



Highlights of [GAO-08-13](#), a report to the Subcommittee on Seapower and Expeditionary Forces, Committee on Armed Services, House of Representatives

## Why GAO Did This Study

The Navy initiated a move away from traditional minesweepers in favor of putting new kinds of anti-mine capabilities aboard ships with a variety of missions—most recently, the Littoral Combat Ship. In addition to a new ship, this approach includes several new systems and new operational concepts. GAO assessed the Navy's progress in (1) developing new mine countermeasures systems, including the Littoral Combat Ship, and (2) introducing these new capabilities to the fleet. To accomplish this, GAO reviewed Navy and program documents and previous GAO work. GAO supplemented its analysis with discussions with Navy and Department of Defense officials and contractors.

## What GAO Recommends

GAO is recommending that the Department of Defense analyze intelligence preparation capabilities, determine if Littoral Combat Ship concepts of operation can be reconciled, examine the need for and feasibility of fielding mine countermeasures systems on other ships, and delay full-rate production of certain systems. The Department of Defense concurred or partially concurred with the first three recommendations. It did not agree to delay full-rate production of systems, citing training needs and production efficiencies. GAO maintains that a delay is warranted as long as the Littoral Combat Ship remains the systems' main platform.

To view the full product, including the scope and methodology, click on [GAO-08-13](#). For more information, contact Paul Francis at (202) 512-4841 or [francis@gao.gov](mailto:francis@gao.gov).

## DEFENSE ACQUISITIONS

### Overcoming Challenges Key to Capitalizing on Mine Countermeasures Capabilities

#### What GAO Found

The Navy has made progress developing individual mine countermeasures systems and the Littoral Combat Ship. The Navy expects 3 of the 19 systems it is developing to be ready for fleet use by the end of 2007, and recent test results have been promising. However, significant challenges remain to fielding new capabilities.

- Operational testing plans for four systems in limited production will not provide a complete understanding of how the systems will perform when operated from the Littoral Combat Ship. Other ships will be used in testing to inform full-rate production decisions on the individual systems. While other ships may serve as platforms for the anti-mine systems, the Littoral Combat Ship is their primary platform, and it will have different launch, recovery, and handling systems. In addition, Navy plans call for testing these systems in smooth, uncluttered environments, although operating environments are expected to be less favorable.
- The first two Littoral Combat Ships have encountered design and production challenges. Costs are expected to more than double from initial estimates, and the Navy anticipates lead ship delivery nearly 18 months later than first planned. This may slow the planned transition from current mine countermeasures platforms.
- The Navy has reduced its investments in intelligence preparation of the environment capabilities—including the capability to locate and map minefield boundaries—even though improvements in this area could reduce mine countermeasures mission timelines by 30 to 75 percent. These capabilities are especially important for the Littoral Combat Ship, as it must stand clear of suspected minefields.

The Navy has refined its concepts of operation for the Littoral Combat Ship, increasing awareness of operational needs. However, the Navy has not yet reconciled these concepts with the ship's physical constraints, and the trade-offs involved ultimately will determine the ship's capabilities. For example, operation of mine countermeasures systems is currently expected to exceed the personnel allowances of the ship, which could affect the ship's ability to execute this mission. In addition, the Littoral Combat Ship will have only limited capability to conduct corrective maintenance aboard. However, because the Navy recently reduced the numbers of certain mission systems from two to one per ship, operational availability for these systems may decrease below current projections. Moreover, the mine countermeasures mission package currently exceeds its weight limitation, which may require the Navy to accept a reduction in speed and endurance capabilities planned for the Littoral Combat Ship. It is important that the Navy assess these uncertainties and determine whether it can produce the needed mine countermeasures capabilities from the assets it is likely to have and the concepts of operation it can likely execute.