

NOT FOR PUBLICATION UNTIL RELEASED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

STATEMENT

OF

THE HONORABLE SEAN J. STACKLEY
ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)

AND

VADM RICHARD HUNT
DIRECTOR, NAVY STAFF

BEFORE THE

SUBCOMMITTEE ON SEAPOWER & PROJECTION FORCES

OF THE

HOUSE ARMED SERVICES COMMITTEE

ON

DEPARTMENT OF THE NAVY SHIPBUILDING PROGRAMS

DATE: JULY 25, 2013

NOT FOR PUBLICATION UNTIL RELEASED BY THE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

Mr. Chairman, distinguished members of the Subcommittee, thank you for the opportunity to appear before you and discuss the current status of the Littoral Combat Ship (LCS) program, specifically to discuss the overall concept, the process of how the program is being executed and the chance to provide the current status on both the LCS Seaframes and Mission Package procurement.

First, the Navy would like to would like to thank the Subcommittee for its continued interested in naval shipbuilding and the LCS program. In particular, the Navy appreciates the opportunity to provide the Services' assessment of the various issues raised of late as well as provide an update on the tremendous progress we have made in the program over the last few years.

Introduction

As you know, the LCS program is of critical importance to our Navy. With its great speed and interchangeable modules, the ship will provide unprecedented warfighting flexibility. LCS is one of the cornerstones of the future Navy, and provides critical capability to the fleet. This fast, agile, focused-mission platform is designed for operation in near-shore environments, yet is capable of open-ocean operation. It is designed to defeat asymmetric "anti-access" threats such as mines, quiet diesel submarines and fast surface craft. The modular design integrated into a completely functional weapon system promises to deliver a warship class that will be effective, and allow LCS to be tailored specifically for the mission at hand – flexible solutions delivering needed capabilities to ever evolving threats.

These ships expand the battle space by complementing our inherent blue water capability and filling war fighting gaps in the littorals and strategic choke points around the world. LCS design characteristics (speed, agility, shallow draft, payload capacity, reconfigurable mission spaces, air/water craft capabilities) combined with its core C4I, sensors, and weapons systems make it an ideal platform for engaging in Maritime Security Operations. Each ship has been designed in accordance with overarching objectives for reducing total ownership cost, which is also critical in the current budget environment.

Concept

The LCS's originally envisioned concept of operations called for the ship to perform littoral anti-surface warfare (SUW) against small boats and craft, antisubmarine warfare (ASW) against diesel submarines operating in shallow littoral waters, mine countermeasures (MCM), and a range of inherent "mobility related" missions in peacetime. The ships were envisioned to be modular and reconfigurable, each capable of performing SUW, ASW, and MCM. The seaframes would serve as a platform for mission packages that could be changed, modified, or removed in a short period of time.

Since the original vision, the concept remains unchanged as does the modular strategy that delivers cost effective capability to the Fleet. The LCS program comprises two variants of the seaframe and three mission packages, each employing incremental fielding strategies. The two seaframe variants (commonly referred to by the respective lead ship names, FREEDOM and INDEPENDENCE) each meet the requirements established within the program's Capability Development Document (CDD). Through the construction and lessons learned associated with the first of class, each has achieved the degree of stability and maturity necessary to ensure efficient production of follow ships. Perhaps most importantly, by virtue of sustaining two production lines, the Navy has successfully employed competition in this program to such extent that the unit cost in production is being steadily reduced. At roughly one-third the unit cost of our large surface combatant program, the competitive dual sourcing strategy for LCS has provided the Navy with a viable approach to affordably increasing our force while also addressing warfighting gaps.

