Stenographic Transcript Before the

COMMITTEE ON ARMED SERVICES

UNITED STATES SENATE

TO RECEIVE TESTIMONY ON THE OVERSIGHT,

ACQUISITION, TESTING, AND EMPLOYMENT OF THE

LITTORAL COMBAT SHIP (LCS) AND LCS MISSION

MODULE PROGRAMS

Thursday, December 1, 2016

Washington, D.C.

ALDERSON COURT REPORTING 1155 CONNECTICUT AVENUE, N.W. SUITE 200 WASHINGTON, D.C. 20036 (202) 289-2260 www.aldersonreporting.com

1	TO RECEIVE TESTIMONY ON THE OVERSIGHT, ACQUISITION, TESTING,						
2	AND EMPLOYMENT OF THE LITTORAL COMBAT SHIP (LCS) AND LCS						
3	MISSION MODULE PROGRAMS						
4							
5	Thursday, December 1, 2016						
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7	U.S. Senate						
8	Committee on Armed Services						
9	Washington, D.C.						
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11	The committee met, pursuant to notice at 9:35 a.m., in						
12	Room SD-G50, Dirksen Senate Office Building, Hon. John						
13	McCain, chairman of the committee, presiding.						
14	Committee Members Present: Senators McCain						
15	[presiding], Inhofe, Wicker, Ayotte, Fischer, Cotton,						
16	Rounds, Ernst, Tillis, Sullivan, Graham, Cruz, Reed, Nelson						
17	McCaskill, Manchin, Shaheen, Gillibrand, Blumenthal,						
18	Donnelly, Hirono, Kaine, King, and Heinrich.						
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- 1 OPENING STATEMENT OF HON. JOHN MCCAIN, U.S. SENATOR
- 2 FROM ARIZONA
- 3 Chairman McCain: Since a quorum is now present, I ask
- 4 the committee to consider a list of 2,385 pending military
- 5 nominations. Of these nominations, five nominations are six
- 6 days short of the committee's requirement that nominations
- 7 be in committee for seven days before we report them out.
- 8 No objection has been raised to these nominations. I
- 9 recommend the committee waive the seven-day rule in order to
- 10 permit the confirmation of the nomination of these officers
- 11 before the Senate adjourns the 114th Congress, thank God.
- 12 Is there a motion to favorably report these 2,385
- 13 military nominations?
- 14 Senator Reed: So moved.
- 15 Chairman McCain: Is there a second?
- 16 Senator Inhofe: Second.
- 17 Chairman McCain: All in favor, say aye.
- [A chorus of ayes.]
- 19 Chairman McCain: The committee meets this morning to
- 20 receive testimony on the oversight, acquisitions, testing,
- 21 and employment of the Littoral Combat Ship and LCS mission
- 22 module programs. We welcome our witnesses, who are key
- 23 officials responsible for acquiring, testing, employing, and
- 24 overseeing these programs.
- 25 The Honorable Sean Stackley, assistant secretary of the

- 1 Navy for research, development, and acquisition, has been
- 2 the Navy's acquisition executive since 2008. Vice Admiral
- 3 Thomas Rowden, commander of Naval Surface Forces, is
- 4 responsible for manning, training, and equipping the Navy's
- 5 in-service surface ships. The Honorable J. Michael Gilmore,
- 6 director of operational testing and evaluation, has been the
- 7 senior adviser to the Secretary of Defense for operational
- 8 live fire test and evaluation of weapons systems since 2009.
- 9 And Mr. Paul Francis, managing director of acquisition and
- 10 sourcing management, at the Government Accountability
- 11 Office, whose 40-year career with GAO has focused mostly on
- 12 major weapons acquisitions, especially shipbuilding.
- 13 The Littoral Combat Ship, or LCS, is an unfortunate,
- 14 yet all too common, example of defense acquisition gone
- 15 awry. Since the early stages of this program, I have been
- 16 critical of fundamental LCF shortcomings. And here we are
- 17 15 years later with an alleged warship that, according to
- 18 Dr. Gilmore's assessment, cannot survive a hostile combat
- 19 environment, and has yet to demonstrate its most important
- 20 warfighting functions, and a program chosen for
- 21 affordability that, as the GAO has reported, has doubled in
- 22 cost with the potential for future overruns.
- 23 Like so many major programs that preceded it, LCS'
- 24 failure followed predictably from an inability to define and
- 25 stabilize requirements, unrealistic initial cost estimates,

- 1 and unreliable assessments of technical and integration
- 2 risk, made worse by repeatedly buying ships and mission
- 3 packages before proving they are effective and can be
- 4 operated together.
- 5 What is so disturbing is that these problems were not
- 6 unforeseen. In 2002, the Navy first requested Congress to
- 7 authorize funding for the LCS Program. After reviewing the
- 8 Navy's plan, the consensus of the members of the two Armed
- 9 Services Committees was "LCS has not been vetted through the
- 10 Pentagon's top requirements setting body called the Joint
- 11 Requirements Oversight Council." The Navy's strategy for
- 12 the LCS does not clearly identify the plan and funding for
- development and evaluation of the mission packages upon
- 14 which the operational capabilities of LCS will depend.
- 15 Despite such serious concerns, it will not come as a
- 16 surprise to many members of this -- of this committee, to
- 17 you, that Congress then approved funding for LCS. And when
- 18 the Navy awarded the first LCS construction contract in
- 19 2004, it did so without well-defined requirements, a stable
- 20 design, realistic cost estimates, or a clear understanding
- 21 of the capability gaps the ship was needed to fill.
- Taxpayers have paid a heavy price for these mistakes.
- 23 The LCS was initially expected to cost \$220 million per
- 24 ship, but the cost of each ship has more than doubled to
- 25 \$478 million, and we are not through yet.

- 1 The LCS' first urgently needed combat capability and
- 2 mine countermeasures was supposed to be delivered in 2008.
- 3 That capability is still not operational, nor is it expected
- 4 to be until 2020, 12 years late. Twelve years late. Today,
- 5 26 ships of the planned 40-ship LCS fleet have either been
- 6 delivered, are under construction, or are on contract. In
- 7 other words, taxpayers have already paid for 65 percent of
- 8 the planned LCS inventory.
- 9 LCS' combat capability is supposed to come from three
- 10 mission packages: mine countermeasures, surface warfare,
- 11 and anti-submarine warfare. Taxpayers have invested more
- 12 than \$12 billion to procure LCS sea frames and another \$2
- 13 billion in these three mission packages. Yet for all this
- 14 investment, all three of these mission packages are years
- 15 delayed with practically none of the systems having reached
- 16 the initial operational capability.
- 17 So far, the LCS has fielded only the most basic
- 18 capabilities: a 30-millimeter gun with a range of two miles
- 19 and the ability to launch and recover helicopters and small
- 20 boats. The surface package was five years late. The mine
- 21 package is 12 years late. The anti-submarine package is
- 22 nine years late.
- 23 The Navy failed to meet its own commitment to deploy
- 24 LCS sea frames with these mission packages in part because
- 25 for some reason, Navy leaders prioritized deploying a ship

- 1 with no capability over completing necessary mission package
- 2 testing. In other words, the taxpayers have paid for, and
- 3 are still paying for, 26 ships that have demonstrated next
- 4 to no combat capability. This is unacceptable, and this
- 5 committee wants to know, Secretary Stackley, who is
- 6 responsible and who has been held accountable.
- 7 So, let me be the first to say that Congress belongs on
- 8 the list of those responsible. We could have intervened
- 9 more forcefully and demanded more from the Department of
- 10 Defense and the Navy. We did not. But as long as I'm
- 11 chairman, this committee will.
- 12 Mission packages are not the only problem. Keeping the
- 13 LCS sea frame underway at sea has also been challenging.
- 14 Despite commissioning the first ship eight years ago in
- 15 2008, the Navy continues to discover "first of class
- 16 problems." This year is 2016. Since 2008 when it was
- 17 commissioned first, we continue to discover "first of class
- 18 problems."
- 19 Since 2013, five of the eight LCS's delivered have
- 20 experienced significant engineering casualties resulting in
- 21 lengthy import repair periods. Amazingly, despite nearly no
- 22 proven LCS combat capability and persistent debilitating
- 23 engineering issues in both design and operation, the Navy is
- 24 charging ahead with an ambitious plan that keeps most ships
- 25 deployed more than half the time, stationed around the world

- 1 far from supports of facilities in the United States. In
- 2 contrast, most Navy destroyers are planned to be deployment-
- 3 deployed from the United States far less than 25 percent
- 4 of their service lives. The rush to put four ships forward
- 5 in Singapore by 2018 without proven combat capability, and
- 6 to maintain a deployment tempo more than twice that of
- 7 destroyers, is a recipe for more wasted taxpayers' dollars.
- 8 Although the LCS may yet deliver some capability, the
- 9 Nation still needs a capable small surface combatant that
- 10 addresses the LCS' critical shortfalls, including the
- 11 ability to attack enemy surface ships at over-the-horizon
- 12 ranges with multiple missile salvos, defend nearly non-
- 13 combatant ships from air -- nearby non-combatant ships from
- 14 air and missile threats, as an escort conduct long-duration
- 15 missions, including hunting enemy submarines, without
- 16 frequent refueling, and exhibit robust survivability
- 17 characteristics.
- 18 The recent -- the recently concluded LCS review was
- 19 long overdue, and it yielded some promising initiatives.
- 20 But I am concerned that several critical fundamental
- 21 assumptions of the program were not challenged, including
- 22 excessive operational availability goals, insufficient in-
- 23 house technical support for LCS, unexamined manpower
- 24 requirements, and no urgency in transitioning to a new small
- 25 surface combatant.

1	Fortunately, the Department of Defense is curtailing
2	the LCS Program at 40 ships and down selecting to a single
3	ship design. Given the cost overruns, mission package
4	testing lows, and the rate of engineering failures, reducing
5	the size of this program is a necessary first step. And I
6	am prepared to go even further by taking a hard look at any
7	further procurement of ships until all of the mission
8	packages reach IOC.
9	It is up to the Navy to explain to this committee and
LO	to the American taxpayers why it makes sense to continue
L1	pouring money into a ship program that has repeatedly failed
12	to live up to its promises. The LCS continues to experience
L3	new problems, but it is not a new program. That is why the
L 4	Department's leaders must not delay in reconciling their
15	aspirations for the LCS with the problems troubled
L 6	reality by demanding accountability and reducing the size of
L7	this program.
L 8	Senator Reed.
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- 1 STATEMENT OF HON. JACK REED, U.S. SENATOR FROM RHODE
- 2 ISLAND
- 3 Senator Reed: Thank you, Mr. Chairman. I want to join
- 4 the chairman in welcoming Director Gilmore, Secretary
- 5 Stackley, Admiral Rowden, and Mr. Francis to the committee
- 6 this morning to testify on various aspects of the Navy's
- 7 Littoral Combat Ship, LCS Program, and we are grateful to
- 8 each of you for your service.
- 9 The Navy's fundamental architecture of the LCS Program
- 10 separate changes in the mission package from changes that
- 11 would disrupt the ship design and ship construction. In the
- 12 past, when there were problems with developing the right
- 13 combat capability on a ship, that would almost inevitably
- 14 cause problems in the construction program. What the LCS
- 15 architecture means is that changes inside the mission
- 16 packages should not translate into changes in the ship
- 17 construction schedule.
- 18 However, since the mission packages and the vessels are
- 19 divorced from each other, we are now experiencing a new set
- 20 of difficulties, many of them indicated by Senator McCain.
- 21 While the shipbuilders had problems with costs and schedule
- 22 early in the program, that has not been the big issue since
- 23 the Navy conducted the competition for fixed price contracts
- 24 in 2010. The shipbuilders and shippyard workers have been
- 25 performing well under those contracts since then, so well,

- 1 in fact, that we now have built are in the process of
- 2 building 26 of the LCS vessels, when not a one of the
- 3 single-- of the three types of mission modules has passed
- 4 full operational testing. Since LCS combat capability
- 5 largely resides in the mission packages, the Navy will have
- 6 to operate LCS vessels for several more years in relatively
- 7 benign circumstances, waiting on combat capability to
- 8 complete testing.
- 9 Chairman McCain and I wrote to Admiral Richardson, the
- 10 chief of naval operations, and Secretary Stackley about the
- 11 LCS Program in September, which raised a number of concerns.
- 12 We asked that the Navy consider reducing the planned
- operational availability of the LCS to a sustainable level,
- 14 or see if the Navy can support normal deployment
- 15 availability before expanding availability to 50 percent
- 16 under a blue/gold crewing concept.
- 17 The CNO respond that the Navy is going to continue to
- 18 plan for 50 percent availability with the blue/gold crew
- 19 concept because that is what the Navy needs to support the
- 20 Optimized Fleet Response Plan. I believe that some of the
- 21 problems we are experiencing now with LCS vessels is because
- 22 we got too far in front of ourselves by trying to deploy
- 23 ships before they were ready to deploy, which in turn
- 24 reduced testing resources and focus.
- 25 Saying that we will attain the 50 percent deployment

- 1 availability goal for LCS because that is what we need to
- 2 make the Optimized Fleet Response Plan achievable rings a
- 3 little hollow with me. It sounds a lot like previous
- 4 assurances that there would be no problem in shifting from
- 5 the original LCS blue/gold crewing concept to a three crews
- 6 for every two ship concept, which has now been found
- 7 wanting, and now we are back trying to make the blue/gold
- 8 concept work.
- 9 In our letter, the chairman and I also asked the Navy
- 10 to establish the land-based LCS propulsion and machinery
- 11 control test site because the Navy is not providing
- 12 sufficient in-house LCS engineering technical support for
- 13 the LCS Program. The CNO responded that the Navy will
- 14 consider a land-based propulsion machinery control test site
- 15 at some later date, but not now. I am willing for the
- 16 moment to let the Navy play out this string of trying -- to
- 17 try to enhance support for the deployed LCS without such a
- 18 facility, but I am concerned that LCS fleet material support
- 19 will suffer without such a facility when such support is
- 20 available for all other Navy combatants.
- 21 The chairman I also asked that the Navy conduct a
- 22 bottom-up review of the manpower requirements for each LCS
- 23 to validate or re-validate the quantity and quality of
- 24 manpower requirements to determine if sufficient personnel
- 25 are assigned to perform all watch standing, warfighting,

- 1 damage control force, protection, maintenance, and other
- 2 duties. The CNO responded that the Navy's LCS Review Team
- 3 have already assessed manpower requirements. I would just
- 4 say that I am skeptical that the LCS Review Team would have
- 5 had sufficient time to do much more than decide how to
- 6 allocate the 70 sailors which building space would be
- 7 available. Such an allocation process would not constitute
- 8 the manpower requirements review that I had in mind at
- 9 least.
- 10 Finally, the chairman and I suggested that the Navy
- 11 should start planning new -- now rather -- to procure and
- 12 begin deliveries of a new small surface combatant as soon as
- 13 possible in 2020. The CNO responded that the Navy will
- 14 address the future small surface combatant at some later
- 15 date after the Navy has completed an analysis of future
- 16 fleet requirements.
- 17 I understand that CNO Richardson needs time to review
- 18 overall future fleet requirements. However, I believe that
- 19 when the Navy begins a program for a follow-on small surface
- 20 combatant, it should avoid repeating what we did with the
- 21 LCS Program, where we were in such a hurry to field the ship
- 22 we did not take the time to go through important parts of
- 23 the acquisition process, such as deciding what our
- 24 requirements are, deciding how much we are willing to pay to
- 25 achieve those requirements, and programming ahead of time

- 1 for the manpower and logistics programs that we needed to
- 2 support the program. If the Navy waits too long, we may
- 3 face similar urgency in the schedule.
- 4 Again, thank you Mr. Chairman. I look forward to the
- 5 hearing.
- 6 Chairman McCain: Thank you. We will begin with you,
- 7 Director Gilmore. Welcome, Dr. Gilmore.

