

GAO Highlights

Highlights of [GAO-14-749](#), a report to congressional committees

Why GAO Did This Study

LCS represents an innovative approach to Navy acquisitions and operations, consisting of a ship—called a seaframe—and reconfigurable mission packages. These packages provide combat capability to perform three primary missions: surface warfare; mine countermeasures; and anti-submarine warfare. The Navy plans to buy no more than 32 seaframes in two variants from two shipyards, and 64 mission packages, with an estimated acquisition cost of over \$25 billion in 2010 dollars. GAO was mandated to examine elements related to the LCS program. This report examines (1) knowledge that the Navy has gained since GAO issued a report on the LCS program in July 2013 and (2) outstanding acquisition risks with the LCS program. GAO analyzed key documents, including test and weight reports, and interviewed Navy officials responsible for the LCS deployment and program officials. This report is a public version of a sensitive but unclassified report issued in April 2014.

What GAO Recommends

GAO recommends that the Navy (1) demonstrate certain capabilities for both LCS seaframe variants before the Navy is approved for future contract awards and (2) ensure a timely review of contractor seaframe weight reports and take actions to make contractors more responsive to comments on the reports' content. DOD agreed with the weight report recommendation and partially agreed with the other, noting that it intends to complete as much testing as possible—but not all—before releasing the request for proposals for future contracts.

View [GAO-14-749](#). For more information, contact Michele Mackin at (202) 512-4841 or mackinm@gao.gov.

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LITTORAL COMBAT SHIP

Additional Testing and Improved Weight Management Needed Prior to Further Investments

What GAO Found

Since July 2013, the Navy has continued to demonstrate and test various facets of Littoral Combat Ship (LCS) systems and capability, but important questions remain about how LCS will operate and what capabilities it will provide the Navy. The first operational deployment of an LCS to Singapore gave the Navy an opportunity to examine key LCS concepts operationally. The deployment was limited to only one of the two variants carrying one of three mission packages. In addition, mechanical problems prevented the ship from spending as much time operationally as planned. As a result, some key concepts could not be tested. The Navy has completed some additional testing on the seaframes and mission packages, which has enabled the Navy to characterize performance of some systems, but performance has not yet been demonstrated in an operational environment.

Outstanding weight management and concurrency risks related to buying ships while key concepts and performance are still being tested continue to complicate LCS acquisitions. Initial LCS seaframes face capability limitations resulting from weight growth during construction. This weight growth has resulted in the first two ships not meeting performance requirements for sprint speed and/or endurance, as well as potentially complicating existing plans to make additional changes to each seaframe design. Several seaframes now do not have the required amount of service life allowance—margin to accommodate future changes without removing weight over the ship's lifetime—but Navy officials said they have a plan to recover the service life allowance on the *Independence* class variant.

Status of Recent Littoral Combat Ship (LCS) Service Life Allowances		
	Ship	Currently meets service life allowance requirements? ^a
Freedom Variant	LCS 1	No—24 tons less than requirement
	LCS 3	Yes—exceeds requirement by 106 tons
	LCS 5^b	Yes—exceeds requirement by 17 tons
Independence Variant	LCS 2	No—67 tons less than requirement
	LCS 4	No—34 tons less than requirement
	LCS 6^b	No—19 tons less than requirement

Source: GAO analysis of Navy data. | GAO 14-749

^a LCS has a service life allowance requirement of 50 metric tons. Numbers are rounded.

^b LCS 1-LCS 4 have been delivered and therefore builder's margin remaining has become part of the service life allowance. LCS 5 and LCS 6 are still in construction and could gain available service life allowances if weight reserved for design and construction variations are not used.

The Navy has not received accurate or complete weight reports from the seaframe prime contractors, and the Navy's lengthy review process has hindered a timely resolution of the Navy's concerns. Additionally, a number of significant test events, including rough water, shock and total ship survivability trials, will not be completed in time to inform upcoming acquisition decisions—including future contract decisions. Finally, the Navy's recent decision to accelerate low rate initial production of mission packages above the quantity necessary for operational testing limits the flexibility that the program will have to adjust to any problems that may arise during operational testing.