will be a historic undertaking, depending on
23 assumptions such as such a buildup would take more than 25
24 years or as few as 8 years. So help us out there.

25 In any case, the new construction options we will

1 discuss today are critical. However, I believe we must also
2 look at other options such as extending the service lives of
3 existing ships and reactivating decommissioned ships. This
4 committee will continue to explore these options and more in
5 the coming weeks.

6 With that in mind, I turn to our ranking member,
7 Senator Hirono, who had very major surgery only 1 week ago
8 today and in an amazing way was back voting on the floor and
9 helping us with this subcommittee. So the amazing Mazie
10 Hirono is recognized for her remarks.

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1 STATEMENT OF HON. MAZIE HIRONO, U.S. SENATOR FROM
2 HAWAII

3 Senator Hirono: Thank you very much, Mr. Chairman.
4 And I would like to join you in thanking our witnesses for
5 being here with us this morning to discuss how we can get to
6 the goal of a 355-ship Navy.

7 I think we need to be very realistic in the short-term
8 and in the long-term of ways that we can get to this goal.
9 And, of course, in Hawaii we understand the threats our
10 country faces and the Navy's role in confronting them. And
11 this is particularly true at a time when four out of five of
12 our country's most pressing national security challenges are
13 present in the Pacific theater.

14 The growing importance of the Indo-Asia-Pacific region
15 is a primary driver of the Navy's goal to increase the
16 number of ships in its fleet from 308 to 355. But after 2
17 decades of restructuring the shipbuilding industry to
18 support a much smaller fleet, meeting this goal presents a
19 unique set of challenges, particularly in how to pay for the
20 construction and the maintenance of a significantly larger
21 fleet.

22 Earlier this year, I attended the graduation ceremony
23 for the apprenticeship program at Pearl Harbor Navy
24 Shipyard, which plays a critical role in keeping our Navy
25 fit to fight. Any plan to expand the size of our Navy must

1 provide a simultaneous commitment to continuing shipyard
2 modernization, funding maintenance availability, and
3 developing a skilled workforce to maintain the fleet.

4 Because her diving certifications have expired, the USS
5 Boise is tied up at a pier and will be unable to operate
6 until the Navy overhauls and inspects the boat. The current
7 Navy plan is to fund planning and design in fiscal year 2018
8 and conduct the overhaul sometime in fiscal year 2019, which
9 means the boat will have sat idle for roughly 2 years before
10 the maintenance begins. It makes little sense for combatant
11 commanders to be asking for more attack submarine
12 deployments while we have a \$1 billion submarine tied up at
13 a pier for lack of maintenance.

14 I am also looking forward to hearing more about
15 impediments to expanding our shipbuilding industry and what
16 our partners can and should do to help in this effort. And
17 this testimony that you provide today will be crucial as we
18 try to understand the context within which the Navy has made
19 budgetary decisions for the 2018 budget and future years
20 defense program.

21 Thank you again, Mr. Chairman, for conducting this
22 hearing. I look forward to the testimony.

23 Senator Wicker: Thank you, Senator Hirono.

24 We will begin our testimony at this point with Mr.
25 Cuccias. Thank you, sir, for being here.

1 STATEMENT OF BRIAN J. CUCCIAS, EXECUTIVE VICE
2 PRESIDENT, HUNTINGTON INGALLS INDUSTRIES AND PRESIDENT,
3 INGALLS SHIPBUILDING

4 Mr. Cuccias: Well, thank you, Chairman Wicker, Ranking
5 Member Hirono, distinguished members of the Seapower
6 Subcommittee. Good morning. My name is Brian Cuccias, and
7 I am honored to address you today, along with my colleagues,
8 on how the shipbuilding industry can help the Navy and the
9 Nation achieve a 355-ship Navy.

10 Chairman Wicker, I greatly appreciate the attention you
11 are devoting to this critical national initiative.

12 I would like to thank the subcommittee for its
13 longstanding support for shipbuilding and the Navy and
14 Marine Corps team.

15 I plan to limit my oral remarks to a brief summary and
16 ask that my written testimony be submitted for the record.

17 Senator Wicker: Without objection.

18 Mr. Cuccias: I am here today representing Huntington
19 Ingalls Industries which operates two of the Nation's major
20 shipyards; Ingalls Shipbuilding, of which I am President;
21 and Newport News Shipbuilding. Newport News has been
22 building ships for 131 years; Ingalls for nearly 80 years.
23 We also operate Continental Maritime, a small repair yard in
24 San Diego.

25 Together, we have built more than 2,800 ships,

1 submarines, vessels, including 70 percent of the Navy's
2 fleet of warships. Our three yards employ more than 30,000
3 shipbuilders. We are the largest employer in the State of
4 Mississippi and the largest industrial employer in the State
5 of Virginia. Supporting the work at these yards are roughly
6 5,000 suppliers from virtually all 50 States.

7 We appreciated Chairman McCain's recommendations in
8 January contained in Restoring American Power. This
9 document, coupled with several other studies, including the
10 Navy's own force structure assessment, provides a compelling
11 rationale for increasing the size of the Navy. We are proud
12 to partner with the Navy and Congress in providing the
13 United States with the fleet it needs.

14 Turning now to the tools and resources industry needs
15 to carry out an accelerated military shipbuilding plan, I
16 will offer several recommendations for your consideration.

17 First and foremost, leveraging successful platforms on
18 current hot production lines will provide the fastest
19 results. I would note that many of the proposals in
20 Chairman McCain's paper, such as compressing deliveries on
21 Ford aircraft carriers to 4 years, building DDGs on 9-month
22 centers, increasing submarine production, and accelerating
23 the LXR program, are all efforts that we ourselves would
24 recommend and are ready now to execute.

25 In my view, it is a best practice to keep current

1 production lines hot, utilizing existing designs. When the
2 production line is stopped and subsequently restarted, we
3 traditionally experience significant cost as a result of
4 loss of shipbuilder learning. In the 5-year break in
5 production in the DDG program, the first ship in the restart
6 resulted in a labor premium of over 20 percent.

7 With your help and support, we have kept the LPD line
8 at Ingalls hot and hope to continue to building amphibious
9 ships for the Marine Corps without a break in production.
10 We assumed the benefits of zero production. Costs are
11 coming down in this program, and we are in a position to
12 deliver more capability to the Marines at the program of
13 record cost if we do not break the hot production line.

14 Second, I cannot underestimate the importance of a
15 steady and predictable funding and a stable shipbuilding
16 plan. Continuing resolutions can impact our business
17 significantly, not only causing delays in meeting milestones
18 but increasing costs. Unpredictable funding is hard for
19 shipbuilders to manage, but it is even more difficult for
20 our suppliers, two-thirds of which are small businesses. A
21 clear and consistent demand signal would go a long way in
22 promoting a healthy, efficient, and productive industrial
23 and supplier base.

24 Perhaps one of the most impactful tools are procurement
25 strategies such as block buys and multiyear procurement

1 authority. Multiyear procurements provide a demand signal
2 to industry which stabilizes not only the work at our
3 shipyard but also in our suppliers' facilities.

4 Furthermore, a predictable demand from the government
5 allows us and our suppliers to make facility and human
6 capital investments and process improvements that ultimately
7 will enable us to build ships faster and more affordably.

8 We encourage Congress to make the broadest use of
9 multi-ship block buy contracts, particularly for mature
10 programs, including amphibious warships, destroyers,
11 aircraft carriers, and submarines. The savings from a
12 multi-ship procurement alone could be as much as \$1 billion
13 for amphibious warships and \$1.5 billion for aircraft
14 carriers. A multi-ship buy of carriers would not only
15 reduce the cost of these ships but also help stabilize the
16 industrial base that would benefit the overall shipbuilding
17 industry.

18 Third, I recommend that Congress authorize and fund new
19 ship construction on optimum intervals. This would allow us
20 to deploy our workforce as effectively as possible. For
21 example, the LHA program of record currently has a 7-year
22 gap between LHA-8, which we are now building, and LHA-9.
23 This production break would require us to drastically reduce
24 our LHA workforce, then having to ramp up and retrain a
25 workforce 7 years later. The interval between 3 and 4 years

1 for these ships would enable us to operate most efficiently
2 and return our skilled workforce as well as our supplier
3 base.

4 And finally, we must invest in infrastructure
5 improvements in our shipyard and our supplier facilities.
6 At Huntington Ingalls, we will invest in \$1.5 billion in our
7 shipyards to make sure we are ready to build the future
8 fleet. At Ingalls alone, we are investing hundreds of
9 millions of dollars in recapitalization of the shipyard. We
10 call it the shipyard of the future. This effort has been
11 strongly supported by not only the corporation but also the
12 State of Mississippi. We need the Federal Government to be
13 a strong partner as well.

14 These efforts will help accelerate the delivery of our
15 ships to our Navy and Coast Guard, save taxpayer dollars,
16 stabilize the industrial base, preserve American jobs, and
17 improve the security of our great Nation.

18 Thank you and I look forward to your questions.

19 [The prepared statement of Mr. Cuccias follows:]

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Senator Wicker: Thank you.
Mr. Casey, you are recognized.

1 STATEMENT OF JOHN P. CASEY, EXECUTIVE VICE PRESIDENT,
2 MARINE SYSTEMS, GENERAL DYNAMICS

3 Mr. Casey: Chairman Wicker, Ranking Member Hirono,
4 members of the committee, thanks a lot for this invitation
5 to testify today and for the committee's long history of
6 support for shipbuilding programs.

7 With your permission, I would also like to submit my
8 statement for the record, and I would summarize it here.

9 Ranking Member Hirono, I wish you a speedy recovery.
10 It is quite remarkable to see you here today and happy that
11 you made it.