The modular strategy for mission packages is a breakthrough concept for delivering cost effective capability by employing mature technologies to meet today's warfighting requirements while also providing tremendous flexibility to rapidly employ developing technologies to counter emerging threats or otherwise close gaps today, and in the future. The Navy has initially selected three mission packages for the LCS program: Mine Countermeasures, Anti-Surface Warfare, and Anti-Submarine Warfare. In order to deliver these capabilities in the capacity needed, and with an eye on controlling cost and risk, the Navy is employing an incremental fielding strategy wherein the first increment leverages mature technologies and existing programs of record to provide a level of performance exceeding that available in the fleet today. Subsequent

increments of the mission packages will further augment this capability and capacity by introducing developing technologies and systems which will largely fill gaps in today's warfighting capabilities. It is the Navy's intent to deploy both FREEDOM and INDEPENDENCE variants with Increment 1 mission packages when each ship of the LCS program is ready to deploy. Later deploying ships will be equipped with subsequent mission package increments as their respective developing technologies are fielded.

Process

The entire LCS program, as defined by the Joint Requirements Oversight Council (JROC)-approved LCS Flight 0+ Capability Development Document (CDD), defines the ends state requirements for the mission package increments as well as the requirements for the seaframe. Both seaframe variants are designed to meet the CDD specified requirements and support all three types of mission packages. Each variant is built to be compliant with the LCS Interface Control Document (ICD), which governs the interface between the ship and any current or future mission package. This incremental approach minimizes concurrency risk while allowing the flexibility which the modular concept provides. The nine mission package "increments" (4 MCM, 4 SUW, 1 ASW) represent time-phased fielding of capability aboard both variants of LCS seaframes. This time phased-fielding of capability is fundamental as it allows the Navy to rapidly field systems as they are matured instead of waiting for the final capability delivery. The major systems that comprise mission packages are already established as individual programs, with their own Acquisition Program Baselines (APBs) including cost, schedule and performance objectives and thresholds. One APB for the entire mission package program, which integrates these programs for LCS, is appropriate and compliant with law, regulation, and policy. The APB will include well-defined, quantitative cost, schedule and performance thresholds and objectives for the mission packages. In accordance with the CDD and the incremental approach, these targets will be met through the final, time-phased capabilities fielded for the MCM, SUW, and ASW mission packages. This is similar to the approach used for other programs which provide time-phased capability for platforms. The time-phased fielding of capability and the associated performance metrics to conduct testing against will be defined in the Capability Production Documents currently under development for each mission package.

Future seaframe contract awards will be predicated on meeting seaframe requirements, including the requirement to embark any ICD compliant mission package, in the most cost effective way. As the Navy prepares for the next procurement of ships, developmental and operational testing of the capabilities of each seaframe variant and associated mission package is being conducted and the results will be used to inform future program decisions. In addition, the Navy will have return cost data from the initial ships of the block buy to further inform the Fiscal Year (FY) 2016 procurement. The Defense Acquisition Board, chaired by USD(AT&L), will review the next seaframe procurement prior to Request for Proposal (RFP) release. The Navy, in conjunction with USD(AT&L), will execute the normal, rigorous process to ensure that the procurement meets with the specified requirements and that the costs are well understood.

As the Navy continues to build LCS seaframes, the LCS mission package procurements are phased to meet the number of LCS Seaframes. To keep pace with the LCS seaframes currently under contract or remaining under the current block buy through Fiscal Year (FY) 2015, the Navy must procure mission package at a rate necessary to support, 1) developmental and initial operational test and evaluation of the two LCS variants, 2) developmental and operational testing of each incremental mission package capability as it is integrated and fielded, 3) Fleet crew training needs, and 4) operational LCS units with the tailored capabilities required for seaframe deployments. It is important to note that it is not a one-to-one ratio of mission package to LCS Seaframes. In FY 2014 for example, there will be four seaframes delivered to the fleet with a total of 10 mission packages (5 MCM and 5 SUW) delivered and available for use. The additional mission packages will support not only operational deployments, but account for the additional needs of training, and maintenance as well as developmental and operational testing.

