



People.

Partnership.

Performance.

# DEEPWATER

*News*

Washington, DC

November 2005



## Coast Guard Announces Name of First NSC

The Commandant of the U.S. Coast Guard, Adm. Thomas H. Collins, announced that the first National Security Cutter will be named after Commo. Ellsworth P. Bertholf, a Coast Guard hero and the first commandant of the modern-day Coast Guard.

The CGC Bertholf will be the first new ship delivered under the Integrated Deepwater System, a \$24-billion, 25-year program designed to replace aging ships, aircraft and communications systems.

"Bertholf was a visionary," said Collins. "When the Revenue Cutter Service and Lifesaving Service merged in 1915 to form today's Coast Guard, Commodore Bertholf faced a nation on the brink of World War I, a service-wide reorganization, and a growth in the service's missions.

"During this challenging time, he kept our core ideologies tightly fixed, allowing the service

to change and adapt without compromising its core values or operational principles," Collins continued. "His leadership is a model for the changes the Coast Guard is experiencing today."

Earlier in his career, Bertholf earned national fame for his role in one of the service's most famous rescues. In 1897, eight whaling ships were trapped in an ice field near the northernmost point in Alaska, and 265 men with the ships were in danger of starving during the long winter months. Bertholf, a lieutenant at the time, was part of a six-man expedition that traveled 1,500 miles by foot and sled to provision the trapped whalers with reindeer commandeered along the way. Bertholf received the Gold Medal of Honor from Congress for his part in the rescue.

The CGC Bertholf is being built at the Northrop Grumman shipyard in Pascagoula, Miss., and



*Commo. Ellsworth P. Bertholf, first commandant of the modern-day Coast Guard.*

is scheduled for delivery in spring 2007. The Coast Guard is building eight National Security Cutters, which will be known as the Legend Class.

## Deepwater Achieves Major Milestone on All Legacy Cutters

The Coast Guard recently achieved a major milestone installing the Enterprise Communications Wide Area Network (ECWAN) onboard the CGC Vigilant. Now all the service's medium and high endurance legacy cutters have access to secret internet protocol router network (SIPRNET), a classified wide-area network that enables more effective operational command and control.

The Vigilant is the last legacy cutter of 39 to be upgraded

with the ECWAN installation as part of the Integrated Deepwater System. ECWAN includes a classified local area network (LAN) installed on the cutter with access to SIPRNET. It provides classified chat, Web-browsing, e-mail, computing environment, and color printing. Cutter crews report SIPRNET access has greatly increased their ability to communicate in the classified environment.

"The primary benefit is that we will now be fully compatible with our fellow Coast Guard cut-

ters," said Cdr. Michael Mohn, commanding officer of Vigilant. "During our last patrol, we were the only medium endurance (WMEC) deployed to the Seventh Coast Guard District that did not have SIPRNET chat, email, and Web access. Lacking these tools often meant that we encountered complications while communicating with Tactical Control and sister ships. Since the arrival of these powerful command-and-control tools, the Coast Guard has aggres-

*Continued page 2*

sively transitioned to their use as a primary means of conducting daily operational business."

The effectiveness of the Integrated Deepwater System (IDS) is the integration of command, control, communications, computer, intelligence, surveillance, and reconnaissance (C4ISR) elements among all the assets and shore-side command, communication and intelligence centers that will provide an interoperable network-centric system. Because the IDS schedule spans 25 years, many legacy assets will be phased out or decommissioned over a span of many years. The last of the 270-foot medium endurance cutters, for example, will remain in service until 2025.

The IDS C4ISR implementation plan provides for the phased architecturally driven design, development and deployment of a common, operationally critical, C4ISR design for all IDS assets. Aimed squarely at meeting Maritime Domain Awareness (MDA), Maritime Transportation Safety Act (MTSA), the National Strategy for Maritime Security (NSMS) requirements as well as safety of navigation requirements, the IDS C4ISR is being fielded in four increments. Increment 1 consists of the core capability for all IDS assets (surface craft, aircraft, and shore units), and Increment 2 improves interoperability for joint operations, and decision support. The third Increment will extend maritime domain awareness, and Increment 4 completes the system by providing a common operating picture (COP).

