The Mission Effectiveness Project "Bridging the Gap" for Medium Endurance Cutters

The medium endurance cutter USCGC *Tampa* (WMEC 902) now sits high and dry at the Coast Guard Yard in Baltimore, Md. In May, the 25-year-old fleet workhorse became the first 270-foot Coast Guard cutter to enter a nine-month major systems refurbishment as part of the Mission Effectiveness Project (MEP).

"The Mission Effectiveness Project is a key part of the
Deepwater strategy," said Rear
Adm. Dale Gabel, then the assistant commandant of the
Coast Guard for Acquisition, at
the Coast Guard's MEPcommencement ceremony held
at the Yard in May. "It will allow the Coast Guard to bridge
the gap until new, high-tech
cutters are delivered."

Resting on blocks on the Coast Guard Yard's shiplift—a modern, land-based ship handling facility—*Tampa* is being refurbished by shipyard workers who have water-blasted several vears' accumulation of paint from the cutter's hull, weather deck, and superstructure. Access holes have been cut into the hull's port side to facilitate the removal of large machinery slated for replacement. Former crew members would not recognize selected enlisted berthing, locker, head, and lounge compartments now undergoing extensive renovation.

"This multi-year sustainment project for our 210-foot and 270-foot cutters will re-



The medium endurance cutter *USCGC Tampa* (WMEC 902) sits high and dry at the Coast Guard Yard in Baltimore, Md., during a nine-month major systems refurbishment as part of the Mission Effectiveness Project (MEP) for 210-foot and 270-foot medium endurance cutters. In addition to the cutter's refurbishment, the Coast Guard's Engineering Logistics Center is conducting a concurrent Integrated Logistics Overhaul. (Photo by Gordon I. Peterson)

place obsolete and increasingly unsupportable systems to improve reliability and reduce future maintenance costs," said Capt. Stephen Duca, commanding officer of the Coast Guard Yard. "The MEP will help to ensure the 210-foot and 270-foot medium endurance

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UAV: Improved Maritime Security And Fundamental to National Fleet

Intermittent rain showers did not dampen the enthusiasm of the approximately 5,000 visitors who traveled to Maryland's Naval Air Station Patuxent River's Webster Field June 27 for the third annual demonstration of unmanned aerial vehicle (UAV) systems. Following opening ceremonies, multiple UAVs-ranging in size from small hand-held models to larger craft resembling small helicopters and fixed-wing aircraft-took to the air and went through their paces under cloudy skies.

The theme for this year's increasingly popular UAV event was "Focusing Unmanned Technology on the Global War on Terror." Deepwater Program Executive Officer Rear Adm. Patrick M. Stillman, one of several guest speakers at the demonstration, emphasized the role that UAVs would play in enabling the Coast Guard to meet its post-9/11 operational requirements in both its homeland security and national defense mission areas.

"The Integrated Deepwater

System [IDS] and its employment of unmanned aerial vehicles are at the center of gravity of our solution to provide this nation's maritime security," he said. "Truly, UAV technology is a fundamental part of our solution in terms of fulfilling the Coast Guard's commitment to the National Fleet policy and in providing for improved maritime domain awareness."

The UAV Demonstration Day was jointly hosted by the Association for Unmanned Vehicle Systems International and the U.S. Navy's program executive officer for strike weapons and unmanned aviation.

Deepwater's revised post-9/11 implementation plan projects the acquisition of 45 Bell Helicopter-Textron HV-911 "Eagle Eye" tiltrotor vertical takeoff-and landing UAVs and the proposed employment of four much larger Northrop Grumman RQ-4A Global Hawk high altitude endurance (HAE) UAVs.

When Eagle Eye first deploys on new Deepwater cutters,

the Coast Guard will take a quantum jump forward in its tactical capabilities for surveillance, intelligence, and interdiction. The VUAV's contribution to more persistent aerial surveillance will lead to more effective implementation of the Coast Guard's layered strategy for maritime homeland security and defense, officials say. It also will make important operational contributions to the Coast Guard's other traditional maritime missions.

Bell was awarded a contract to commence concept and preliminary design work for Eagle Eye in February 2003. The innovative VUAV completed a successful critical design review in January. The revised Deepwater plan projects the delivery of the first three VUAVs in 2007 and, following operational test and evaluation, deployment on the first National Security Cutter the following year.

Deepwater's future proposed employment of four Global Hawk HAE UAVs will bring even more capability to the Coast Guard's aviation solution. With its 12,000nautical mile range, 38-hour endurance, and access to satellite and line-of-sight communication links to other air and surface platforms and operations centers ashore, the Global Hawk can use its high-resolution sensors to conduct surveillance and monitoring operations, day or night, over an area about the size of Illinois in 24 hours. Under the current IDS plan the Global Hawk is scheduled for introduction in 2016.

Gordon I. Peterson

Unmanned Aerial Vehicles in the Deepwater Program



Bell Eagle Eye HV-911 Maximum Airspeed: 220 KTS Cruise Speed: 185 KTS Endurance: 3.0 HRS @ 100 NM Dimensions: Height 5.7 FT

Length: 17 FT Wing Span: 15.2 FT



Northrop Grumman RQ-4A "Global Hawk" Notional Specs Airspeed: 300 to 400 KTS Range: 12,000 NM Endurance: 38.0 HRS Length: 44 FT Wing Span: 116 FT



Mission, from page 1

cutter fleet can perform all assigned missions until new cutters are delivered under the Deepwater Program."

