DELIVERING THE GOODS

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FEATURE ARTICLE

FRC Delivered
Next-Generation Patrol Boat Incorporated into Fleet
Pages 1-3
Project Resident and Asset Project Offices Play Key Role in First FRC Delivery

By Michael Valliant

The U.S. Coast Guard’s Fast Response Cutter (FRC) Bernard C. Webber pulled into port at Miami on Feb. 9 for the inaugural delivery of the service’s next-generation patrol boat, and Cmdr. Michael Rorstad knows firsthand the work that it took to get it there.

“Everything was on the drawing board when I arrived and now Webber has been delivered,” said Rorstad, who has been the commanding officer of the Acquisition Directorate’s Project Resident Office (PRO) in Lockport, La., since August 2009. “It’s kind of hard to put into words. It’s like watching a baby grow and being able to influence the maturity of it as it is developing. Seeing it delivered and watching the crew receive, hopefully, the finest patrol boat the Coast Guard has ever seen, there is nothing more gratifying. Being a part of this team of great acquisition professionals has been the best job of my career.”

Bollinger Shipyards of Lockport is building the 154-foot Sentinel-class FRC to replace the 110-foot Island-class patrol boat, which has exceeded its service life. The PRO is a conduit between Bollinger and the Coast Guard’s technical authorities, sponsor and project office, reviewing design deliverables and overseeing construction activities like welding and paint inspections. As construction nears completion, the PRO reviews

The Coast Guard Cutter Nantucket, a legacy 110-foot patrol boat, keeps pace with the Coast Guard’s newest Fast Response Cutter, the Bernard C. Webber, during its arrival at Sector Miami on Feb. 9. U.S. Coast Guard photo by Petty Officer 1st Class Jennifer Johnson.
drawings, calculations, technical manuals, supply support and training. All of these efforts ensure that new FRCs are delivered to the Coast Guard according to contract specifications.

“We review of all the deliverables over the design and construction phases and through delivery,” Rorstad said. “We compile everything and compare that against what’s in the contract. Sometimes an engineer who is looking at something might not know the nuances of a contract, but we’re living in that every day, so we can look at that. We also prepare for the crew and when they arrive, we help them with their training provided by Bollinger and the original equipment manufacturers, as well as their plans for loading out and taking the ship at delivery.”

The Coast Guard has 12 FRCs under contract and plans to build as many as 58; following the Webber, the service expects to take delivery of either four or six patrol boats per year. The crew for the second FRC, the Richard Etheridge, arrived in Lockport on Feb. 22 to begin their preparations and training.

Rorstad enjoys the fast pace and the feedback loop that allows for production line improvements.

“It’s really remarkable to see. They’ve got metal on Hull 10 already, and you can see the development progression as it moves forward with Hulls 2 through 4 in the water already,” he said. “A lesson learned, a change on Hull 1, gets implemented pretty quickly on all the other hulls as they go on, so they back-fit it as it goes.”

Transitioning to Sustainment: Asset Project Office

Taking a new cutter from acquisition to delivery does not end when the ship arrives at its homeport. Just like a new car, a new ship requires maintenance, spare parts and operations manuals, and that is where the directorate’s Asset Project Office (APO) comes in. Located just outside of Baltimore, the APO guides new assets through the transition from acquisition to sustainment, bringing a number of Coast Guard units to work together in the process.

Also like a new car, one expects that a ship will operate not only during the warranty period but for several years beyond, said Lt. Cmdr. Terence Williams, who helps oversee FRC work at the APO.

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“The FRC has a 20-year service life. The operators need to know that if anything breaks on that cutter, they’re still going to be able to get under way. And if they pull a part, it’s going to be the right part. They’re not going to have to spend a lot of time or resources looking for it; the tech manuals are going to be correct,” said Williams, the FRC asset line manager. “At the APO, we do all the behind-the-scenes stuff to make all that happen.”

As operational hours for the aging 110-foot patrol boat continue to diminish, there is an urgency to get FRCs delivered to the front lines. The APO’s efforts to ensure that the FRCs will have what they need to get under way are critical to the Coast Guard.

