The Littoral Combat Ship: The Warship That Can’t Go to War

By Jacob Marx
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BACKGROUND

When it was first conceived in the early 2000s, the Littoral Combat Ship (LCS) was envisioned as the “low end backbone of the future U.S. surface combat fleet.” As other programs in the future fleet were scaled back, the expectations for the LCS changed dramatically. By 2009, it was being sold as an adaptable, cost-effective option for maintaining surface strength in the open sea. The LCS is the Navy’s response to perceived changes in naval warfare and falling budgets. In theory, the LCS is a multifaceted and cost-effective answer to these requirements. In reality, the LCS is an overpriced, underperforming vessel that does not meet current needs and is a bad deal for taxpayers.

When will Congress stop this program from spinning in circles?
The LCS is a far less capable ship than the Navy needs and for what it does, far more expensive than American taxpayers can afford. Ongoing design defects and associated cost overruns have added hundreds of millions of dollars to the projected cost for a single LCS. At a projected construction cost of $220 million each and a projected mission-ready cost of $400 million, the LCS would have allowed the Navy to reverse the declining size of its surface force and prepare for future conflicts. In reality, the total cost of a mission-ready ship has nearly doubled to $780 million, and the Navy has been forced to cut payload options by 1/3. Because the LCS has been designed to perform a number of tasks adequately, it does few things well. Cancellation of new complementary warships (namely guided missile destroyers and air defense cruisers) exacerbates inherent shortcomings of the LCS by increasing expectations far beyond what it was nominally designed to do. The LCS is fundamentally under-armed, under-armored and under-crewed, giving it limited utility in littoral (near shore) waters and making it a non-asset in terms of surface combat strength.

After a decade of waste and negligence, in February 2014 Secretary of Defense Chuck Hagel cut the planned purchase of LCS from 52 to 32 and authorized the Department of the Navy to identify more “capable and lethal small surface combatant” alternatives. This is a positive step, but not the promise to cancel the LCS that the U.S. Navy needs and American taxpayers deserve.

The Navy placed far too many requirements on the Littoral Combat Ship from the very beginning:

- In the late 1990s the Navy had a surplus of large ships for open sea battles, but not enough ships for asymmetric combat in close to shore (littoral) waters.
- The LCS mission was to replace 56 ships, including aging frigates and anti-mine ships.
- The contract required these mission capabilities as well as a top speed of 40 knots, shallow draft, “future proofing” for technology upgrades, and swappable “mission packages” based on pre-packed weapons and equipment.
- There is no need for the LCS to go 40 knots; it takes too much fuel, doesn’t make the ship safer from missiles or torpedoes and creates weight and balance problems.
- The LCS is too large to be a true corvette but too lightly armed and armored to be a destroyer.

Thanks to poor congressional oversight and wasteful Navy buying strategies, the actual cost of a mission-ready LCS is $780 million:

- In 2004, the Navy awarded contracts to Lockheed Martin (LCS-1 and LCS-3) and General Dynamics (LCS-2 and LCS-4) to build two each of their own LCS designs. After testing usability and efficacy on the prototypes, the Navy would then decide which version to build en masse.
- In March 2007, the Navy cancelled LCS-3 after Lockheed refused to accept a fixed price contract following a 50 percent cost overrun on the existing contract-plus-cost arrangement. The General Dynamics LCS-4 was cancelled that November.
- During rebidding, the Navy remained committed to the LCS even when viable, cost-effective alternatives were proposed.
- In November 2010, the Navy took advantage of a lame duck session to request outlays for both the Lockheed and General Dynamics variants, arguing that R&D costs were already paid for.
- It has since come to light that the Navy and Lockheed Martin cooperated to hide unfavorable testing information from congressional oversight.
• Over the objections of the Government Accountability Office (GAO), Congress continues to buy a warship that has never been subjected to standard rough water, ship shock or total ship survivability testing.\(^\text{14}\)

• At present, the LCS costs around $780 million per ship, including two mission modules for every one LCS seaframe (as opposed to the planned three).\(^\text{15}\)

• The Navy continues to buy immature and untested mission modules, which likely will lead to even further weight and cost inflation.\(^\text{16}\)

$780 million is too much for a ship with the capabilities of the LCS:

• The LCS is too lightly armored and could not survive a hit from an anti-ship cruise missile, which are ubiquitous threats in most combat environments. The LCS gives up capability and survivability for speed, but its speed does not make it any safer from torpedoes, missiles or aircraft.\(^\text{17}\)

• Light armor helps make the LCS fast, but as mentioned above, the need is unclear and speed comes at the expense of survivability and capability.

• The LCS operates below Navy manpower minimums, limiting its effectiveness in non-combat situations and posing a serious liability in combat or other emergencies.\(^\text{18}\)

• According to a leaked Navy report, LCS modules may take as long as three weeks to exchange.\(^\text{19}\)

• A recent GAO report found the LCS to be seriously overweight, limiting options for future upgrades, further decreasing survivability and shortening service-life.\(^\text{20}\)

The Navy should purchase any of the cheaper, more versatile, more survivable, LCS alternatives available on the world market:

• Denmark’s *Iver Huitfeldt* class frigate is twice the size of the LCS, has twice the range, orders of magnitude more firepower, and at a price of $333 million before weapons and costs about $450 million less than an LCS.\(^\text{21}\) Crucially, it drafts only three feet deeper than the LCS.

• The *Iver Huitfeldt* can carry the equipment and helicopters for anti-submarine and anti-mine warfare simultaneously, and does not need to sacrifice other “mission packages” in order to do so.

• For anti-pirate and special operations support missions beyond the reach of a ship like the *Iver Huitfeldt*, there are numerous quality speedboats and corvettes like the Swedish *Visby*.

• The *Visby* boasts comparable weapons, and the same top speed as the LCS at 60 percent of the size, and, at $250 million per ship, less than 1/3 the cost.\(^\text{22}\)

**THE FUTURE**

If plans proceed, Congress will allow $25 billion to be wasted on the LCS and enable bad Navy contracts and buying strategies. With Secretary Hagel nearly halving LCS purchases earlier this year, it seems the program may finally be coming to an end. It is, and will continue to be, the wrong ship for the U.S. Navy and a waste of money for the American taxpayer. However, Lockheed and General Dynamics are already lobbying hard to save the LCS.\(^\text{23}\) With appropriators who are loathe to shutter programs in their districts, it seems possible that the LCS might live on. Congress must act to make sure it does not.
Endnotes


2 Were the Navy to adhere to its original plan for three mission packages per LCS hull, the total unit cost could increase by up to $100 billion. Cutting the ratio of hulls to modules by one-third hides cost inflation. For a discussion of costs of LCS mission packages, see “Navy Littoral Combat Ship (LCS) Program: Background and Issues for Congress,” by Ronald O’Rourke for the Congressional Research Service (CRS), August 4, 2014, p. 8, available at http://fas.org/sgp/crs/weapons/RL33741.pdf

3 The $780 million estimate is calculated from the GAO estimate of $25 billion for 32 seaframes and 64 mission modules. The $780 million unit cost includes the cost of one seaframe plus two mission modules, measured in 2010 dollars. For more information see “Littoral Combat Ship; Additional Testing and Improved Weight Management Needed Prior to Further Investments,” by Michele Mackin for the GAO, July 30, 2014, available at http://www.gao.gov/assets/670/665114.pdf


5 *Defense Industry Daily*, op. cit.

6 CRS, op. cit.


14 GAO, op. cit.


16 GAO, op. cit.


20 GAO, op. cit.


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