Each increment reduces the capability gaps between the mission needs identified in the key directives such as MTSA, NSMS, the mission needs statement, and the current state of Coast Guard



Ed Segrest (Lead Systems Engineer for the CAMS/Legacy Cutter upgrades) shaking hands with Cdr. Mike Mohn (CO of CGC VIGILANT). Also pictured are Lt. Cdr. Edward St. Pierre (XO), Ens. Greg Ponzi (EMO), ET1 Jonathan Chambers, IT2 Kim Stone, John Harris, and Lt. Luis Rodriguez (OPS) who provided an out-brief to the crew of CGC VIGILANT for the installation of ECWAN, AIS, and the upgrade of IN-MARSAT-B to 128kbps.

Deepwater assets. IDS C4ISR system upgrades provide improved tactical capability and coordination which reduce operational decision time frames, enabling multi-unit case prosecution, and increased surveillance, detection, classification, and identification of vessels of interest which increase maritime security and domain awareness.

According to John Harris, the contracting officer's technical representative for legacy cutter C4ISR upgrades, "continuing communication with the fleet has been key to the effort's success." As part of the installation process, two weeks prior to the scheduled installation a message was sent by Harris to outline what would take place, along with a timeline to manage expectations. The message explained that there would be an in-brief by Deepwater staff members on day one. During the first two weeks the workers concentrated on the upgrade and installation of the new communications equipment. The message, specified in which area of the ship

the team would be working each day, and if heavy lift equipment was needed for working on the masts, or if they needed access to a secured space or would require a crew escort. During the third week, the contractor provided training to the crew for two days, and the last day supplied a brief to ensure all aspects of the new equipment were addressed and met the expectations of the command.

"The installation progressed very smoothly, mostly due to the enhanced skills acquired by the contracting team in all the previous installs," said Mohn. "Vigilant was the last 210 WMEC to receive the upgrades; therefore, we benefited from the speed and proficiency gained while upgrading our cutter brethren."

The C4ISR upgrades are making a substantial impact in the operational effectiveness of the Coast Guard's legacy assets, a reflection on the service's efforts to leverage technology in the execution of its missions. The capabilities include the Automatic

Identification System (AIS), which is important for operational effectiveness.

“The AIS benefits have been well-chronicled in the fleet’s recent patrol summaries,” said Mohn. “The increase of situational awareness, especially in high volume traffic areas significantly improves the safety of navigating a cutter and proactively executing collision avoidance.”

Additionally, maritime domain awareness is strengthened by using AIS information content to assist in the culling logic of potential targets of interest. By gaining over-the-horizon data on vessels in the area, a cutter could communicate with ships to improve knowledge of on-scene conditions, query operators of past

sightings (whether of interest to search and rescue or law enforcement), and even direct vessels to either stay clear of areas or participate in active searches if necessary.