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Continued from Page 1

Coast Guard engineers from the Project Resident Office assess the shipbuilder’s progress in constructing a Fast Response Cutter hull at Bollinger Shipyards in Lockport, La. U.S. Coast Guard photo.
in order to get that ship under way and operating,” said Lt. Cmdr. Michael Pearson, who manages FRC logistics at the APO. “At the end of the day, the goal is for the crew to be able to get under way and go do their job without having to think about the support side. It should be invisible to them. And if we did our jobs right and we do it well, that’ll be the case.”

First-in-Class Training Opportunities

Ultimately, the work undertaken by the PRO and the APO supports the officers and crew who will operate the FRCs. The Webber’s crew arrived in Lockport last September to begin training and familiarization with the new patrol boat.

Being the crew of a first-in-class ship, there were no other ships to train on while Webber was under construction. However, having FRCs in various stages of fabrication provided other unique training opportunities, said Lt. j.g. Justin Fellers, the Webber’s prospective executive officer.

“On the FRC, the main diesel engines are all electronically controlled internally, so it’s much smarter, much more responsive and it handles a lot better,” he said. “This is tremendous for something like standing watch on the bridge, when you have to be focused on, say, a man overboard. You don’t have to give special care to the engines, you can let them work the way they are designed to.”

Awaiting Arrival in Miami

Fellers also made the trip aboard Webber from Lockport to Miami. It was a smooth transit, he said, with little traffic once it reached the Gulf of Mexico.

Members of the PRO and the APO were among those waiting for his arrival at Sector Miami. Rorstad and the PRO helped the crew outfit the cutter and the APO staff checked inventory. Williams will train the crew on how to use software and utilize the APO.

The crew has begun their formal training aboard the Webber, which will last through March. The cutter will be formally commissioned on April 14. A busy spring and early summer will lead to Webber joining Sector Miami’s operational patrol schedule likely in July, and Fellers is excited.

“Everyone is eager to begin our patrols,” he said. “It’s just a great opportunity to get in and learn the future of our service aboard an asset we’re going to be using for the next 20 years.”

For more information on the FRC project, please visit http://www.uscg.mil/acquisition/sentinel.
RDC Tests Oil Removal from Ice

As petroleum reserves in the Arctic become more attractive, scientists at the Coast Guard’s Research and Development Center (RDC) in New London, Conn., are helping to develop new ways to tackle the unique challenges of cleaning up oil spills from icy water.

In January, RDC staff and the crew of Coast Guard Cutter Hollyhock, a seagoing buoy tender stationed at Port Huron, Mich., demonstrated new, more robust techniques for oil recovery from the icy water near Mackinac Island. The demonstrators used the cutter’s 20-ton hydraulic telescoping beam crane to lower a helix skimmer and successfully recovered peat moss and oranges—stand-ins for spilled oil.

The helix skimmer is efficient at removing oil without taking up water and ice with it. The Coast Guard also showed that existing fire boom technology could successfully move a section of ice away from a larger patch to burn any oil contained in it.

Removing oil from ice is challenging, according to Kurt Hansen, the RDC’s project manager for spill research. Conventional skimming technology, such as that used in the Gulf of Mexico’s Deepwater Horizon oil spill in 2010, isn’t as easily applied to frozen wa-
Prototyping Begins for HC-130H Upgrades

In January, the Coast Guard commenced a new phase in the upgrade of its 30-year-old HC-130H long range surveillance aircraft. This effort will replace obsolete cockpit equipment with new multi-function displays, along with other structural upgrades.

Called Discrete Segment 2, this is the second phase in the HC-130H modernization project.

“We’re making the leap from 1950s technology to modern glass instruments,” said Lt. Cmdr. Randy Meador, the HC-130H deputy project manager. “Without the upgrades, the Coast Guard can’t continue to fly the HC-130H, period. The aircraft doesn’t meet the Federal Aviation Administration’s impending navigational requirements.”

The Coast Guard removed older avionics equipment from a prototype aircraft in January, and the service commenced work on structural modifications in February. In June, the project plans to begin ground testing the fully upgraded prototype.

Last October, the Coast Guard began work on another prototype aircraft for Discrete Segment 3, which will replace some Center Wing Boxes (CWB). In January, the old CWB was removed from the prototype and installation of the new box is under way.

The CWB is the HC-130’s most important structural component, carrying the entire airframe load. Once the CWB reaches the end of its service life, the aircraft is no longer flight-worthy and must be grounded.