12 So at General Dynamics Marine Systems is organized as
13 three autonomous shipyards. Bath Iron Works builds Navy
14 destroyers. Electric Boat, submarines. And NASSCO builds
15 Navy auxiliary ships as well as commercial vessels. We have
16 facilities in nine States: Maine, Rhode Island,
17 Connecticut, Virginia, Georgia, Florida, California,
18 Washington, and Hawaii. And as you stated, we have about
19 25,000 people, a paltry sum compared to my partner here.

20 So our initial conclusion right up front here is, yes,
21 we can scale up. We do agree that hot production lines are
22 a smart way to go, along with the planned expansion
23 necessary to build Columbia.

24 We are working closely with the Navy in Newport News on
25 this integrated enterprise plan. And that includes an

1 analysis and evaluation of our 5,000 vendors that support
2 the nuclear industrial base across all 50 States.

3 So let me just talk a little bit of history here. I
4 think Brian and I have both been in the business about 4
5 decades. So I thought it would be useful to think back
6 about where we came from.

7 The first decade of those four, we were building one
8 SSBN and three SSNs collectively across the industry. It is
9 about five times the number of ships we built in the last
10 decade, so to speak, in terms of displacement tons of ships
11 being built.

12 Along came the Seawolf program viewed as the future of
13 the fast attacks, and it was originally a 30-ship program
14 and it was canceled in January of 1992. Groton and Quonset
15 went from about 18,000 shipyard folks, not counting the
16 engineers, down to about 25,000. No fun for me. A lot of
17 my friends and neighbors had to be laid off along the way.
18 And our supply base went from about 9,000 to 3,000 after
19 being in a peak in the Cold War of about 17,000.

20 So coming from where we have been in the last 10 to 20
21 years to where we have to go just to meet the Navy's current
22 fiscal year 2017 shipbuilding plan goes back to three times
23 the past decade or so. So we were at five times down to the
24 20 years. Now we go back up to three times. So it is
25 probably not quite a little over half of where we were. And

1 that is driven partially by the Virginia payload module 84-
2 foot hull section, along with the Columbia, which I think we
3 all would agree is the Nation's highest priority at this
4 point in time.

5 So there are three areas that require close attention
6 with this growth, and we do not take any of those lightly
7 and we pay close attention.

8 So first is facilities and capital equipment. Both
9 companies have expansion plans, and at the end of that, EB
10 would be expecting to be able to deliver one SSBN and two
11 VPM SSNs, Virginia payload module fast attacks, per year.

12 The labor resources need to be increased. We have
13 unique skills, as everybody I think understands. But
14 probably what is not well understood is we have hired 10,000
15 people since 2011. We have done that by developing
16 partnerships with the United States Department of Labor, the
17 Rhode Island and Connecticut governors, technical community
18 colleges, technical high schools, and we have internal
19 active learning centers that support that.

20 We have also re-engineered the hiring process. What
21 used to take 163 days will be at 45 days by the end of the
22 year. Frankly, the only hiccup we have had in the hiring is
23 getting security clearances processed, which is a
24 government-controlled process that has been difficult to
25 work through.

1 Senator Wicker: Now, say that again because I am kind
2 of slow.

3 Mr. Casey: When you come to work in the nuclear
4 industry to work in the shipyard in most locations, you
5 require a security clearance. Those are granted by the
6 government. So we make application for those, and we would
7 like it to take a few weeks. It has been taking months to
8 process an interim clearance, let alone a permanent
9 clearance. So that slows our ability to get people into the
10 workforce. And we have had some of our Representatives and
11 so forth try to deal with the agencies in the government
12 that make that happen.

13 Senator Wicker: So is it getting better or worse?

14 Mr. Casey: I think it is getting better but not by a
15 lot.

16 And then the third and equally important, which you
17 asked about, is the supplier capability and capacity. So we
18 believe we have to expand the number of suppliers, the
19 processes in which they are qualified, and the capacity of
20 each of those vendors. We would propose early, non-
21 recurring funding of those vendors. The EOQ, economic order
22 quantity, process has been very supportive and needs to
23 continue and the advanced procurement process as well.

24 So those three things are what we would propose.

25 And we would also internally program for longer lead

1 times and particularly on the qualified critical suppliers
2 and/or to qualify new critical suppliers. We say we have
3 5,000 suppliers. That is a real number. In reality, there
4 is about 150 critical suppliers based on the size of what
5 they build, the complexity of what they build, or the cost
6 of what they build.

7 And we work closely with Matt and his Shipbuilding
8 Council of America, along with the American Shipbuilders
9 Suppliers Association, the Marine Machinery Association, the
10 Submarine Industrial Base Council, and the Aircraft Carrier
11 Industrial Base Council, to make sure we are touching the
12 suppliers in every way we can to make sure they understand
13 what is coming and what activity is necessary.

14 So we just talked about the Navy's 2017 plan. Let us
15 think about how does that compare to the 355 ship plan.

16 So, first off, if there are going to be 355 ships, we
17 believe efforts need to start immediately like in fiscal
18 year 2018, not in 2019, not in 2020. It needs to start
19 immediately.

20 We also want to confirm what is the objective. I mean,
21 we get to 355 by when? If we are going to get there by the
22 middle of the 2030s, by the middle of the 2040s, or at some
23 other point in time makes a big difference in terms of the
24 capacity that is required. We are evaluating right now two
25 scenarios: three submarines per year and four submarines

1 per year, including Columbia.

2 And so industry has a challenge of its own and a
3 responsibility. And with certainty of volume and
4 predictable returns, we have to make investment decisions.
5 We have to decide when and how much to scale the workforce,
6 and we have to time our material procurement.

7 What can we hope the government will support? As Brian
8 said, multiyear and block procurement contracting authority,
9 various capital incentives which exist to help make sure
10 that the investments that are acquired are not negative to
11 our earnings and cash for a decade in the future. And those
12 things have all been done in the past: accelerated
13 depreciation, accelerated cash, GOCO facilities, special
14 fixtures and features, and recovery commitments, if you
15 will, if programs get canceled.

16 So we would like to propose and we are evaluating in
17 our industrial enterprise work \$400 million of funding
18 starting in 2018, the first increment in 2018, \$150 million,
19 to make sure we can get vendors up on the step, qualify new
20 vendors, and get us back in the place where we have more
21 people to choose from basically. And we think the
22 acceleration of advanced procurement and economic order
23 quantity on the block V ships, which we know we are going to
24 build, we know when we are going to build them, will help
25 get the industrial base jump-started. It will help the

1 vendors get into the mode of producing at higher levels.
2 And we also think authorization of production spares can
3 support that.

4 So to wrap up on the submarine side, we are ready to
5 accelerate this historical precedence for what has been
6 asked to be done. And we understand the challenges
7 associated with that, and we take them very seriously. It
8 is not something we take lightly.

9 Although I was asked to focus on submarines, I think it
10 is important just to talk a little bit about the surface
11 side of General Dynamics starting with Bath Iron Works. We
12 understand the plan would be four DDGs per year split
13 between Bath and Ingalls. And frankly, in the decade of
14 1994 to 2004, we were at two destroyers, two DDG 51
15 destroyers, at Bath. So we believe the existing facilities
16 that Bath has are adequate. We got to focus on training.
17 And frankly, going to two DDGs per year at Bath would avoid
18 what otherwise is going to be an employment reduction. So
19 it is not so much we are concerned about having to hire a
20 lot. We got to try to make sure we maintain stability there
21 by one to two DDG 51's per year.

22 At NASSCO, we understand the challenge to be three more
23 ESBs, the expeditionary support bases, two T-AO's per year
24 beyond the one today. And frankly, NASSCO is very similar
25 to Bath. In order to get back to where we were last year,

1 we would require that kind of volume on the Navy side. Last
2 year, we delivered six commercial tankers out of NASSCO,
3 probably a record certainly for that shipyard and maybe for
4 any shipyard. But those contracts are wrapped up. The very
5 last one of those eight tankers is at sea today as we speak
6 undergoing trials. It should be back sometime today before
7 the day is over.

8 So, Chairman Wicker, Ranking Member Hirono, and
9 members, that concludes my summary of my comments of my
10 written testimony. I would be glad to take any questions
11 and help in any way I can in this process.

12 [The prepared statement of Mr. Casey follows:]

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1 Senator Wicker: Thank you, Mr. Casey.

2 Mr. Paxton?

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1 STATEMENT OF MATTHEW P. PAXTON, PRESIDENT,
2 SHIPBUILDERS COUNCIL OF AMERICA

3 Mr. Paxton: Thank you. On behalf of the Shipbuilders
4 Council of America, I would like to thank Chairman Wicker,
5 Ranking Member Hirono, and members of the Seapower
6 Subcommittee for the opportunity to provide industry
7 perspectives on the domestic shipyard's capacity and
8 capability to build a 355-ship Navy.

9 I would ask that my full written testimony be submitted
10 for the record.

11 Senator Wicker: Without objection.

12 Mr. Paxton: To meet the demand for increased vessel
13 construction, while sustaining the vessels we currently
14 have, will require U.S. shipyards to expand their workforces
15 and improve their infrastructure in varying degrees
16 depending on ship type and ship mix, a requirement our
17 Nation's shipyards are eager to meet. But first, in order
18 to build these ships in as timely and affordable manner as
19 possible, stable and robust funding is necessary to sustain
20 those industrial capabilities which support Navy
21 shipbuilding and ship maintenance and modernization.

22 Congress must find a way to remove the defense spending
23 caps set in place by the 2011 Budget Control Act. In recent
24 years, Congress has worked around sequestration with short-
25 term deals. However, without a long-term solution,

1 uncertainty continues regarding the specific effects of
2 sequestration in 2018 through 2021. Although it is
3 difficult to determine the exact impacts going forward, 5
4 years of budgetary reductions, of funding restrictions have
5 already led to furloughs, deferred maintenance, delayed
6 recapitalization programs, and increased deployment times.
7 A sustained investment in our naval fleet requires the
8 threat of sequestration be permanently eliminated.