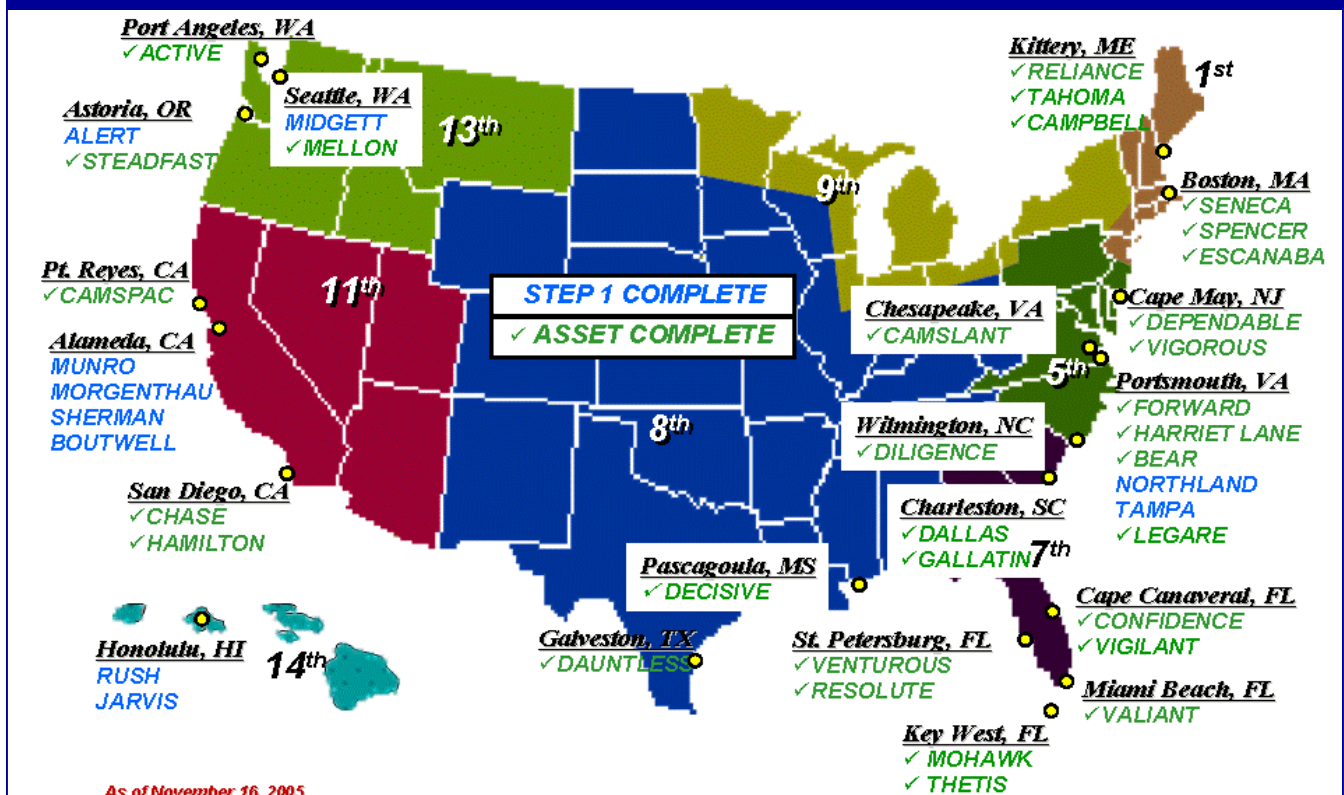
“While we haven’t sailed yet on patrol with the newly installed equipment, we did sortie for hurricane Wilma evasion partway through the installation period,” said Mohn. “AIS was fully operational at the time, and it proved highly valuable for situational awareness of shipping during periods of high sea states where surface radar performance was degraded. The detailed content provided via AIS is critically useful for streamlined communications with ships at sea, especially during collision avoidance situations.”

The program anticipates awarding the phase II plan in January 2006, and beginning improved interoperability for joint operations.

“We gave the legacy cutters some valuable tools to help them do their jobs,” said Harris. “Our Integrated Product Team is very proud of this and proud of delivering some early success to Deepwater.”

*By PAC Jeffrey Murphy*

## C4ISR Legacy Cutter Upgrades





## Deepwater Program Funded at \$933.1 Million

Joined by legislators, cabinet members, and law enforcement officials, President Bush signed the Homeland Security Appropriations Act for fiscal year 2006 during a White House ceremony Oct. 18. The bill provides for \$933.1 million in funding for the Integrated Deepwater System as part of the Coast Guard's overall appropriation of \$7.8 billion. This level represents a 29 percent increase over last year's Deepwater funding of \$724 million to modernize and recapitalize the Coast Guard's inventory of cutters, aircraft, and supporting systems.

"This bill will help us identify terrorists seeking to enter our country, safeguard our cities against weapons of mass destruction, and better prepare the federal government to respond to catastrophic events," Bush said.

Adm. Thomas H. Collins, commandant of the Coast Guard, expressed his gratitude to the House and Senate for their strong support in providing needed funding for the year ahead, particularly for the Deepwater Program. "This funding will allow us to modernize our ships and aircraft in accordance with a recently revised implementation plan," he said. "Most importantly, it will ensure that, for now and into the future, our Coast Guard men and women will have the tools needed to provide the safety and security the American public deserves and expects."

According to Deepwater Program officials, increased asset funding will yield essential system-wide capability for the Coast Guard's maritime homeland security missions and sustain operational effectiveness in all of the

### "A Critical First Installment" for Deepwater's Post-9/11 Plan

The fiscal year 2006 appropriation of \$933.1 million for the Integrated Deepwater System (IDS) will enable each program domain to advance in important ways—a "critical first installment" on the program's revised post-9/11 implementation plan according to Rear Adm. Patrick M. Stillman, IDS program executive officer.