Progress

Affordability remains a key factor in acquiring the needed future capacity of these highly flexible and capable ships. The Navy remains on course to deliver these seaframes in the quantities needed through the execution of the two competitive block buy contracts (for 10 seaframes of each version) awarded in FY 2010. The average cost of both LCS variants – including basic construction, Government Furnished Equipment (GFE), and change orders – across the 10-seaframe procurement over the five year period falls under the Congressionally-mandated cost

cap of \$480 million per seaframe (FY 2009 dollars). The dual block buy award strategy afforded the Navy an opportunity to award up to 20 seaframes between FY 2010 and 2015 under fixed-price type contracts resulting in a savings of \$2.9 billion.

The dual award strategy also stabilized the LCS program and its associated industrial base, increased the seaframe procurement rate to support operational requirements, promoted efficiency in the industrial base from the vendors to system providers to the shipyards, while sustaining competition, and provided potential Foreign Military Sales opportunities. The Navy is also aggressively pursuing commonality between the two variants, with particular focus on weapon systems, sensors, and C4I equipment. There are several on-going studies that will identify non-recurring integration costs, insertion points, and total ownership costs in order to assess the optimal insertion points.

LCS capabilities address specific and validated capability gaps in Surface Warfare, Mine Countermeasures, and Anti-Submarine Warfare. The concept of operations and design specifications for LCS were developed to meet these gaps with focused mission packages that deploy manned and unmanned vehicles to execute a variety of missions. Three (3) Mine-Countermeasure (MCM) mission packages, four (4) Surface Warfare (SUW) mission packages have been delivered. The Surface Warfare and Anti-Submarine Warfare mission packages remain on schedule to reach Initial Operational Capability (IOC) in FY 2014 and FY 2016, respectively. Sequestration, combined with recent Congressional marks and rescissions, will impact the operational test schedule for the Mine Countermeasures mission package. The Navy is working to minimize this impact and will advise the defense committees of any changes to meeting the IOC date for this essential capability. The FY 2014 President's Budget requests approximately \$347 million in Research and Development and Other Procurement funding for continued development of mission packages, procurement of common mission module equipment and procurement of four mission packages. The Navy will continue to incrementally field additional mission package capabilities to the Fleet as they mature.

Seaframe and Module Package Status

To date, the Navy has delivered USS FREEDOM (LCS 1), USS INDEPENDENCE (LCS 2) and USS FORT WORTH (LCS 3). CORONADO (LCS 4) will deliver this Fall. LCS 1 is currently

deployed with the Surface Warfare (SUW) mission package and will have more than a year of operational performance demonstrating the integration of the LCS seaframe and SUW mission package. LCS 1 is currently on deployment to Singapore and has completed two key events, IMDEX (International Maritime Defense Exhibition) and CARAT (Cooperation Afloat Readiness and Training) Malaysia, with CARAT Singapore, SEACAT (Southeast Asia Cooperation and Training), regional TSC (Theater Security Cooperation) port visits and Fleet-directed operations still planned for the remainder of the deployment.

The Navy is already constructing lessons learned from the Singapore deployment which will be applied to LCS 3 as she prepares for a deployment that is planned for the fourth quarter of FY 2013. While only three months into the Western Pacific deployment, valuable data with regard to optimal manning and the maintenance balance between ship's force and shore support is being gathered, and repair coordination, logistics, and communications between all commands from San Diego to Singapore have already been refined with continual gains in efficiency. LCS 2 has been the test platform conducting extensive testing of the integration of the Mine Countermeasure (MCM) mission package. The linchpin of the MCM package, the Remote Multi-Mission Vehicle (RMMV) now has over 850 hours of Reliability Growth Program over the span of 47 missions and 5 months, which has shown Mean Time Between Operational Mission Failure substantially exceeding requirements. Overall the Navy will have procured 13 mission packages, seven of which will have delivered by the end of FY 2013. As stated previously, these mission packages are required to complete development of the mission package capabilities as well as to support operational testing. LCS 3 is in the process of wrapping up its' post delivery period as the seaframe will complete Post Shakedown Availability (PSA) in July of 2013. She will officially transition to the fleet in the fall of 2013.

