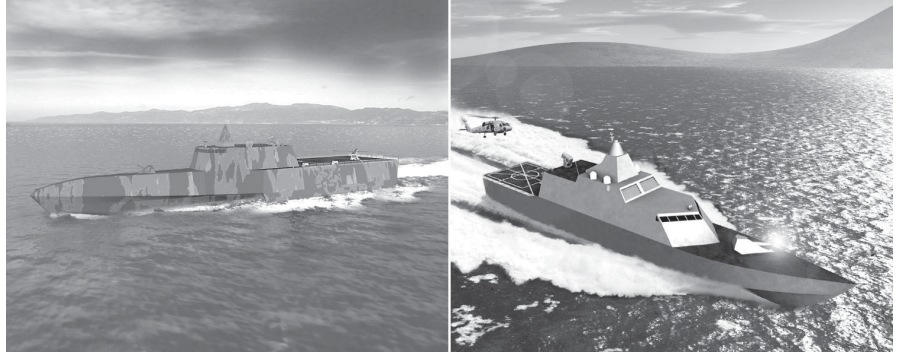


NAVY PROGRAMS

Littoral Combat Ship (LCS)

SUMMARY

- The Program Office selected two contractors for Flight 0 design (the first ship iteration). Four ships, two each of different designs, will make up Flight 0.
- The impact of the Flight 0 testing on Flight 1 designs will be minimal due to the accelerated acquisition timeline.
- Experimental module testing on surrogate ships reduces mission package technical risk.
- The Flight 0 ship design provides Level 1 survivability. The survivability requirement for Flight 1 ships is under review.



LCS will be a small, high-speed ship designed to operate close to shore and ensure access for larger follow-on forces.

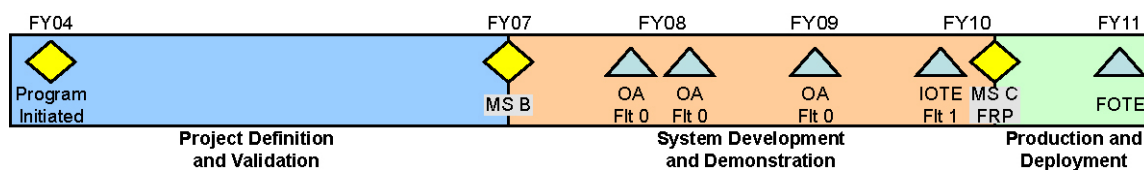
SYSTEM DESCRIPTION AND MISSION

The Littoral Combat Ship (LCS) will be a relatively small, high-speed, maneuverable surface combatant. Envisioned as a networked, agile, and stealthy vessel capable of defeating asymmetric threats, it operates in the near-land littoral region to ensure coastal access for U.S. forces. LCS operates in environments where employing larger, multi-mission ships, such as DD(X) or CG(X), is undesirable. It will deploy independently, in small LCS squadrons, or with strike groups, remaining on station for long periods. It may be forward-based and/or be replenished underway.

In addition to core warfighting capabilities including self-defense and command and control, the LCS relies on interchangeable mission packages to tailor its mission to the current threat. Each mission package relies heavily on both manned and unmanned off-board vehicles. The LCS has three primary or focused mission areas: surface warfare against swarms of small hostile surface craft; mine countermeasures; and littoral anti-submarine warfare. A ship can only carry one mission package so LCS conducts missions in one focused warfare area at a time. Secondary missions include intelligence; surveillance and reconnaissance; Special Operations Forces support; logistic support for movement of personnel and materials; Maritime Interdiction Operations; and Homeland Defense.

A spiral development approach supports accelerated production and deployment goals. LCS development consists of Flight 0 and Flight 1. In May 2004, the program office selected two different ship designs for Flight 0. The current acquisition plan procures two ships of each design for Flight 0. The first Flight 0 ship delivers in late FY07. The Navy will develop the Flight 0 mission packages using already fielded (or soon-to-be fielded) combat systems. Flight 0 ship and mission package construction and Flight 1 ship and mission package design will occur at the same time.

TEST AND EVALUATION ACTIVITY



NAVY PROGRAMS

DOT&E participated in the development of both the Acquisition Strategy and Test and Evaluation Strategy documents for Milestone A. Updates of both documents reflect the current strategy of purchasing four ships of two different designs along with additional mission packages for Flight 0.

The LCS Program Office developed the Capabilities Development Document for Flight 0. There will be a separate Capabilities Development Document for Flight 1 ships. Due to the limited number of ships, there is no Initial Operational Test and Evaluation or major Live Fire Test and Evaluation planned for Flight 0. However, they will undergo several operational assessments.

The Program Office is conducting a robust experimentation program to reduce technical risk in Flight 0 mission packages by testing potential mission modules using surrogate LCS ship platforms. Each of the different hull and mission package designs will undergo an early operational assessment.

TEST AND EVALUATION ASSESSMENT

The accelerated acquisition timeline for LCS leaves limited opportunity to apply construction and operational testing lessons from Flight 0 to Flight 1 hull and mission package designs. Additionally, the two Flight 0 hull designs have overlapping construction schedules. Construction of the first LCS Flight 1 ship will begin about the same time operational testing starts on the first Flight 0 ship, and prior to the delivery of the other Flight 0 ships.

Evaluation of the LCS self-defense capability against anti-ship cruise missiles is required. The program should use the self-defense test ship to conduct adequate and realistic testing against this threat. To assess its anti-surface warfare capability, LCS needs an instrumented shallow water range. Additionally, a shallow water range would be very beneficial, but not critical, in evaluating its mine warfare capability. Threat representative submarine targets will be critical to successfully evaluating LCS effectiveness against diesel submarines.

The design of Flight 0 ships will reflect Level 1 survivability. Level 1 survivability represents the least severe combat environment anticipated. Level 1 survivability is inadequate to sustain operations in the immediate area of an engaged strike group or in the general war-at-sea region. The Navy has agreed to conduct survivability trade-off studies for the design of the Flight 1 ships.