- 1 STATEMENT OF HON. J. MICHAEL GILMORE, PH.D., DIRECTOR,
- 2 OPERATIONAL TEST AND EVALUATION, UNITED STATES DEPARTMENT OF
- 3 DEFENSE, WASHINGTON, D.C.
- 4 Dr. Gilmore: I apologize. Thank you, Mr. Chairman,
- 5 Senator Reed, members of the committee.
- 6 As you pointed out, Mr. Chairman, although the first
- 7 LCS was commissioned in 2008, the LCS Program has not yet
- 8 demonstrated effective warfighting capability in any of its
- 9 originally envisioned missions by the Navy's -- according to
- 10 the Navy's own requirements, surface warfare, or SUW, mine
- 11 countermeasures, or MCM, and anti-submarine warfare, ASW.
- 12 The Increment II Surface Warfare Mission Package is the
- 13 only fielded system on LCS sea frames. It has demonstrated
- 14 a modest ability to aid the ship in defending itself against
- 15 small swarms of fast in-shore attack craft, although not
- 16 against threat representative numbers and tactics, and the
- 17 ability to support maritime security operations, such as
- 18 launching and recovering boats and conducting pirate
- 19 interdiction operations. However, when Hellfire is fielded
- 20 as part of the next increment of the surface warfare
- 21 package, its capability should improve, and it will be
- 22 important to solve the problems and do the testing with
- 23 Hellfire that have -- that have enabled us to discover so
- 24 many of the problems that exist with the current ships.
- In a June 2016 report based on the testing conducted

- 1 before 2016, I concluded that the LCS employing the current
- 2 Mine Countermeasures Package would not be operationally
- 3 effective or suitable if called upon to conduct mine
- 4 countermeasures missions in combat. That testing
- 5 demonstrates the LCS Mine Countermeasures Package did not
- 6 achieve the sustained area mine clearance rate of the Navy's
- 7 legacy systems, nor can the package be used to meet the
- 8 Navy's reduced Increment I mine countermeasures requirements
- 9 for mine area clearance rate, even under ideal benign
- 10 conditions, achieving at best one-half of those
- 11 requirements, which are a fraction of the Navy's full
- 12 requirements.
- The ships, as well as the mine countermeasure systems,
- 14 are not reliable, and all the mine countermeasure systems,
- 15 not just the Remote Minehunting System and the Remote Multi-
- 16 Mission Vehicle that were recently cancelled, had
- 17 significant shortfalls or limitations in performance. Based
- 18 on those results, after more than 15 years of development,
- 19 the Navy decided this past year to cancel the Remote
- 20 Minehunting System, halted further procurement of the Remote
- 21 Multi-Mission Vehicle, abandoned plans to conduct
- 22 operational testing of individual mine countermeasures
- 23 mission package increments, at least in the interim, and
- 24 delayed the start of fully-integrated LCS mine
- 25 countermeasures mission package operational testing until at

- 1 least Fiscal Year 2020.
- 2 As the Navy attempts to fill capability gaps and
- 3 correct the shortfalls in performance of these cancelled and
- 4 restructured key elements of the LCS Mine Countermeasures
- 5 Package, it is very likely operational testing of either LCS
- 6 variant, equipped and fully integrated with the final fully-
- 7 capable Mine Countermeasures Package, will not be completed
- 8 until at least 2023, more than a decade after the schedule
- 9 set forth in the Navy's original requirements documents.
- 10 All of the LCS's have suffered from significant and
- 11 repeated reliability problems with both sea frame and
- 12 mission package equipment. No matter what mission equipment
- 13 is loaded on either LCS variance, the lower reliability and
- 14 variability of sea frame components, coupled with the small
- 15 crew size, impose significant constraints on mission
- 16 capability.
- 17 For example, when averaged over time, LCS-4 was fully
- 18 mission capable for surface warfare missions just 24 percent
- 19 of the 2015 test period. Both variants fall substantially
- 20 short of the Navy's reliability requirements, and have a
- 21 near zero chance of completing a 30-day mission, and a
- 22 sustained 30-day mission is the Navy's requirement, without
- 23 a critical failure one or more sea frame subsystems
- 24 essential for wartime operations.
- 25 Testing conducted during the past two years on LCS-2,

- 1 3, and 4 also revealed significant cybersecurity
- 2 deficiencies. Now, the Navy is developing plans and taking
- 3 actions to correct some of the problems identified, but the
- 4 severity of the problems discovered will degrade the
- 5 effectiveness of both LCS variants until the problems are
- 6 fully corrected.
- 7 In closing, I want to emphasize the importance of
- 8 realistic testing. It was only through testing of full
- 9 mission packages at sea and aboard the ship with a crew from
- 10 the fleet that the significant problems and shortfalls I
- 11 have just discussed were clearly revealed. In fact, the
- 12 Navy's Independent Mine Counter Measures Review Team
- 13 emphasized that a reliance on segmented shore-based testing
- 14 "provided a false sense of system maturity." Similarly,
- 15 only with an operationally realistic testing of the Surface
- 16 Warfare Mission Package were the inaccuracies of the gun,
- 17 limitations of the ships maneuvering and tactics, and the
- 18 deficient training revealed.
- 19 Therefore, my strongest and most important
- 20 recommendation to you and to the Navy is to fund and execute
- 21 realistic and rigorous testing of LCS and its mission
- 22 packages as we go forward.
- Thank you.
- 24 [The prepared statement of Dr. Gilmore follows:]

1	Chairman	McCain:	Thank	you.	Secretary	Stackley?
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- 1 STATEMENT OF HON. SEAN J. STACKLEY, ASSISTANT
- 2 SECRETARY FOR RESEARCH, DEVELOPMENT, AND ACQUISITION, UNITED
- 3 STATES DEPARTMENT OF NAVY, WASHINGTON, D.C.
- 4 Mr. Stackley: Yes, sir. Mr. Chairman, Ranking Member
- 5 Reed, members of the committee, thank you for the
- 6 opportunity to appear before you today to address the
- 7 Littoral Combat Ship Program. With your permission, I would
- 8 like to make a brief opening statement and have my full
- 9 testimony entered into the record.
- 10 Chairman McCain: Without objection.
- 11 Mr. Stackley: The Littoral Combat Ship, or LCS, is
- 12 designed to fill critical warfighting gaps in anti-surface,
- 13 anti-submarine, and mine countermeasure warfare mission
- 14 areas. Within the Navy's overall balanced force structure,
- 15 LCS is the replacement for three legacy small service
- 16 command ship classes. It is about one-third the size of a
- 17 DDG-51 Class destroyer and designed for missions that the
- 18 destroyer is not equipped to do or that could otherwise be
- 19 well performed by a small surface combatant, thus freeing
- 20 the destroyer for missions tailored for its higher-end
- 21 capabilities.
- 22 LCS' reduced size results in greatly reduced
- 23 procurement cost, manpower and operating and support costs.
- 24 In fact, the procurement cost for LCS is about one-third
- 25 that of a DDG-51 and, likewise, the manpower requirements

- 1 for the ship.
- 2 The LCS hull is designed and built to provide the ship
- 3 with its high-speed mobility, damage control survivability,
- 4 aviation, and combat systems, including a 57-millimeter gun,
- 5 surface to air missiles for self-defense, and an over-the-
- 6 horizon missile that the Navy is currently adding for
- 7 offensive firepower against long-range surface targets. In
- 8 addition to this core capability, this ship carries a
- 9 modular mission package tailored for the missions planned
- 10 for each ship's deployment.
- 11 The Surface Warfare Mission Package adds 30-millimeter
- 12 guns, an armed helicopter, unmanned aerial vehicle for
- 13 extended surveillance, and surface-to-surface missiles. The
- 14 Anti-Submarine Warfare, or ASW, Mission Package adds a
- 15 variable depth sonar that operates in tandem with a
- 16 multifunction towed array, an ASW helicopter with dipping
- 17 sonar, sonobuoys and anti-drop torpedoes, anti-tow decoy.
- 18 The Mine Countermeasure Mission Package adds air, unmanned
- 19 surface, and unmanned underwater vehicles with associated
- 20 sensors and systems to detect and neutralize mines.
- 21 There are four cornerstones of the program that I would
- 22 like to briefly summarize. First, the Shipbuilding Program.
- 23 As the committee is well aware, the LCS Program was
- 24 initiated with unrealistic cost and schedule estimates and
- 25 with highly incomplete design, resulting in extraordinary

- 1 budget overruns and scheduled growth. The program was
- 2 subsequently restructured. Production was placed on hold
- 3 pending the insertion of production readiness reviews to
- 4 verify design quality and completeness. Authorizations to
- 5 approve design requirement changes was raised to the four-
- 6 star level, specifically the CNO and myself.
- Navy oversight of the shipyards was greatly increased.
- 8 The acquisition strategy was restructured to compete long-
- 9 term contracts under fixed price terms and conditions. And
- 10 in response to the strategy, industry made significant
- 11 investments in terms of skilled, labor, and facilities to
- 12 improve productivity and quality.
- As a result, costs, schedule, and quality have greatly
- 14 improved such that current ships under construction are
- 15 delivering at less than half the constant year-dollar cost
- 16 of the lead ships, performance has stayed reliably within
- 17 the budget throughout this time, and the quality of each
- 18 ship has successively improved as measured by the Navy's
- 19 Board of Inspection survey. Bottom line, LCS construction
- 20 is stable, and performance continues to improve on a healthy
- 21 learning curve.
- Of note, the CNO and I have implemented a similar rule
- 23 set across all of shipbuilding, and though we were not able
- 24 to get out in front of all of our lead ship programs, cost
- 25 discipline from requirements, to design, to production and

- 1 testing has been firmly drilled into place throughout the
- 2 Navy.
- 3 Second, mission packages. The program's acquisition
- 4 strategy is that we will incrementally introduce weapon
- 5 systems as part of a mission package when they are mature
- 6 and ready for deployment. Consistent with this approach,
- 7 the LCS has been successful at integrating mature weapon
- 8 systems, such as the Image 60 helicopter, the Fire Scout
- 9 unmanned aerial vehicle, 11-meter rigid hull inflatable
- 10 boats, the Mark 50 30-millimeter gun system, and most
- 11 recently we are seeing the Harpoon Block II over-the-horizon
- 12 missile integrated and deployed. And we are currently
- 13 integrating the Hellfire Longbow Missile in support of
- 14 testing in 2017. As a result, we have successfully fielded
- 15 the first increments of the Surface Warfare Mission Package
- 16 and are on track to complete the next increment in 2018.
- 17 The next mission package we will field is the Anti-
- 18 Submarine Warfare, or ASW, Mission Package. The performance
- 19 of this system, as demonstrated by its prototype in 2014,
- 20 greatly exceeds that of any other ASW sensor system afloat.
- 21 We are currently in the process of awarding the contract to
- 22 build the developmental model which will be put to sea for
- 23 shipboard testing on LCS in 2018.
- 24 These are relative success stories that demonstrate the
- 25 benefit provided by the LCS modular design and mission

- 1 package approach. And as the Navy develops or requires new
- 2 weapons systems appropriate to the LCS mission, we will
- 3 leverage the ship's modular design and flow these new
- 4 weapons to this ship, and be able to do so in rapid fashion
- 5 once they are mature.
- 6 We have run headlong, however, into challenges with
- 7 developing these capabilities that are central to filling
- 8 what is arguably one of the Navy's most critical warfighting
- 9 gaps, and that is mine countermeasures, or MCM, warfare.
- 10 The Navy requirements for LCS/MCM are to locate, identify,
- 11 and clear mines at a rate that significantly exceeds our
- 12 current capability, and to do so without putting the ship or
- 13 the sailor into the minefield.
- 14 The MCM Warfare Mission Package airborne capability and
- 15 MH-60 helicopter, carrying an Airborne Laser Mine Detection
- 16 System that locates mines in the upper layer of the water
- 17 column, and an Airborne Mine Neutralization System that
- 18 destroys mines below the surface, has completed testing and
- 19 we are ready to deploy it. Additionally, an unmanned aerial
- 20 vehicle carrying a sensor capable of detecting mine-like
- 21 objects in the surf zone close to shore is on track to
- 22 complete testing in 2017.
- 23 The true workhorse of the MCM Mission Package, however,
- 24 is the high-endurance unmanned vehicle with its towed sonar
- 25 system, which we rely upon to achieve the high area

- 1 clearance rate required by our operational plans. The Navy
- 2 is satisfied with the performance of the towed sonar system
- 3 and its ability to detect mines as demonstrated in
- 4 developmental testing. And we expect to demonstrate further
- 5 improvements to the sonar in conjunction with ongoing
- 6 upgrades.
- 7 The unmanned vehicle, however, which is actually a
- 8 semi-submersible, referred to as a remote multi-mission
- 9 vehicle, has failed to meet our reliability requirements.
- 10 Despite extensive redesign efforts, following a series of
- 11 test failures, we stopped testing and assigned an
- 12 independent review team to assess and recommend. And the
- 13 results of this review were threefold: low confidence that
- 14 continuing our current path would result in a reliable
- 15 vehicle; higher confidence that advances in towed sonar
- 16 handling and acoustic processing have greatly reduced the
- 17 risk associated with towing the mine detection sonar with an
- 18 alternative unmanned surface vehicle; and recognition that
- 19 the long-term solution will be to eliminate the towed
- 20 vehicle altogether, and operate with an unmanned underwater
- 21 vehicle with an embedded sonar when technology can support
- 22 it.
- 23 As a result of these findings, we have restructured the
- 24 MCM Mission Package to utilize the unmanned surface vehicle
- 25 that is currently being built to tow the Mine Sweeping

- 1 System to likewise tow the mine detection sonar. Testing
- 2 with this vehicle is scheduled to commence in 2019.
- 3 The third cornerstone is performance of in-service
- 4 ships. Vice Admiral Rowden will address performance of the
- 5 ships and operations and on deployment as well as the
- 6 details of the LCS review he conducted. I would like to
- 7 address the ship's material readiness.
- 8 In total, LCS material readiness, as reflected in
- 9 operational availability metrics and casualty report
- 10 metrics, is consistent with other combatant ship classes.
- 11 However, over the past year five ships have been
- 12 operationally impacted by engineering casualties of concern.
- 13 The Navy has conducted formal engineering reviews and
- 14 command investigations to assess the root causes and
- 15 corrective actions for each of these casualties.
- 16 One was design related. A new manufacturer was
- 17 required for the freedom variant propulsion gear, and
- 18 operational deficiency traced to the gear itself resulted in
- 19 the gear's clutch failure. Design modifications have been
- 20 developed, and are being tested, and will be incorporated in
- 21 future ships prior to delivery and during pro-shakedown
- 22 availability for the two ships delivered that are affected.
- 23 The manufacturer is being held accountable.
- 24 Chairman McCain: Mr. Secretary, you will have to
- 25 summarize here.