9 In addition, Congress and this subcommittee can support
10 the use of acquisition strategies to provide funding
11 stability and enhance cost reduction. Alternative funding
12 approaches such as advanced procurement, incremental or
13 split funding, and bock buy contracting already in use in
14 naval shipbuilding can help increase stability and
15 affordability in building a 355-ship Navy.

16 Through the use of advanced procurement, Congress
17 provides upfront funding for the purchase of long lead time
18 material and components and provides the balance of ship
19 funding in the subsequent year. For the shipbuilding
20 industry and the critical supplier base, this creates an
21 early financial commitment which enhances job security,
22 allows for strategic planning, hiring and training, as well
23 as encourages capital investment.

24 Incremental or split funding, where cost is divided
25 into two or more annual increments, allows for Navy ships to

1 be procured while avoiding or mitigating budget spikes and
2 major fluctuations in year-to-year budget totals.
3 Incremental funding would also allow construction to start
4 on a large number of ships in a given year so as to achieve
5 better production economies.

6 Beyond that, Congress can consider block buys of ships.
7 Block buy contracting permits the Department of Defense to
8 use a single contract for more than 1 year's worth of
9 procurement of a given kind of ship without having to
10 exercise contract options for each year after the initial
11 procurement year. Purchasing ships through block buy
12 contracting enables shipyards to leverage hot production
13 lines and streamline the acquisition process for these
14 shipyards.

15 The selection or combination of these type of
16 strategies will signal to U.S. shipbuilding and repair
17 industry and the critical supplier chain that Congress is
18 committed to building a 355-ship Navy and our industry is
19 ready to respond accordingly.

20 Beyond providing for the building of the naval fleet,
21 there must also be provision to fund the tail, the
22 maintenance of the current and new ships entering the fleet.
23 Target fleet size cannot be reached if existing ships are
24 not maintained to their full service lives. Maintenance has
25 been deferred in the last few years because of across-the-

1 boards budget cuts. And investment in building ships must
2 be complemented by the investment to maintain those ships to
3 their full life expectancy.

4 Long term there needs to be a workforce expansion, and
5 some shipyards will need to reconfigure or expand production
6 lines. This can and will be done if adequate, stable
7 budgets and procurement plans are established and sustained
8 for the long term. Funding predictability and
9 sustainability will allow the industry to invest in
10 facilities and more effectively grow its skilled workforce.
11 The development of that critical workforce will take time
12 and a concerted effort in a partnership between industry and
13 the Federal Government.

14 In conclusion, the U.S. shipyard industry is certainly
15 up to the task of building a 355-ship Navy and has the
16 expertise, the capability, the critical capacity, and the
17 unmatched skilled workforce to build these national assets.
18 Meeting the Navy's goal of a much larger fleet will require
19 sustained investment by Congress and the Navy's partnership
20 with the defense industrial base that can further attract
21 and retain a highly skilled workforce.

22 Again, I would like to thank the subcommittee for
23 inviting me to testify alongside such distinguished
24 witnesses. As a representative of our Nation's private
25 shipyards, I can say with confidence and certainty that our

1 domestic shipyards and skilled workers are ready, willing,
2 and able to build and maintain the Navy's future fleet.
3 Thank you, sir.

4 [The prepared statement of Mr. Paxton follows:]

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1 Senator Wicker: Thank you very much.

2 I am going to ask the clerk to do 6-minute rounds, if
3 we can do that. And I will start off. There are five of us
4 here. And I want to try to be a little less formal, much as
5 we were yesterday down in the SCIF. So if someone wants to
6 interject, we will do it that way and have more of a
7 roundtable approach. If it gets out of hand, I will be
8 surprised.

9 Mr. Casey and Mr. Cuccias, I am sure you agree but let
10 me get you in the record with Mr. Paxton's statement about
11 sequestration. Could we possibly embark on this ambitious
12 undertaking unless we lift sequestration? Mr. Cuccias?

13 Mr. Cuccias: Well, I think sequestration actually puts
14 instability into the marketplace. It is hard to plan. It
15 is hard to predict. The overhaul on Washington was impacted
16 and we had to lay off hundreds of workers to just, at a
17 later point, go back and hire and retrain.

18 So if the Nation really wants to build the Navy, it has
19 to create stability, and the Budget Control Act and
20 sequestration actually impact that greatly because you
21 cannot invest. The vendors will not hire, and the supply
22 chain is actually the critical path to build a ship. If the
23 ship already exists, without the vendor and the supply base
24 to provide the product and to hire the resources they need
25 to build, ships will not come on time. They need 18 months

1 and sometimes 2 years' advance notice before you want to
2 start actually the shipyard to build a ship to actually
3 signal the supply base to hire, to train, and to build.
4 Sequestration does not put stability in that. It actually
5 harms it. It harms the vendors to lay offs and rehire, and
6 it harms the shipbuilders as well.

7 Senator Wicker: Mr. Casey?

8 Mr. Casey: I believe that a constrained shipbuilding
9 and R&D accounts, the operational accounts insofar as
10 maintenance is concerned, will preclude the Nation from
11 achieving 355 ships.

12 Senator Wicker: Okay. And I believe you said, Mr.
13 Casey, that we need to start in fiscal year 2018. Was that
14 your testimony?

15 Mr. Casey: Yes, sir.

16 Senator Wicker: If you will, if each of you would tell
17 us if we want to get started realistically with this, what
18 do you need in the next NDAA to get this started?

19 Mr. Casey: We would propose to start the \$400 million
20 which is necessary to jump-start the supply chain, if you
21 will. I agree with Brian's statements that the critical
22 path on the ship at the beginning is to get the pieces and
23 parts you need in place.

24 On the existing Virginia class program, we accelerated
25 advanced procurement monies to buy materials, and it allowed

1 us to accelerate 2 million hours of construction work,
2 eliminate 2 years from the construction cycle, and do it for
3 2 million less hours. So 2 years less, 2 million less
4 hours, and we accelerated into the first half of the
5 construction cycle. So we ultimately took an 84/87-month
6 ship and got it down to about 66 months, largely on the
7 basis of getting the material at the dock the day we were
8 ready to start construction.

9 So we would propose to start that \$400 million with
10 \$150 million in this fiscal year 2018's authorization act.

11 Senator Wicker: Is there anything else?

12 Mr. Casey: I think we have laid out in detail what we
13 can do to build on the Virginia program that exists today
14 and to put monies in place that will cause the industrial
15 base to become stressed -- the supply chain, if you will, to
16 become stressed -- before we get to the point of trying to
17 get to three or four submarines per year. If we can stress
18 them today by authorizing them to start building pieces and
19 parts that we know we intend to use, we think that will go a
20 long way toward supporting the program to get to 355 ships.

21 Senator Wicker: Can you elaborate on what you were
22 saying in your testimony about accelerated depreciation?

23 Mr. Casey: That is more on our capital investments.
24 If we are to make a capital investment on any given program
25 and the program does not start for 5 years and we do not

1 really get into the meaningful production until 5 years
2 later, your investment is somewhat stranded.

3 Senator Wicker: So you are going to need a change in
4 tax policy.

5 Mr. Casey: No, sir. I do not believe a tax policy is
6 necessary. All six of the suggestions that we have made in
7 my testimony have been used by the Navy in the past. Those
8 are methodologies that exist in the current FAR as I
9 understand it.

10 Senator Wicker: Okay.

11 Mr. Cuccias, anything else?

12 Mr. Cuccias: I would say the ideal was a multi-ship
13 procurement. For example, two carriers, if they were bought
14 together, would significantly take the cost of carriers.
15 But also I think it would significantly stabilize the
16 overall industrial base because of the breadth of the
17 supplies. Multi-ship LPDs, multi-ship destroyers -- that
18 would be the best condition.

19 But a fallback position is you have to have advanced
20 procurement. If you do not have AP for the procurement, the
21 GFE equipment is not even bought, let alone the material
22 that the shipyards buy. And you have to prime the pump.
23 You have to get the supply chain lead time in advance or
24 when you make the decision, the lead time strikes when the
25 procurement lead time starts. AP must be in there. Ideally

1 it is a multi-ship procurement I believe, to answer the
2 question.

3 Senator Wicker: And, Mr. Paxton, anything to add
4 there?

5 Mr. Paxton: Yes, sir. Just authorize these type of
6 acquisition strategies. I think they are important. Buying
7 a ship all in 1 year is difficult, huge budget swings, and
8 we need to mitigate those spikes. If we are going to go to
9 building 12 ships a year or more, if we do not have these
10 acquisition strategies like advanced procurement, multi-
11 contract, block buys, it will be hard to see how you would
12 do it.

13 And the last thing, sir, I would say this committee can
14 always encourage the Navy -- not require, but encourage the
15 Navy -- to get requirements stable and consistent. And let
16 us build things when we are ready to go. Encourage the Navy
17 to get programs set and locked in.

18 Senator Wicker: Senator Hirono?

19 Senator Hirono: Thank you, Mr. Chairman.

20 I think all of you testified that you liked the idea of
21 the multiyear procurement contracts and also the multi-ship
22 block grant contracts. Is that correct? All of you liked
23 that.

24 Now, is there not an underlying statutory basis for the
25 -- is it the multiyear procurement method, or is it the

1 multi-ship procurement that has an underlying legislation?

2 Mr. Cuccias: I would certainly like to take that
3 question for the record.

4 My response was more on how to produce ships more
5 efficiently, more affordably, and so my response was if that
6 was available, shipbuilders and the supply chain I believe
7 can produce ships at a better value to the taxpayer and in a
8 more efficient, faster manner.

