Sentinel-Class Award a Milestone for Coast Guard Acquisition

By David S. Steigman

WASHINGTON—In a major step forward for fleet modernization and in-house acquisition capabilities, the Coast Guard on Sept. 26 awarded Bollinger Shipyards, Inc. an \$88 million contract for the detailed design and construction of the first Sentinel-class Fast Response Cutter.

"We feel confident in the design we have chosen for the Sentinel-class," Rear Adm. Gary T. Blore, Assistant Commandant for Acquisition, said during a press conference. "[Delivering] a patrol boat that will provide superior service to the American public and be crewed by the next several generations of Coast Guard men and women is an extraordinary responsibility."

The Sentinel-class cutters will replace the aging 110-foot Island-class patrol boats, which are nearing the end of their 20-year service lives. Meanwhile, 20 of the Coast Guard's 41 Island-class patrol boats are undergoing major systems refurbishments through the Mission Effectiveness Project, improving their operational readiness until the Sentinel-class arrives in service, beginning in the fall of 2010.

The Sentinel-class cutters are based on Damen's Stan 4708 patrol boat, a proven parent craft design in service with the Republic of South Africa, which uses the boats to conduct missions similar to those of the U.S. Coast Guard. The contract contains options, worth up to an estimated \$1.5 billion, to build as many as 34 Sentinel-class cutters.



The Sentinel-class Fast Response Cutters will replace the Coast Guard's aging 110-foot patrol boats. The Sentinel is a 153-foot vessel capable of more than 28 knots. The Coast Guard plans to acquire as many as 34 FRCs of the Sentinel-class design, and may consider acquiring 24 more of this or another design, for a total force structure of 58 FRCs. (Graphic by Bollinger Shipyards, Inc.)

A New Era for Coast Guard Acquisition

The Coast Guard's Acquisition Directorate, CG-9, is the lead system integrator for a \$27 billion investment portfolio that includes more than 20 major projects. The Sentinel-class project is the first major acquisition formerly contracted through the Deepwater Program to be brought inhouse under the direct management of CG-9.

Working closely with requirements and resource sponsors, technical authorities and third-party partners, the Acquisition Directorate's role in the Sentinel-class project is to manage all aspects of contracting, development, procurement and systems integration (ensuring that the patrol boats' capabilities complement others in the Coast Guard's modernized fleet).

The cutters will be built at Bollinger's Lockport, La., shipyard, under the close supervision of the Coast

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Coast Guard Logistics Modernization, Part 1: Next Generation Information Technology

By Hunter C. Keeter

The Coast Guard is undertaking a major transformation in the technology, policies and processes (the culture) that govern how configuration, maintenance, supply, training and other forms of logistics support are provided to units in the field, potentially saving tens of millions of dollars annually.

The effort has essentially two parts, the lion's share of which is the adoption of a new business model that would unify the service's logistics capabilities across all domains, including aviation, surface vessel, C4I, and personnel. The other part is the development and acquisition of a new information technology toolset.

"This will require a materiel and non-materiel solution," Captain Brad W. Fabling, program manager for integrated Coast Guard logistics systems, said during a recent interview. "Eighty percent of what we are doing is non-materiel, including process and cultural change; 20 percent is the materiel side, the IT system that we are developing to meet requirements set by the Coast Guard's Engineering and Logistics Directorate, CG-4, and the enterprise architecture interface standards set by the Coast Guard's Command, Control, Computers and Information Technology Directorate, CG-6."

A new acquisition project, called the Coast Guard Logistics Information Management System, will deliver a new generation of IT tools to replace approximately 30–50 legacy systems now in use, some of which are 20 years old. The CG-LIMS toolset will perform a variety of logistics functions, including, tracking asset configuration, maintenance schedules, supply chain management and supporting training and other personnel functions.

Meanwhile, the Coast Guard is adapting the processes and procedures that have been successful in aviation, and applying them to the surface vessel, C4I, shore and personnel domains.

Developing a Common Logistics Picture

Today, the Coast Guard's logistics infrastructure is matched to its client assets; in other words, each domain has an organizational stovepipe within which supply and maintenance are provided. The Coast Guard wants to integrate sustainment across all operational domains, to create homogenous processes and IT tools that will be more economical and efficient to use to sustain the entire force.

"In the future, everyone will see a common logistics picture, all the way across the organization," Fabling said. "The vision of where we are trying to go [with logistics IT systems] is about integrating all of the information we have available about our assets and our people under a single user interface."

As a step toward creating the next generation logistics system, the

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ALAMEDA, California—The acquisition of new assets, such as the National Security Cutter, presents some logistical challenges, requiring upgraded physical infrastructure and new approaches to life-cycle support. At Coast Guard Island, Alameda, the service renovated the pier, upgraded the electrical system and dredged the channel in preparation for the arrival of the first NSC. (U.S. Coast Guard photo by Senior Chief Timothy Santmyer)

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Coast Guard has turned to its aviation community to model the types of processes and tools that have transformed the way Coast Guard air stations and depots provide support to the field.

For example, a software system called the Aviation Logistics Management Information System integrates a number of logistics functions, including forecasting maintenance and supply needs, inventory management and accounting.

The Coast Guard's aviation community began acquiring ALMIS in 2001, and it became operational in 2002, after an initial investment of approximately \$12 million. According to the Government Accountability Office and the Coast Guard, the service spends approximately \$5 million annually to operate and maintain ALMIS.