- 1 Mr. Stackley: Yes, sir.
- 2 Chairman McCain: We have a limited amount of time and
- 3 four witnesses. Please summarize if you can.
- 4 Mr. Stackley: Yes, sir. The manufacturer is being
- 5 held accountable for these corrective actions.
- 6 Two of the five engineering casualties were due to
- 7 crews departing from established operating procedures. The
- 8 type commander is implementing corrective actions associated
- 9 with those to ensure good order and discipline going
- 10 forward, as well as reviewing training and operational
- 11 procedures.
- 12 The remaining two casualties are traced to deficiencies
- in ship construction and repair. We are reviewing all those
- 14 procedures across not just the shipbuilders, but the
- 15 manufacturers, and the repair yards, and the Navy standards
- 16 to ensure we have the right procedures in place and that
- 17 they are properly being carried out by the shipbuilders and
- 18 repair yards. In those specific cases where warranties
- 19 apply, the shipbuilder is paying for those repairs.
- 20 More importantly, we do need to raise the level of
- 21 engineering design, and discipline, and rigor on the new
- 22 ship class to that of zero tolerance for departure from
- 23 standards. And in this vein the Naval Sea Systems Command
- 24 has initiated a comprehensive engineering review, and will
- 25 provide their findings to the committee upon completion of

- 1 the review.
- 2 The fourth cornerstone is transition to the frigate.
- 3 As you are aware, we have revised the plan going forward for
- 4 small surface combatants. Commencing in 2019, our intention
- 5 is to transition from LCS to a multi-mission ship that
- 6 incorporates the ASW plus the Surface War Mission Package
- 7 capabilities of the LCS into a multi-mission frigate going
- 8 forward. We are working that design today.
- 9 The message I want delivered to this committee is that
- 10 as we complete this design, before we proceed into
- 11 production of a future frigate, we will conduct the
- 12 production readiness reviews. We will ensure that the
- 13 design is complete and ready to go. We will ensure that the
- 14 requirements are stable, and we will open the books and
- 15 invite this committee to participate throughout that review
- 16 process.
- 17 Mr. Chairman, thank you for the opportunity to discuss
- 18 this important program. I look forward to answering your
- 19 questions
- [The prepared statement of Mr. Stackley follows:]

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1	Chairman	McCain:	Thank you.	Admiral?	
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- 1 STATEMENT OF VICE ADMIRAL THOMAS S. ROWDEN, COMMANDER,
- 2 NAVAL SURFACE FORCES, AND COMMANDER, NAVAL SURFACE FORCE,
- 3 U.S. PACIFIC FLEET, UNITED STATES NAVY, WASHINGTON, D.C.
- 4 Admiral Rowden: Chairman McCain, Ranking Member Reed,
- 5 distinguished members of the committee, I am honored for the
- 6 opportunity to testify about the Littoral Combat Ship.
- 7 As the commander of U.S. Surface Forces, I have the
- 8 privilege of leading the sailors that take our ships to sea.
- 9 These ships and the sailors that man them are the center of
- 10 our professional universe, and my frequent visits to the
- 11 waterfront give me real-time feedback of what we are getting
- 12 right and on things that we need to address.
- This committee's support of the Surface Force has been
- 14 strong and consistent, and we are moving steadily forward in
- 15 posturing a more lethal, distributed, and networked force.
- 16 Small surface combatants have a key role to play in
- 17 implementing this vision, and the LCS Program is a
- 18 cornerstone of this effort.
- 19 The LCS Program has had a number of setbacks,
- 20 something that you, and I, and the Navy leadership team are
- 21 acutely aware of. We are doggedly pursuing solutions that
- 22 will improve operational availability of the ships, and you
- 23 have my assurance that these are never far from my mind.
- 24 The CNO testified in his posture statement that for the
- 25 first time in 25 years there is competition for control of

- 1 the seas. This statement underpins my entire approach to
- 2 the LCS fleet introduction.
- 3 As the ship begins to join the fleet in numbers, it is
- 4 my job to examine past assumptions about every aspect of its
- 5 employment, and implement changes that reflect the
- 6 operational environment of the future. The Surface Force
- 7 must be prepared to not only impose sea control over
- 8 uncontested seas, but it must also be prepared to contest
- 9 control of the seas by others.
- 10 The capabilities of the LCS will bring the fight -- the
- 11 capabilities that the LCS will bring to the fight are in
- 12 high demand by our fleet commanders, specifically with
- 13 respect to anti-submarine warfare, mine countermeasures, and
- 14 over-the-horizon anti-surface warfare. These aspects of sea
- 15 control from the -- form the basis of a more robust,
- 16 conventional deterrence posture, which in turn frees our
- 17 cruisers and destroyers to focus on high-end tasking.
- 18 We have learned quite a bit from the Freedom Fort Worth
- 19 and Coronado deployments and the options provided to our
- 20 fleet commanders by their presence. The challenges
- 21 encountered during these early deployments prompted the
- 22 recent CNO directed 60-day review, which resulted in a
- 23 number of straightforward changes that will drive simplicity
- 24 and stability into the program, even as we increase unit
- 25 lethality. I am confident we are on the right track to

increasing crew ownership and reliability of this ship, while delivering critical warfighting capability to the fleet. There is work to be done, and I join Secretary Stackley in committing to continuously improving this lethal, necessary, and versatile component of our fleet architecture. Thank you, sir, and I look forward to your questions. [The prepared statement of Admiral Rowden follows:]

1	Chairman	McCain:	Mr.	Francis.
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- 1 STATEMENT OF PAUL L. FRANCIS, MANAGING DIRECTOR,
- 2 ACOUISITION AND SOURCING MANAGEMENT, GOVERNMENT
- 3 ACCOUNTABILITY OFFICE, WASHINGTON, D.C.
- 4 Mr. Francis: Good morning, Mr. Chairman, Mr. Reed,
- 5 members of the committee. Mr. Chairman, I do not have a
- 6 real slick statement to read from. I thought I would just
- 7 talk to you for a few minutes if that was okay.
- 8 I think the bottom line on the LCS, as we have talked -
- 9 the other panelists have talked already, we are 26 ships
- 10 into the contract, and we still do not know if the LCS can
- 11 do its job. Over the last 10 years, we have made a number
- of what I would call trade downs. We have accepted higher
- 13 costs. We have accepted construction delays, mission module
- 14 delays, testing delays, reliability and quality problems,
- and we have accepted the lower capability.
- To adjust to this or accommodate the lesser performance
- 17 of the ship, we have accepted a number of workarounds,
- 18 higher crew loads, more shore support. We have kind of
- 19 dialed down the concept of operations, and we have reduced
- 20 some mission expectations for the ship. Still it will be
- 21 2020 by the time we know the ship and all its mission
- 22 modules will work.
- I was doing my own math. I think we did the first
- 24 contract for the first ship in 2004 or 2005, but it is 16
- 25 years from first contract to when the ship will be finally

- 1 tested with all its mission modules. So, that is 16 years.
- 2 To me, that is aircraft carrier territory. So, the miracle
- 3 of LCS did not happen.
- 4 So, what did happen? I think when the Navy started
- 5 off, they had a really good plan. They were going to build
- 6 two ships, experimental ships, using commercial yards and
- 7 commercial derivative designs because they had a rough
- 8 construct of a new mission, the littoral mission, and they
- 9 wanted to use some ships to see what they could do with it,
- 10 which I think was a good idea.
- 11 About 2005, things really changed, and that is when the
- 12 Navy decided that they could not just stop with two
- 13 experimental ships. They had to go forward with
- 14 construction for the industrial base. In my mind, that is
- 15 when the program really made a change. It went from an
- 16 experimental program to a ship construction program. And as
- 17 with any construction or production program, once you get
- 18 into it and once the money wheel starts to turn, the
- 19 business imperatives of budgets, and contracts, and ship
- 20 construction take precedence over acquisition and oversight
- 21 principles, things like design, development, tests, and
- 22 cost.
- 23 So, let me switch now to a little discussion about
- 24 oversight. On any major weapon system, Milestone B is the
- 25 most important milestone. That is when you lay down -- that

- 1 is when the legal oversight framework kicks in. So, your
- 2 approved baseline, your Nunn-McCurdy requirements, your cost
- 3 estimates, your operational test and evaluation, selective
- 4 acquisition reports all kick in at that time. Usually on
- 5 ships, you have a Milestone B decision when detailed design
- 6 and construction is approved for the first ship.
- 7 On LCS, the Milestone B decision was made in 2011.
- 8 That was after we had already approved the block buy of 20
- 9 ships and had already constructed and delivered most of the
- 10 first four ships. So, the cost growth that occurred on the
- 11 early ships was grandfathered into the baseline of the LCS
- 12 Program. So, that is why today if you go to look at the
- 13 selected acquisition report for LCS, you are not going to
- 14 see much of a schedule or cost variance because of the
- 15 grandfathering in.
- So, mission modules, turning to those, those were
- 17 actually produced before the Milestone B decision to keep
- 18 pace with the ship. So, what we had was, in my view, a
- 19 highly concurrent buy-before-fly strategy on an all new
- 20 class of ships. And I think the picture for oversight for
- 21 the frigate program is concerning. It is not going to have
- 22 milestone decisions. It is not going to be a separate
- 23 program. There will not be a Milestone B. You are not
- 24 going to have Nunn-McCurdy protections for the frigate
- 25 itself. You will not have a selective acquisition report on

- 1 the frigate itself.
- 2 And some of the key performance parameters as they
- 3 relate to the mission modules have been downgraded to key
- 4 system attributes, which means the Navy, and not the JROC,
- 5 will make decisions on what is acceptable.
- 6 So, let me wrap up by saying that the ball is now in
- 7 your court. In a few months, you will be asked to approve
- 8 the Fiscal Year 2018 budget submit, which will, if current
- 9 plans hold, include approval for a block buy of 12 frigates.
- 10 In my mind, you are going to be rushed again. You are going
- 11 to be asked to put in upfront approval for something where
- 12 the design is not done. We do not have an independent cost
- 13 estimate. The risks are not well understood. And, oh, by
- 14 the way, the mission module still have not been demonstrated
- 15 yet.
- You will be told that, hey, it is a block buy, we are
- 17 getting great prices, and the industrial base really needs
- 18 this. Now, on the prices, you know, in my view the block
- 19 buy is a pretty loose construct for accountability. You do
- 20 not have to say how much you are saving. You are not held
- 21 accountable for what you are saving.
- There is an instrument that exists for that, and it is
- 23 called multiyear procurement. And the Navy was able to use
- 24 multiyear procurement after the fourth Virginia Class
- 25 submarine. You have to ante up what your savings are going

- 1 to be. You have to test to the stability of the design. It
- 2 is a real commitment. For the frigate, they are going to
- 3 use the same contracts that they used for the LCS, and we
- 4 know how well they have worked in holding down costs.
- 5 On the -- on the industrial base side, as we have
- 6 looked past -- the past 10 years, we have seen a lot of
- 7 decisions made to protect the industrial base. And, again,
- 8 this is an industrial base we did not think we were going to
- 9 create because we were using commercial firms.
- But my question now is, have we not done enough for the
- 11 industrial base? Is it not time for the industrial base to
- 12 come through for us? Can we get one ship delivered on time?
- 13 Can we get one ship delivered without cost growth? Can we
- 14 get one ship delivered without serious reliability and
- 15 quality problems? So, that is my question.
- 16 Once the block buy is approved, your oversight is
- 17 marginalized because what you will be hit with in the future
- 18 is we got great prices, and we have to protect the
- 19 industrial base. And with these two things, you cannot
- 20 change the program from then on, and I am saying you can.
- I think that your first oversight question is going to
- 22 be is a program that has doubled in cost and has yet to
- 23 demonstrate its capabilities worth another \$14 billion in
- 24 investment, and that is the floor. That is assuming
- 25 everything goes well.

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- If you do think it is worth it, and that is a big if, I
- 2 would say -- my counsel to you in Fiscal Year 2018 is do not
- 3 approve a block buy. Have the Navy do a competition on
- 4 detailed design, and let them compete the two -- the two
- 5 ship designs and down select. And make it a major
- 6 acquisition program with its own baseline, and its own
- 7 milestones, and its SARs.
- 8 In 2019, then you can consider if you want to authorize
- 9 more ships, and that should be based on the demonstrated
- 10 performance of the ships. And if you did, you do not have
- 11 to do a block buy. You can consider what kind of
- 12 arrangements you want to make at that point.
- So, in wrapping up, my view is you have got one shot
- 14 left in Fiscal Year 2018 to preserve your oversight power
- 15 over this program, and my advice is take it. Take that
- 16 shot, and I can assure you the Earth is not going to come
- 17 off its axis if you do. And you will be sending an
- 18 important signal to other programs as to what you are
- 19 willing to prove and what you are not.
- Thank you, Mr. Chairman.
- 21 [The prepared statement of Mr. Francis follows:]

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- 1 Chairman McCain: Thank you very much.
- 2 Secretary Stackley, as Ronald Reagan used to say,
- 3 "Facts are stubborn things." You painted a rather rosy
- 4 picture, but the facts are that the LCS was initially
- 5 expected to cost \$220 million per ship. That was the
- 6 testimony before this committee. The cost has now doubled
- 7 to \$478 million. The first LCS combat capability mine
- 8 countermeasures was supposed to be delivered in 2008. That
- 9 capability is still not operational, nor is it expected to
- 10 be until 2020, 12 years late.
- 11 You have served as the Navy's acquisition executive for
- 12 the past eight years. Who is responsible, and who should be
- 13 held accountable for a doubling of the cost of the ship,
- 14 delivery 12 years late, and obvious difficulties, which I
- 15 will mention in later questioning. Who is responsible, and
- 16 who is going to be held accountable?
- 17 Mr. Stackley: Sir, let me start with the reference to
- 18 the \$220 million ship, that number that dates back to the
- 19 2004, 2005 timeframe. Everybody here would absolutely agree
- 20 that was unrealistic.
- 21 Chairman McCain: No, I would not because it was
- 22 testified before this committee that that would be the cost
- 23 per ship. In retrospect, we see that it was unrealistic,
- 24 but at the time this committee and this Congress, which
- 25 approved it, was on the basis of \$220 million per ship. If

- 1 we had been told it was \$478 million and 12 years late for
- 2 some of the programs, I do not think that this committee and
- 3 the Congress of the United States would have approved it,
- 4 Mr. Secretary.
- 5 Mr. Stackley: Yes, sir. I am telling you that the
- 6 \$220 million number was unrealistic.
- 7 Chairman McCain: Well, then why --
- 8 Mr. Stackley: This Congress -- this Congress --
- 9 Chairman McCain: -- why was it unrealistic to tell the
- 10 Congress of the United States?
- 11 Mr. Stackley: I agree. Sir, I agree. This Congress
- 12 was led to believe that the ship would cost \$220 million.
- 13 That was an unrealistic number that was put before the
- 14 Congress in terms of a program to authorize and appropriate.
- 15 The result of the lead ship going to \$500 to \$700 million
- 16 dollars each, that was --
- 17 Chairman McCain: Who was -- who gave that information
- of \$220 million per ship to the -- to the Congress and this
- 19 committee? Do you know?
- 20 Mr. Stackley: I would have to go back to the records
- 21 to see who testified. The number was directed from the top
- down. I can tell you that the Naval Sea Systems Command's
- 23 estimate for the program at that point in time was not \$220
- 24 million. That was the number that was in place as a cost
- 25 cap for the program, and they pressed down to try to achieve

- 1 what could not be achieved, and industry followed suit.
- 2 And we -- and we have -- we have the experience of the
- 3 lead ship in terms of things that went wrong that we have
- 4 been trying to recover from since.
- 5 Chairman McCain: Seventeen years, \$700 million of
- 6 taxpayers' money has been sunk into the Remote Multi-Mission
- 7 Vehicle. The program was canceled earlier this year due to
- 8 unsatisfactory performance, reliability, and the Navy
- 9 formulated a new way ahead for the mine countermeasures
- 10 mission. For nearly a decade, the GAO has reported the Navy
- 11 was buying this system before they would approve it. Dr.
- 12 Gilmore reported the RMMVs were not effective.
- 13 Why did the Navy recommend to the RMMV in 2010 after a
- 14 Nunn-McCurdy breach revealed a shoddy business case for the
- 15 system to continue development?
- 16 Mr. Stackley: Yes, sir. 2010 timeframe, we went
- 17 through the Nunn-McCurdy process, and we looked at a couple
- 18 of key things. One was the performance issues that we were
- 19 having with the RMMV and whether or not we believed that we
- 20 could correct the reliability issues through a reliability
- 21 improvement program.
- 22 Chairman McCain: And obviously you could not.
- 23 Mr. Stackley: Correct, we failed in that assessment.
- 24 We believed we could. We did a redesign effort. We did not
- 25 go back and build new vehicles in accordance with the

- 1 redesign. What we did was took the existing vehicles and
- 2 back fit what fixes we could, and took that to test.
- 3 Chairman McCain: Which obviously did not work since
- 4 now it has been abandoned, right?
- 5 Mr. Stackley: Yes, sir.
- 6 Chairman McCain: One more question, Admiral. Of the
- 7 major casualties encountered to date, are these issues of
- 8 ship design, inferior shipbuilding quality, a lack of
- 9 procedural compliance, a lack of training, or something
- 10 else? Who has been accountable? 2013 generator failures.
- 11 That is on the LCS-1. Hundred and ninety-five days and \$1.6
- 12 million to fix. Sea water contamination, and combining you
- 13 have 20 days and \$377,000.
- 2016, contamination of a main engine, 258 days and \$12
- 15 million dollars to fix. LCS-3, 2016, combined gear
- 16 bearings, 184 days and \$5.6 million to fix. LCS-4 in 2016,
- 17 water jet failure, 24 days, and we do not know the cost.
- 18 LCS-5 in 2015, high-speed clutch failure, 355 days and
- 19 counting. LCS-8 in 2016, water jet failure.
- What is going on here, Admiral, and who is held
- 21 accountable?
- 22 Admiral Rowden: Yes, sir. Starting specifically back
- 23 in the early part of this year when -- with the Fort Worth
- 24 failure associated with personnel errors on the USS Fort
- 25 Worth, I started to look very hard at the training and the

- 1 qualification of the men and women that serve on our ships
- 2 to see if we had short-changed them with respect to the
- 3 training that they had been provided.
- 4 Chairman McCain: Who was held accountable for that?
- 5 They were not well trained. Somebody is supposed to train
- 6 them.
- 7 Admiral Rowden: Absolutely, sir.
- 8 Chairman McCain: Was it you that was in charge of
- 9 that?
- 10 Admiral Rowden: I am responsible for training the men
- 11 and women on these ships.
- 12 Chairman McCain: Should you be getting your job?
- 13 Admiral Rowden: Yes, sir, I believe I am capable of
- 14 fulfilling the responsibilities. What I did find was that
- 15 the training that we had provided to the young men and women
- 16 was insufficient in reviewing two casualties specifically,
- 17 the one on the Fort Worth and then one on the Freedom.
- 18 The men and women, when we -- I stepped back and got
- 19 our Surface Warfare Officer School to conduct an assessment
- of the engineering knowledge of the men and women on the
- 21 ships, it was found to be deficient. One of the things that
- 22 we found was that, and that I directed, was that we start to
- 23 import much more of the training than we had been relying on
- 24 for the vendors to provide to our sailors that serve on
- 25 these ships.