Commonality between the variants has been a focus of the program over the last two years. The Navy plans to incorporate Navy C4I programs of record instead of contractor furnished equipment into the hulls. Specific examples include ADNS Increment III, Navy Multiband Terminal (NMT), Common Data Link Management System (CDLMS), and Digital Modular Radio (DMR). The program is also assessing options and cost to implement a common network across both variants including the ability to transition to a common combat management system.

While many of these initiatives may be greatly affected by the current budget environment, the Navy continues planning to implement these improvements to the program.

LCS Council

In August 2012, the Chief of Naval Operations (CNO) established the Littoral Combat Ship (LCS) Council with 3-star flag officer membership from requirements, acquisition, and Fleet stakeholders with the objective of driving actions and coordinating all administrative control responsibilities for the LCS Class to ensure LCS is ready to meet its assigned missions.

Fundamentally, the Council was constituted and empowered to bridge “gaps and seams” that may exist or arise between various stakeholders, warfare and mission communities and, supporting activities across the requirements, acquisition, and Fleet enterprise to ensure the successful procurement, development, manning, training, sustainment and operational employment of the LCS Class ships, their associated Mission Packages, and shore infrastructure.

Fleet Introduction and Sustainment

Sustainment planning for the LCS Class began early in the Ship Program’s design and development phases. As the program evolved and ships began to deliver, a separate program office was created for LCS Fleet Introduction and Sustainment. This office applies feedback from the ships’ crews, the Littoral Combat Ship Squadron (LCSRON), Fleet input, Board of Inspection and Survey (INSURV) reports, and recommendations and direction from senior navy officials, including the LCS Council to continually address strategies and procedures for manning, training, maintenance, and supply support, based on operations of the ships as they enter service.

The program office’s sustainment approach ensures execution of the CONOPS – The United States Fleet Forces Command (USFFC) maintains a robust “Platform Wholeness” Concept of Operations (CONOPS) to delineate requirements and assign responsibilities for all aspects of LCS support to achieve “platform wholeness.” This designation includes the full range of manpower, training, logistics; maintenance and shore support to establish the ship in the Fleet, sustain it, and ensure its readiness over the Class life cycle. Lessons learned, from the operation

and support of the first ships of the class, are being incorporated into LCS platform strategies and practices, ensuring continued refinement.

Due to its limited crew size, LCS operates under a unique maintenance concept. Currently, the prime ship design and shipbuilding contractors manage ship maintenance under Interim Support Plans (ISPs), which are elements of the shipbuilding contracts. The ISP is a post-delivery maintenance and sustainment contract vehicle providing contractor-led LCS maintenance support while collecting data for future sustainment planning and contracts. The ISP includes contractor-provided facilities and Preventive Maintenance (PM), as well as engineering support for LCS unique systems.

The LCS maintenance organization structure consists of two major elements: Ship and Mission Packages. The Squadron-led Maintenance Support Team (MST) manages ship maintenance and the Regional Maintenance Centers (RMCs) manage ISP execution. The MST consists of Sailors and Navy program office personnel who manage the Current Ship's Maintenance Project (CSMP), ISP Facilities Maintenance (FM)/PM scheduling, Casualty Reports (CASREPs) and reach-back to maintenance providers. The RMC manages Intermediate Level (I-Level) maintenance, contracting and oversight of Depot Level (D-Level) maintenance (including maintenance covered by the ISP). The ISP contractors perform selected Organizational Level (O-Level) maintenance.

As a follow-on to the ISPs, the Program Office will use organic and contracted support via Sustainment Execution Contracts and Planning Yard Services Contracts. The program office has issued two RFPs for these efforts and will award them in FY 14. These two vehicles will form the crux of the planning and sustainment requirements necessary to ensure the Class' success and lifecycle expectations.

As intended and designed, Littoral Combat Ship's reduced manning and rotational crew construct, combined with enhanced training and shore support, reduces manpower cost and provides greater presence than current surface combatants. The rotational crewing concept for LCS is three crews for every two ships – with one deployed. The CDD Key Performance Parameter (KPP) for core crew manning is (Threshold: 50; Objective: 40). Ongoing studies are considering revision to the rotational crewing concept.

