



U.S. Coast Guard photo by PA3 Jonathan McCool

# REVAMPED BY SCOTT R. GOURLEY MATAGORDA

## A SIGN OF THINGS TO COME

**T**he United States Coast Guard Integrated Deepwater System (IDS) reached a major operational milestone in early March 2004 with the delivery of the United States Coast Guard Cutter *Matagorda* (WPC 1303), the first of the upgraded, 123-foot Island-class cutters to return to the Coast Guard fleet.

"Firsts are always defining moments," said Adm. Thomas H. Collins, USCG Commandant. "Today marks the delivery of the modernized USCGC *Matagorda*, the first cutter delivered by the Deepwater program – the largest, most innovative acquisition and recapitalization program in Coast Guard history. This is not just a first for Deepwater – it is a first for the Coast Guard's ongoing process of service-wide transformation."

The recapitalization of the Island-class 110-foot vessels to the upgraded 123-foot configuration comes at a pivotal time in the service lives of these vital craft.

In fact, speaking before the U.S. House of Representatives' Subcommittee on Coast Guard and Maritime Transportation on

April 28, 2004, Vice Adm. Thomas J. Barrett, Vice Commandant of the U.S. Coast Guard, revealed that, "Last year, we experienced 676 unscheduled maintenance days for our cutters – a 41 percent increase over 2002. This was the equivalent of losing over three and a half cutters. These lost cutter days include our 110-foot Island-class cutters that are suffering from accelerated hull corrosion and have experienced 20 hull breaches that resulted in emergency dry dockings for repairs. These 'workhorses of the fleet' are showing the effects of their hard use. One 110-foot cutter alone, *Key Largo*, is scheduled to be in drydock for an entire year while its hull is being replaced."

He added that, "Halting and reversing such worrisome trends in the sustainment of our legacy assets is a challenge, but we have made necessary decisions to adjust priorities for Deepwater's modernization plan to account for the circumstances we face today. Although the accelerated deterioration of legacy assets was not immediately evident when the Deepwater recapitalization effort began, the IDS Program was designed with the flexibility to enable rapid adjustments to such circumstances."



Photo courtesy of Integrated Coast Guard Systems

Opposite: The newly recommissioned U.S. Coast Guard Cutter *Matagorda*, the first 110-foot cutter to make the transformation to 123 feet, sits docked at Integrated Support Command New Orleans on March 27, 2004. The crew of the *Matagorda* made a brief stop in New Orleans on the way to their homeport in Key West, Fla. Above: The *Matagorda* is the first of 49 Island-class 110-foot patrol boats to be refurbished as part of the \$17 billion Deepwater program that will modernize the Coast Guard's aging fleet.

Photo courtesy of Integrated Coast Guard Systems



**Left:** The stripped hull of the *Matagorda* is seen during the upgrade process at Bollinger Shipyards in Lockport, La. **Above:** Adm. Thomas H. Collins, U.S. Coast Guard Commandant, addresses those in attendance at the Coast Guard Cutter *Matagorda*'s decommissioning ceremony at Bollinger Shipyards in February 2003.

U.S. Coast Guard photo by PA2 Chad Saylor

Originally awarded in June 2002, the IDS program was described as a \$17 billion effort to provide “a fleet of new ships and aircraft, plus improved command and control systems, to meet the service’s homeland security and other mission needs.” Awarded to Integrated Coast Guard Systems (ICGS) – a joint venture established by Lockheed Martin and Northrop Grumman – the IDS contract envisioned the acquisition of up to 91 ships, 35 fixed-wing aircraft, 34 helicopters, 76 unmanned surveillance aircraft, the upgrade of 49 existing cutters and 93 helicopters, and additional systems for communications, surveillance, and command and control.

The USCGC *Matagorda* represents the first of those existing cutters to be upgraded under Deepwater. Known as the “Stingray of the Straits” in the Seventh District, the cutter has served in South Florida and the Caribbean since 1986.

