

Lockheed Martin Team Is Selected To Build The First Littoral Combat Ship

As an Integrator of Naval Warships, the Win Positions the Lockheed Martin Team to Compete for Billions of Dollars in Potential New Business

The Lockheed Martin team has been awarded a contract to complete the final design of the U.S. Navy's new Littoral Combat Ship, a revolutionary naval combatant designed to dominate the world's coastal waters. The contract, which includes options to build two "Flight 0" ships, is valued at \$423 million. The LCS provides the Navy with fast, maneuverable and shallow draft ships aimed at maximizing mission flexibility.

"As the industry team chosen to build the first of this new type of warships, the Navy can rely on us to manufacture and deliver them on time and on cost," said Fred Moosally, president of Lockheed Martin's Maritime Systems & Sensors business. "Our team developed a solution that will exceed the Navy's requirements and I couldn't be more proud of the men and women who worked so hard to gain this win. LCS is a significant strategic win for both our partners and for Lockheed Martin."

Lockheed Martin is teamed with naval architect Gibbs & Cox and ship builders Bollinger Shipyards and Marinette Marine. A number of international companies, including Spanish shipbuilder IZAR, are also contributing to the successful execution of the Flight 0, or initial production, program. If all options are exercised, construction of the first LCS will begin in January 2005 at Marinette Marine with the launch scheduled in late 2006. Construction of the second ship will be at Bollinger Shipyards beginning in 2006. The Navy is expected to announce a selection for additional LCS Flight 1 production in 2007.

LCS is a new type of warship designed to meet the unique challenges of defending our country's interests in the coastal waters battle space where the U.S. Navy will increasingly face challenges in the future. Its first missions will include anti-submarine warfare, surface warfare, and mine warfare. The Lockheed Martin-led team designed an innovative hull, or seaframe, that exceeds all Navy operational requirements for LCS, while also offering advantages as a low-cost, low-risk design.

With a length of 378 ft. and a beam of 57 ft., the Lockheed Martin LCS will operate in less than 13 feet of water - giving the ship access to thousands of more ports and littoral waters worldwide than today's Navy combatants. The design combines high-speed maneuverability with a comfortable seakeeping motion that supports launch and recovery operations, combat missions and optimal human performance from the crew. For example, the ship can turn 360 degrees in less than eight lengths at its rated sprint speed; it also can accelerate to full speed in less than two minutes.

As the Navy's first focused mission ship, the design incorporates interchangeable mission packages for the specific missions. As new technologies become available in the future, the ship can utilize updated mission packages as threats and mission requirements evolve.

"Our team has developed an exceptional design to meet the Navy's LCS requirement and we're eager to complete the final design phase and begin construction," said Carol Hulgus, vice president of programs for Lockheed Martin Maritime Systems & Sensors. "The ship will display extraordinary agility and speed in littoral warfighting operations. It features proven seakeeping characteristics for mission execution and optimum crew comfort, and it will accommodate the mission modules necessary to excel in the Navy's varied mission environments."

Naval architect Gibbs & Cox is working closely with the team's shipyards to ensure a smooth and timely transition from final design to production. As our ship's design agent, Gibbs & Cox has already demonstrated a common CAD system that has enabled both shipyards to produce representative parts from common drawings.

"We have been working closely with our partner shipyards throughout the design process to incorporate shipyard producibility initiatives into the final design products," said Kevin Moak, Chairman of Gibbs & Cox. "This close collaboration with Marinette Marine and Bollinger Shipyards, along with the use of proven common design tools, will ensure a low-risk production and certification schedule. The members of this team have proven experience in designing, building, and delivering ships on schedule and within budget."

The Lockheed Martin ship's design uses a semi-planing monohull to provide exceptionally high performance and maneuverability. The hullform is based on technologies introduced on the 60+ knot, 1,000 ton Destriero, which holds the trans-Atlantic speed record, and was scaled up and used to build a series of 3,000 ton Jupiter class ocean-going vessels. Both ships were designed and built by Italian shipbuilder Fincantieri. From this real-world experience, the 2,800 metric ton LCS employs a steel hull and aluminum superstructure, allowing the vessel to

reach a top speed approaching 60 knots depending on the ship's configuration.

"The simplicity of our LCS design is evident both in its performance as well as its producibility," said Dennis McCloskey, president of Manitowoc's Marine Group and Marinette Marine Corp. "Producibility was built into the design from day one. And between both the Marinette and Bollinger shipyards, the team has the capacity and personnel in place today to build six ships per year in support of the Navy's long-term production requirements."

Four large, acoustically optimized waterjets provide flexible, high- performance propulsion from two diesel powerplants and two Rolls-Royce MT30 gas turbines. This adaptable and reliable power system will provide excellent performance over the range of speeds required for LCS missions.

A simple but innovative feature of the Lockheed Martin design is the ship's ability to launch, handle, and recover manned and unmanned systems, such as small boats and robotic watercraft, quickly and safely. The design uses an overhead tracked crane system for loading and handling mission packages, significantly accelerating ship reconfiguration both pierside and at sea with a small crew and higher levels of safety.

More than 40% of the below deck space is reconfigurable. It provides flexibility for future missions by offering 50% greater volume than the Navy's requirement. The ability of the crew to rapidly change the ship's equipment and mission capability provides the Navy with the flexibility needed to operate effectively in the littoral environment.

"To give the Navy the ability to alter the mission of the ship in less than 24 hours is a transformational option that isn't available today," said Mike Ellis, chief operating officer of Bollinger Shipyards. "The same handling system is used for offboard vehicle launch and recovery. It allows a wide variety of manned and autonomous mission vehicles to be launched or recovered simultaneously. The ship's low profile enhances its stealth qualities, and supports excellent water access through stern and side doors, making it a superior platform for special operations forces."

The ship's design flexibility extends to its C4I (Command, Control, Communications, Computers and Intelligence) capability. Through an advanced open architecture design philosophy, the LCS will be an early ForceNet enabler - an interconnected node with other naval elements, satellites, airborne vehicles and command centers.

For additional information on LCS, visit:

<http://www.lmlcsteam.com/>

For additional information on Lockheed Martin Corporation, visit:

<http://www.lockheedmartin.com/>

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