- 1 And so, given the fact that we have pulled that
- 2 engineering training in, given the fact that we have -- are
- 3 moving to get the curriculum necessary in order to be able
- 4 to get the right knowledge into their heads in order to
- 5 operate the propulsion plants, I think we are in a much
- 6 better place going forward.
- 7 Specifically associated with the accountability --
- 8 Chairman McCain: I agree. We may be better going
- 9 forward. But, Admiral, we are going to start holding people
- 10 accountable. We are talking about millions of dollars here
- 11 that were failures that you say were a problem with
- 12 training. Who was responsible for the training? Was not
- 13 someone? Was it not anticipated that the crew would have to
- 14 be well trained to avoid these tens of millions of dollars
- 15 of problems?
- 16 Admiral Rowden: Absolutely, sir. And I feel that as
- 17 we have operated the ships and as we have learned about
- 18 these new propulsion plants --
- 19 Chairman McCain: I am glad we have learned at the cost
- 20 to the taxpayers of tens of millions of dollars.
- 21 Senator Reed.
- Senator Reed: Well, thank you, Mr. Chairman.
- 23 Secretary Stackley, in the letter that the chairman I wrote
- 24 to the CNO, we talked about the replacement of the LCS. And
- 25 as I understand it, the current plan is to stop building LCS

- 1 in Fiscal Year 2025. Mr. Francis' assessment was
- 2 interesting. He suggested that LCS is simply going to morph
- 3 into something called a frigate, and we are going to buy
- 4 frigates, but we are not going to have a real opportunity to
- 5 review, nor are you going to have the opportunity given the
- 6 compressed timeframe, to do all the requirements, to
- 7 validate the requirements, to do the testing, to do the
- 8 proving, if you will.
- 9 Can you give us an indication of where this program is
- 10 headed? Is it going to morph into frigates? Is it going to
- 11 be a new design for a surface combatant? If it is, does
- 12 that have to be up and running by Fiscal Year 2026 because
- we stop buying LCS's in 2025?
- Mr. Stackley: Sir, in 2014 we were directed by then
- 15 Secretary Hagel to take a review of our small surface
- 16 combatants and to come back with a proposal for what was
- 17 referred to as capabilities consistent with a frigate. We
- 18 did that review in the 2015 timeframe. In fact, we briefed
- 19 the defense committees and invited them to participate in
- 20 some of the out briefs.
- 21 And the plan going forward that we then presented in
- 22 our subsequent budget was to take the ASW Mission Package
- 23 capabilities, plus the Surface Warfare Mission Package
- 24 capabilities that are currently planned for the LCS, and
- 25 combine them and permanently install them on the LCS

- 1 platform to give it the multi-mission capabilities, trade
- 2 away modularity, but to give it multi-mission capabilities.
- 3 Add to that over-the-horizon missile, and add to that
- 4 upgrades to electronic warfare and decoys, specifically, our
- 5 Nulka decoy, in effect, using existing capabilities or
- 6 capabilities that we already have in development and that
- 7 the ship is already designed to accommodate, permanently
- 8 install them on the platform to give them multi-mission
- 9 capability I have referred to as a frigate.
- 10 That work was done -- was chartered in 2014, done in
- 11 2015, shared with the defense committees at least at the
- 12 staff level, included in our budget. The capabilities
- 13 development document has gone through the JROC for
- 14 validation of the requirements. And the shipyards have been
- 15 turned on to do the design associated with permanently
- 16 integrating those existing capabilities into their
- 17 platforms. That design effort is going on today.
- 18 The competitive down select for that future frigate
- 19 design, that RFP is planned to go out next summer. We will
- 20 be doing those design reviews, and, as I described in my
- 21 opening statement, we will invite your staffs to look at the
- 22 process, look at the products, look at the criteria, and
- 23 provide basically your oversight. And we will ensure that
- 24 you have the insight before we go further forward.
- 25 Senator Reed: Okay. And will that plan include a

- 1 block buy of the frigates or a block buy of another group of
- 2 LCS's?
- 3 Mr. Stackley: Today, that is the plan. We do not
- 4 have-- we do not have a formalized -- we have not finalized
- 5 the acquisition strategy with the 2018 budget. We will be
- 6 bringing that formal acquisition strategy over to present to
- 7 the Congress for your review and ultimately for your
- 8 approval.
- 9 I want to -- I do think it is important, though, to
- 10 make a comment. First, I fully appreciate all of Paul
- 11 Francis' comments in his opening statement, and we work
- 12 closely together. I do need to point out when we talk about
- 13 a block buy versus talking about a multiyear, effectively
- 14 what we are -- what we are describing with the competitive
- 15 down select is the competitive down select will be based on
- 16 best value associated with the detailed design by the
- 17 shipbuilders.
- And what we are telling them is somebody is going to
- 19 win this, one is going to win this, and they will get 12
- 20 ships of this frigate design. The details in terms of
- 21 whether that is one plus options, whether that is 12
- 22 options, or whether we convert that to a multiyear in the
- 23 future, that is not decided today. But we do want to get --
- 24 to ensure we procure those ships as affordably as possible
- 25 when we go through that competitive down select.

- 1 Senator Reed: Again, just to get my perspective, it
- 2 appears that the LCS Program is morphing into the frigate
- 3 program. Is that fair?
- 4 Mr. Stackley: Yes, sir. We went from 52 LCS's. We
- 5 determined -- yes, sir.
- 6 Senator Reed: Yeah, thank you. Dr. Gilmore points out
- 7 that one of the things we have to consider is this ship gets
- 8 heavier literally with these systems placed on it, that it
- 9 will be lower maximum sprint speed, as he describes, with
- 10 less fuel endurance. The loss of sprint speed will,
- 11 therefore, affect the success of small boat swarm defenses
- 12 and the ability to keep up with the carrier strike group.
- 13 In fact, anecdotally, I have heard that the present ships
- 14 have a difficult time keeping up with the carrier strike
- 15 groups, and, therefore, are not available when needed.
- Now, let me ask --
- 17 Mr. Stackley: Yes, sir.
- 18 Senator Reed: My time is limited, so if you have a
- 19 quick response.
- 20 Mr. Stackley: Yes, sir. First, we will be adding
- 21 capability which will add weight to the ship. However, the
- 22 impact on speed is marginal. Today, the requirement is 40
- 23 plus knots. These ships will still be faster than any other
- 24 combatant or warship that we have today with the added
- 25 weight.

1	Second, a part of our in this requirement cycle
2	requirement and design cycle, we are not trading off
3	endurance. In fact, as we look at our the competitive
4	strategy that we are going to put out there in our best
5	value criteria, we are we are not just going to not trade
6	off endurance. We are going to place a premium on being
7	able to increase endurance. So, endurance is not going to
8	go down, and speed is only going to be affected at the
9	margins.
L 0	Senator Reed: Thank you very much, and I will I
1	might have some written questions for the other panelists.
12	Thank you.
13	[The information referred to follows:]
L 4	[COMMITTEE INSERT]
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- 1 Chairman McCain: Senator Inhofe.
- 2 Senator Inhofe: Thank you, Mr. Chairman.
- 3 You know, we have heard this before in the eight years
- 4 I spent on the House Armed Services Committee and the 22
- 5 years on this committee. We are always talking about cost
- 6 overruns. We are talking about increased -- you know, the
- 7 costs and delays.
- 8 I actually sat next B-1 Bob, and some you may remember
- 9 the B-1 Bob, and all the problems we went through there, and
- 10 then the B-2 came along, and we went through FCS, Future
- 11 Combat System. Just about had everything. Same problems.
- 12 It worked out Gates canceled it. Then the F-35, we have
- 13 actually had tested. So, it is not just the Navy. This is
- 14 a problem, Mr. Francis, and it is all over.
- 15 But just in terms of the Navy, Mr. Secretary, the --
- 16 how does this compare to the other problems, like the DDG
- 17 Zumwalt, in terms of delays and the things we have been
- 18 talking about in this committee hearing?
- 19 Mr. Stackley: Yes, sir. I think all the previous
- 20 discussion and testimony regarding delays in the program,
- 21 the LCS delays have been unacceptable. And, frankly, when
- 22 we think about going forward and what we are doing
- 23 different, LCS, DDG-1000, I would add CBN-78 to the mix.
- 24 There is a period of time where the Navy went forward with
- 25 all clean sheet designs, high risk, a lot of new development

- 1 wrapped up in the lead ships. That is in our -- we are
- 2 still working through those lead ships, but that approach is
- 3 in our rearview mirror. We are not going forward with that
- 4 approach today and in the future
- 5 So, when we talk about LCS transitioning to a frigate,
- 6 we are leveraging mature designs, mature systems, and that
- 7 gives us the ability to compete this ship, this future ship,
- 8 under a fixed price contract. LCS and DDG-1000 are on a
- 9 cost plus --
- 10 Senator Inhofe: Well, but there -- yeah. You do not
- 11 need to elaborate on that because the fact that in 2013,
- 12 five of the eight LCS's delivered to the Navy have
- 13 experienced significant engineering casualties, and then it
- just gets worse and worse, USS Montgomery. And we have
- 15 talked about all of this.
- But, Mr. Francis, you have been at the GAO for quite a
- 17 while. How long?
- 18 Mr. Francis: Forty-two years.
- 19 Senator Inhofe: Forty-two years, and you have been
- 20 doing the same types of things, evaluating military systems
- 21 and so forth?
- Mr. Francis: I have to keep doing it until I get it
- 23 right, Senator.
- [Laughter.]
- 25 Senator Inhofe: No, I am serious about this because

- 1 you have watched all this, and one of your recommendations
- 2 was -- there are a lot of good recommendations in your --
- 3 the final part of your statement that says, "Congress should
- 4 consider not funding finding any requested LCS in Fiscal
- 5 Year 2017, and should consider requiring the Navy to revise
- 6 its acquisition strategy for the frigate." Is this one of
- 7 your recommendations?
- 8 Mr. Francis: Yes, sir.
- 9 Senator Inhofe: What do you think about that
- 10 recommendation, Mr. Secretary?
- 11 Mr. Stackley: I do not propose to halt production of
- 12 the LCS in 2017. And as it relates to the frigate, I
- 13 listened carefully to Mr. Francis' comments, and I am taking
- 14 notes.
- What I welcome is the committee, the GAO to sit down
- 16 and look at the Navy's plan and whether or not it can be
- 17 improved upon. We will take recommendations to improve upon
- 18 it, but in terms of the fundamentals of locking down the
- 19 requirements, stable design, ensuring that we have a
- 20 competitive fixed price approach to a frigate, I think all
- 21 those fundamentals that you all would want us to do, we have
- 22 got in place.
- 23 Senator Inhofe: Admiral Rowden, what do you think
- 24 about that specific recommendation?
- 25 Admiral Rowden: Sir, I agree with Secretary Stackley.

- 1 It is --
- 2 Senator Inhofe: So, you do not agree with that
- 3 recommendation and carrying out that recommendation as a
- 4 partial solution to the problem that we are discussing.
- 5 Admiral Rowden: I am sorry, sir?
- 6 Senator Inhofe: I will read it again. "Congress
- 7 should consider not funding any requested LCS in the Fiscal
- 8 Year 2017, and should consider requiring the Navy to revise
- 9 its acquisition strategy of the frigate.
- 10 Admiral Rowden: No, sir, I would disagree with that
- 11 recommendation.
- 12 Senator Inhofe: Well, for the record, I would -- I
- 13 would kind of like to have you -- both of you elaborate on
- 14 what is wrong with that, and what is a better solution. I
- 15 know we have got a long hearing here, and we have heard a
- 16 lot of things. But, you know, I read these things, and
- 17 particularly when it comes from someone who has been doing
- 18 this for such a long period of time.
- 19 And I would also say, Mr. Francis, I would like some
- 20 time to sit down with you, not just on this stuff we are
- 21 talking about in this committee, but on some of the others
- 22 that I mentioned that we have had to suffer through, FCS and
- 23 all that.
- Mr. Francis: I would like to do that.
- Senator Inhofe: Thank you, Mr. Chairman. Thank you.

