



Delivering the Goods

News from the U.S. Coast Guard Acquisition Directorate

August 2008

Advanced Mission Capacity, Capability Highlight CGC BERTHOLF (WMSL 750) Commissioning

By Hunter C. Keeter

COAST GUARD ISLAND, ALAMEDA, Calif., August 4—Under a chill morning fog off San Francisco Bay, senior officials from the Coast Guard, the Department of Homeland Security and the U.S. Congress presided over the commissioning of the service’s newest white hull patrol cutter, USCGC BERTHOLF. The event, hosted by Commander Pacific Area, and attended by more than 2,000 service members, family and community leaders, offered a glimpse at the Coast Guard’s future, even as the service celebrated its 218 birthday.

The Coast Guard’s future is being built with new and upgraded boats, cutters and aircraft linked to a powerful network of new information technology systems that promises high-speed and precision for decision-making and carrying out safety, security and defense missions. But a strong thematic undercurrent of the day’s proceedings was that the hardware and software of this next-generation Coast Guard would still depend on the commitment and expertise of the men and women who use the equipment.

For BERTHOLF’s crew, hoisting the colors and commission pennant on their ship’s mast was symbolic of the human accomplishment represented by more than six years work designing, constructing, outfitting and testing the new cutter.

Addressing the crowd, Capt. Patrick H. Stadt, BERTHOLF’s commanding officer, put it this way: “Even after all those years of work, after all the testing and trials are complete, the result is still just a mass of steel, cabling, glass and plastic. To become



Crewmembers of USCGC BERTHOLF man the rails following orders during the new cutter’s commissioning ceremony, August 4. BERTHOLF leads the Legend-class National Security Cutters (NSCs), which will be the flagships of the Coast Guard’s fleet. The eight ships of the NSC Project will be among the most advanced patrol cutters ever built. (USCG photo by PA2 Brian N. Leshak)

a Coast Guard cutter, to become an asset capable of carrying out an almost staggering list of missions facing us in our world of work today, it must have one important ingredient. That ingredient proudly lines the rail before you and now stands the watch aboard Coast Guard Cutter BERTHOLF.”

The National Security Cutter (NSC) project, which will produce a total of eight ships like BERTHOLF, has undergone major design revisions to meet new requirements that emerged after the Sept. 11, 2001, terror attacks and the transfer of the Coast Guard to the Department of Homeland Security. In 2005, Hurricane Katrina devastated the Gulf Coast and shattered the shipyard’s infrastructure and workforce.

In Washington, the Coast Guard has worked through an intense period of congressional and departmental oversight, coinciding with internal reforms that have benefited the service’s acquisition enterprise.

No Easy Task

Meanwhile, BERTHOLF’s crew has undergone an odyssey of its own. Facing up to the honor and the challenge of being the first crew of the first ship of its class, Stadt and his men and women set to work paving the way forward for NSC training and readiness.

“That is no easy task when you consider that we had ... no examples of ships already built, and no operating procedures already in place to study from,” Stadt said.

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The crew studied the configuration and operation of the NSC's complex systems, including the Integrated Bridge System, which centralizes navigation, command and control, and sensor output. Also, they helped to develop the National Security Cutter bridge and Combat Information Center simulators at Coast Guard Training Center Petaluma, Calif. Future NSC crews will use these facilities as they train to move aboard their cutters.

Other government agencies supported the crew's training regimen, including the U.S. Army Reserve Training Center at Mare Island Naval Shipyard, Vallejo, Calif., which provided a computerized simulation of BERTHOLF.

Industry and government course work in the United States and Germany (home of MTU, a supplier of major components of the NSCs' main propulsion equipment) helped to round out the training process.

During the commissioning ceremony, Vice Adm. David Pekoske, Commander, Pacific Area, applauded what he saw as "justifiable pride" in the crew's accomplishments to date.

"I spent a day at sea with BERTHOLF's crew and sailed with them as they first entered this port," Pekoske told the audience. "From what I saw, BERTHOLF's motto, 'legends begin here,' couldn't be more appropriate. ... You cannot help but be struck by the potential this unique class of cutters represents."

Rear Adm. Gary T. Blore, Assistant Commandant for Acquisition, told a Coast Guard Channel camera crew before the ceremony that the Legend-class NSCs (each named for a major personality in Coast Guard history) represented not so much a sea change in the service's roles and missions, but rather a leap ahead in the capacity with which to accomplish long-standing duties and responsibilities.

"In the 218-year history of the Coast Guard, there has been a great deal of continuity in the service's basic mission set," Blore said. "What has changed is the Coast Guard's capacity and capability to perform its missions."