“Six C-130Hs are projected to exceed service life on their CWB and are scheduled for replacement so that the Coast Guard can keep 11 of the aircraft operational until 2027,” Meador said.

All 23 HC-130Hs have completed Discrete Segment 1, during which they received the SELEX Galileo Seaspray 7500E surface search radar.

For more information on the HC-130H project, please visit http://www.uscg.mil/acquisition/LRS.
It was the unlikeliest of assignments—to the engineering and weapons branch at Coast Guard Training Center Yorktown, Va.—that first piqued Capt. Lisa Festa’s interest in acquisition.

While there in the mid-1990s, she developed training for the seagoing buoy tenders and the medium-duty polar icebreaker, Coast Guard Cutter Healy, which were under construction. As she interfaced with Coast Guard acquisition, she saw the legwork required to bring new assets to the field and wanted to be a part of it.

“You don’t buy an asset off the shelf,” Festa said.

Not quite two decades later, Festa is now the Acquisition Directorate’s surface program manager, overseeing the Coast Guard’s broad portfolio of cutter and boat acquisition projects.

“No two projects are in the same area of the acquisition lifecycle. So I get to see early phases of one project, and the middle phases of another, and the late phases of another one,” she said. “Personally, for me, it is a great job because it gives you so much exposure to acquisition. And what I hope to be able to do is share the lessons learned, including the painful lessons learned, from one project to another.”

Prior to her current post, Festa was the project manager for Rescue 21, the Coast Guard’s new communication system to assist mariners in distress. She will retire later this year after more than 27 years in the Coast Guard.

Festa, who grew up outside of New Haven, Conn., graduated from the Coast Guard Academy in 1985 with a bachelor’s degree in ocean engineering. She pursued naval engineering tours aboard cutters and at units ashore, and obtained three master’s degrees from the Massachusetts Institute of Technology and a fourth from the Industrial College of the Armed Forces.

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Festa came to acquisition in the early 2000s and led a cost evaluation team during source selection for the now-defunct Integrated Deepwater System Program to update the Coast Guard fleet. Following the award, she helped manage the contract. A decade later, the Coast Guard is the systems integrator for its acquisition projects and has a certified workforce, but at that time Festa pursued her own “just-in-time” training.

“We are much better off than we were back then,” she said. “There’s enough bad press out there to tell you what went wrong. But at the same time, we had a lot of great people that kept things moving forward.”

From her earliest days as a student and then assistant engineer aboard High Endurance Cutters, as well as an engineer officer aboard a 270-foot Medium Endurance Cutter, Festa saw the ships’ merits and shortcomings. After decades of operation, observations like hers are now being incorporated into the latest generation of assets.

“You see what passes the test of time and you see what doesn’t,” Festa said. “Because Lord knows, we apply the test of time to our assets.”
How does the Coast Guard determine the names for our new cutters? I think we should name one after…

This is a question I get quite often and understandably so, considering the potential number of new vessels in the works. Cutter naming, however, is not a function of the Acquisition Directorate.

Cutter naming is managed through the Coast Guard’s Office of Public Affairs, which chairs the standing board for naming vessels and shore facilities. The board consists of representatives from various Coast Guard offices and includes input from the Historian’s Office.

If you have a recommendation, there is a formal written policy laid out in Commandant Instruction 5726.10C, which is available online at http://www.uscg.mil/directives/ci/5000-5999/CI_5726_10C.pdf.

If you want to recommend that the Coast Guard name a cutter after a person, you should be aware that there are some specific guidelines, such as:

• The actions of the individual must reflect the Coast Guard’s values of honor, respect and devotion to duty, and must be in keeping with the highest traditions of the Coast Guard;

• The individual must be considered a distinguished Coast Guard person or someone who had a great influence on Coast Guard history; and

• The individual must be deceased with sufficient time lapsed to ensure that their name will withstand the test of time.

Naming new cutters is a responsibility that the Coast Guard takes very seriously and decisions are not made quickly, nor without great thought and consideration. If you have a recommendation, I highly suggest you provide as much detail as possible in your proposal to assist the board and the Historian’s Office in researching your suggestion.

For further information you may contact the Office of Public Affairs though their website, http://www.uscgnews.com, and of course you can contact me for assistance at any time.