- 1 Chairman McCain: Senator Hirono.
- 2 Senator Hirono: Thank you, Mr. Chairman. I would like
- 3 to follow up on some of Mr. Francis' suggestions to this
- 4 committee. This is probably a question that can be
- 5 responded to by either the Secretary or the admiral.
- One of Mr. Francis' suggestions is that we not okay the
- 7 block buy strategy for the frigates. And I would like to
- 8 know what would that kind of strategy or are not okaying
- 9 this block buy due to the industrial base, and what kind of
- 10 message would that decision by this committee give to the
- 11 Navy's acquisition strategy in other programs.
- 12 Mr. Stackley: Well, let me -- let me start by trying
- 13 to describe a little bit about what the block buy itself is.
- 14 We are going to go out and down select the frigate to a
- 15 single shipbuilder. We plan to procure 12. We want that
- 16 shipbuilder to go out to its vendor base and secure long-
- 17 term agreements with its vendors as best as possible so that
- 18 pricing and stability across the industrial base will
- 19 support the program.
- 20 Senator Hirono: So, Mr. Secretary, if I can get a
- 21 clarification then. The concern with the block buy is that
- 22 it does not really interject the kind of competition that
- 23 Mr. Francis thinks would be warranted. Was that your point,
- 24 Mr. Francis?
- 25 Mr. Francis: Well, actually, Senator, I think the

- 1 competition could be done under the detail design phase. My
- 2 concern is oversight for this committee once you approve the
- 3 block buy. Now, the Navy will execute, and I would believe
- 4 they would do a good job of trying to lay it out in a
- 5 program. But your opportunity to influence what gets done
- 6 is going to be largely compromised once you approve the
- 7 block buy. So, your ability in the future to make changes
- 8 is going to be limited.
- 9 Senator Hirono: So, Mr. Secretary, you -- your
- 10 explanation seems to go to the competition aspect of the
- 11 suggestion, but apparently it has much more to do with our
- 12 ability to provide oversight. And when we okay a block buy,
- 13 then we are letting go of the oversight responsibilities
- 14 that this Congress has. Can you respond to that aspect?
- 15 Mr. Stackley: I disagree that you are relinquishing
- 16 any of your oversight responsibilities. A block buy is
- 17 still annual procurement of each ship in the block buy.
- 18 There is termination liability or cancellation ceiling that
- 19 the Congress is taking on responsibility for, and you will
- 20 have absolute insight and oversight of the program each step
- 21 of the way.
- 22 Senator Hirono: Well, I'm sorry. You know, that is
- 23 all well and good, but the entire history of this program
- 24 has been that, yes, we have always had that decision-making
- 25 capability. But, you know, you can go down a path, and next

- 1 thing you know a ship is costing twice what it originally
- 2 started because we have gone down a particular path.
- 3 And I think we are at the point where listening to all
- 4 of this testimony that we want to have reassurances that
- 5 going forward, that we are not going to just throw more
- 6 money into a program that is going to continue to haunt us
- 7 with a lack of capability, and unreliability, and all the
- 8 other factors that have been brought to light.
- 9 And I realize you sit here and you reassure us. That
- 10 has been the case at every hearing with regard to this
- 11 program. But I am looking for something very concrete that
- 12 we can do that enables us to get the kind of product that
- 13 the taxpayers are paying for. Aside from your reassurances,
- 14 is there something very specific that you are going to do
- 15 that is going to result in the kind of product that we are
- 16 paying for?
- 17 Mr. Stackley: Well, let me just start to go down the
- 18 list. Unlike the start of this program, we are not going to
- 19 suffer through requirements, churn, and instability. We are
- 20 not going to introduce new design late in production that
- 21 are going to cause costs to go through the roof. We are not
- 22 going to put these ships under contract in a cost-plus
- 23 environment where the government owns responsibility for the
- 24 cost itself.
- 25 I think Mr. Francis' concerns about a Milestone B, I

- 1 would be happy to sit down with the committee staff and walk
- 2 through what you need to ensure that you do, in fact, have
- 3 confidence that all the statutory requirements in terms of
- 4 cost estimates, in terms of acquisition program baselines,
- 5 in terms of requirements, documentations, just like a
- 6 Milestone B.
- 7 We will prepare that for you. We will prepare that for
- 8 you, and we will -- we will walk through it with you. And
- 9 if we -- if we need to establish a pseudo Milestone B or a
- 10 Milestone B, I do not hesitate to do that, ma'am.
- 11 Senator Hirono: Thank you. I think it is really
- 12 important that we have those kinds of very specific items
- 13 that you are going to follow, just as the initial testimony
- 14 was that this -- these ships would cost some \$200 million,
- 15 and we are -- you have been asked to justify the kind of
- 16 changes. So, yes, it would be good for us to have some very
- 17 specific items that we can check off as we go forward if we
- 18 go forward with this.
- 19 Mr. Stackley: I recommend --
- 20 Senator Hirono: Thank you very much.
- 21 Mr. Stackley: I recommend that we work with committee
- 22 staff and we come up with the agreed plan in that regard
- 23 going forward.
- 24 Senator Hirono: Thank you.
- 25 Mr. Francis: Ma'am, if I -- if I may, I would say

- 1 while these are modifications, they are rather significant,
- 2 at least the \$100 million dollars per ship, and that cost
- 3 has not independently validated yet. My thinking is if we
- 4 are that close to being able to have everything ready for
- 5 Milestone B, let us have the Milestone B.
- And although there are not legal requirements for you
- 7 to approve ships under a block buy, if past history is any
- 8 indication, if you try to alter the plan, try to reduce the
- 9 number of ships, you will be told you are going to
- 10 jeopardize our prices, and you are going to affect the
- 11 industrial base. So, pressure will be brought to bear to
- 12 keep things the way they are.
- 13 Senator Hirono: I understand. Thank you, Mr.
- 14 Chairman.
- 15 Chairman McCain: Mr. Francis, I totally agree, and I
- 16 have seen that movie before. And this idea of a block buy
- 17 before it is a mature system is absolutely insane. And,
- 18 again, \$220 million per ship.
- 19 Mr. Stackley -- Secretary Stackley to say that was
- 20 really bogus. We can only go by the -- by the numbers that
- 21 we are given. Again, who gave us that? Do you know? Do
- 22 you know who gave us the \$220 million per ship instead of
- 23 the \$478 it will cost today? Do you know who that unknown
- 24 bureaucrat was?
- 25 Mr. Stackley: Sir, I believe it was uniform leadership

- 1 in the Navy at that time.
- 2 Chairman McCain: It was all the uniform Navy that was
- 3 responsible for it. I did not know that the uniform Navy
- 4 was responsible for this kind of acquisition. I thought it
- 5 was the civilian side.
- 6 Senator Ayotte.
- 7 Senator Ayotte: Thank you, Chairman. I just want to
- 8 thank the chairman for his very important focus on the
- 9 issues with the LCS. And I want to also thank Mr. Francis
- 10 for his very good insight as to how we could try to really
- 11 bring back some real oversight over this and the cost
- 12 overruns. So, I thank you for that.
- Dr. Gilmore, I want to on a different topic wanted to
- 14 ask you, right now OT&E is currently planning an F-35 versus
- 15 A-10 comparison test. And I also want to thank the chairman
- 16 for the work that we have done together to make sure that
- 17 there is not a premature retirement of the A-10 because of
- 18 its important capacity to provide close air support for our
- 19 troops on the ground, and the importance of that close air
- 20 support.
- 21 So, I have been getting some mixed signals between what
- 22 has been happening with the Air Force. The Air Force
- 23 Secretary testified before this committee that the A-10 --
- 24 that, in fact, the F-35 will not replace the A-10. And so,
- 25 this comparison testing for what happened in terms of close

- 1 air support is very, very important. And, in fact, I want
- 2 to thank the chairman as well for working, and it was an
- 3 honor to work with him to make sure that there are
- 4 provisions in the NDAA, which we are going to consider
- 5 shortly, hopefully next week, that will make sure that this
- 6 comparison test is done before there is any retirement of
- 7 the A-10.
- 8 So, I want to ask you where the comparison test process
- 9 is, and also how that process will be conducted in a
- 10 thorough way.
- 11 Dr. Gilmore: I, in conjunction with the commander of
- 12 the Navy's Operational Test and Evaluation Force and the
- 13 commander of the Air Force Operational Test and Evaluation
- 14 Center, the three of us approved a detailed plan for all of
- 15 the testing in F-35 operational tests this past summer,
- 16 including, in particular, a comparison test. So, there is a
- 17 detailed design that is on the record that the three of us
- 18 have approved. It does not mean that my successor might not
- 19 change that, but it is a good plan, and I hope that that
- 20 will not occur.
- 21 The test design includes comparison testing with the A-
- 22 10 and the F-35 conducting close air support, combat search
- 23 and rescue, and forward air controller airborne missions.
- 24 And it is a rigorous test, and if it is conducted it will
- 25 provide excellent information on how well the F-35 can

- 1 conduct those kinds of missions in comparison with what the
- 2 A-10 can do. We are also going to be doing other comparison
- 3 testing, suppression of air -- enemy air defenses with the
- 4 F-16 and surface attack with the F-18.
- 5 And, again, the justification for all of these tests,
- 6 these comparison tests, comes back to the requirements that
- 7 the Air Force chief of staff has approved. And those
- 8 include specifically, as I think I said the last time that I
- 9 appeared before the committee where I read them from the
- 10 requirements document, that the A-10 is meant to take -- or
- 11 excuse me, the F-35 is meant to take on the role of the A-
- 12 10. I mean, that is just unambiguously stated in the
- 13 requirements document.
- I understand there has been debate and testimony that
- 15 is confusing about it, but you can refer to that document,
- 16 and it is there in very plain English.
- 17 Senator Ayotte: Well, that is excellent because we are
- 18 going to find out whether that measures up --
- 19 Dr. Gilmore: Now, with regard to conducting that test,
- 20 my projection is that the operational test for the F-35,
- 21 which will include this comparison test, will not begin in
- 22 all likelihood until late Calendar Year 2018 or early
- 23 Calendar Year 2019, because my estimate is that mission
- 24 systems testing is not going to end until July of 2018.
- 25 And at that point, you could get a fleet release of the

- 1 mission system's capability software together with the
- 2 mission data file, which enables the aircraft to actually
- 3 deal with the threat environment. And the joint -- and the
- 4 Joint Program Office's own projections are that that mission
- 5 data file will not be ready until the summer of 2018. You
- 6 cannot do meaningful testing until that time.
- 7 Chairman McCain: Does that mean that the F-35 is not
- 8 ready to engage in combat?
- 9 Dr. Gilmore: Until it has a mission data file that is
- 10 verified and accredited, it would not have the capability to
- 11 deal with the threats that we are spending \$400 billion to
- 12 have it deal with.
- 13 Chairman McCain: We are dealing -- we are dealing with
- 14 ISIS in Syria and Iraq as we speak using the A-10.
- 15 Dr. Gilmore: Correct. That is not why we are buying
- 16 the F-35.
- 17 Chairman McCain: Is the F-35 ready to assume that
- 18 role?
- 19 Dr. Gilmore: There are people who argue it could. I
- 20 kind of wonder about that argument because right now the
- 21 capability that the F-35 has is two air-to-air missiles and
- 22 two bombs, with limitations in close air support that
- 23 actually are discussed -- that are significant and discussed
- 24 in detail in the Air Force's own IOC readiness assessment,
- 25 which states clearly that the current F-35 with the Block 3i

- 1 software does not provide the close air support capability
- 2 that our existing fourth generation aircraft provide. So,
- 3 that is a quote from an Air Force report. I have written
- 4 evaluations that are consistent with that quote.
- 5 So, and then there are the problems with the 35
- 6 availability. The fleet-wide availability is at best 50
- 7 percent, sometimes bottoming out around 20 or 30 percent.
- 8 So, why it is that a commander would choose to send an
- 9 aircraft that has two bombs, limited endurance, low
- 10 availability to fight ISIS is, I think --
- 11 Chairman McCain: And the cost --
- 12 Dr. Gilmore: -- a question.
- 13 Chairman McCain: And the cost of an F-35 is per copy
- 14 roughly?
- Dr. Gilmore: You know, I hesitate to give a number.
- 16 It is well over the initial cost estimates. I think it is
- 17 up around -- it is up around -- it is between \$80 and \$100
- 18 million. It is coming down.
- 19 Chairman McCain: And the cost of an A-10?
- Dr. Gilmore: Mr. Chairman, I do not know.
- 21 Senator Ayotte: Except that the --
- 22 Dr. Gilmore: A lot less.
- [Laughter.]
- 24 Senator Ayotte: -- the A-10 has the lowest cost per
- 25 flying hour.

- 1 Dr. Gilmore: Oh, yes.
- 2 Senator Ayotte: So, I do not think we are going to
- 3 have the low cost per flying hour with the F-35.
- 4 Chairman McCain: I believe it is -- I believe it is --
- 5 I believe the A-10 is \$15 million per --
- 6 Senator Ayotte: Yeah.
- 7 Dr. Gilmore: I --
- 8 Chairman McCain: Your time has --
- 9 Senator Ayotte: May I follow up briefly, Chairman, on
- 10 one other issue with regard to the A-10? So, given the
- 11 timing that we are hearing this comparison testing, one of
- 12 the provisions that is also -- that if the NDAA is passed,
- 13 which we hope it is, that has been publicly released is that
- 14 the Secretary -- one of the issues that I have been going
- 15 back and forth with the Air Force on has been the actually
- 16 removal -- of not ensuring that the A-10 continues to be
- 17 viable.
- 18 And the 2018 budget requests make sure that the Air
- 19 Force cannot remove any active inventory of A-10 from
- 20 flyable status due to unserviceable wings or other
- 21 components. So, I think this is really important given the
- 22 timing that you have just talked about about this comparison
- 23 test and what the A-10 is doing right now against the fight
- 24 against ISIS.
- 25 Dr. Gilmore: So, let me just be as clear as I can be

- 1 about the timing. So, if I am correct, we would not start
- 2 training for the operational test until mid-2018, which
- 3 takes about six months. Then the test would be conducted
- 4 beginning in very late 2018 or early 2019. And by the time
- 5 the test is over and the reporting gets done, another year
- 6 has gone by. So, the report that is mandated in the -- in
- 7 the bill would not be available until the end of 2019 or
- 8 early 2020.
- 9 Senator Ayotte: Thank you.
- 10 Chairman McCain: Senator King.
- 11 Senator King. Thank you, Mr. Chairman. As I listen to
- 12 this discussion, it strikes me that it would profit us --
- 13 profit us to talk about a broader issue. Mr. Stackley,
- 14 first I start with the premise that nobody involved in this
- 15 process was malicious or meant to do harm. And I want to
- 16 say that you are one of the most capable officials that I
- 17 have met in this -- in this business.
- 18 However, we could have had this same hearing today and
- 19 you cross out "LCS" and put in "F-35." You cross out "F-35"
- 20 and put in the "new class of carrier." You cross out the
- 21 "new class of carrier" and put in the "future combat
- 22 systems." It seems to me there is a more -- a deeper issue
- 23 going on here, and it strikes me that it is our desire to
- 24 have the latest and greatest new technology as soon as
- 25 possible, and at the same time control costs and do it on

- 1 time. We are trying to invent things while we are building
- 2 them.
- 3 Could you comment on this larger question?
- 4 Mr. Stackley: Senator, I think -- I think you nailed
- 5 it right there. We have spent a lot of time reviewing
- 6 programs that either have failed or have just gone out of
- 7 bounds in terms of cost and schedule, and almost invariably
- 8 there are common themes. One of them is a lot of
- 9 concurrency in terms of developing multiple technologies and
- 10 trying to integrate them at the same time on a major weapons
- 11 platform or major system. And there is -- and GAO has
- 12 written a number of reports.
- 13 There is an inclination to underestimate the cost --
- 14 Senator King: Particularly of something that has never
- 15 been built before.
- 16 Mr. Stackley: Yes, sir. Yes, sir. And then, when you
- 17 get into that contract environment and you get started, it
- 18 is difficult to stop. You press forward. Now --
- 19 Senator King: On the other hand, if you stop and say
- 20 we are going to fully test -- build a prototype and fully
- 21 test, then that is going to lengthen your --
- 22 Mr. Stackley: Yes, sir.
- 23 Senator King: -- your deployment window, and that
- 24 conflicts with the need of the Navy, or the Air Force, or
- 25 the Army to have these weapons to meet current threats.

- 1 Mr. Stackley: Yes, sir. So, what we are doing is, and
- 2 this is the CNO and myself. We are co-chairing requirements
- 3 reviews, design reviews, production readiness reviews,
- 4 program reviews. And we are -- we are challenging every
- 5 requirement, every specification in terms of do we
- 6 absolutely have to have that, or is there another way, a
- 7 less -- a lower risk way to deliver the ultimate capability
- 8 that we have got to have.
- 9 And I would point out a couple of examples. The
- 10 decision to, frankly, to truncate the DDG-1000 and to revert
- 11 back to the DDG-51 was a recognition in the 2009 timeframe
- 12 that we had overreached in terms of technology versus what
- 13 we really needed in terms of warfighting capability. So, we
- 14 go back to the tried and true DDG-51 --
- 15 Senator King: But that -- but that decision made it
- 16 likely that only building three ships --
- 17 Mr. Stackley: Yes, sir.
- 18 Senator King: -- in one class was going to make them
- 19 more expensive and all that.
- 20 Mr. Stackley: It is going to drive cost into those
- 21 three ships, but --
- 22 Senator King: The first DDG back in the 80s was very
- 23 expensive.
- 24 Mr. Stackley: Yes, sir, but what it avoided was the
- 25 recognition -- it recognized the cost that was coming --

- 1 Senator King: Right.
- 2 Mr. Stackley: -- in terms of completing that ship
- 3 program. And then going back to the 51 and incrementally
- 4 introducing the capabilities that we need to keep pace with
- 5 the threat, particularly in the 51's mission areas.
- 6 Senator King: The key word is "incrementally," not
- 7 trying --
- 8 Mr. Stackley: Absolutely.
- 9 Senator King: We had a hearing on carriers, and as I
- 10 recall, what we learned was we were trying to do too much in
- 11 the -- in the new carrier.
- 12 Mr. Stackley: That is exactly right. The original
- 13 carrier concept was incremental over three ships. It was
- 14 collapsed onto a single hull ole called CVN-78, and we are
- 15 paying the price in terms that concurrent development and
- 16 integration on that ship.
- 17 Senator King: Okay. How do we avoid this in the
- 18 future?
- 19 Mr. Stackley: Well, we --
- 20 Senator King: We have got the B-21 coming down the
- 21 road.
- Mr. Stackley: I gave you the 51 example. On the next
- 23 amphib, the LXR, we threw away the notion of a clean ship
- 24 sheet design. We took the proven LPT-17 hull form, and what
- 25 we are doing is tailoring that ship to meet the requirements

- 1 associated with replacing the LSD-41. That was a year-long
- 2 effort with myself, the commandant, and the CNO co-chairing
- 3 those design reviews to get down to a design that we are
- 4 confident that it is mature enough. We are not introducing
- 5 unnecessary risk. We understand the cost, and now we are
- 6 ready to put it into the --
- 7 Senator King: It seems to me, though, that one of the-
- 8 one of the things, and I know I am running out of time.
- 9 But one of the things we need to think about is how to
- 10 design these weapon systems in a -- a way, and I hesitate to
- 11 use the word -- the word "modular" because that is not a
- 12 good word in today's hearing, but in a modular way so that
- 13 they can be upgraded as technology improves instead of
- 14 having to rebuild the whole -- the whole thing.
- 15 Mr. Stackley: And we are getting there. It is open
- 16 architecture, that general term. If you take a look at the
- 17 vertical launching system on the DDG-51, that is an open
- 18 system design. So, it started off with the SM-2. It now
- 19 handles the SM-3. It handles the SM-6. It handles the
- 20 Tomahawk. It handles the evolved cease-fire missile. So,
- 21 now we can develop the missiles in their environment and
- 22 bring them to the ship, and then we will deal with the
- 23 upgrades to the software and the land-based system.
- 24 Senator King: So, the whole system is not -- is not
- 25 built from scratch.

