## Lockheed Martin LCS Team Introduces Sea Blade Concept For Navy's LCS Program

PRNewswire WASHINGTON

The Lockheed Martin LCS Team today unveiled Sea Blade, an Advanced Semi-Planing Seaframe, for the Navy's Littoral Combat Ship program.

(Photo: http://www.newscom.com/cgi-bin/prnh/20030415/PHTU025)

LCS is a key element of the Navy's Sea Power 21 strategic vision. The ship will operate close to shore equipped with interchangeable modules to perform focused missions against enemy patrol craft and small boats, shallow water mines and diesel submarines. The Navy considers LCS its most transformational program and number one budget priority.

The Sea Blade concept proposed by the Lockheed Martin LCS Team builds on the hydrodynamic lineage of a U.S.-designed hullform that holds the trans-Atlantic speed record and has been successfully adapted to much larger high-speed European commercial transports. The Sea Blade concept is larger than the original hullform, but smaller than the transports, which reduces design and construction risks in the new seaframe.

"Our effort throughout this program has focused on the Navy's mission requirements," said Fred Moosally, president of Lockheed Martin Naval Electronics & Surveillance Systems. "The Sea Blade concept comfortably meets all of the Navy's needs, and provides the Navy with significant flexibility to reduce costs or enhance capabilities."

The Team selected the Sea Blade concept over more than a dozen others based on extensive analysis, which included participation on three of the Navy's six Focused Mission Ship Studies and a variety of modeling and simulation studies. Key attributes that placed the Sea Blade well above the other designs include its low cost, low risk, high speed, shallow draft, maneuverability, and its ability to accommodate the full range of mission modules.

"The Sea Blade concept offers the best mix of capabilities at the lowest cost and lowest risk," said Moosally.
"Beyond the design, our team - Lockheed Martin, Gibbs & Cox, Bollinger Shipyards and Marinette Marine - has the talent, infrastructure and capacity to deliver this lethal warship on time and on budget."

The Lockheed Martin LCS Team combines leaders in systems engineering, mid-market shipbuilding and naval architecture. Lockheed Martin will be the prime contractor, with Gibbs & Cox, Bollinger Shipyards and Marinette Marine sharing significant roles as principal team members.

In addition to the principal team members, core team support includes high-speed ship expertise from Donald L. Blount and Associates, FastShip, Fincantieri and NAVATEK; modularity expertise from Blohm + Voss; functional expertise from Angle, Inc., ABS, BBN Technologies, Charters Technical Services, DRS Technologies, IZAR and MA&D.

Using an open business model, the Lockheed Martin LCS Team will continue to recruit "best of breed" technical specialists from the U.S. and abroad.

As the leading technology solutions provider and integrator to the U.S. government, Lockheed Martinfocuses on the defense, information technology and homeland security requirements of the military services and civil agencies. The Corporation's advanced technology solutions draw on world-class capabilities in systems engineering and integration, complex project management, software development and information technology. Lockheed Martin Corporation is headquartered in Bethesda, MD.

Gibbs & Cox, Inc., specializing in surface combatant design and integration, brings more than 70 years of naval engineering expertise to the LCS program. More than 150 ships on active duty in nearly 20 navies around the globe, including 60 percent of the U.S. Navy's surface combatant fleet, are built to Gibbs & Cox, Inc. designs. The firm also provides engineering and design support directly to the U.S. Navy in early phase design and development of future systems for the Navy's surface combatant fleet. Gibbs & Cox, Inc. is headquartered in Arlington, Va.

Family owned and operated since 1946, Bollinger Shipyards, Inc., Lockport, La., has 14 shipyards strategically

located between New Orleans and Houston with direct access to the Gulf of Mexico, Mississippi River and Intracoastal Waterway. Bollinger is a leading designer and builder of fast military patrol boats, offshore oil field support vessels, tugs, rigs, liftboats, inland waterways and OPA '90 ocean-going double hull barges as well as other steel and aluminum products.

Marinette Marine is part of Manitowoc Company, Inc.'s Marine Group. In addition to serving as a leader of shipbuilding, ship repair and conversion services for government, military and commercial customers, Manitowoc is the world's largest provider of lifting equipment for the global construction industry and the leading manufacturer of cold-focused equipment in the food service industry. Manitowoc is headquartered in Manitowoc, Wisc.

For additional information on Lockheed Martin Corporation, visit: www.lockheedmartin.com

For additional information on Gibbs & Cox, Inc., visit: www.gibbscox.com

For additional information on Marinette Marine, visit: www.manitowocmarine.com

For additional information about Bollinger Shipyards, Inc., visit: www.bollingershipyards.com

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