

GAO Highlights

Highlights of [GAO-16-201](#), a report to congressional committees

Why GAO Did This Study

GAO has reported extensively on LCS—an over \$34 billion Navy program (in 2010 dollars) consisting of two different ships and interchangeable mission packages. In February 2014, the Secretary of Defense, citing survivability concerns, directed the Navy to assess design alternatives for a possible LCS replacement.

House and Senate reports for the National Defense Authorization Act for Fiscal Year 2014 included a provision for GAO to analyze LCS survivability. Based on congressional interest, GAO also examined lethality. This report examines (1) the extent to which LCS survivability and lethality requirements are aligned with the ship's threat environments and if they have changed, (2 and 3) and if LCS meets its current requirements. GAO also (4) assessed recent decisions pertaining to the Navy's plans to address the Secretary of Defense's concerns. GAO analyzed relevant documents and interviewed Navy officials.

What GAO Recommends

GAO suggests Congress delay funding for fiscal year 2016 LCS until the Navy submits a completed rough water trials report, acquisition strategy, and backfit plan; and consider not fully funding some or all LCS procurement pending analysis of these documents and the final survivability assessments. GAO also recommends several actions for DOD. The department concurred with two recommendations and partially concurred with two others, but did not concur with soliciting an independent technical assessment of the Independence variant. GAO continues to believe that such an independent assessment is warranted.

View [GAO-16-201](#). For more information, contact Michele Mackin at (202) 512-4841 or mackinm@gao.gov.

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LITTORAL COMBAT SHIP

Knowledge of Survivability and Lethality Capabilities Needed Prior to Making Major Funding Decisions

What GAO Found

The lethality and survivability of the Littoral Combat Ship (LCS) is still largely unproven, 6 years after delivery of the lead ships. LCS was designed with reduced requirements as compared to other surface combatants, and the Navy has since lowered several survivability and lethality requirements and removed several design features—making the ship both less survivable in its expected threat environments and less lethal than initially planned. The Navy is compensating for this by redefining how it plans to operate the ships.

In 2014, the Navy conducted its first operational test of an early increment of the surface warfare mission package on a Freedom variant LCS, demonstrating that LCS could meet an interim lethality requirement. The Navy declared LCS operationally effective. However, the Navy's test report stated that the ship did not meet some key requirements. Further, the Department of Defense's Director of Operational Test and Evaluation has stated that there is insufficient data to provide statistical confidence that LCS can meet its lethality requirements in future testing or operations, and further testing is needed to demonstrate both variants can meet requirements in varied threat environments.

The Navy also has not yet demonstrated that LCS will achieve its survivability requirements, and does not plan to complete survivability assessments until 2018—after more than 24 ships are either in the fleet or under construction. The Navy has identified unknowns related to the use of aluminum and the hull of the Independence variant, and plans to conduct testing in these areas in 2015 and 2016. However, the Navy does not plan to fully determine how the Independence variant will react to an underwater explosion. This variant also sustained some damage in a trial in rough sea conditions, but the Navy is still assessing the cause and severity of the damage and GAO has not been provided with a copy of the test results. Results from air defense and cybersecurity testing also indicate concerns, but specific details are classified.

In February 2014 the former Secretary of Defense directed the Navy to assess options for a small surface combatant with more survivability and combat capability than LCS. The Navy conducted a study and recommended modifying the LCS to add additional survivability and lethality features. After approving the Navy's recommendation, the former Secretary of Defense directed the Navy to submit a new acquisition strategy for a modified LCS for his approval. He also directed the Navy to assess the cost and feasibility of backfitting lethality and survivability enhancements on current LCS. Nevertheless, the Navy has established a new frigate program office to manage this program, and the Navy has requested \$1.4 billion for three LCS in the fiscal year 2016 President's budget, even though it is clear that the current ships fall short of identified survivability and lethality needs. GAO has an ongoing review of the Navy's small surface combatant study and future plans for the LCS program.

This report is a public version of a classified report issued in July 2015. Throughout this report, GAO has indicated where information has been omitted or redacted due to security considerations. All information in this report reflects information current as of July 2015 to be consistent with the timeframe of the classified report.