9 In terms of the policy that is behind it, I was
10 addressing that more in the most efficient way to produce
11 the products.

12 Senator Hirono: My understanding is that one of these
13 methods of procurement has a statutory basis for it. So the
14 questions I have were whether both of them should have some
15 sort of statutory basis so that you have a clear path as to
16 what is required in order for us to have these kinds of
17 contracts. But I will check on that.

18 Mr. Casey: Ma'am, I think if I can help with that, as
19 I understand it, both the destroyers the Navy builds and the
20 submarines they build today are multiyear, multi-ship
21 contracts. So they are 5-year contracts, in the case of
22 submarines, two per year; in the case of destroyers, two per
23 year split between two yards. So the Navy I believe is
24 granted the authority by the Congress to put multiple ships
25 under contract, and it takes multiple years to build those

1 ships. I think that is what you question is, but I am not
2 100 percent sure I understood it.

3 Senator Hirono: I just want to make sure that if we
4 need to look at the statutory basis for us going forward
5 with these two kinds of contracts that you all agree are
6 good, then I will explore that.

7 Mr. Casey, I was curious to know when you mentioned
8 that since 2011 you have hired 10,000 people and that you
9 have reduced, if I heard you correctly, the hiring process
10 time frame from 165 days to 45 days. That is a significant
11 shortening of the time frame. So what was shortened that
12 you managed to do this?

13 Mr. Casey: We have taken an approach in the human
14 resources department that does the personnel hiring, and
15 they are handling that department like a lean six sigma
16 challenge. In other words, each phase of the hiring process
17 is laid out on a process flow map, and all the hours, if you
18 will, days where we were not productive we did not believe
19 then gleaned out of that process. So there was a detailed
20 process review, led by Mora Dunn, who runs our human
21 resource department, new to Electric Boat, frankly from
22 another part of General Dynamics. She has just done an
23 outstanding job at looking at H.R. more like a production
24 person would look at operations.

25 Senator Hirono: I commend you for that because that

1 was something that you did internally. You were able to
2 effect a shortening of the time frame for when you would be
3 able to hire the needed workers. That is great.

4 And then in addition, I think there was some concern
5 about the clearances that the government needs to provide
6 and that there may be some issues around that, which I know
7 the chairman has also asked you about. So that is another
8 part of the whole process that we could be possibly of some
9 assistance with.

10 Thank you.

11 I am glad that you all mentioned the importance of the
12 thousands of suppliers that you all rely upon. And I was
13 particularly interested, Mr. Casey, when you said that of
14 the 5,000-plus suppliers that you deal with, many of whom
15 are small businesses, that there are 150 who are critical
16 suppliers. And that would be the same for you, Mr. Cuccias?

17 Mr. Cuccias: Yes.

18 Senator Hirono: So out of the thousands that you work
19 with, there are a number who are deemed critical, crucial,
20 and maybe there is some way that we can stabilize the
21 funding and the -- well, stabilize would be a good way so
22 that these critical suppliers have something that they can
23 count on in terms of the funding. So is that something that
24 we should be working on in a separate fashion to facilitate?

25 Mr. Cuccias: Senator, I think it gets back to

1 stabilizing the industry, and the multiyear and block buys
2 actually do that.

3 Obviously, multiyear and block buy will do a couple
4 things. One, for the critical suppliers, it gives them
5 stability. Every supplier is critical if you need the part.
6 So the whole industrial chain is really important.

7 I think actually it will bring other vendors in. It
8 will actually create a more healthy supply base, hiring
9 across the country. It will actually be an entry point I
10 think for other companies and businesses to maybe get into
11 the market where you are not so tied to single source
12 vendors where they are all so critical. The BCA and
13 sequestration actually helps cause that limiting of
14 suppliers exiting in the market. The opposite, providing
15 stability creates more vendors that would create stability
16 and more vendors would come in the marketplace.

17 Senator Hirono: We do have bipartisan support for
18 eliminating the sequestration, but we have not quite been
19 able to achieve that and we have kind of kicked the can --

20 Senator Wicker: Well, we just do not have the
21 bipartisan votes.

22 [Laughter.]

23 Senator Hirono: Or a bipartisan agreement on how the
24 heck we should do it.

25 I know that we have a maintenance backlog, and a recent

1 RAND report indicated that public shipyards resourcing
2 suggested more maintenance work could be transferred to the
3 private yards to address the backlog. Do your yards have
4 the capacity to take on more maintenance availabilities?

5 Mr. Casey: Yes, ma'am. Right now, for example, at
6 Electric Boat, they are doing the Montpelier maintenance
7 work which will wrap up roughly at the end of this year. It
8 is another example of -- we are out to bid in competition
9 with Newport News right now for the Boise. I think that was
10 mentioned as being laid up. That is exactly right. And we
11 are in competition for that ship right now.

12 Electric Boat actually requires that kind of volume of
13 work to avoid having to reduce its workforce while we have
14 the sight of Columbia in our eyes. Columbia is a vision in
15 the future. If we do not have some interim work between
16 what we are doing today in the repair world and what we need
17 to do when we start Columbia, we will actually be reducing
18 people not hiring. So it is a difficult dilemma to have as
19 a company to be in, but that is where we find ourselves.

20 So that is why the Boise is an important availability
21 to Electric Boat. And I appreciate the committee's support
22 on moving any other work that exceeds the other shipyard
23 capacity in the nuclear world.

24 Of course, on the surface ships, virtually all the work
25 is done in the private industry. So it is a different kind

1 of issue there, but nevertheless, we definitely have the
2 capacity. We are way short in Norfolk -- we have a couple
3 repair yards down there -- of repair work relative to the
4 capability of the port. And we are also, as I just pointed
5 out, short in the submarine business.

6 Senator Hirono: Mr. Chairman, if I could just have Mr.
7 Cuccias answer yes or no as to their capacity to do
8 maintenance work.

9 Mr. Cuccias: Newport News does have the ability to do
10 maintenance work on both carriers. Lincoln was just
11 redelivered in May, and George Washington is now under
12 contract planning. We have contracts of Columbus and
13 Helena. And so we have submarine overhaul work as well.
14 From the surface side, it really depends on the yard's
15 loading in terms of a new construction balance. Certainly
16 we have the capability where Ramage is being overhauled at
17 Ingalls at the moment. That job is going quite well. I
18 believe we will be ahead of schedule. So I think both
19 facilities have ability to do overhaul and repair.

20 Senator Hirono: Thank you, Mr. Chairman.

21 Senator Wicker: Senator Tillis?

22 Senator Tillis: Thank you, Mr. Chair.

23 And, Senator Hirono, it is great to see you back.

24 I had one quick question for Mr. Casey. We were
25 talking about clearances. And I chair the Personnel

1 Subcommittee. We are dealing with clearance issues in that
2 capacity. What specific recommendations would you have on
3 things that we could do to expedite the process from our
4 end?

5 Mr. Casey: Senator, I am not an expert on the criteria
6 that the government uses to grant these clearances. My view
7 as an individual citizen of the country is that there is
8 some basic criteria that could be established by the various
9 agencies that oversee this to make sure people are at least
10 granted interim clearances on a more immediate basis. And
11 then if there is a more detailed review of somebody's
12 history or record, that that could be done in parallel.

13 The other thing we are trying to do internally,
14 frankly, is shrink down the areas in the shipyard that
15 require these clearances. And that is something we are
16 working closely with the Navy on. We have been somewhat
17 successful. But as a ship is getting near completion and
18 you have a live reactor core inside a ship, the rules are
19 pretty tight. And so those are the areas where we
20 absolutely have to have people.

21 It is, frankly, difficult to sit in a production
22 meeting, which I still do -- since that is where I came from
23 and I still like to sit in those once in a while -- and have
24 the general foreman or the foreman say, I am short 10 people
25 and I know I have got 300 people that are waiting for their

1 clearances right outside the gate ready to come to work.

2 The down side effect of that is sometimes people get
3 impatient. So we have gone to a lot of trouble to get
4 somebody interviewed, get them hired, get them into the sort
5 of queue and then having to say, well, I have got to wait 4
6 or 5, 6 months, then I am going to find something else to do
7 to support my family. So any efforts, sir, that you could
8 do on that would be hugely helpful.

9 Senator Tillis: Well, with people that are in that
10 lane within the organization, it would be good to get back
11 with our office to talk about specific points that they
12 think could be improved in terms of the process.

13 I have a broad question for all of you. I think I
14 heard we need longer lead times. We need the certainty of
15 volume. We need to fund the tail. If not a block buy, at
16 least advanced procurement. I have only been in politics
17 for about 12 years. So I did not follow this at a detailed
18 level at the Senate level until 2 years ago. But the last
19 time I would have heard any of these things being said about
20 policies coming out of Capitol Hill, disco and leisure suits
21 were still popular. It has been a very long time.

22 When is the last time you have been able to go back to
23 your businesses and your industries and feel like you had
24 the certainty to ramp up your supply chains to get the
25 resources and the supply chains in place? How long ago has

1 it been since you have really been able to do that as an
2 industry?

3 Mr. Casey: I think, frankly -- and I will stick with
4 the submarine part of the business, since that is where I
5 came from, for now even though the other two are equally
6 important -- when we went to two submarines per year,
7 originally the plan was to do that in 2001. It never
8 happened until 2011. So there was a 10-year change in
9 policy I think is what you are describing, 10 years of we
10 are on path A in our vision, but in reality we are living on
11 path B. So finally, when we got to the point of the block
12 III ships where we went from one per year to two per year,
13 in the middle of that block to block IV where we had 10
14 ships authorized over 5 years, then there was some
15 confidence that we know what we are dealing with.

16 Senator Tillis: And you take a look at the way the
17 world has changed since then. It is amazing that we have
18 got ourselves caught in this rut.

