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Northrop Grumman, Kockums/HDW sign agreement For naval composite technology vessel program

EURONAVAL/PARIS, France – October 22, 2002. Northrop Grumman Corporation announced today, together with Kockums, that it has signed a partnership agreement with Kockums AB and its parent company, Howaldswerke Deutsche Werft AG (HDW), under which Kockums will join a team assembled by Northrop Grumman's Ship System sector to complete for the U.S. Navy's Focused Mission Vessel Study.

This study is expected to result in the development and construction of a Littoral Combat Ship (LCS), one element of the DD(X) family of surface combatants planned for construction by the Navy during the next quarter century.

The cooperative agreement between Northrop Grumman, Kockums and HDW covers business opportunities for design, development, construction and sale of Visby-class ships and/or derivative technology to the U.S. Government for the LCS and other U.S. Programs, and for sales to friendly international governments through the Foreign Military Sales (FMS) program.

This is an exclusive agreement between the parties that, subject to Swedish government approval allows Northrop Grumman and the U.S. Government to take full advantage of more than seven years of Swedish investment in developing an all composite, corvette-sized, mono-hull ship.

This leading-edge vessel technology combines unique stealth, speed, modularity and survivability characteristics in a way that will revolutionize the effectiveness of small ships in littoral warfare and on other missions. Kockums has designed and built the first Visby-class corvette, which is presently undergoing combat systems installation and sea trials. Early indications are that the ship will meet or exceed expectations in every area.

"Northrop Grumman is pleased and fortunate to bring a partner with Kockums' experience into our preparation for these major competitions and programs," said Dr. Philip A. Dur, Northrop Grumman corporate vice president and president of the company's Ship Systems sector. "Their proven experience in design and production of composite hull combatants is a perfect complement to our own surface combatant experience, which includes production of composite ship sections as well."

Northrop Grumman plans to use the Visby concept as the baseline for development of Ship System's proposal for the Navy's LCS program. Combining the proven hull and composite technology developed by Kockums with Northrop Grumman's composite and overall ship integration experience will allow the U.S. Navy to rely upon a proven, full service shipbuilder, with access to state-of-the-art fielded technology, for the LCS program.

Northrop Grumman Ship Systems leads an international industrial team that won a competition for a \$ 2.9 billion (U.S.) program in April 2002 to complete the system design for the U.S. Navy's advanced, 21st century surface combatant, DD(X). This family of ships

includes destroyers, cruisers and littoral combat ships, as well as technology to be back-fitted into the Navy's existing fleets of Aegis-equipped destroyers and cruisers.

In June 2002, Northrop Grumman Ship Systems, partnered with Lockheed Martin's (NYSE: LMT) Naval Electronics " Surveillance Systems sector, won an \$ 11 billion (U.S.) dollar contract to re-capitalize and modernize the U.S. Coast Guard's Deepwater Surface, Air and Shore assets. This program includes two classes of new cutters to be produced by Ship Systems, as well as the modernization of existing vessels.

"Both these vital programs stands to benefit from Northrop Grumman's groundbreaking partnership with Kockums," Dur said.

Kockums will contribute its experience in the design and construction of stealth-optimized naval vessel utilizing carbon fiber composite technology. In the past few years, Kockums and HDW have engaged in developing vessels of this type for the export market. Kockums' role as a member of the Northrop Grumman team will be to share its experience in design and building composite-hull vessels.

"It is a great achievement to be included in the Northrop Grumman team, and it demonstrates that we are frontrunner in the field of stealth and composite technology. I am convinced that we can offer Northrop Grumman Ship Systems considerable experience and know-how", noted Kockums' Chief Executive Officer Martin Hagbyhn.

In Sweden, Kockums has received an order for five Visby Class composite hull surface combatants, with an option on a sixth vessel. These corvettes are stealthy, multimission vessel equipped to handle mine clearance, ASW anti submarine warfare, surface combat, marine surveillance and vessel protection duties, and to provide civil support in connection with marine accidents and international operations. They are constructed of carbon fibre, the first of the series having been released to the Swedish Defence Material Administration (FMV), and which has already completed a number of trials with excellent results. The advantages this stealth technology brings to littoral-type surface combatant ships are significant.

Northrop Grumman's Ship Systems sector includes primary operations in Pascagoula and Gulfport, Miss.; New Orleans and Tallulah, La.; and in a network of fleet support offices in the U.S. and Japan. The sector, which currently employs more than 18.000 shipbuilding professionals, primarily in Mississippi and Louisiana, is one of the nation's leading full service systems companies for the design, engineering, construction, and life cycle support of major surface ships for the U.S. Navy, U.S. Coast Guard and international navies, and for commercial vessels of all types.

More information

www.northropgrumman.com

www.northropgrummanshipsystems.com

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