MEP will eliminate many of the problems associated with the cutter's aging equipment and systems. Some of the new equipment slated for installation on the 270-foot cutter includes the over-the-horizon boat davit, a main diesel engine electronic governor control, an engine room fire-protection system, a reverse osmosis water-making unit, and the Mark 39 gyrocompass. Habitability refurbishments also will improve living conditions for the crew.

The MEP is being managed by the Acquisition Directorate at Coast Guard Headquarters, Washington, D.C., and funded annually by the Deepwater Program. The Coast Guard currently anticipates upgrading up to 27 of its 270-foot Bear class cutters and 210-foot Reliance class cutters under MEP. The cutters will be phased into the Yard's workload over the next several years to extend their service lives for an additional 10-to-15 years.

There is also an operating expenses (OE) component of the MEP project to cover routine drydocking work being funded and managed by Maintenance and Logistics Command Atlantic.

"Timely delivery is the key goal," said Capt. Duca. Twelve other 270-foot Bear class cutters and up to 14 210-foot Reliance class cutters will follow *Tampa* into the yard, beginning with the 37-year-old USCGC *Dependable* in September. Each 210-foot MEP is planned for five months; each 270-foot MEP is projected to take

Integrated Logistics Overhaul

In addition to the cutter *Tampa*'s refurbishment in the MEP, the Coast Guard's Engineering Logistics Center (ELC) is conducting a comprehensive Integrated Logistics Overhaul concurrently to correct the cutter's configuration data and properly align all logistics elements.

"It does not make sense to renovate systems on the cutter if you don't correct logistics shortfalls as well," said Capt. Kevin Jarvis, ELC's commanding officer. "The ILO will improve cutter readiness by providing logistics support that accurately reflects the cutter's true equipment and operating needs."

At present, the ELC plans to perform ILOs on all medium endurance cutters inducted into the MEP.

As part of the ILO, all of the cutter's logistics-support inventory will be offloaded to a shore-side location for analysis and evaluation. A team of ELC staff, assisted by contractors, will inspect each cutter during the MEP to conduct a "record-to-floor/floor-to-record" audit of nearly all configuration items. At the same time, teams will baseline maintenance procedure cards and technical manuals against the configuration and reconcile any discrepancies. Newly digitized ship maintenance publications and ship drawings will be provided to the crew on CD-ROM discs.

"The stars are perfectly aligned to deliver a system-of-systems answer to sustain our legacy medium endurance cutter fleet," said Jarvis.

nine months.

The 106-year-old Coast Guard shipyard is well-postured to execute the MEP. Co-located with the ELC at Curtis Creek, the Yard has a long history of similar renovation projects to sustain legacy assets. Many of the older cutters slated for refurbishment were either built at the Yard or upgraded there in years past. A fullservice shipyard, the Yard delivers a wide variety of products and services encompassing the component design, manufacture, and complete overhauls of cutters, boats, and weapons systems.

Steady annual funding of

approximately \$30 million will enable the Coast Guard's Acquisition Directorate and the Yard to plan and execute each cutter's MEP as efficiently as possible.

One unusual aspect of the *Tampa*'s MEP is that her approximately 100-member crew is no longer stationed aboard the cutter. Crew members have returned to interim assignments with the Coast Guard's Atlantic Area Command to support multicrewing initiatives and other functions.

Gordon I. Peterson



The Deepwater Program: Mitigating Risk in the Maritime Domain

Speaking to a capacity audience at a Heritage Foundation address July 18 devoted to the future of the Coast Guard, Commandant Adm. Thomas H. Collins described how the Coast Guard is adapting to changing times—working to improve its capabilities, capacity, and structure in the turbulent post-9/11 era.

"We have been budgeting, operating, and deploying with strategic intent to reduce risk in the maritime," he said.

In discussing his strategic focus to execute the Deepwater Program's largest recapitalization in Coast Guard history, the commandant said his purpose was to ensure the Coast Guard possessed the capabilities necessary to continue to serve as the lead federal agency for maritime homeland security in a way that enables the mitigation of risk.

"One item predominates in every aspect of our strategy," said Collins, "recapitalization under Deepwater." In the commandant's view, the Deepwater Program's revised post-9/11 implementation plan makes important contributions to each component of the Coast Guard's strategy for maritime homeland security—awareness, prevention, protection, response, and recovery.

The commandant emphasized the importance of improved maritime domain awareness (MDA) in executing this strategy and noted the ways that Deepwater and other upgrades to C4ISR systems would help to transform Coast Guard capabilities in this area. "Maritime domain awareness offers the highest return on our investment in our maritime homeland security strategy," he said. "Better awareness enables better planning and execution." In this sense, the challenge to improve MDA entails continued close collaboration with the Navy and the global maritime community.

The commandant said that the revised Deepwater implementation plan, including its provisions for improved MDA, provides the necessary adjustments to the Coast Guard's capabilities and capacity for its post-9/11, multimission requirements. "It will give us a layered defense and the transparency we need to surveil, detect, identify, classify, and prosecute."

In describing today's post-9/11 mission performance, Adm. Collins spoke emphatically of the sense of urgency associated with the Coast Guard's work, day in and day out. "We are activists," he said. "We have a sense of urgency; we have a multi-layered approach that requires partnerships."

"The stakes are high, and we're not going to fail at mitigating risk in the maritime," he said.

Gordon I. Peterson

NEW Team Deepwater Logo and Apparel Shop launched July 13!

Visit the online Integrated Coast Guard Systems Logo Shop for apparel and merchandise with Coast Guard and Deepwater embroidered logos. Everything is at cost price and available in individual and bulk orders. The Deepwater Logo Shop is owned and operated by Antonia Dei Rossi Corporate Wear, not affiliated with the Coast Guard, Integrated Deepwater System or Integrated Coast Guard Systems.