19 Do you all as an industry or as the businesses
20 represented -- have you done any analysis in terms of the
21 inherent cost multiplier for the way that we are acquiring
22 in this case ships, but weapons systems in general, how much
23 more we are having to pay for it because of the lack of
24 certainty and as a result, the lack of optimization, just
25 the inherent inefficiencies that we need to pay for?

1 Mr. Cuccias: I think it is significant. When you look
2 at a single ship buy, a procurement versus multiyear, when I
3 just look at some of the data, it would be in real then-year
4 term dollars much greater than 10 percent. I have seen some
5 20. I have seen some vendors provide 20 percent reductions
6 in then-year. So it is the real then-year cost without
7 escalation that you get today. So I think there are
8 significant volumes. When vendors in the communities, both
9 government and shipyard provided products -- when they get a
10 demand signal that structures multiple years, they get to
11 plan their facility.

12 Senator Tillis: It would not surprise me if we are
13 paying 25-30 percent premiums based on lack of an optimized
14 supply chain. I used to run a supply chain optimization
15 practice at PriceWaterhouse, and the inherent inefficiencies
16 in here, the multiplier that we could get out of more ships
17 built sooner is something that we have to go from bipartisan
18 discussion about the Budget Control Act and about the things
19 we are talking about here to bipartisan results.

20 Senator Wicker: What sort of assurances could you give
21 us about that if you crunched the numbers a little better?

22 Senator Tillis: Let me see if could answer it from a
23 consultant's perspective. You should be able to give us
24 quite a bit of assurances. If we can give you a 10-year
25 tail or a 5-year planning horizon that we are willing to

1 commit to, I know very well that you can optimize in double-
2 digit numbers based on the baseline numbers that we have
3 today and current budgeting practices.

4 Senator Wicker: What do you say to that?

5 Mr. Casey: Senators, on the latest block buy, we
6 documented \$200 million unit cost reduction just for the
7 volume, \$200 million as a result of getting down to 66
8 months. So there are \$400 million, which got us to \$2
9 billion per copy lower than they had previously been as
10 measured, I think, in fiscal year 2010 dollars. So the kind
11 of numbers you are talking about are exactly the targets we
12 should have, but not only are they targets, they are
13 contractual commitments on the current block buy --

14 Senator Tillis: What you need is the certainty out of
15 this institution that what we say this year is what we mean
16 next year. And that is not what we are delivering today.
17 There is no way that any business of your size and scope can
18 go on these 3- to 5-year, 10-year horizons and get an update
19 from us every 6 months to a year. It just will not happen.

20 Thank you, Mr. Chair.

21 Senator Wicker: Thank you, Senator Tillis.

22 Senator Kaine?

23 Senator Kaine: Thanks to our witnesses.

24 You have all touched on this in your testimony, but I
25 just want to make sure that I ask you specifically. Last

1 week, the CNO, Admiral Richardson, released a white paper
2 titled "The Future Navy," and his conclusion was this, that
3 today's industrial base has the capacity to construct 29
4 more ships over the next 7 years than our current plan. Do
5 you generally agree with that assessment that that is about
6 the magnitude of the additional production we could generate
7 under the current capacity?

8 Mr. Cuccias: When I looked at the capacity, Senator,
9 in principle we can support the demand. Depending on how it
10 goes from the plan to the authorization of awarding
11 contracts and to the shipbuilders, the LHA may have to move
12 to a 4-year center. But other than that, we have the
13 capacity to deliver all of it from both Newport News and
14 Ingalls.

15 Senator Kaine: The other witnesses?

16 Mr. Casey: Agreed, Senator. I just read that document
17 last night, as a matter of fact. And he is very general
18 about what specifically he is talking, if that were 29
19 submarines or 29 of a blend of submarines, LHAs, aircraft
20 carriers, et cetera. It is a little bit difficult to
21 understand what the mix of the 29 is, but I am very
22 confident, depending on the Navy's mix that is in that
23 analysis. We have sort of an open book with the Navy. They
24 understand the ins and outs of our businesses much more
25 intimately than most relationships I think. So I am sure

1 that came from information that we in part provided.

2 Senator Wicker: Based on the Navy's mix, how much more
3 would that cost the taxpayers?

4 Mr. Casey: The 29 ships?

5 Senator Wicker: Yes.

6 Mr. Casey: I cannot answer that. I do not know what
7 the mix is ultimately.

8 Mr. Paxton: Yes, Senator. I get to represent the
9 entire industry.

10 There is that capacity out there, and we think probably
11 29 is not the top number. We could probably go farther than
12 that. But it goes to what Mr. Casey said about ship mix and
13 ship type. But certainly there is excess capacity that can
14 be reconfigured, can be utilized to meet the 29 and do
15 better.

16 Senator Kaine: Let me ask a question about ship mix.
17 I was at a brief at DARPA recently, and I do not want to get
18 too much into it because it was in a classified setting.
19 But the staff was briefing me on some thoughts about
20 different visions of future fleet architecture.

21 If we embark on an aggressive build plan of the kind we
22 are discussing here, which results in the hot production
23 lines that you guys say is best -- and I agree with you on
24 that -- how difficult is it to incorporate new ship designs
25 if there is a decision that the architecture needs to be

1 dramatically different than we have been predicting
2 recently?

3 Mr. Casey: I think there is a big difference between
4 serial production and introduction of new technology and new
5 designs. I can tell you during the period of low rate
6 production, we canceled the Seawolf, but we also designed
7 and built the Virginia virtually on time, only about 3
8 months late for the schedule that was created 10 years
9 earlier. We designed and built on time and under cost the
10 SSGN modification to the existing Tridents to make them
11 capable of being strike vessels without having ballistic
12 missiles aboard. We redesigned the third Seawolf to become
13 the Jimmy Carter, which was basically written on the back of
14 a "while you were out" pad as a concept, and 8 to 10 years
15 later, it was at sea performing its mission.

16 So we have had a string of successes. And I think if
17 you are a business that has a very tight integration between
18 your design, your supply chain, and your construction, you
19 are more able to adapt.

20 The Navy on submarines, for whatever reason -- I am not
21 sure -- has not introduced so much on other classes of ships
22 as a design/build process, assuming these were all the
23 people that are involved in planning the ship, buying parts
24 for the ship, estimating the cost of the ship, or part of
25 the design function. They are authorized to do their work

1 during the design. So when you develop a manufacturing and
2 assembly plan, everybody is signed up for it from the guy
3 that has got to weld the joints on the boat to the people
4 who have to estimate the cost of the boat, the people who
5 have to buy the material for the boat.

6 That is different than the historic concept design that
7 turns in detailed design. You throw two shipbuilders and
8 say go tell me how much it is going to cost because there is
9 a whole different phasing that is required.

10 So I believe that was the secret sauce that allowed
11 those three kinds of ships to be built basically in a very
12 narrow window without disrupting normal processes.

13 Senator Kaine: Thank you.

14 Mr. Cuccias, let me ask you this. I visited the
15 apprentice school in Newport News. And you had a wonderful
16 program last year. I mean, you also have a wonderful
17 program at Ingalls. These schools are a pretty big
18 investment at a time when there is a lot of pressure to keep
19 the cost down. Talk about the business case for operating
20 these schools.

21 Mr. Cuccias: We take a lot of pride in building the
22 finest ships in the world. But I think we also produce the
23 finest workers in the world. And I think we produce -- our
24 trained workforce is paramount in terms of being in the
25 business. I do not know if there is a business case. You

1 need a qualified worker. You need a trained worker. We
2 provide great training for them. And I think it has been
3 one of the key ingredients to allow us to attain and retain
4 the skills that you need into an overall industry outside of
5 the United States across the board. It is not really a
6 heavy industry marketplace anymore. So we have to kind of
7 create our own. The marketplace does not really allow that.

8 We have gotten very good at it. The Newport News
9 apprentice school I think is really the gold standard. We
10 have emulated a lot of that in Pascagoula and we have a fine
11 maritime academy there as well. And I just think it is what
12 we think -- we call it the fundamentals -- I would call the
13 business. It is hire, training, and retaining employees.
14 So we do not look at it as a business case. We look at it
15 as a smart investment to keep, quote, the talent that you
16 need to build the future fleet.

17 Senator Kaine: Let me just say, Mr. Chair, if I could,
18 one last point. I am on the HELP Committee and one of the
19 goals of Chairman Alexander and Ranking Member Murray is to
20 rewrite the Higher Ed Act during this term in Congress. And
21 one of my main goals in working on that is to make sure we
22 define higher education broadly enough to include career and
23 technical apprenticeship programs. Mr. Casey, you testified
24 a bit about the wide range of kinds of training
25 opportunities you use at General Dynamics. I just want to

1 make sure that we give these programs the same elevation as
2 we are thinking about them in higher education. So I would
3 encourage your industry to pay attention to what we are
4 doing on the HELP side when we get into the Higher Ed Act
5 rewrite because there may be some things we can do as a part
6 of that legislation that would be helpful in creating the
7 workforce that you would need to do this scaled-up
8 production.

9 Thank you, Mr. Chair.

10 Senator Wicker: Thank you, Senator Kaine.

11 Senator King?

12 Senator King: Thank you, Mr. Chairman.

13 Just to follow up on that discussion, is it fair to
14 say, gentlemen, you both testified -- or all three of you
15 testified that the industry base, in terms of physical
16 assets, is ready to go? It would not take a huge amount of
17 capital investment to scale up to meet these new
18 requirements. Is it fair to say that the obstacle, if it is
19 one, is workforce and development of a new workforce? I
20 know in Bath, we are having a lot of retirements, and I
21 suspect that is true in all of the shipbuilding industry.
22 People are starting to age out and a very large turnover,
23 which implies additional training. Mr. Cuccias, what do you
24 see?