- 1 Mr. Stackley: Yes, sir.
- 2 Senator King: Mr. Chairman, thank you very much for
- 3 holding this hearing, and I look forward to future hearings.
- 4 And I hope we can continue this broader discussion of why
- 5 does this keep happening. Thank you.
- 6 Mr. Francis: Mr. Chairman, could I follow up for a
- 7 moment with Mr. King? So, Mr. King, I think you are right
- 8 on about the broader problem, and we have done quite a bit
- 9 of work. I think what we have is an age-old acquisition
- 10 culture problem where there are really strong incentives
- 11 when a program is getting started to over promise on its
- 12 abilities to perform and underestimate cost and schedule.
- 13 Senator King: And to load requirements on.
- Mr. Francis: And to load requirements on, especially
- 15 if you are only going to have platforms once a generation,
- 16 you had better get everything on that platform you can.
- 17 So, we have to look at what those incentives are and
- 18 why they occur, some as competition for funding in the -- in
- 19 the Pentagon. And if you show any weakness, your lunch is
- 20 going to get eaten. Your program is not going to go
- 21 forward. So, you have to be a strident supporter of those
- 22 programs going through.
- 23 We have to learn where to take risk and how to take
- 24 risk, and I would say it is before that Milestone B
- 25 decision. That is where we really need to make investments,

- 1 and try things out, and be willing to put money there.
- 2 And you're right, there is -- there is an aversion to
- 3 if we take time to do that, that is going to delay the
- 4 capability of the warfighter, and we find that to be
- 5 unacceptable. But when we have approved the program and
- 6 then it runs into delays, we find that is acceptable. So, I
- 7 think we can get it right.
- 8 And I -- and I empathize with Secretary Stackley. He
- 9 is in a very difficult position, and I think he is one of
- 10 the best service acquisition executives I have -- I have had
- 11 the pleasure to work with. But he is charged dually with
- 12 executing these programs and defending the programs, and
- 13 that is a very tough position to put somebody in, but our
- 14 acquisition process demands it.
- 15 Dr. Gilmore: Mr. Chairman, I know -- I would just like
- 16 to say one thing on this topic based on my experience over
- 17 26 years. What we have to do is quit denying the facts.
- 18 There are plenty of facts that were available about what was
- 19 happening with LCS all along. Yet as recently as 2013 when
- 20 it comes to the Mine Countermeasures System on LCS, that
- 21 Navy testified, and I will quote here, "Most of the systems
- 22 in the first few increments consist of off the shelf
- 23 products. The risk in these early increments is very low
- 24 and very well managed." That turned out not to be the case.
- 25 Again, in 2013 the Navy testified, "The linchpin of the MCM

- 1 package, the remote -- the RMMV, now has over 850 hours of
- 2 reliability growth over the span of 47 missions in five
- 3 months, which has shown the mean time between operational
- 4 mission failure substantially exceeding requirements."
- 5 That statement was absolutely incorrect. I have been
- 6 reporting for several years that those claims were
- 7 incorrect, and the program office and the Navy could not
- 8 bring themselves to deal with what the facts were.
- 9 Ultimately, they did to their credit with the independent
- 10 review team.
- But what I have seen repeatedly is an inability, a
- 12 refusal to deal with what the facts are of how well the
- 13 systems are or are not performing, and it is because of
- 14 these incentives and other the other things that have been
- 15 discussed. But it keeps happening, and it is a real
- 16 problem.
- 17 Chairman McCain: And, Doctor, that is why some of us
- 18 express such extreme frustration because we are only as good
- 19 as the information we receive as that the LCS would cost
- 20 \$220 million dollars per ship, which now Secretary Stackley
- 21 says, well, that was absolutely wrong. Nobody said it was
- 22 wrong at the time. Everybody said it was right.
- 23 And yet -- I do not want to take the senator's time,
- 24 but there are two stories here that I could relate to. One
- 25 was the MRAP, which we needed very badly in Iraq, and then

- 1 the Secretary of Defense had to preside over a weekly
- 2 meeting in order to get the MRAP to the battlefield to save
- 3 lives from the IED. Then we had the other extreme, an RFP
- 4 for a new pistol that is 200 hundred pages long, for a
- 5 pistol because it has gone through layer, after layer, after
- 6 layer, after layer.
- 7 And this -- and the reason why I am frustrated and
- 8 other members are, we are only -- we can only make decisions
- 9 on the information we get. If that information is incorrect
- 10 or false, as Secretary Stackley just said about the LCS,
- 11 then how can we function effectively for the people we
- 12 represent? That is why you sense this frustration here
- 13 amongst members of the committee, including this chairman,
- 14 because we see it time after time.
- 15 We have not even talked about the aircraft carrier, and
- 16 the arresting gear, and the catapults, but -- and I do not
- 17 want to take more time of the committee. But I hope that
- 18 our witnesses understand that we have to bring this to a
- 19 halt. And fooling around on the fringes is not -- has
- 20 proven to be unsuccessful.
- 21 Senator Ernst.
- 22 Senator Ernst: Thank you, Mr. Chair. I agree with the
- 23 chair that we have to have honest brokers, and we have to
- 24 have people that will be held accountable. I do not know
- 25 that we have seen that so far. But I do want to thank all

- 1 of you for coming in today.
- 2 And as you may be aware, improving acquisition program
- 3 management is a priority for me, and I have passed
- 4 legislation to improve program management government wide.
- 5 Not just in the DOJ, but government wide, with an emphasis
- 6 on areas that are designated by GAO as high risk. And this
- 7 especially includes DOD acquisition program management.
- 8 And I know we can all agree that this LCS has become
- 9 really an example of one of those DOD challenges. We
- 10 mentioned the aircraft carrier. We will not go there today,
- 11 but that is another one that we need to take a look at.
- But during times of defense spending caps, we know how
- 13 difficult it is, and we have looming entitlement spending
- 14 which will further squeeze our military budgets. We cannot
- 15 have repeats of acquisition failures like we have seen with
- 16 the LCS. Acquisition success is bottom line a matter of
- 17 national security.
- 18 And the -- this is a question for all of you, if you
- 19 could just briefly respond, please. The LCS Program changed
- 20 its acquisition approach several times, something cited by
- 21 the GAO as a reason for the increase in costs, and it also
- 22 created performance issues. In your opinion, would the LCS
- 23 Program and others throughout DOD benefit from a
- 24 standardized approach to managing the portfolio based on the
- 25 best practices, not only of the industry, but also the

- 1 government, before fully moving forward? If you could
- 2 briefly respond, please, starting with you, Mr. Stackley.
- 3 Mr. Stackley: Let me just describe that, you know, the
- 4 experience of LCS, it broke the Navy, and we retooled the
- 5 entire way that we do business when it comes to acquisition
- 6 programs, and I think we are trying to pull best practices
- 7 in. I described CNO and RDA sitting side by side reviewing
- 8 requirements, reviewing specifications that lead to design,
- 9 that lead to production.
- 10 We have our program managers pretty much under a
- 11 microscope right now, and we have taken things like cost,
- 12 and we have put cost into our requirements so that you do
- 13 not get to -- you do not get to ignore cost while you are
- 14 chasing a requirement. So, just like speed, range, power,
- 15 and payload, if you start to infringe on the cost
- 16 requirement that we put -- we put into our documents, then
- 17 you have to report to RDA and CNO just like you do if you
- 18 infringe on one of the other requirements. And you have to
- 19 identify what are you going to do to revert that, either
- 20 trading away or otherwise. We would look at either
- 21 canceling or, if necessary, padding costs to the program.
- 22 Senator Ernst: And would that have been good to have
- had before the process was started?
- 24 Mr. Stackley: Absolutely. Mr. Chairman's reference to
- 25 the \$220 million ship, the witnesses that informed the

- 1 Congress, I do not think they knew. I do not think they
- 2 knew or understand what this ship would cost. And so, the
- 3 system led to information that was provided.
- 4 Chairman McCain: If they did not know, why did they
- 5 tell the Congress that it would be -- that the cost would
- 6 be --
- 7 Senator Ernst: Absolutely.
- 8 Mr. Stackley: Because I think they believed or they
- 9 desired it strongly enough that they believed that it would
- 10 cost \$220 million, but the underpinnings below that was
- 11 broken. And that is why -- that is why I am sitting side by
- 12 side with the CNO reviewing our programs, holding program
- 13 managers accountable, understanding the details of the cost
- 14 element by element, time phase by time phase. And if we
- 15 need to make trades, we will make trades.
- 16 Senator Ernst: Very good. Thank you very much. Vice
- 17 Admiral?
- 18 Admiral Rowden: Yes, ma'am. With respect to the
- 19 application of lessons learned, feeding back into the
- 20 acquisition system and from my perspective as a -- as the
- 21 commander of the Surface Forces, clearly one of the things I
- think that the review that we recently conducted, the 60-day
- 23 review, showed that we needed to take a -- take a step back,
- take a pause, and apply, and look at what lessons we had
- 25 learned associated with the program, and make the

- 1 appropriate adjustments in order -- in order to get the
- 2 value down to the combatant commanders, in order to get the
- 3 operational availability of the ships up.
- 4 And I think that the -- it is a constant process, and I
- 5 know that we will be continuing to look at the ships as we
- 6 continue to deploy more of them, applying those appropriate
- 7 lessons as we -- as we learn them, and then feeding them
- 8 back into the system. And as it applies to the acquisition
- 9 system, if we can apply those lessons back, then certainly
- 10 we are going to do that.
- 11 Senator Ernst: And, Dr. Gilmore, if you could respond
- 12 as well. And it is well and good. I am amazed that we are
- 13 only now just discovering that we should be reviewing these
- 14 processes and having a finished product in mind before we
- 15 start the process. Could you respond, please?
- Dr. Gilmore: We should use best practices, and if you
- 17 read the Department's acquisition -- the documents that
- 18 describe its acquisition process, they incorporate most of
- 19 these best practices that people talk about, except they are
- 20 often waived.
- 21 And what I have watched over 26 years is what I call a
- 22 constant search for process solutions to what I think are
- 23 fundamentally leadership problems. So, when leadership is
- 24 presented with a cost estimate that a number of people, and
- 25 I was working at CBO at the time when the original cost

- 1 estimates were put out, and we were warning that they were
- 2 probably quite low. When leadership does not make itself
- 3 aware, does not critically question the information that it
- 4 is being given, and lets it go forward, that is a big
- 5 problem. And a process can help give them that information,
- 6 but if they do not do their jobs as real leaders and
- 7 critically question the information that they are being
- 8 given and that it is being recommended that they send to the
- 9 Congress and elsewhere, then they are failing.
- 10 And I have watched those kinds of failures occur for 26
- 11 years, and it -- I am certainly for process improvements.
- 12 And if you have a bad process that stops information from
- 13 getting forward from the, you know -- does not enable the
- 14 reviews to peruse that information to occur, then that is
- 15 all bad. But if you have leadership that does not do its
- 16 job, those process solutions will not fix things.
- 17 Senator Ernst: That is very well put, Dr. Gilmore.
- 18 Thank you. Mr. Francis?
- 19 Chairman McCain: Senator Blumenthal.
- 20 Senator Ernst: Thank you.
- 21 Senator Blumenthal: Thank you, Mr. Chairman, and thank
- 22 you for having this hearing. Thank you to each of you for
- 23 being here today, realizing that this topic is a challenging
- 24 one for you. But as the chairman said at the very beginning
- 25 quoting Ronald Reagan, "Facts are stubborn things," and

- 1 leadership is important.
- 2 Dr. Gilmore, I find your testimony probably the most
- 3 damning document concerning any government program I have
- 4 ever read, not just as to what has happened in the past, and
- 5 my colleagues have amply and ably focused on the procurement
- 6 process, but the decision what should we do going forward.
- 7 And not only is the survivability of this ship in question,
- 8 but is very ability to accomplish the essential missions and
- 9 endure the testing that has been reduced, in effect, because
- 10 the ships are not sufficiently shock hardened, and, in fact,
- 11 its cybersecurity defenses are not amply developed.
- 12 So, in this approach that Mr. Francis has outlined of a
- 13 procurement process rather than a block purchase, what is
- 14 the case now for going forward with this program at all?
- 15 Dr. Gilmore: Well, sir, it is not my purview to say
- 16 what ships the Navy should buy or what capabilities the Navy
- 17 should have in those ships. That is -- that is the Navy's
- 18 decision. What we have seen is that the ships thus far are
- 19 not meeting the Navy's own performance requirements, and we
- 20 are well into the program.
- I cannot predict what the future will hold. And I know
- 22 it sounds parochial, but I will say it again. I said it in
- 23 my opening comments. Whatever the Navy decides to do with
- 24 regard to going forward, the history here in this program,
- 25 as well as in many other programs, is clear, and that is

- 1 that the only way you are going to discover the problems
- 2 with performance that are significant that you will have to
- 3 deal with, you have to deal with before you send sailors
- 4 into harm's way in combat. You do not want to discover
- 5 these problems for the first time when you are in combat.
- 6 Senator Blumenthal: Well, that --
- 7 Dr. Gilmore: The only way you're going to discover
- 8 those problems is by doing realistic testing along the way.
- 9 Senator Blumenthal: And I agree completely that you
- 10 want to fly before you buy, which apparently has not been
- 11 done here, and obviously test before you use the ship in
- 12 combat. But what is -- what assurance can any of the
- 13 witnesses give us that the ship is actually going to be
- 14 capable of accomplishing its mission and protecting the
- 15 sailors who are going to be on board?
- 16 Dr. Gilmore: Well, the -- again, we can give you
- 17 information along the way about how well the ships and the
- 18 crews are doing with regard to what the Navy expects the
- 19 ships and crews to do. And, of course, the Navy's views of
- 20 what the Navy -- the ships and crews are going to do is
- 21 changing along the way as they learn more, which is
- 22 appropriate. Which is appropriate. It is late in the
- 23 process, but it is appropriate.
- 24 You are never going to get from me or anyone else an
- 25 honest, ironclad guarantee that the ships are going to