The fiscal year 2006 appropriation will provide for:

- Procurement of long-lead material for and production of the third National Security Cutter;
- Continuation of design work for the first Offshore Patrol Cutter;
- Completing the design and acquiring long-lead materials for the first Fast Response Cutter, now scheduled for delivery in 2008, 10 years ahead of its original schedule;
- The next phase of the Eagle Eye Tiltrotor Vertical-Takeoff-and-Landing Unmanned Aerial Vehicle (VUAV), including mission sensor packages and ground control technology;
- Accelerated re-engining of operational HH-65 helicopters ahead of the original schedule using two production lines;
- Service-life extension and conversion of HH-60 helicopters and HC-130H long-range search aircraft into Deepwater end-state aircraft and continued missionization of the Coast Guard's six HC-130J aircraft;
- Service-life extension and electronics upgrades for legacy medium endurance cutters; and
- Continued development of Deepwater's interoperable network-centric system for command, control, surveillance, reconnaissance, and intelligence sharing to improve maritime domain awareness and provide a common operational picture.

service's multiple military and maritime responsibilities—contributing to the top budget priorities to recapitalize the Coast Guard, implement the Maritime Strategy for Homeland Security, and enhance mission performance.

"Our budget for fiscal year 2006 is a critical first installment in executing the post-9/11 Deepwater implementation plan approved in 2005," said Rear Adm. Patrick M. Stillman, Deepwater's program executive officer. "This funding will sustain the momentum we have developed over the past year. Like the commandant, I am very appreciative of the sup-

port provided by the Department of Homeland Security, the administration, and Congress."

The Deepwater Program's post-9/11 plan provides for progressive modernization, conversion, and recapitalization of the Coast Guard's aging legacy fleet. Its requirements for improved operational capabilities are fundamental to the Coast Guard's ability to deliver required levels of operational excellence. "The Deepwater Program is very much about reducing risk in the maritime domain," Stillman said.

*By Gordon I. Peterson*

## Prospective Program Executive Officer Reports Aboard



Rear Admiral Gary Blore.

The Commandant of the Coast Guard, Adm. Thomas Collins selected Rear Adm. Gary T. Blore, USCG, to be the next Program Executive Officer of Integrated Deepwater System, beginning in the spring 2006.

Prior to his present assignment and upon promotion to Rear Admiral in September 2004, Rear Adm. Blore was appointed as special assistant to the President. In that capacity, he served as the Homeland Security Council's senior director for border and transportation security.

A 1975 graduate of the U.S. Coast Guard Academy, Rear Adm. Blore initially served aboard the medium endurance cutter *Venturous*.

In 1976, he commenced flight training at Naval Air Station Pensacola, Fla., and was desig-

nated a Coast Guard aviator. From 1977 until 1982, he served as a Helicopter Aircraft Commander at Coast Guard Air Station Brooklyn, N.Y., deploying frequently aboard cutters to the Caribbean. During that tour, he participated in the U.S. response to the Cuban Refugee Crisis of 1980. After a subsequent tour as a program reviewer and budget analyst for the Coast Guard chief of staff in Washington, D.C., he transitioned to Coast Guard Guardian fan-jet aircraft in 1988 and served as an aircraft commander at Coast Guard Air Station Cape Cod, Mass. While there, Rear Admiral Blore deployed as executive officer of a 28-member aviation detachment to Manama, Bahrain, during Operations Desert Shield and Desert Storm.

In 1992, Rear Adm. Blore became the group operations officer and then deputy group commander for Coast Guard Group and Air Station, Corpus Christi, Texas. Following that assignment, he was selected to attend the Air War College, in Montgomery, Ala., where he studied national security issues. In 1997, he became the fourteenth commander of Group/Air Station Astoria, Ore., where he directed Coast Guard air and motor lifeboat operations along the Oregon and

Washington coasts.

Following a three-year command tour, Rear Adm. Blore returned to Coast Guard Headquarters in July 2000, where he assumed the role of chief, Office of Aviation Forces, providing programmatic oversight for all 30 of the Coast Guard's air stations and facilities. From July 2002 until July 2004, Rear Adm. Blore served as the U.S. Coast Guard chief, office of Budget and Programs for the assistant commandant for planning, resources and procurement. He was responsible for formulation, justification, and programmatic execution of a \$7-billion budget, Coast Guard policy review, and coordination of external outreach.