In February 2003, USCGC *Matagorda* entered the Deepwater 123-foot WPB (Legacy 110-foot Service Life Extension Program – SLEP) upgrade program at Bollinger Shipyards LLC, in Lockport, La. Bollinger has joined with VT Halter Marine, Inc., of Gulfport, Miss., to establish a joint venture called HBJV. As a sub-contractor to Northrop Grumman Ship Systems (a partner in ICGS), HBJV is the lead subcontractor for the 123-foot WPB upgrade.

On March 24, 2004, the Vice Commandant of the Coast Guard approved new designations for the new Deepwater cutter

classes. Cutters less than 140 feet – including 87-foot, 110-foot, and 123-foot – are classified Maritime Patrol Boat, with the designator WPB.

#### The Leading Symbol of Service Transformation

Officiating at ceremonies to mark the cutter’s decommissioning, Adm. Collins highlighted the *Matagorda*’s operational accomplishments in the months prior to entering the upgrade process.

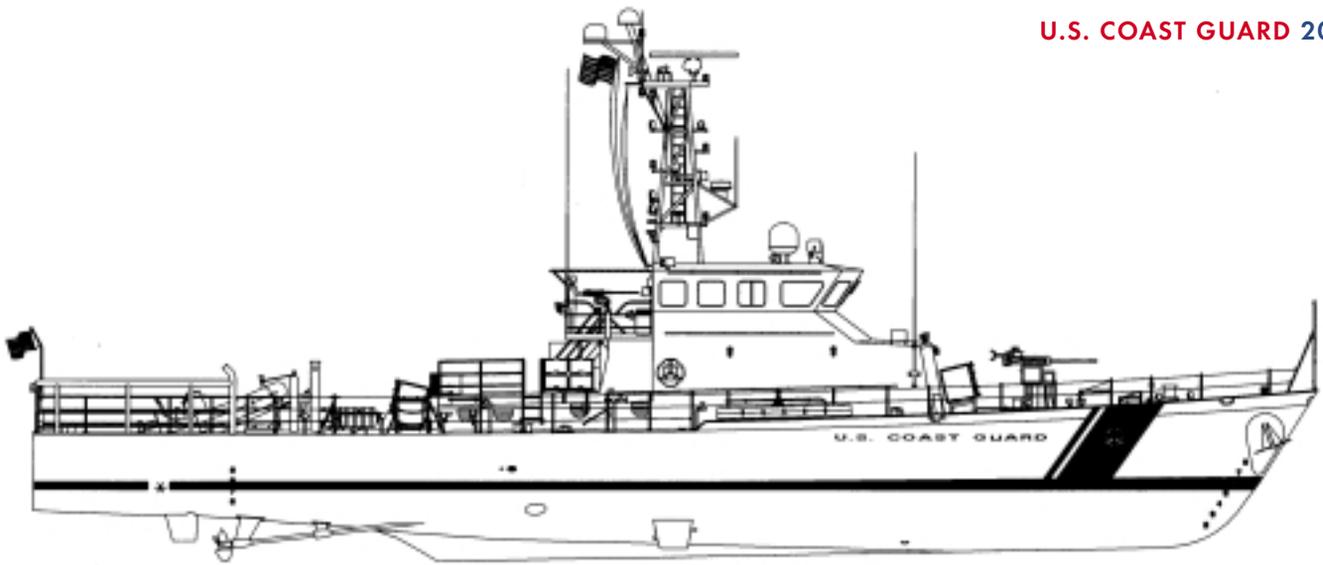
“Coast Guard Cutter *Matagorda* has been very active during the past 17 years,” he said. “During the past two years, *Matagorda* made 20 Law Enforcement patrols, conducted 194 boardings, resulting in the interdiction of over 234 migrants and over a ton of illegal narcotics. She also made nine daring rescues, one of which involved 65 illegal migrants foundering in a sailboat being battered by 35-knot winds and 12-foot seas.”