Reduced manning is enabled by shipboard automation, robust training and transitioning many administrative and maintenance functions ashore, relying on distance support. Enabling automated systems include fire detection and suppression systems, automated engine room and engineering controls, enhanced Condition Based Maintenance (CBM) systems for selected critical equipment and electronic navigation systems. The primary shore support facilities for LCS are the LCS Training Facility (LTF) and the Mission Package Support Facility (MPSF).

LCS is employing a new training strategy that supports a “Train to Qualify” (T2Q) KPP. T2Q dictates that an individual reports to the ship ready to stand watch and perform all assigned duties. The strategy applies high fidelity shore-based trainers and simulators to support training requirements for both hull variants. A mixture of shore-based trainers, simulators, at-sea training and certification opportunities ensure the proficiency of follow-on crews. Qualifications and certifications are monitored and refreshed during off-hull training periods using repeatable measures, metrics and standards. This will enable crews to retain high levels of qualification.

The LCS Program is continually addressing strategies and procedures for manning, training, maintenance, and supply support, based on operations of the ships as they enter service. The LCS Program will apply feedback from the ships’ crews, the LCSRON, Fleet input, INSURV reports, and recommendations and direction from senior navy officials, including the LCS Council. As sustainment procedures evolve, changes will be reflected in future revisions to this Life Cycle Sustainment Plan (LCSP).

Fleet Perspective

The Littoral Combat Ship and its embarked Mission Packages bring needed capabilities to our Navy. The present surface fleet of Frigates, Destroyers and Cruisers provide Navy an ability to reach into all four corners of the globe. Littoral Combat Ships, with their speed, shallow draft, modular architecture and the ability to contest the inshore environment or near-land battlespace will take that global reach even further.

Our primary combatants of destroyers, cruisers, submarines and aircraft carriers are essential to the defense of our nation. During times of heightened tension, the presence of a United States naval vessel off the shores of an allied nation can reassure, while also sending a strong message

to would-be belligerent actors. Continuous forward presence can also be very expensive and not necessarily essential all the time as we continually balance asset demand against available resources. This is where the Littoral Combat Ship fits perfectly into our future engagement strategy – affordable, focused, and tailored combat capability.

Our multi-mission AEGIS destroyers and cruisers are technological marvels that are manned, trained, and equipped to fight multi-threat, open ocean major combat operations. The Littoral Combat Ship is a more affordable and equally effective alternative for missions that do not require a multi-mission, billion dollar-plus warship. Further, Littoral Combat Ships will allow the *Arleigh Burke* class destroyer and *Ticonderoga* class cruiser to focus on the high-end missions they are designed to execute. As an example, for the acquisition and operating price of a single destroyer manned with 300 Sailors, Navy will be able to deploy four Littoral Combat Ships, able to operate together as a coordinated surface action group, or sent to the four corners of a region to maximize forward presence. The Littoral Combat Ship will be able to maintain a persistent presence, while U.S.-based cruisers and destroyers will only spend a fraction of their service life deployed overseas. From forward operating bases, LCS will be able to engage our partners and work with our allies consistently. Further, when called upon in crises, LCS have the ability to get to contested areas without requiring open ocean, heavy lift transport, providing a stronger and persistent presence of United States' interest in the region.

The Littoral Combat Ship Program, which pairs a ship with a modular mission package, is a ship that can serve a multitude of roles. The modular concept and interface design between the ships and mission packages offer the opportunity for the incremental delivery of improved capabilities. While Navy describes the mission package program in terms of defined increments, each mission package will continue to develop and deliver improvement, well beyond the current capabilities that are presently in the Fleet.

By having the flexibility to swap out mission packages, Navy has a ship that can adapt to meet the ever-changing spectrum of mission requirements.