Deepwater's prospective PEO has a Bachelor of Science degree in Economics, with Honors, from the U.S. Coast Guard Academy and a master's degree in public policy and administration from Columbia University, where he was selected as an International Fellow. His personal decorations include four awards of the Legion of Merit, two Meritorious Service Medals, two Coast Guard Commendation Medals and the Transportation 9/11 Medal, along with various other service and campaign awards.

### Coast Guard Honors Northrop Grumman Shipbuilding Team

Rear Adm. Patrick Stillman, program executive officer for the Integrated Deepwater System program, presented on Nov. 17, a plaque to Northrop Grumman Corporation shipbuilding team for their Hurricane Katrina recovery performance on the first Deepwater National Security Cutter, in Pascagoula, Miss. Northrop Grumman's Ship Systems sector resumed shipbuilding two weeks after the hurricane struck the Gulf Coast. "What you have collectively experienced here with Katrina and the challenge of coming together in order to infuse your character, competency, commitment and most of all your sense of community into the decks of this ship is a legacy," said Stillman. Photo courtesy of Northrop Grumman Ship Systems.



## Deepwater: "The Great Enabler" for Layered Maritime Defense

In the view of Capt. Douglas Russell, program manager for the Integrated Deepwater System, the Coast Guard's fast-moving modernization and recapitalization program will play an important role in developing a layered maritime defense for the U.S. homeland. "The Deepwater Program has been very agile in adapting to the post-9/11 world," Russell told a national-security Sea Shield conference Nov. 8, in Arlington, Va. "We are the great enabler."

Speaking to a joint audience of U.S. and international naval officers, defense contractors, and system engineers, Russell explained how the Deepwater Program's post-9/11 implementation plan will improve the Coast Guard's operational effectiveness and performance in its multiple mission areas. "Working side by side with the Navy, the Coast Guard is the ideal agency to bridge the gap between homeland security and homeland defense," he said. Of note, Russell maintained, Deepwater's improved platform capabilities and capacity intersect with the new U.S. *National Strategy for Maritime Security's* high-level objectives to prevent terrorist attacks and criminal acts, to protect population centers and critical infrastructure, to minimize damage and expedite recovery, and to safeguard the ocean and its resources.

The Deepwater Program also spans each goal of the Coast Guard's *Maritime Security Strategy* encompassing enhanced maritime domain awareness, a comprehensive maritime security regime, increased operational presence, and enhanced response posture. "We are well-aligned to meet

maritime-security goals and requirements," Russell said. "Our Deepwater cutters will possess better sea keeping, be able to transit at higher speeds with greater endurance and range, and be able to launch and recover manned and unmanned aircraft in higher sea states."

Key to achieving improved maritime security will be Deepwater's interoperable system for C4ISR (command, control, communications, computers, intelligence, surveillance, and reconnaissance). "The Deepwater C4ISR system, a four-phased incremental effort, is a fundamental building block to improve maritime domain awareness," Russell related. "From day one, we have been building a common C4 using the same core systems." The Deepwater "network-centric" approach to C4ISR is focused on satisfying the information needs of operators and decision makers alike. It will provide vastly improved interoperability with agencies in the Department of Homeland Security, the Department of Defense, and local first responders. "Improved C4ISR serves as a force multiplier across the board," Russell said.

The past 12 months have witnessed considerable progress implementing the Deepwater Program across each of its domains. Of note, Russell said, was the approval of Deepwater's revised Mission Needs Statement and post-9/11 implementation plan earlier this year. "We now will deliver more capable operating assets in support of DHS strategic goals and to reduce maritime-security risk," he stated. The revised plan also supports more ex-

tensive inter-agency collaboration, including the National Fleet Policy calling for the Navy and the Coast Guard to develop affordable, interoperable, and complementary capabilities for improved maritime security. The new *National Strategy for Maritime Security*, approved by President Bush in September, calls for a fully integrated effort to protect U.S. interests in the maritime domain.

Russell concluded his presentation by describing a number of the Deepwater Program's recent milestones. The first hull in the eight-ship class of National Security Cutters, for example, is more than 30 percent complete. Fabrication of hull two is underway, and funds for the third hull in the class are provided in the Coast Guard's budget for fiscal year 2006. Past Deepwater C4ISR upgrades to legacy cutters are significantly improving a commanding officer's situational awareness and ability to respond more effectively in the war on drugs and other mission areas.

"Deepwater is in the fleet and active today," Russell concluded, "and when we put its capabilities in the hands of our young sailors, they exceed our expectations."

*By Gordon I. Peterson*