25 Mr. Cuccias: From the vendor -- I will go from vendor.

1 Then I will talk to the shipyards. So from the vendor
2 community, I think the basic infrastructure of the vendor
3 base -- a lot of that exists. The talent does not exist in
4 terms of hiring up. So from particular components, if you
5 go to a vendor and say how come I cannot get my product
6 because another program basically took your lead time spot,
7 and there is not enough volume for them to hire up to meet a
8 higher demand.

9 Senator Wicker: So you are making Mr. Kaine's point
10 really. Are you not?

11 Mr. Cuccias: Yes, sir. I think you see that across
12 the marketplace. Depending on certain product lines, they
13 may have to have some other facility investments depending
14 on terms of rate of production and what that requires. The
15 most near-term critical point is the labor force and sending
16 the right signal to hire and train the labor market.

17 Senator Wicker: Mr. King's first statement about the
18 infrastructure pretty much being where it needs to be -- do
19 you all of you agree with that?

20 Mr. Casey: I agree with that on the surface ship side
21 of the equation for certain. I do not believe -- I mean, we
22 are making an investment at NASSCO right now mostly for
23 efficiency purposes, not to be able to have the capacity
24 that is necessary. I believe Bath is in a similar
25 situation. They have adequate facilities to perform this

1 side of the work.

2 In the case of the Columbia program, that is not the
3 case. There is no infrastructure required to build that
4 program, and that is what we are all trying to figure out
5 what the right path ahead to do that is.

6 So the fast attack submarines -- basically the
7 infrastructure is in place for the existing model of fast
8 attack submarines. The infrastructure we need to build the
9 Virginia payload module with the processes we use today --
10 in fact, I invite you all to get up to Electric Boat and
11 take a look at the process of building these quad packs for
12 the Columbia, a very, very different process than what was
13 used in the past. And there is a very similar concept that
14 we have developed for the Virginia payload module to put
15 those four vertical missile tubes in.

16 But outside of Columbia, I agree with you, Senator,
17 that basically the physical resources at the shipyards that
18 we need to continue is --

19 Senator King: Do you agree then that the challenge is
20 in workforce?

21 Mr. Casey: Yes. I mean, I think even though we are
22 fairly stable at Bath right now, when we complete the DDG-
23 1000 class, which will be in 2019, we have a significant
24 dropoff. But in parallel with that there is somewhat of a
25 bifurcation in the longevity of the people in the yard. So

1 there is a lot of entry level or newer people less than 10
2 years, and a lot of people who have been there more than 30
3 years. So as the more senior people retire, we have to hire
4 and replace them. Absolutely. So that can always be a
5 challenge, and when we hire new people to replace more
6 senior people, we need to get them through a training
7 process.

8 Mr. Paxton: Senator King, I would say industry-wide,
9 the single biggest challenge is going to be workforce
10 development. CBO estimates over the next 5 to 10 years the
11 seven yards building naval assets will have to increase the
12 workforce by 40 percent. That is a real number. And so
13 that takes a real concerted effort.

14 I agree, Senator Kaine, with your legislation. We
15 supported that as a trade association. We really do need
16 this technical education to be thought of as a 4-year degree
17 just as well.

18 The last thing I would say on that, sir, is we have a
19 lot of veterans that do not know enough about our industry.
20 And so what we have tried to do as a trade association is a
21 concept called the Military to Maritime. We held an event
22 down in Norfolk where the Virginia Governor came down, and
23 we have done this now in Houston and Jacksonville and New
24 Orleans. What we are trying to do is raise the awareness of
25 the veterans for the shipbuilding industry, obviously. That

1 is what I care about. But it is also ship operators. It is
2 folks working on all sorts of craft that ply our waterway
3 systems. So we want to get our veterans in there. They are
4 highly skilled and highly trained, and they can help in the
5 industry.

6 Senator King: Two general points out of this, Mr.
7 Chairman. I think clearly this is an issue. This workforce
8 is an issue here in this subcommittee. This an issue across
9 our economy. I am hearing it from virtually every employer
10 in Maine. The problem is a trained and qualified workforce.
11 So we really got to think hard about that I think in the
12 Congress.

13 The other issue that you have touched on is the whole
14 issue of clearances. I keep hearing that in other areas,
15 and that just may be a matter of enough people to do the
16 clearance work, enough people to do the processing in the
17 FBI or Homeland Security or wherever it is. And I think we
18 have got to attend to that because that is a bottleneck. I
19 know of people applying in some of our security agencies or
20 the State Department. They are waiting more than a year and
21 a half for their clearances, some of whom I know have given
22 up, and the government has lost qualified, good, capable
23 people because the clearance process was just so cumbersome
24 and slow.

25 A final question. I am a little confused by two

1 things, a combination of two things. We have been talking
2 about a 355-ship Navy. That is what everybody is looking
3 at. And part of that implies more DDGs, which is something
4 I know something about, talking about four a year. And yet,
5 I look at the budget that was submitted yesterday, and it
6 shows two a year out to 2022. Which is it? Is the
7 administration's proposal, the 355-ship Navy or is this a
8 preliminary budget? Any ideas on that inconsistency?

9 Mr. Casey: I certainly do not want to try to speak on
10 behalf of the administration, but the only comment I would
11 make is that I think the emphasis this year by DOD is
12 supposed to be readiness and they have not really come
13 through a detailed plan. But I can tell you from industry's
14 point of view, if we want to get to 355, we need to start
15 sooner rather than later. That is for sure.

16 Senator King: That is what bothers me about this
17 budget is it shows two a year all the way out into 2022, and
18 we are not going to get to 355 in any kind of a decent time
19 horizon if we do not start until later than that.

20 Thank you, Mr. Chairman.

21 Senator Wicker: Senator Shaheen?

22 Senator Shaheen: Thank you, Mr. Chairman.

23 And thank you all for being here.

24 I want to follow up on the workforce issue because I
25 certainly agree with the comments of both Senators Kaine and

1 King that this is a huge issue, and you all have
2 acknowledged that. It is an issue I hear everywhere I go in
3 New Hampshire. And is the reality not that it is not just
4 about workers having the training that they need, but we
5 have a workforce in this country that is aging out and we
6 are not producing enough new workers for the jobs that we
7 need in the future? All of the statistics and the analyses
8 that I have seen suggests that. Is that something that you
9 all -- Mr. Paxton, you are nodding your head. Is that
10 something that you have seen as well?

11 Mr. Paxton: Yes, Senator. Like a lot of manufacturing
12 sectors, the shipyard industry is facing an aging workforce.
13 But on top of that, we are facing the reality that we need
14 to ramp up quickly. So we are seeing it in our area as
15 well.

16 What we do also see, though, is we are generational.
17 If you have somebody who has worked in a shipyard, you will
18 find a daughter or a son or a nephew or cousin will know
19 about it and will enter.

20 It gets back to also legislation that tries to
21 emphasize in our community colleges, our technical schools
22 that this is a good option and educating that as opposed to
23 getting a 4-year degree.

24 Senator Shaheen: Are immigrant works not also
25 important as we look at how we are going to fill our

1 workforce needs? I was down at Austal for a christening of
2 an LCS ship down there, and one of the things that I noticed
3 and they talked about were the number of immigrants who were
4 working in that yard and doing very good work. But is this
5 not one of the other answers to our workforce challenges in
6 the future? Anybody.

7 Mr. Casey: I am not sure where that question is
8 headed, but I know we have a challenge in the nuclear part
9 of the business because everybody has to be a U.S. citizen.
10 So that might be a unique challenge to the nuclear part of
11 the business. The shipyard we have in San Diego certainly
12 has a lot of people that are properly vetted and work in
13 that shipyard.

14 Senator Shaheen: I am assuming that everybody who
15 works in the shipyard who may be an immigrant and many who
16 are U.S. citizens who have immigrated to this country are
17 properly vetted. Otherwise they would not be hired.

18 Mr. Casey: About 60 percent of NASSCO's workforce are
19 considered minorities, if you will, and that is largely
20 based upon their proximity to Mexico and so forth. So all
21 those folks that come into NASSCO every day legally and they
22 are vetted accordingly are fantastic additions. They have
23 got a great work ethic, and we would not be where we are
24 today without them.

25 Senator Shaheen: So that is going to be an important

1 role as we think about how we fill the workforce needs that
2 we have in the future. Would you all agree with that?

3 Mr. Casey: Locally, true.

4 Senator Shaheen: Mr. Paxton, I want to -- we have all
5 talked about the workforce challenges, the budgetary
6 challenges as we think about how we get our budgetary house
7 in order. But I noticed in your testimony that you also
8 talked about a recent decision by the Department of Homeland
9 Security to not revoke a series of letter rulings that have
10 allowed foreign-built and foreign crude supply vessels to
11 operate in violation of the Jones Act, and that that has
12 created uncertainty. Can you talk about both what happened
13 there and why that is a problem? And are there other
14 unintended consequences from decisions that are made that
15 are affecting our ability to do this ramp-up that we would
16 like to do?

17 Mr. Paxton: Thank you, Senator.

18 Yes, real briefly. We had a situation where CBP --
19 they had the situation in 2009, but waited 8 years and
20 issued a series of revocations of letter rulings that were
21 made ex parte to individual foreign companies to operate on
22 the offshore oil patch in the Gulf of Mexico. Why this is
23 particularly troubling is you do not know who got it, how
24 they got it, and how they are operating out there.

25 So what happened was over a series of years, we found

1 out there were several foreign operators who pay either zero
2 tax or 5 percent tax versus our operators who are fully
3 U.S.-owned, U.S.-crewed, and U.S.-built paying in the 38.5
4 percent tax range.