- 1 perform the way people now say they hope they will. Those
- 2 hopes are sincere, but, again, and I know it sounds
- 3 parochial. What you have to continue to do is to do the
- 4 testing that will tell you along the way whether your hopes
- 5 are actually going to be realized, not deny the results of
- 6 that testing, and adjust accordingly along the way. And
- 7 now, finally, the Navy is doing some of that adjusting, and
- 8 I actually commend them for it, but it took a while for all
- 9 that to occur.
- 10 Senator Blumenthal: Admiral, did you have a comment?
- 11 Admiral Rowden: Yes, sir, if I could just add. There
- 12 are a number of things that we are doing to ensure the value
- of the ships to the combatant commanders as they go forward.
- 14 And in my discussions with forward commanders, both in the
- 15 Mediterranean and the Western Pacific, one of the things
- 16 that they constantly tell me is we cannot get enough of
- 17 these ships here to provide the presence and to provide the
- 18 operational availability forward.
- 19 I am excited about the direction that we are taking the
- 20 ships. I am excited about the capabilities that we are
- 21 bringing to the fleet. I am excited by the conversations
- 22 that I have with the sailors on the ships as they look
- 23 forward to innovating with the capabilities that we are
- 24 delivering forward.
- 25 There is no doubt that we have a lot of work to do, but

- 1 as recently as 18 months ago, one of the things that we did
- 2 was we stood up the Surface and Mine War Fighting
- 3 Development Center, an organization that we are building,
- 4 which mirrors a similar organization that the aviation
- 5 community has had for a long time and the submarine
- 6 community, where we can take those good ideas, take the
- 7 equipment and the -- and the capability that the
- 8 acquisition system is delivering, and put that in the hands
- 9 of the sailors and get it forward.
- 10 And I think that what we are finding and what I am
- 11 finding as I talk to these young men and women that take
- 12 these ships to sea, yes, there are problems, and they are --
- 13 and they are not shy about telling me what needs to be fixed
- 14 about the Littoral combat ships. But they are also very
- 15 excited not only about the potential or the capabilities
- 16 that they do deliver, but also that the potential that are
- 17 built into these particular ships.
- 18 Senator Blumenthal: Thank you.
- 19 Mr. Francis: Mr. Blumenthal, may I make a comment? As
- 20 regards to the ships, once you do produce a hull, then the
- 21 Navy is going to have to support it. So, for the ones that
- 22 we have already committed to and are under contract, the
- 23 Navy will have to do whatever is required through mission
- 24 equipment and so forth to make them viable. As we know,
- 25 there is no guarantee it is going to work out the way we

- 1 thought. It is hard to -- hard to say, as Mike Gilmore
- 2 said.
- 3 The Navy is committed to the full buy of LCS and the
- 4 frigate, and they are obviously entitled to that decision.
- 5 But you have to make your own decision. It is at least a
- 6 \$14 billion commitment, and there are opportunity costs.
- 7 So, really the question for the committee is, is that the
- 8 next best use of \$14 billion.
- 9 Senator Blumenthal: Thank you very much. Thank you,
- 10 Mr. Chairman.
- 11 Senator McCain: Senator Tillis.
- 12 Senator Tillis: Thank you, Mr. Chair. Mr. Chair, I
- 13 hate to take exception to something you said earlier. You
- 14 said that the handgun RFP was 200 pages. It is actually
- 15 almost 680 pages, and it has been in the works for 10 years.
- 16 It is a shining example of a, to me, disastrous procurement
- 17 process.
- 18 Chairman McCain: Thank you for that correction.
- 19 Senator Tillis: But the acquisition people did tell me
- 20 that there are only 39 nine pages of specifications, so I
- 21 asked them are the other pages just blank pages for
- 22 notetaking, or are they relevant to the acquisition.
- 23 Mr. Francis, look, first off, I believe everyone here
- 24 is trying to do the very best to put warfighting
- 25 capabilities out there to protect our men and women and to

- 1 let them accomplish their mission. I think everybody's
- 2 intention is to do that. And, Mr. -- or Secretary Stackley,
- 3 I think you have inherited a problem. There is a great joke
- 4 that I will not use my time on now that talks about the
- 5 difference between a bear skinner and a bear hunter, and you
- 6 are trying to skin a bear that somebody took down. They did
- 7 not quite wrestle it to the ground. So, I appreciate the
- 8 fact that you are dealing with something and expectations
- 9 that were set back over a decade ago. I do think that there
- 10 are things even in this Administration that we have to face
- 11 up to in going forward.
- 12 Mr. Francis, I worked in complex consulting
- 13 environments in research and development. And when we would
- 14 go about estimating large projects, we would use past
- 15 history as a basis for going out and creating an estimate
- 16 for what we are doing now. And once we did that, we would
- 17 still handicap it with examples of other projects that we
- 18 did not hit our -- did not hit our mark.
- 19 It seems to me until we come up with an acquisition
- 20 process that actually comes close to its original mark, we
- 21 have got to start handicapping any estimates here. And in
- 22 my -- if I go through the LCS, the F-35, the carrier, the
- 23 future combat systems, it would seem to me anytime someone
- 24 comes in here -- either you or your successors come in here,
- 25 I should multiply somewhere on the order by two or two and a

- 1 half times the amount of money and the length of time that
- 2 is going to be necessary to deliver this platform, because
- 3 past history has proven that to be the case most of the
- 4 time. Would you agree with that?
- 5 Mr. Francis: I would, sir.
- 6 Senator Tillis: And I have to ask you just as a point
- 7 of interest on my part, I do not know how on earth anybody
- 8 who has worked in your -- in your position for 42 years
- 9 could possibly have the amount of hair that you do --
- 10 [Laughter.]
- 11 Senator Tillis: -- because I have got to believe you
- 12 are tearing it out. I mean, why can we not front end load -
- the insights that you are providing here, why can that not
- 14 be instructive to the estimating process to begin with? In
- other words, in the same way that we would handicap these
- large, complex projects, not anywhere approaching the
- 17 complexity of what we are talking about here in the IT
- 18 world, why do we not have a function that says, you know,
- 19 you guys, you think you have got it, an ideal circumstance,
- 20 \$200 200 million, it is going to be great, time horizon.
- 21 But then have somebody come in and say, but because all of
- 22 you have been consistently and habitually wrong, we are
- 23 going to require handicapping of some multiplier.
- 24 Why should we not have that sort of methodology until
- 25 we actually get our act together and deliver something on

- 1 time and on budget?
- 2 Mr. Francis: So, it is a really interesting
- 3 discussion. And then, if you look at the private sector and
- 4 I think this is the point the chairman is getting to,
- 5 accountability is pretty clear. I mean, if you blow the
- 6 estimate and you cannot sell your product at a profit, then
- 7 the company loses money, and you know who is accountable.
- 8 Senator Tillis: And, Mr. Francis, I want to keep to my
- 9 time. I know that the committee has gone long. But that is
- 10 another point that the chair has made and a source of
- 11 frustration for many of us that I think we also have to
- 12 change in the procurement process. I used to call them
- 13 memorable moments.
- 14 When I would have a team who would come out and do
- 15 these sorts of estimates, and then we do the handicapping, I
- 16 would put a tag on every single one of them. Who was
- 17 ultimately responsible for this, whether the supplier --
- 18 whether inputs or, in my case, subcontractors, staff on
- 19 board. I would create a memorable moment so if that person
- 20 still worked for the government at a point in time that we
- 21 were two and a half times over a cost or two and a half
- 22 times over time budget, they lost their job.
- 23 And I think that in this process we have to start
- looking that way, we are going to continue these poor
- 25 results, and we are going to continue to be frustrated at

- 1 the expense of having more money to put to more warfighting
- 2 systems that make our men and women safer and more -- and
- 3 the probability of our completing our missions more likely.
- 4 And I think we have to start doing this.
- 5 And I am going to reach out to your office and speak
- 6 with you about maybe how we can front end load some of this
- 7 handicapping. It is clear to me it has not happened. If it
- 8 has happened, we have got incompetent people doing it. So,
- 9 thank you, Mr. Chairman, and I yield back my time.
- 10 Dr. Gilmore: Senator, could I just --
- 11 Senator Tillis: All two seconds.
- 12 Dr. Gilmore: Senator, could I just add something
- 13 because in my previous life I actually worked as a career
- 14 person in what is called cost assessment, is now called cost
- 15 assessment and program evaluation in OSD. And there is a
- 16 group there that does cost estimates. There are independent
- 17 cost estimates, independent of the services and the program
- 18 offices, cost estimates of programs.
- 19 And they do it on the basis that you just described,
- 20 historical experience. And there is a very rigorous process
- 21 that exists and good literature that exists about how to do
- 22 that, and they do it very well. And they present their
- 23 estimates, and then the acquisition leadership starts
- 24 rationalizing why the next time this time things will be
- 25 different, things will be better. So, they go through the

- 1 handicapping that you talked, but in exactly the opposite
- 2 way that you just described.
- 3 Mr. Stackley: Sir, if I may, Dr. Gilmore's description
- 4 of the role of the CAPE cost estimating is correct. His
- 5 description of what happens between the acquisition
- 6 community and the CAPE regarding that estimate is not
- 7 correct.
- 8 Senator Tillis: But the bottom line -- the bottom
- 9 line, Secretary Stackley, with all due respect --
- 10 Mr. Stackley: Oh, yes, it is.
- 11 Senator Tillis: -- and I have gone over -- with all due
- 12 respect, they have been wrong. The LCS, the F-35, the
- 13 carrier. If I had more time, I would ask Mr. Francis in his
- 14 42 years many -- this is a bipartisan failure. It has
- 15 transcended Administrations. But at some point you have to
- 16 look at history and recognize history for what it is. It is
- 17 the only way you will not repeat the mistakes.
- And the fact of the matter, if somebody wants to come
- 19 up to me and say, you know, Senator Tillis, look at all
- 20 these programs in DOD that we have gotten right, it is just
- 21 unfair for you to say that we are off almost every single
- 22 time, I do not believe that the data would be very
- 23 compelling to support that argument. So, let us figure out
- 24 a way to handicap it so that we can have discussions and set
- 25 realistic expectations so that we can help the warfighter.

- I am sorry, Mr. Chair. I have gone over. Thank you.
- 2 Chairman McCain: Secretary Stackley, you wanted to
- 3 comment.
- 4 Mr. Stackley: No, sir. What I was going to -- well,
- 5 two things. One, I think we owe you the data. I think we -
- 6 as a task here we should be providing the data in terms of
- 7 cost growth on programs, and it is not a pretty picture cost
- 8 growth programs over history.
- 9 My comment with regards to the CAPE's estimate, I
- 10 cannot point to many programs in the Navy, I cannot think of
- 11 any off hand, where we are not, in fact, budgeted to the
- 12 CAPE's estimate, with the exclusion of programs where we
- 13 have a fixed price contract in hand, and so we do not budget
- 14 above the fixed price. I think we actually try to work very
- 15 collaboratively with the CAPE to arrive at the best estimate
- 16 for our programs going forward.
- 17 I would go back Mr. Francis' discussion regarding the
- 18 importance of Milestone B and getting -- that is the
- 19 critical point where we have got to get it right, lock in
- 20 the program baseline, get the independent cost estimate as
- 21 best as possible, budgeting the risks and everything else
- 22 accounted for. That is -- that is the critical point. And,
- 23 in fact, LCS went forward without a Milestone B. That rigor
- 24 was not there.
- 25 Chairman McCain: On, again, wonders why and who did

- 1 it. Senator Graham.
- 2 Senator Graham: Thank you, Mr. Chairman. Admiral, we
- 3 have gone from 52 ships to 40. Why? Why are we going to
- 4 just buy 40 of these things?
- 5 Admiral Rowden: So, the requirement for the Small
- 6 Surface Combatant remains 52. And so --
- 7 Senator Graham: But Secretary Carter said we are going
- 8 to build 40. Is it because of budgets?
- 9 Admiral Rowden: That was a budget driven decision,
- 10 yes, sir.
- 11 Senator Graham: Okay. So, one, the committee needs to
- 12 know sequestration probably. Is that right? Is that right,
- 13 Mr. Secretary?
- 14 Mr. Stackley: Let me weigh in. The Budget Control
- 15 Act, yes, sir. Secretary Carter's decision was we have to
- 16 take risk due to the budget and where we are going to take
- 17 risk --
- 18 Senator Graham: Okay, I got you. So, he said I got to
- 19 do something because I just do not have enough money, so I
- 20 am going to, like, go from 52 to 40. Admiral, you said that
- 21 people out in the field out on the -- you know, fighting the
- 22 wars and preventing wars, they like this. They want more of
- 23 these ships. Is that right?
- 24 Admiral Rowden: That is correct, sir.
- 25 Senator Graham: Okay. What does this ship do that is

- 1 so important? What can it do that is different than the
- 2 ships we have today? Very briefly.
- 3 Admiral Rowden: Well, certainly, sir, as we -- as we
- 4 move forward, the building of the -- of the --
- 5 Senator Graham: Is it more stealthy? What makes it
- 6 different?
- 7 Admiral Rowden: It gives us -- it will deliver higher
- 8 operational availability forward. I think it will give --
- 9 deliver more capacity forward I think as we bring in the
- 10 minesweeping capabilities, as we bring in the anti-submarine
- 11 capabilities, which I think will significantly improve our
- 12 ability to hunt and track --
- 13 Senator Graham: Is this a modernization program? Are
- 14 we trying to modernize ships? Is that what this is about?
- 15 Admiral Rowden: Well, certainly the advanced
- 16 technologies will be -- that we will deliver will be -- will
- 17 be of much use to the -- to the sailors as we move
- 18 them forward, yes, sir.
- 19 Senator Graham: Okay. All right. So, modernization
- 20 of the existing fleet is one of the goals to be achieved if
- 21 this ship comes online, right, and operates. It would be
- 22 more effective.
- 23 Admiral Rowden: Yes.
- 24 Senator Graham: That is why we are doing this, right?
- 25 Admiral Rowden: Yes, sir.

- 1 Senator Graham: And the reason we are not building 52
- 2 is because of money, not because demand. The world is not
- 3 safer to justify 40 versus 52. Is that correct?
- 4 Admiral Rowden: That is correct, sir.
- 5 Senator Graham: Okay. When it comes to estimating
- 6 ships, who actually said \$220 or mean whatever the number
- 7 was?
- 8 Mr. Stackley: Sir, we are going to have to go back to
- 9 the record --
- 10 Senator Graham: All right. Let us do that.
- 11 Mr. Stackley: -- the leadership.
- 12 Senator Graham: Right. Well, that is a lot of people.
- 13 So, let us find the guy or gal or the groups of guys and
- 14 gals that said it is \$220 million, and see who they are, and
- 15 figure out what we should do about that. I think we should,
- 16 like, call him in Mr. Chairman, and talk to them.
- 17 So, this \$448, why did it go up so much? Was it
- 18 because we asked for things additional to what was
- 19 originally required? Was it sort of add on capability?
- 20 Mr. Stackley: Sir, the one major change that was done
- 21 to the program early on after contract award or commensurate
- 22 with contract award, was we changed the specifications to go
- 23 to what is referred to as naval vessel rules to give it the
- 24 degree of design details associated with --
- 25 Senator Graham: How much did that add to the cost?

- 1 Mr. Stackley: It is hard to pin a number on it, but it
- 2 created extraordinary disruption at the front end of the
- 3 program.
- 4 Senator Graham: So, you cannot blame the original
- 5 people who gave the cost estimate because they were not
- 6 confronted with that requirement.
- 7 Mr. Stackley: That is a good point that that
- 8 requirement was added after the \$220.
- 9 Senator Graham: Who put that requirement on?
- 10 Mr. Stackley: I would have to go back to the record to
- 11 find out.
- 12 Senator Graham: I want to find out who did the 220. I
- 13 want to find out who said it needs to do this, not that so
- 14 we can talk to them as to why they decided that. Mr.
- 15 Francis, do you have any idea who did that?
- 16 Mr. Francis: I do not remember at this point, Senator.
- 17 But I think what happened with the ship is it was thought to
- 18 be a relatively simple derivation of high-speed ferries of
- 19 commercial vessels when they got in, and they made that
- 20 estimate before they entered the detail design. When they
- 21 got into detailed design and they got naval vessel rules,
- then they found out it was way more complicated than they
- 23 thought. And that was --
- 24 Senator Graham: They found that out after they started
- 25 building the thing.