Procuring the Littoral Combat Ship means Navy does not have to continue to sustain the aging *Avenger class* Mine Countermeasure ships. Instead, the Mine Countermeasure mission package can be loaded into the Littoral Combat Ships as required. Then, when needed, the same Littoral

Combat Ship could embark an Anti-Submarine Warfare mission package in order to search for submarines or embark a Surface Warfare mission package to conduct surface warfare missions. The ship's reconfigurable and modular mission packages are tailored to meet the requirements of specific warfare areas, meaning Navy is getting the capability of more than one ship with each Littoral Combat Ship procured.

In the 3:2:1 manning model, three crews rotate between two Littoral Combat Ships, with one ship forward operating around the globe. Under this concept, with 52 Littoral Combat Ships, Navy will be able to continually forward-operate 26 Littoral Combat Ships. In the current deployment model for single-crewed cruisers, destroyers and frigates, it would take more than one hundred ships to maintain the equivalent level of presence of 52 Littoral Combat Ships. The Littoral Combat Ships remains an economical method to address warfighting capability gaps while providing sizable global forward presence.

USS FREEDOM (LCS 1) and USS INDEPENDENCE (LCS 2) were constructed and delivered using Research & Development dollars and resulted in two competing ship designs. Navy's intent is to take the knowledge gained in the build, test, and operation of these first ships to inform future program changes. This is why USS FREEDOM's deployment to the Southeast Asian Pacific Region was essential to take the first step in the executing the concept of LCS persistent forward operations.

Navy remains committed to delivering and sustaining warships that are operationally ready, combat effective and cost efficient. Since its inception, an emphasis has been placed on the affordability of the program from the construction cost of the ship itself to the minimal manning construct to reduce the life-cycle costs of operating the ships. The Littoral Combat Ship is the affordable means to maintain a strong naval fleet.

In the challenging fiscal environment our nation faces today—with sequestration enacted and the Department of Defense budget shrinking—the Littoral Combat Ship is a prudent investment where Navy is getting more than its money's worth. The Littoral Combat Ship is a 3,000 ton warship that is being operated with a crew of fewer than 100 sailors at 1/3 the cost of a destroyer, 1/4 the cost of an attack submarine, and 1/30 the cost of an aircraft carrier. The Fiscal Year 2014 average target cost per ship is approximately \$340M.

The Littoral Combat Ship is a critical component to our surface fleet. The ships will be able to sail into ports too shallow for cruisers and destroyers and they will show the United States flag in places where our ships have never been before. The Littoral Combat Ship provides much-needed capability to the United States Navy.

Summary

Moving forward the Navy plans on continuing to leverage the modular strategy for the LCS program. The modular strategy is a breakthrough concept for delivering cost effective capability by employing mature technologies to meet today's warfighting requirements while also providing tremendous flexibility to rapidly employ developing technologies to counter emerging threats or otherwise close gaps today, and in the future. The Navy plans on procuring 52 LCS seaframes in accordance with the most recent long range shipbuilding plan while balancing available funding with achieving the lowest possible pricing to the government. The Navy plans to continue to procure LCS seaframes through the remainder of the Block Buy in FY 2015 and the start of the next procurement in FY 2016. The Navy plans to procure LCS seaframes in accordance with the most recent long range shipbuilding plan while balancing available funding with achieving the lowest possible pricing to the government. The future acquisition decisions will be informed with an up-to-date Service Cost Position and "should cost" assessment. The Defense Acquisition Executive will determine whether a new OSD Cost Analysis and Program Evaluation (CAPE) Independent Cost Estimate (ICE) will be needed to inform the decision. Contracts for ships in FY 2016 and beyond will be informed by actual cost returns, not estimates, for eight delivered seaframes and an additional 16 seaframes under contract, but not delivered by FY 2016. The Joint Staff, along with the Navy staff, plans to conduct a requirements assessment study which will serve as a revalidation of the LCS capabilities definition document. No changes to LCS seaframe requirements are envisioned in the near term as both LCS classes meet Navy requirements. No changes are planned for LCS mission packages that will affect near-term testing or fielding of mission package systems.

We thank you for your continued support of the Navy and Marine Corps as well as the LCS Program. With your continued support, you will help the Navy deliver not only an affordable, but highly capable and flexible warship to the Fleet and our Nation.