5 If we are talking "buy America, hire America," this is
6 the quintessential "buy America, hire America" situation.
7 And unfortunately, CBP pulled those letter ruling
8 revocations back. And it was really a shot in the gut for
9 an industry who --

10 Senator Shaheen: Can I just ask you when this
11 happened?

12 Mr. Paxton: This happened just last month.

13 Right now, the Gulf of Mexico is experiencing a low
14 price of oil. We have a lot of work boats, highly
15 complicated, large boats, that are tied up. And this would
16 have really put about 30 boats to work. It would have put a
17 lot of mariners to work. So it was frustrating.

18 As a trade association, we work on a policy level, and
19 one of our policy levels is rule of law. If it is the law,
20 let us enforce it. And so we say the Jones Act is an
21 important law. We should enforce that. And the Jones Act
22 on the Gulf coast is an example of why that law works. It
23 applied to offshore oil and gas, and because it applied to
24 offshore oil and gas, when 3,800 rigs were operating
25 offshore, the industry stepped up and built for the offshore

1 oil sector. And guess what happened. We ended up being a
2 net exporter of a half a billion dollars a year in vessels
3 being sold internationally because we dominated that market
4 because that market was here under the Jones Act.

5 So not to belabor the point too much, Senator, but it
6 was a real disappointment. And we are working with this
7 administration, again, going back to their policy of "buy
8 America, hire America." How this could happen? There seems
9 to be a little bit of work that needs to be done to
10 understand it a little bit better. But it is an important
11 aspect of our industry, and this was an unfortunate
12 situation.

13 Senator Shaheen: Thank you.

14 Thank you, Mr. Chairman. My time is out.

15 Senator Wicker: Thank you, Senator Shaheen.

16 Senator Sullivan and then Senator Blumenthal.

17 Senator Sullivan: Thank you, Mr. Chairman.

18 And, gentlemen, thank you for your testimony.

19 I want to talk about icebreakers. I do not know if
20 anyone else has raised the topic yet.

21 Senator Wicker: We were waiting for you, but we are
22 glad you got here.

23 Senator Sullivan: Well, I saw Senator King was here.
24 So I thought maybe he had.

25 So you may have seen the President Trump's Coast Guard

1 speech. He talked about the need for icebreakers. A number
2 of us on the committee, very bipartisan, have focused on
3 this. President Obama talked about it, you know, in terms
4 of our kind of competitiveness for the growing strategic
5 importance of the Arctic region of the world. Russia now
6 has 40 icebreakers, building 13 more, some of which are
7 nuclear powered. We have two. One is broken. They are in
8 a horrible state of disrepair. Shameful in my view to put
9 men and women in the U.S. military with a uniform of the
10 U.S. military on ships like this. If you have ever seen
11 them, you would, I guarantee, agree with me.

12 Senator King had the very eloquent statement saying the
13 icebreakers are the highways of the Arctic. The Russians
14 have super highways, and we have dirt roads with potholes,
15 something like that. But it was well stated. It was very
16 well stated.

17 So we have a bit of a frustrating issue that we have to
18 deal with here which is kind of the hot potato between the
19 Coast Guard and the Navy. Whenever the topic comes up,
20 nobody seems to want to own it, and we will have to deal
21 with that.

22 But there is also this discussion, kind of this
23 conventional wisdom out there that comes I think mostly from
24 the Coast Guard that if we do get the funding to build an
25 icebreaker, it will take \$1 billion and 10 years to build.

1 You know, every time I hear that I am like, my gosh, we put
2 a man on the moon inside of 10 years. We cannot build one
3 icebreaker inside of 10 years?

4 So I have kind of looked around the world, and the Fins
5 are very interested. You know, they say they can build
6 heavy icebreakers for \$250 million. Singapore has a similar
7 kind of gauge in what their industrial capacity is able to
8 do.

9 So what is the deal with icebreakers? Do you agree
10 that it should take 10 years and a billion dollars to build
11 one medium or heavy icebreaker? And if not, what are we
12 doing wrong? Why does it look like our industrial base has
13 no capacity when there are other countries in the world that
14 seem to be on this, can do it in 2 to 3 years, a quarter of
15 million dollars. We are saying 10 years, a billion. What
16 do we need to learn here about this? It is a very
17 frustrating topic because nobody seems to have the right
18 answers.

19 Mr. Casey: Senator, there have been I think it is five
20 different shipyards that are in the middle of detailed
21 studies to produce the very icebreakers that you are talking
22 about.

23 Relative to the cost and the time it takes to build
24 them, it is largely, at this stage, driven by the
25 requirements that are determined to be necessary. So when

1 you are looking at the cost of any ship, we like to think
2 about it in terms of ISSR, the inherent cost of the design,
3 if you will, the requirements. What would you like to have
4 as part of that icebreaker? There is medium weight. There
5 is heavy weight. There is nuclear power. There is diesel
6 power. There are thicknesses of ice that it has to travel
7 through. All those things can determine the cost.

8 We are actually teamed at NASSCO with a branch, if you
9 will, of some of those foreign companies that have built
10 many, many icebreakers to make sure we can come up with one
11 of the best concepts as part of the design studies.

12 So the numbers that you are using I cannot comment on
13 specifically because we are not sure of the source or what
14 the requirements used --

15 Senator Sullivan: Should it take 10 years and \$1
16 billion?

17 Mr. Casey: We would like for it not to.

18 Senator Sullivan: So would we. But you do not know
19 the answer to that?

20 Mr. Casey: I do not because it depends on when the
21 funding is authorized, when the design is complete. Do you
22 do design and advanced procurement before you start
23 construction? There are a lot of different ways to measure
24 that. I think you could probably come up with a scenario.
25 Obviously, the Coast Guard did. They are our direct

1 customer on this, and we do not think it is a great thing to
2 be alienating them right now. But we will develop for them
3 the best, fastest, cheapest icebreaker that can be built
4 within the constraints of the design criteria that they
5 establish.

6 Senator Wicker: Are the designs unrealistic? Are they
7 asking too much in terms of requirements?

8 Mr. Casey: I think they are very open-ended at this
9 point. I think they are very general at this point.

10 Senator Sullivan: Would it make sense to go to the
11 Fins and just say --

12 Mr. Casey: No.

13 Senator Sullivan: No?

14 [Laughter.]

15 Senator Sullivan: Well, that is a rhetorical question,
16 as you can imagine. But, I mean, I am very supportive of
17 our industrial base, but if the industrial base takes 10
18 years to be able to do something that really should not --
19 let us face it. It should not take 10 years to build an
20 icebreaker. And I do not know if that is our problem or the
21 Coast Guard's problem. But it would be helpful if you guys
22 had suggestions on how to make it so we do not need to go to
23 Singapore or Finland and say, well, you guys seem to know
24 how to do this much better, much cheaper, much more
25 efficiently than our own industrial base. I do not think

1 that is where anyone wants to go, but at a certain point, 10
2 years is kind of a crazy idea that we cannot do anything in
3 that amount of time.

4 Anyone else have a thought?

5 Mr. Cuccias: Senator, I think something that the Coast
6 Guard is doing that is quite smart is they are involving
7 industry early in the requirements definition. And we all
8 have seen designs take longer and construction take longer,
9 and it is where the requirements were poorly defined and
10 construction was started, and the design was not finished.
11 And so to bring the industry in, the shipbuilders in to ask
12 for their ideas -- and industry is involved then in terms of
13 the world standards for icebreaking. I was at Avondale when
14 Healy was designed and built, the last icebreaker in this
15 country.

16 But we have brought in members from all around the
17 world to find out what the best ideas are. For the Coast
18 Guard to be asking industry what are your ideas, what do you
19 think, and then how much will this cost with this idea, to
20 have those discussions now I think is extremely healthy, and
21 I think it will actually take the Coast Guard to a good
22 place.

23 Senator Sullivan: Thank you.

24 Thank you, Mr. Chairman.

25 Mr. Paxton: And, Senator, I will just add that it is a

1 good thing that we have five shipyards competing for this.
2 It shows that we do have an industrial base that can meet
3 the challenge of building hopefully not one -- we need to
4 build six or more, and you can get the economies of scale
5 in.

6 Senator Wicker: Hear, hear.

7 Senator Blumenthal?

8 Senator Blumenthal: Thanks, Senator Wicker.

9 I want to begin by agreeing with my colleagues about
10 the need for skilled training and sort of mention the
11 elephant in the room, which is that we see a 10 percent
12 increase in our defense budget and a cut in skill training
13 funding in the Labor Department. I have said at Electric
14 Boat, when I visited, and to the countless workers in the
15 supply chain that they are as essential to our national
16 security as the men and women who serve, and two of my sons
17 have served recently in uniform. And I believe passionately
18 that we must do more to invest in them. But cutting the
19 budget for skill training is not the way to do it. And I am
20 not asking you to go outside the mission of your being here
21 today to be critical of the Trump budget, but I think we
22 need to invest more, not less in that kind of training
23 activity. And I associate myself with all the remarks that
24 have been made to that effect.

25 I am very happy that the Navy has heeded the calls from

1 many of us for an additional submarine in 2021. And I
2 believe that the investment of more than \$5 billion in two
3 Virginia attack submarines, including \$1.9 billion in
4 advanced procurement is also welcomed.

5 I am concerned that this advanced procurement will be
6 inadequate to advance the total advanced procurement for
7 those years. And so I am going to be advocating an
8 additional \$200 million, and I wonder if you could comment
9 on that, Mr. Casey.

10 Mr. Casey: We appreciate your support, Senator, in
11 every way. And what you just described is certainly going
12 to be -- the benefits of that we are going to lay out in
13 detail and provide to all the members on the various
14 committees that evaluate those sorts of changes to the
15 proposed budget. So we concur with that number. We think
16 there is a rationale to do so.