- 1 Mr. Francis: Yes.
- 2 Senator Graham: Okay. So, I want to end with this.
- 3 If we do not modernize our force, we will pay a price. The
- 4 A-10 works today, but it is not going to work forever
- 5 because we will not be fighting ISIL forever. There will be
- 6 an environment where the F-35 makes more sense. It makes no
- 7 sense to me to retire the A-10 because it actually works.
- 8 But all of us need to know what you are trying to do is
- 9 modernize the force so that the next war we are in or the
- 10 next war we need to prevent that we are capable of doing
- 11 both, right?
- 12 Modernization is not an exact science. So, part of the
- 13 problem is when you modernize your force, it is not like
- 14 just duplicating something. It is not a commodity. But
- 15 what have I learned, that in the effort to modernize the
- 16 force, our estimates of what it cost and the capabilities we
- 17 need are ever changing. And the process is completely
- 18 broken, and it goes back to what you said, Doctor, about
- 19 leadership.
- If you want this to stop, somebody needs to get fired.
- 21 One of the reforms we did in this committee is to make every
- 22 service secretary and service chief responsible for the big
- 23 programs under their control. Hopefully in the future
- 24 someone will be held accountable and get fired if this
- 25 happens again. And if nobody ever gets fired, nothing is

- 1 going to change. Thank you.
- 2 Chairman McCain: Senator Sullivan.
- 3 Senator Sullivan: Thank you, Mr. Chairman.
- And, Dr. Gilmore, I wanted to follow up on some of the
- 5 questions you received from Senator Blumenthal. You were
- 6 talking about kind of the hopes that you had. Matter of
- 7 fact, I think you use the word "hopes" three or four times
- 8 just in answering the questions on the capability of the
- 9 ship. But in your written testimony -- your written
- 10 testimony is not full of hope at all, so let me -- let me
- 11 read a little bit of what you said with regard to the
- 12 written testimony.
- "With respect to survivability, neither of the LCS
- 14 variant is expected to be survivable in high intensity
- 15 combat. Neither of the LCS designs include survivability
- 16 features necessary to conduct sustained operations in a
- 17 combat environment. The LCS' limited lethality makes these
- 18 ships a shadow of the abilities of modern Navy frigates.
- So, with regard to combat capability, you seem very
- 20 concerned, so let me ask him more operationally focused
- 21 question, Admiral. Given what Dr. Gilmore said, do you
- 22 think -- are you confident that these ships could, say, for
- 23 example, go into the South China Sea, conduct a FONOP near
- 24 Mischief Reef or other places, and be able to survive if
- 25 Chinese frigates responded with force, or could an LCS in

- 1 the fleet today survive attacks from small boats and other
- 2 patrol craft like the ones that were used in the recent
- 3 capture of American sailors by Iran? Are you confident of
- 4 that given what Dr. Gilmore clearly states is a ship that is
- 5 not combat survivable?
- 6 Admiral Rowden: Yes, sir, I am. And I --
- 7 Senator Sullivan: Are you, Dr. Gilmore?
- 8 Dr. Gilmore: No, for the reasons that are stated in
- 9 detail and all the reporting that I have done at the
- 10 classified level and other levels.
- 11 Senator Sullivan: So, Admiral --
- 12 Dr. Gilmore: These ships -- the original vision for
- 13 these ships was that they could use unmanned systems that
- 14 would go in and conduct combat operations, and they could
- 15 stand off away from threats. But those unmanned systems
- 16 that can reach out and conduct combat operations we do not
- 17 have, and it is not clear when we ever will.
- 18 So, the ship was built to not be nearly as survivable,
- 19 as, for example, the Fig 7s that we used to have. It was
- 20 built according to high-speed naval vessel rules, which
- 21 fundamentally limits the amount of compartmentalization and
- 22 redundancy you can put on the ship. So, it is not nearly as
- 23 survivable as other ships, and, frankly, it was not meant to
- 24 be in that regard.
- 25 And the original CONOPs, if it could be -- ever be

- 1 realized, that might have been fine. But as I understand
- 2 the CONCOPs and the way it has been written, and the Navy is
- 3 continually revising it based on what it learns, the CONOPs
- 4 still says that the ship would be out there preparing the
- 5 way for the battle fleet. And if that is true, then it will
- 6 be subject to attack by anti-ship cruise missiles,
- 7 torpedoes, and mines. And the Navy's own requirements show
- 8 that the only the -- only thing the Navy expects if it is
- 9 hit by one of those kinds of threats is for it to be able to
- 10 exit the battle area and/or provide for an orderly abandon
- 11 ship.
- 12 So, against those kinds of threats, which ASCMs, for
- 13 example, the Chinese are fueling thousands of them, and they
- 14 are supersonic, and they are very threatening. And those
- 15 are going to be a challenge for any ship, but a particular
- 16 challenge for this kind of ship.
- 17 Senator Sullivan: So, Admiral, how do you respond to
- 18 that, and, you know, are you -- are you confident, you know,
- 19 in putting our Marines and sailors on these ships to conduct
- 20 those kind of operations, say, again, in the South China Sea
- or a standoff or a confrontation with Iranian small boats?
- 22 Admiral Rowden: Yes, sir. So, there are a number of
- 23 variables that go into the equation associated with the
- 24 survivability of the ships. Certainly, the manufacturer of
- 25 the ship, the watertight integrity of the ship, the way the

- 1 ship is manufactured. That is part of the survivability.
- 2 Part of it is the damage control systems that we put on the
- 3 ship in order to ensure the survivability. Part of it is
- 4 the defensive systems that we put on --
- 5 Senator Sullivan: So, you do not -- you do not agree
- 6 with Dr. Gilmore's written testimony.
- 7 Admiral Rowden: I think there are a number of -- there
- 8 are a number of variables that have to be looked at when you
- 9 look at the survivability of the ship. For example, one of
- 10 the variables that you have to look at is the intensive
- 11 training that we provide to all of our sailors, not only to
- 12 fight the ships, but also to fight battle damage.
- And I go back to the example of the USS Samuel B.
- 14 Roberts that hit the mine in the Arabian Gulf. Every
- 15 analysis said that ship should have gone to the bottom of
- 16 the Arabian Gulf. It did not. Those sailors fought, and
- 17 they saved that ship. And that is -- and that is one aspect
- 18 that I think is sometimes lost in talking about the
- 19 survivability of a ship.
- Clearly, we do not want to have any of our ships get
- 21 hit, and we -- and we rely on operations, we rely
- on intelligence, we rely on operating those ships to
- 23 hopefully not have to lean into a punch.
- 24 Senator Sullivan: So, despite Dr. Gilmore's written
- 25 testimony, you are comfortable putting Marines and sailors

- 1 on these ships in combat situations against Chinese frigates
- 2 or Iranian naval ships.
- 3 Admiral Rowden: Yes, sir, but I think you have to take
- 4 it in the proper context in that I do not think that
- 5 necessarily we would find these ships operating alone and
- 6 unafraid in the middle of an adversary's fleet.
- 7 Senator Sullivan: If they were?
- 8 Admiral Rowden: If they were, then I think that we
- 9 would do our best to fight the ship, and we would do our
- 10 best to defend the ship. And if the ship took a hit, the
- 11 crew would fight to save the ship and exit the area as the
- 12 ship is designed.
- 13 Dr. Gilmore: Can I add something, Senator?
- 14 Senator Sullivan: Sure.
- 15 Dr. Gilmore: We do something called a total ship
- 16 survivability trial, and it gets at exactly the issues that
- 17 the Admiral was just raising. Now, of course, we do not
- 18 actually let an ASCM, an anti-ship cruise missile, hit a
- 19 ship. Obviously not. But we do have the crew there. They
- 20 are trained in all the damage control measures that they are
- 21 supposed to take. And we do then go through a simulation of
- one of these threat systems, like an anti-ship cruise
- 23 missile -- we have done this -- hitting the ship -- we have
- 24 done this for the LCS. And we then have the crew fight to
- 25 save the ship.

- 1 And in the total ship survivability trials that we did,
- 2 the crews did their best, but in almost every instance there
- 3 was major damage to the ship, and the combat capability was
- 4 fully lost. And in some instances, the ship would have been
- 5 lost.
- 6 And, again, an anti-ship cruise missile hit on any ship
- 7 is going to be a problem, no doubt about it. But a hit on
- 8 one of these ships with their lack of redundancy, their lack
- 9 of compartmentalization, which is driven by, you know, their
- 10 small size and the speed requirement, and their construction
- 11 according to high-speed naval vessel rules. A hit on one of
- 12 these ships is going to be a real problem, and we have
- 13 analyzed that, and we have done the kind of testing that
- 14 enables the crew to fight -- try to fight to save the ship.
- 15 And there are definitely problems with these ships.
- If you can keep them out of harm's way, okay, but the
- 17 current CONOPs says that they will be out ahead of the
- 18 battle fleet preparing the way. So, again, they will -- if
- 19 they are going to do that, they will be subject to being hit
- 20 and attacked by these threats.
- 21 Chairman McCain: Senator Cruz.
- 22 Senator Cruz: Thank you, Mr. Chairman. Good morning,
- 23 gentlemen. Thank you for your testimony this morning, and
- 24 thank you for your dedicated service to our men and women in
- 25 uniform.

- 1 The near peer threat we are facing is increasing across
- 2 the globe, with our Nation's adversaries bolstering their
- 3 defense capabilities and focusing on new technology in the
- 4 hopes that they can deny access to the United States Navy
- 5 or, if necessary, compete militarily with the United States
- 6 in a more limited scenario.
- Recent acts of aggressions by our adversaries prove
- 8 that the men and women in the United States Navy operate in
- 9 an incredibly difficult environment every single day.
- 10 Whether facing threatening shows of force from Iran, Russian
- 11 belligerents, and unsafe practices, or China's egregious
- 12 claims and illegal expansions into the South China Sea, our
- 13 Navy sailors are to be commended for their professionalism
- 14 and steadfast service. However, these actions should remind
- 15 us that there is simply too much at stake if we willfully
- 16 choose to ignore the ambitions of our foes.
- 17 There is undoubtedly room for improvement in the LCS
- 18 Program, and I appreciate your candid testimony regarding
- 19 several of the reviews and efforts that are already
- 20 underway. But instead of looking back, I am most concerned
- 21 that future problems might plague the program, and that it
- 22 could have a crippling impact on the Navy's entire
- 23 modernization efforts. Between the Ford Class carrier, F-35
- 24 procurement, the LCS, and an Ohio Class replacement
- 25 ballistic submarine, the Navy simply must make the most

- 1 effective and efficient use of every single dollar it
- 2 receives if we are to have any hope of rebuilding the fleet.
- Now, Secretary Stackley, there have been many studies
- 4 that have attempted to determine the appropriate size and
- 5 mix of Navy forces, including the 1993 bottom-up review in
- 6 the 2010 Quadrennial Defense Review, to name a couple. Most
- 7 of the studies indicate that we need more than the Navy's
- 8 current plan to build 308 ships in order to defend our
- 9 global interests.
- 10 In the time since those reports, our Navy has now
- 11 shrunk to around 275 ships, while commitments and the number
- 12 of deployments have remained relatively constant. This has
- 13 resulted in a larger percentage of the force being at sea on
- 14 any given day, often for longer deployments than their
- 15 predecessors, and add an -- at the expense of other mission
- 16 requirements. The incoming Administration has set a goal to
- 17 increase the Navy to 350 ships and to reverse this damaging
- 18 trend. That is a goal with which I strongly agree.
- 19 My question to you is can you provide your professional
- 20 opinion to this committee on how we can accomplish a 350-
- 21 ship fleet, what an appropriate high/low mix of platforms
- 22 might look like, and where you believe the LCS and its
- 23 successor will fit into that construct?
- 24 Mr. Stackley: Yes, sir. Let me -- let me describe
- 25 that right now the CNO and his staff is conducting an update

- 1 to the force structure assessment that was last updated in
- 2 2014. He has been very clear and testimony in the public
- 3 describing that the threat vector has only -- has only
- 4 increased. And so, the 308-ship Navy that is currently on
- 5 the books, all pressure says that number has got to go up.
- 6 So, the force structure assessment taking place right
- 7 now is identifying what number and mix of ships we need for
- 8 the future, mid 2020s and beyond. And he has been clear,
- 9 the number is going to go -- the number in terms of
- 10 requirements will go north. That going to put more pressure
- 11 on the budget. And what we have to determine is in that mix
- of ships, what the specific modernized capabilities that we
- 13 will need platform by platform, and then how to procure
- 14 those as affordably as possible so we do not add more
- 15 pressure to the budget than absolutely necessary.
- Inside of that construct, high-low mix, LCS is the
- 17 small service combatant today, and we have talked about the
- 18 frigate modification to the LCS platform going forward. The
- 19 today 52 in the force structure assessment, 40 in terms of a
- 20 budget determination. If we fail to deliver the small
- 21 surface combatant in those numbers, then what that means is
- 22 we are going to put more pressure on the high end of our --
- 23 of our force structure. That is going to add costs, and
- 24 that is going to take those ships off of the -- where they
- 25 need to be, tax them in terms of operational demand compared

- 1 to where they need to be, and that is going to put more
- 2 pressure in terms of turnaround time and the entire
- 3 operations and maintenance cycle.
- 4 Senator Cruz: So, what do you see as the biggest
- 5 challenges facing growing to a 350-ship fleet, and what do
- 6 you see as a realistic timeframe for that?
- 7 Mr. Stackley: Yes, sir. Let me -- let me first say
- 8 the first big challenge that is already in the program of
- 9 record is the High Replacement Program due to its
- 10 uniqueness, its imperative in terms of schedule and the
- 11 capability that we have to provide, and then its cost. It
- is a -- it is a high-cost program.
- And so, we are, and when I say "we," it is CNO and
- 14 myself are on top of that program in terms of the design
- 15 process, in terms of the planning to ensure that it does not
- 16 grow. In fact, we are looking to find ways to make it more
- 17 affordable than it is today. That already stands as a
- 18 challenge going forward.
- 19 The next -- the next thing we need to do is leverage
- 20 existing designs. What we do not want to do is bring a
- 21 whole bunch of new design to the table, add the technical
- 22 risk that that brings, the startup costs that that adds, and
- 23 the uncertainty that that introduces, and add the amount of
- 24 time that that will take to go through the design and
- 25 production cycle. So, let us leverage the existing

- 1 production lines that we have and introduce capability to
- 2 those platforms as best as possible looking at that future
- 3 threat. And that is the path that we are on.
- 4 And then the next is raising the rate at which we
- 5 produce those ships. I will tell you the first part of it
- 6 is going to be looking at our attack submarines. When you
- 7 look at our force structure going forward, we have a very
- 8 serious shortfall in attack submarines in the late 2020s.
- 9 We have got to stem that as best as possible. So, that
- 10 would be the first place that we go in terms of increasing
- 11 our production rates.
- 12 Surface combatants. Right now, we are building surface
- 13 combatants at a rate that in the long-term results in
- 14 dropping off in terms of total number of large surface
- 15 combatants, because we built at such a high rate during the
- 16 Reagan buildup years. Well, if we -- if we stay at two per
- 17 year, we are going to start settling down to a 60 to 70
- 18 number of large surface combatants, which will not meet our
- 19 operational requirements.
- 20 And then amphibs. Today, we are -- we are below what
- 21 the CNO and the commandant agreed to in 2009 in terms of the
- 22 amphibs force structure. We have got to get up to that
- 23 number, and we are on that path. But the reality is that
- these are high utility platforms. They are high demand,
- 25 high utility, very flexible. Wherever we have operations

- 1 going, amphibs find a way to support that operation. And
- 2 so, there is -- that will be the next leg in terms of
- 3 increasing our production rates.
- 4 Senator Graham: Thank you.
- 5 Chairman McCain: I am sure that you will get support
- 6 from this committee on that. You will not get support if we
- 7 have double -- redouble the cost of these systems. We owe
- 8 the taxpayers a lot more than that.
- 9 This has been a very helpful hearing, and I thank the
- 10 witnesses. We are adjourned.
- 11 [Whereupon, at 11:48 a.m., the hearing was adjourned.]
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