Lockheed Martin Littoral Combat Ship Team Unveils Its High Performance Baseline 3+ Design

Ship is Optimized for Maneuverability, Agility and Speed

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WASHINGTON

The Lockheed Martin-led Littoral Combat Ship (LCS) team today unveiled the latest version of its semi- planing monohull design at the Navy League's Sea-Air-Space exposition in Washington, DC. The ship is faster, more agile and more maneuverable than originally envisioned and maintains its advantages as a low-cost, low-risk design.

While more than a football field in length, the Lockheed Martin LCS can operate in extremely shallow water - giving the ship access to thousands of more ports and littoral waters worldwide than today's Navy combatants. It can turn 360 degrees in less than eight boat lengths at its rated sprint speed; it also can accelerate to full speed in less than two minutes. The design combines high-speed maneuverability with comfortable seakeeping motion that support launch and recovery, combat operations and optimal human performance from the crew.

The design also provides a unique approach to loading and handling mission packages, significantly accelerating ship reconfiguration both pierside and at sea with a small crew and higher levels of safety. The design incorporates multiple loading modes and locations, offering great flexibility to its operators.

Integrated with this innovative mission package handling system is the offboard vehicle launch and recovery system. It allows a wide variety of 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 operation forces.

The ship's design flexibility extends to its C4I (Command, Control, Communications, Computers and Intelligence) capabilities. Through an advanced open architecture design philosophy, the Lockheed Martin LCS team will quickly and affordably integrate components of current U.S. Navy programs with mature international systems, allowing innovative applications to make the ship an early ForceNet enabler.

"We are extremely proud of this design," said Carol Hulgus, vice president of programs for Lockheed Martin Maritime Systems & Sensors. "The ship is optimized for littoral warfighting operations and displays extraordinary agility and speed in this environment. It will use this capability to enhance its offensive and defensive capability, deliver mission modules to the theater, and provide the Navy with more operational flexibility. An important discriminator will be our ship's ability in launching, handling, and recovering unmanned systems quickly and safely. Our intent is for our LCS to share major components with the Navy's new DD(X) class of destroyers, realizing the family of ships vision and leveraging taxpayer resources."

The semi-planing monohull design provides transformational performance with a high degree of confidence. As previously disclosed, the seaframe is based on technologies introduced on the 60+ knot, 1,000-ton Destriero, which holds the trans-Atlantic speed record, and was scaled up to the 3,000-ton Jupiter class ocean-going vessels. From this real-world experience, the Lockheed Martin LCS leverages the technical advances and risk-reducing lessons learned in these designs, while integrating features and design approaches that are unique to a U.S. Navy combatant.

The Lockheed Martin team design employs a steel and aluminum structure which is optimized to reduce construction cost, weight, and pitching moment. Top speeds approach 60 knots depending on the ship's configuration. Its maximum range, seakeeping, and launch and recovery capabilities all exceed predicted performance expectations and Navy requirements. Four large, acoustically optimized waterjets provide flexible, high performance propulsion from diesel and gas turbine powerplants. This adaptable and reliable power system will provide excellent performance over the range of speeds required for LCS missions.

"The seaframe design also allocates nearly half of its volume to reconfigurable space to maximize operational flexibility," said Hulgus. "The ship is 'right sized' for the LCS mission and provides flexibility for future missions by offering 50% greater volume than the Navy's requirement."

This extraordinary ship performance is balanced with the need to deliver the seaframe within cost and on schedule. The Lockheed Martin LCS team includes the nation's top two military/commercial shipyards, Marinette Marine and Bollinger Shipyards. They are responsible for building nearly 200 fast, reliable and affordable ships of the size and complexity relevant to LCS. The two-shipyard approach ensures capacity to meet the Navy's LCS shipbuilding

profile. Together with renowned naval architect Gibbs & Cox, architect of more than 60% of the Navy's combatants, and Lockheed Martin's extensive military systems integration experience, the Lockheed Martin LCS team provides the low-cost and low-risk solution for the Navy's LCS program.

"Our team gives the Navy the best possible offering for LCS first ship success and a solid foundation for future production," said Hulgus. "Our ship is transformational in performance, low-risk and price. We're confident that through our partnership with the Navy, the Lockheed Martin LCS team will prove to be the preeminent combination for a successful LCS program."

The U.S. Navy awarded the Lockheed Martin-led Littoral Combat Ship team a $10 million contract last July for preliminary design of this critical naval combatant. A final design selection by the Navy is expected next month.

For additional information on LCS, visit:
www.lmlcsteam.com

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