



LITTORAL COMBAT SHIP (LCS) BACKGROUND

The Littoral Combat Ship (LCS) is a fast, agile and networked surface combatant, optimized for operating in the littorals. The primary missions for the LCS include countering diesel submarine threats, littoral mine threats, and surface threats, such as small surface craft attacks, to assure maritime access for Joint forces. The underlying strength of the LCS lies in its innovative design approach, applying modularity for operational flexibility. Fundamental to this approach is the capability to rapidly install interchangeable mission packages (MPs) onto the LCS Seaframe (the basic version of the LCS, without any mission packages, is referred to as the LCS Seaframe). Each mission package can be quickly installed aboard an LCS to fulfill a specific mission, and then be uninstalled, maintained, and upgraded at a Mission Package Support Facility (MPSF) for future use aboard any LCS Seaframe.

A MP consists of Mission Modules (MMs), mission crew detachments, and support aircraft. A MM combines mission systems (vehicles, sensors, communications, and weapon systems), support equipment, Mission Package Computing Environment (MPCE) hardware and software, and Multiple Vehicle Communications System (MVCS) hardware and software, which installs into the Seaframe via standard interfaces. The hierarchal MP concept is best described in three layers:

- Mission Systems = Vehicles, Sensors, and Weapons
- Mission Module = Mission Systems + Support Equipment
- Mission Package = Mission Modules + Mission Crew Detachments + Aircraft

Currently, the Navy plans to procure 55 LCS Seaframes, as well as 16 Anti-Submarine Warfare (ASW) MPs, 24 Mine Countermeasures (MCM) MPs, and 24 Surface Warfare (SUW) MPs. This allows the LCS warfighting capability to quickly adapt to evolving threats using improved technology. This concept also helps to reduce the overall cost of the LCS and will allow a smaller crew who continuously operate and maintain the Seaframe and its core systems.