17 And frankly, when we started up this block IV that we
18 are in the middle of right now, I think we have realized
19 very quickly that we did not sort of get out of the gate as
20 soon as we could have. And we actually had some material
21 shortages when we started construction that made it more
22 difficult to achieve the goals that we are setting for
23 ourselves. The sooner we get that material on our dock, the
24 sooner we can go back to that 2, 2, 2, you know, 2 years
25 earlier, 2 million less hours per ship, and that is the key

1 too, is having the advanced procurement money 2 years before
2 you actually need to start construction of the ship.

3 Senator Blumenthal: That \$200 million can be a real
4 force multiplier or leverage point to diminish costs in the
5 future.

6 Mr. Casey: It also helps the supply chain ready
7 themselves for this increased volume in the long run. The
8 more we can kind of task them early, the better off I think
9 we will all be.

10 Senator Blumenthal: The more support you can give us
11 in detail, the better, obviously. And I know that you will.

12 And the same applies to I think the \$150 million that
13 you mentioned for fiscal year 2018 because I agree totally,
14 and I will be a strong advocate for it. And I am hopeful
15 that members of the subcommittee will agree as well.

16 I want to talk for the moment about maintenance, which
17 is the less glamorous side of what you do, but equally
18 important and cost effective because as much as we are
19 building new submarines and I think the addition of a second
20 submarine in 2021 shows how deeply the Navy -- and I think
21 we all should agree -- believe that submarines and their
22 stealth and strength are unexcelled as a weapons platform.

23 But maintenance is extremely important, and to go back
24 to the USS Boise, which is now tied up pier side unable to
25 submerge, I have written to advocate that that work in fact

1 be accelerated which would, as you pointed out earlier, not
2 only be good for our national security but also for the
3 industrial base at Electric Boat because it would fill a
4 lull or a gap and thereby enable us to sustain that
5 workforce.

6 Perhaps you can talk a little bit more about the
7 capacity of Electric Boat to do that work in a private
8 shipyard so it does not have to be done later in a public
9 shipyard and how it would sustain that industrial base.

10 Mr. Casey: Well, the Boise would be a natural follow-
11 on to the Montpelier that is undergoing maintenance today at
12 Electric Boat, which is scheduled to finish roughly at the
13 end of this year. We are in the process of responding to a
14 request for proposal from the Navy which is due, I believe,
15 in mid June on the Boise. We will be submitting that
16 proposal, and as soon as the Navy can act on that and
17 authorize planning and procurement of materials necessary to
18 conduct the availability, we would be ready to go.

19 You stated it quite eloquently and accurately that that
20 will fill our workload gap should we win that competition on
21 the Boise. So we appreciate your support in that regard,
22 Senator.

23 Senator Blumenthal: Well, I raised this issue
24 yesterday in a similar subcommittee meeting. It was a
25 closed setting, so I am not at liberty to discuss it. But I

1 believe it really should be a priority for the Navy because
2 to have one of our submarines unable to submerge and
3 potentially missing deployments I think would be very
4 regrettable. And in addition, it would be helpful to
5 Electric Boat in sustaining the industrial base. So thank
6 you.

7 Thank you, Mr. Chairman.

8 Senator Wicker: Mr. Casey, you discussed this, and I
9 do not think we followed up with a question. When we hear
10 about the 355-ship requirement, which is budget informed,
11 realistically how quickly could we get there, and what do
12 you understand from the Navy as to how quickly they would
13 like to get there?

14 Mr. Casey: Senator, I am privy to alternatives that
15 get us there in the mid 2030s or the mid 2040s. As you
16 point out, that is budget-driven. It all starts with a
17 commitment I think from the government and the desires to be
18 budgeted and there to be certainty into what needs to be
19 done so the process can start. So the sooner we start, the
20 sooner we can get there, but it largely depends on the rate
21 at which we are expected to perform. That is what
22 determines our capacity. I am not sure if that is clear
23 enough of an answer, but that is how I see it.

24 Senator Wicker: Anyone else want to help us with that?

25 Mr. Cuccias: The 355 includes a lot of platforms. So

1 really, I can only speak for the platforms that we provide.
2 Carriers right now are on 5-year, 6-year centers. They can
3 go to 3-year centers. LPDs are not on any center right now
4 and they can go to a 1-year center. The DDGs can go faster
5 than 1-year centers than two a year. And LHA is right now
6 on 7-year centers. LHAs can go to a 3- to 4-year center.
7 So all the increased volumes in terms of the ships that we
8 provide, we can produce those at a much faster rate.

9 Senator Wicker: Can you put a price tag on what you
10 just said?

11 Mr. Cuccias: Not right now.

12 Senator Wicker: Do you think you could back to us on
13 the record with a guesstimate?

14 Mr. Cuccias: Yes, sir.

15 [The information follows:]

16 [SUBCOMMITTEE INSERT]

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1 Senator Wicker: What are we learning from our partner
2 nations in terms of how they are building ships, and what
3 are we learning from our adversaries that might be helpful
4 to this committee or this Congress?

5 Mr. Paxton: Mr. Chairman, I would say one thing that
6 we have learned -- and it is kind of in the reverse -- is
7 what we do not want to repeat is some of the examples we
8 have seen in shipbuilding in Britain and shipbuilding in
9 Canada and Australia where they really atrophied their
10 industrial base. We do not want to ever get there. So it
11 is kind of the reverse of your question on what we have
12 seen. But it is an important cautionary tale because there
13 are things that this Congress can do policy-wise that could
14 really harm our industrial base and harm our supplier chain.
15 So we want to avoid those things and do better, especially
16 if we are going to build up a larger Navy.

17 The only other thing I would say -- and this is not in
18 my area, but I know we benchmark ourselves against
19 international shipyards and try to do better and learn from
20 them. So we are taking in best practices and trying to
21 implement those in how we build.

22 Senator Wicker: Can any of you tell us what the
23 Russians are doing right, wrong, what the Chinese are doing
24 right or wrong?

25 Mr. Casey: No, I cannot.

1 Mr. Cuccias: No, sir, I do not have that insight.

2 Senator Wicker: Senator Hirono?

3 Senator Hirono: Mr. Chairman, I just wanted to note
4 that as a very strong supporter of the Jones Act, not only
5 is the Jones Act important to maintaining our industrial
6 base, but it is a very important part of national security.
7 We need those Jones Act ships. So thank you very much, Mr.
8 Paxton, for going into a little bit of these letter rulings,
9 which concern me very much. And, Mr. Chairman, I intend to
10 follow up on what we can do to clear things up.

11 Mr. Paxton: Thank you, Senator. I appreciate that.

12 Senator Wicker: Gentlemen, before I turn to Senator
13 King again, I want to put in the record at this point an
14 article by Jerry Hendrix and Robert S. O'Brien dated April
15 13, 2017 from Politico, "How Trump Can Build a 350 Ship
16 Navy." And it advocates, among other things bringing some
17 ships out of mothballs. So we will put that in the record,
18 without objection, at this point.

19 [The information follows:]

20 [SUBCOMMITTEE INSERT]

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1 Senator Wicker: Comment about that, Mr. Cuccias --
2 well, actually all three of you. Is there anything to be
3 said for this? Obviously, we put ships in mothballs rather
4 than scuttle them for some reason. And what role might your
5 yards have in making this sort of concept a reality? Is
6 there any there there?

7 Mr. Cuccias: Well, Senator, I have not read the
8 article. I am not really familiar with it. So it is hard
9 to comment on it.

10 I know on refurbishment, there are life cycles on just
11 the operating the plans. There are the logistic chains that
12 should be considered. There is the operational cost part
13 that has to be considered. And without more insight to the
14 article, it is hard to comment more than that.

15 Senator Wicker: All right.

16 Mr. Casey: Senator, I would only say that the Navy had
17 begun a working group to look at the cruisers in particular,
18 and I think there was an amphib or two in the pile where
19 they have called industry in to talk about developing a
20 program that would allow those ships to be brought back into
21 service.

22 Senator Wicker: Is this ongoing -- this working group
23 ongoing?

24 Mr. Casey: Yes. It is run by the Naval Sea Systems
25 Command, the Program Executive Office. And I do not think

1 we have met in the last couple of months, as far as I know,
2 but they are in discussions about how to do that
3 efficiently.

4 Senator Wicker: But conceptually your company might be
5 able to participate in such a --

6 Mr. Casey: Well over half of NASSCO's business is
7 repair business. You know, Electric Boat is doing
8 submarines a little bit, and Bath is pretty much totally
9 focused on construction. But NASSCO -- about 50 percent of
10 what they do is repair largely out of the Norfolk area. So
11 NASSCO will definitely look at the details of that to see
12 where we might add value.

13 Senator Wicker: I just think we ought to be looking at
14 all alternatives and thinking outside the box. That is why
15 I was asking about our international partners and
16 competitors.

17 Mr. Paxton, any thoughts there?

18 Mr. Paxton: No, Mr. Chairman.

19 The only other comment I would make is I know recently
20 we did refurbish some vessels for foreign sale I believe to
21 Japan, and the comment made by Navy officers were those
22 vessels looked great when they came back on line and were
23 ready to go. So we have the capability and capacity to do
24 it, and we make them look really good when we are done. So
25 if it is an option, our industry is there to do it.

1 Senator Wicker: Senator King?

2 Senator King: No questions.

3 Senator Wicker: Well, if the witnesses will bear with
4 us for a moment.

5 Thank you very, very much. I think this has been most
6 helpful, and we had great participation from some seven
7 members of the subcommittee. That is unusual and
8 outstanding. I think it reflects the level of interest that
9 this subcommittee has in the subject matter.

10 We will leave the record open for some 5 days so people
11 can ask questions on the record.

12 And this subcommittee hearing is adjourned with the
13 thanks of the membership.

14 [Whereupon, at 11:06 a.m., the hearing was adjourned.]

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