Department of Homeland Security Secretary Michael Chertoff, whose wife, Meryl, is BERTHOLF's sponsor, noted that the NSC is a "technological marvel" that would enhance the operating force's capabilities.

"[BERTHOLF] is simply going to be one additional, very fine tool in the hands of men and women that are second to none," he said. "I am proud to be here to celebrate this latest addition to the fleet, but [also] to recognize that while the vessel is new, the spirit and the capability of those who will man this vessel are as old as the Coast Guard itself, going back 218 years."

BERTHOLF and her sisters will improve the service's capacity to perform major cutter deployments in support of long-standing missions, such as maritime homeland security, national defense, law enforcement, natural resource stewardship, and public safety missions. BERTHOLF's command, control and communications equipment will improve the Coast Guard's and the Department of Homeland Security's inter-agency and international interoperability, allowing the force to work more closely with partner agencies.

Rear Adm. Ronald J. Rábago, Program Executive Officer and Director of Acquisition Programs, has praised the NSCs' speed, sensors and self defense armament, information management, and automation systems. Among the cutters' more impressive attributes, Rábago notes that living conditions aboard will improve the NSCs' readiness underway, by providing ample rest and training space for off-watch crew members.

The NSCs' berthing plan of six-person

'staterooms', each with its own lavatory, also will enable the cutters to more easily incorporate mixed-gender crews. Each NSC has berths for 148, but the NSC only requires a crew of between 116 and 128 personnel, depending upon mission requirements. By comparison, a 378-foot High Endurance Cutter requires a crew of between 160 and 170.

State-of-the-market technology, engineering and modern training have been brought together as BERTHOLF takes her position alongside the four 378s stationed here. That those ships (Boutwell, Morgenthau, Munro and Sherman) were underway on the day of BERTHOLF's commissioning underscored the high operational tempo that has sharpened the appetite for the NSC and other new assets.

BERTHOLF was delivered last spring from shipbuilder Northrop Grumman Ship Systems Pascagoula, Miss., following extensive testing by Coast Guard technical authorities and U.S. Navy organizations, including the Board of Inspection and Survey. Beginning with an underway period in the fall, she is slated to continue shakedown evaluation and outfitting before all her capabilities are brought online.

At Northrop Grumman Ship Systems' Pascagoula, Miss., shipyard, BERTHOLF's sister ship, *Waesche* (WMSL 751), is more than 60 percent complete. *Waesche* was christened on July 26 and will be delivered in 2009. The third National Security Cutter, *Stratton* (WMSL 752), also is under construction and slated for delivery in 2011 ■

Training Facility in Synergy with Mission Support, Operational Communities

By Hunter C. Keeter

COAST GUARD TRAINING CENTER, PETALUMA, Calif., August 5—Amid the golden hillsides and wooded dells here, a state-of-the-art facility is helping to shape the culture of the Coast Guard. But even as the concepts and procedures developed here have influenced the acquisition and operation of new vessels like the National Security Cutter (NSC), officials emphasize that the Coast Guard must continue to make the investment necessary to keep this and the service's other schoolhouses on the cutting edge of capability.

The TRACEN here, also home to the Chief Petty Officer's Academy and a number of specialist schools, has become a center of excellence for training the next generation of the Coast Guard's surface force.

In March 2007, the Integrated Deepwater System Program funded a renovation of the center's Calhoun Building, which now is a dedicated school for operational specialists

from the Coast Guard's new, high-tech surface assets, such as the NSC. The Calhoun Building includes full-scale mock-ups of the bridge and secure spaces, such as the Operations Center (OPCEN), found aboard the NSCs.

Trainees sit at workstations identical to those found in the NSCs' OPCEN, monitoring multi-function displays that provide a virtual reality environment, complete with chilled air and the drone of electrical power and ventilation systems that approximate the ambient conditions aboard ship. The engine for these 'wargames' is a powerful networked server hub located in an adjacent room, where experienced technicians introduce challenging scenarios to test the trainees' problem solving skills.

BERTHOLF's crew and the ship-building team at Project Resident Office Gulf Coast, Pascagoula, Miss., already have benefited from train-



Formerly a U.S. Army cryptography station during World War 2, Training Center Petaluma, Calif., graduates approximately 5,000 students each year in seven Coast Guard ratings, more than 40 C-schools, the Chief Petty Officer's Academy and course design and instructor training classes. (USCG photo by Telfair Brown)

ing and troubleshooting support provided by the facilities and equipment here.