The way the system works is that many (though not all) of the resources at major logistics hubs (such as the Aviation Repair and Supply Center, Elizabeth City, N.C.) and at 26 air stations located throughout the United States, are linked. The computer network creates a "virtual warehouse" where asset status

and inventories, tools and other commodities are visible and available to all subscribers providing a realtime readiness profile.

Building on the success of the ALMIS, the Coast Guard wants to develop CG-LIMS into a centralized system, accessible to all maintainers, operators, and program managers, regardless of their domain or location. The goal also is to have a homogenous set of processes and IT tools that are shared by all logistics service centers, field units and headquarters.

"It may not be as simple as dialing '1-800 LOGISTICS,' but that is the vision that we are trying to achieve," said CDR Daniel P. Taylor, CG-LIMS project manager in Fabling's office. "Beyond the unit level, if you need support, there will be a central place to go to find whatever you need."

The Engineering and Logistics and Acquisition Directorates are working together to develop and validate the requirements for CG-LIMS. CG-LIMS likely will use commercial off-theshelf software that meets industry and Federal Government standards, and is capable of configuration, maintenance and supply chain management, inventory control,

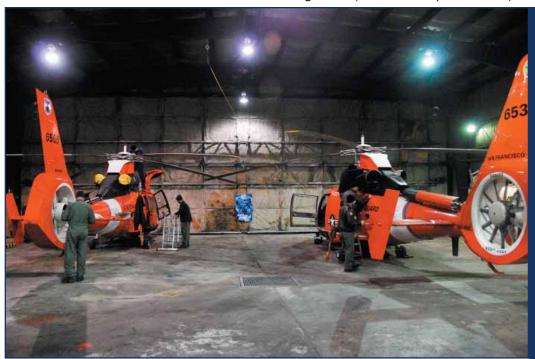
and asset status, among others functions.

According to Fabling and Taylor, the suite of next-generation logistics IT tools also will enhance operational readiness because unit, sector and district commanders would, at a glance, be able to assess the status of their people, and the condition of their assets.

Nevertheless, the logistics acquisition program office is keen to manage expectations when it comes to developing and fielding CG-LIMS. The system, by itself, will not solve every challenge in every area of lifecycle support throughout the Coast Guard. The vision of a system that will provide subscribers with total asset visibility, integrated across the entire organization, will be achieved incrementally, beginning with the first iteration of CG-LIMS, Fabling noted.

"We need to solve problems along the way as we develop and implement the architecture, and, if we continue to feed it, over time we will get to the vision," he said.

Look for Part II in the next issue.



BARROW, Alaska—Crews from Air Stations Kodiak, Alaska and San Francisco perform maintenance on two HH-65C Dolphin helicopters taking part in the Coast Guard's first Arctic exercise, July 27, 2008. The Coast Guard is developing a holistic approach to logistics (including maintenance, supply, sustainment, life cycle support and training) based on the successful policies and processes used by the aviation community. (U.S. Coast Guard photo by PA1 Kurt Fredrickson)

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Guard's on-site project resident office, which will oversee design and construction, and work with industry to ensure the patrol boats meet the Coast Guard's contract requirements. These requirements include a speed of 28 knots, the latest Coast Guard command and control systems, and a stern ramp small boat launch and recovery system.

Bollinger has a track record of success building patrol boats for the Coast Guard, including the Island-class cutters and the 87-foot Marine Protector-class patrol boats. Similar to the Sentinel-class, the Marine Protector patrol boats are based on another proven Damen design, the Stan 2600.

Additionally, the Sentinel-class patrol boats will be designed, constructed and classed according to the American Bureau of Shipping High Speed Naval Craft Rules.



ANCHORAGE, Alaska—Coast Guard Cutter Mustang escorts U.S. Navy Military Sealift Command fleet replenishment oiler, USNS Henry J. Kaiser, into the port of Seward, Alaska. The Coast Guard's 41 110-foot Island-class patrol boats, such as Mustang, are important contributors to joint-force maritime national security readiness. The Coast Guard is refurbishing 20 patrol boats from this fleet under the Mission Effectiveness Project, until replacement platforms such as the Sentinel-class are acquired. (U.S. Coast Guard photo)

Dear Master Chief Ayer, I've read all the info released on the new FRC. If the 110s have been so successful, why don't we just build more?

The 110 has been a great vessel, one could reasonably argue one of the most successful in the world, but it does have its limitations. For example, its current berthing configuration is not conducive to mixed gender crews. Crewmembers in aft berthing are required to pass through the engine room to get to and from their berthing space and crewmembers in forward berthing are subjected to some extreme forces in moderate to heavy seas, so much so it has earned the nickname "the anti gravity chamber". The fact is, in its day the 110 was a great design. Today there are much better designs available.

The Coast Guard took the lessons learned from the 110s, 87s and 179s and put together a list of requirements that were essential to mission execution for both today's and tomorrow's operational environment. The FRC includes enhancements in crew comfort, safety, and operational efficiency. I am confident the Sentinel -class will exceed the capabilities of the 110s in all areas, and become the most mission capable patrol boat the Coast Guard has ever operated.

[To submit a question for an upcoming Acquisition Directorate newsletter, please email Master Chief Brett F. Ayer directly at: Brett.F.Ayer@uscg.mil or acquisitionwebsite@uscg.mil.]