"We built this facility while they were building the [NSCs], so we were able to take lessons learned and issues

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Acquisition News Briefs

By David S. Steigman

Integrated Support ... The Coast Guard's Aviation Repair and Supply Center, Elizabeth City, N.C., and Aviation Training Center, Mobile, Ala., continue their efforts in support of the HC-144A Ocean Sentry medium range surveillance aircraft acquisition. Currently, the fourth and fifth aircraft (Nos. CG-2304 and CG-2305) are being entered into the Aviation Logistics Management Information System (ALMIS). ALMIS is a powerful computer tool that integrates maintenance requirement forecasting with inventory management and fiscal accounting functions. Entering the HC-144As into the system will ensure that these new platforms receive efficient and comprehensive life-cycle support.

... **Maritime Patrol Interoperability.** Meanwhile, the Coast Guard is installing AN/ARC-210 radios and other mission equipment aboard the HC-144As. The ARC-210 is an air-to-air and air-to-ground, two-way UHF/VHF radio system that also has an embedded satellite communication function, for transmitting and receiving voice and data. The radios help the Coast Guard maintain interoperability with other military and civil government agencies.



Lt. John Pack at the controls of an HC-144A Ocean Sentry during an over flight of the flood-impacted areas of the Midwest in June. The HC-144A's cockpit features advanced multi-function displays that provide the aircrew with information from the aircraft's engines and flight controls. The aircraft also are equipped with a Mission System Pallet that includes two operator workstations displaying data and imagery from the plane's radar, infrared and television sensors and other intelligence sources. (USCG photo)

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discovered on our training equipment and communicate them to the [Project Resident Office Gulf Coast and] shipbuilder," said Capt. Captain Brian J. Marvin, former commanding officer at TRACEN Petaluma.

The Calhoun Building also houses a full scale TRS-3D tactical search radar and one ship-set of electrical power and radar data processing equipment, identical to that found aboard USCGC BERTHOLF. This equipment helped the NSCs' builders and crew to work through the challenges of operating the system, which is new to the Coast Guard and also to the U.S. Navy, whose Littoral Combat Ship crews have trained at Petaluma.

Balancing the Equation

The Coast Guard faces a significant challenge as it plans how to most affordably and effectively modernize and upgrade field units' equipment, including surface vessels, aircraft and information technology systems.

With major components on platforms

like the NSC costing millions of dollars each, the challenge is to make the budgetary case for buying enough additional hardware to equip the operating force and also the support community, writ large (including maintainers and training centers like Petaluma).

"Training system infrastructure has to be part of our acquisition strategies," said Rear Adm. Ronald J. Rábago, Director of Acquisition Programs. "We have to make decisions on where to spend our resources. ... [Within the budget limits,] we need to find the right balance to afford additional sets of equipment for the training community."

The investment, buying additional sets of equipment for the support community, has paid off for the NSC, and the leadership here has a vision for expansion to support other projects. On the drawing board are plans to accommodate high-fidelity simulation spaces for the Fast Response Cutter and Offshore Patrol Cutter projects, which will deliver replacements for legacy patrol boats and medium endurance cutters.

In the annual budget cycle, the acquisition community's role is to present decision-makers with the analyses they need in order to make informed decisions about where to invest the Coast Guard's resources.

As is the case with all major programs in the budget equation, procurement dollars must be balanced with the estimated costs of ownership and support, including the equipment, staffing and support of facilities like the Calhoun Building at TRACEN Petaluma. It takes time and money to build the facility, install the equipment, develop training course curriculum and staff the classrooms with instructors.

Ultimately, the dollars invested in mission support capability, like that found here, pay real dividends. Graduates of the NSC training program arrive at their ship already familiar with the command and control and sensor systems they will operate. Likewise, maintainers benefit from access to high-fidelity models of the equipment they help to troubleshoot out in the field ■

Dear Master Chief Ayer,

I was told that Rescue 21 was not going to be implemented in Alaska, is this true? Rescue 21 is needed in Alaska as much if not more than anywhere else in the Coast Guard.

Have no fear D-17 and Alaska will receive Rescue 21. The Coast Guard is deploying a modified Rescue 21 system design in the state of Alaska, which will result in a more cost effective and realistic solution for the state's unique coastal operating environment. The Pacific Area and District 17 Commander's primary goal in Alaska is to deploy more radio towers for expanded coverage. As a result of this primary requirement and the hostile Alaskan environment and terrain, the Rescue 21 direction finding capability will be very limited in Alaska. To ensure that the Coast Guard's objectives are met, the Acquisition Directorate has removed Rescue 21 Alaska from the contract with General Dynamics C4 Systems and taken this portion of the acquisition "in-house." Last year, the Coast Guard established a project resident office near Juneau. The acquisition strategy delays completion of Alaska deployment until 2017, but also sets a more realistic schedule based on the very short construction season in D-17. — MCPO Brett F. Ayer, Command Master Chief, Coast Guard Acquisition Directorate

[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.]