He went on to focus his remarks on the Coast Guard’s then-recent transition to the Department of Homeland Security (DHS) and how that transition and the Coast Guard’s transformation will affect the fleet in the coming years.

“To make the transition to our new department, and to make sure that we can maintain our operational excellence in not only homeland security but across our varied missions, we will need to make many changes along the way. These changes will add up to what I often refer to as nothing less than a transformation,” Collins said.

“Though decommissioned temporarily as the necessary work is done to refit her, the Cutter *Matagorda* will not be idle,” he added. “She will be leading the way for the Coast Guard to enter this new era. In fact, she is the leading symbol of our service’s transformation.”

At the time of the decommissioning, industry representatives added that, “Upon the completion of Deepwater, cutters like the *Matagorda* will no longer operate as independent platforms with limited awareness in the maritime domain. Instead, these new assets will possess common systems and technologies, common operational concepts, and a common logistics base that will



An outboard profile of a converted 123-foot Coast Guard cutter is seen in this diagram. The Deepwater program that will modernize the Coast Guard's aging fleet is being led by Integrated Coast Guard Systems, a joint venture between Northrop Grumman Corporation and Lockheed Martin.

enable the Coast Guard to significantly improve its ability to detect and identify all activities in the maritime arena, a capability known as maritime domain awareness."

#### The Program

During the subsequent overhaul, *Matagorda's* length was extended 13 feet (for a total of 123 feet) through the addition of a new stern launch ramp. With a maximum beam of 21 feet and a full load draft of 7 feet, additional stern modifications to the cutter include the addition of a new tow bit and tow rail.

The extended stern launch ramp is designed to accommodate a new, 7-meter Short Range Prosecutor (SRP) rigid hulled inflatable boat (RHIB). Taken together, the ramp and SRP provide a clear example of the expanded operational capabilities incorporated under the upgrade.

Manufactured by Zodiac, the new RHIB features a 315 horsepower water jet propulsion system with a top speed of 33 knots and the ability to carry a crew of two plus up to eight passengers. With greatly simplified stern ramp launch and recovery, the SRP will have the capability to operate within sight of the parent cutter for periods of up to four hours during boarding operations, victim recovery, or search and rescue. The first SRP was delivered to the *Matagorda* in early March 2004.

Along with the SRP and stern launch modification, additional upgrades in the 15-year Service Life Extension Plan (SLEP) include: refurbishment of the hull with shell plate and structural replacement (900 square feet of hull plating were replaced on *Matagorda*); incorporation of a new superstructure with larger pilot house featuring 360-degree bridge; installation of a new C4ISR (Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance) suite, renovated hull sections and interior spaces (including quality-of-life and dual-gender crew capability improvements), and the installation of a new, digitized system for engine control, alarm, and monitoring functions.

The C4ISR suite, for example, includes touch-screen displays that provide a common operational picture with the ability to transmit voice and data communications through multiple non-secure and secure channels. New, secure capabilities include a Secure Internet Protocol Router Network (SIPRNET) to ensure continued maritime domain awareness when operating with other Coast Guard or U.S. Navy elements.

#### Supporting Business Processes

As the first major hardware effort undertaken through Deepwater, the transformational significance of the 123-foot

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WPB (Legacy 110-foot SLEP) program has led to the development of new supporting business processes and procedures. One example can be found in the area of Business Process Reengineering (BPR).

According to an April 2004 Coast Guard White Paper, "Introduction of the 123' WPB required processes to be developed without the benefit of a full BPR effort. ICGS proposed and is using a software solution called Logistics Information Management System (LIMS), which will be released in five iterations. Because of the timing of the 123' fleet's introduction, business processes were developed around the capabilities of the 'out of the box' software capabilities."

Noting that these new processes are considered "As-is," the paper's authors speculate that the new processes may or may not be "better than the Coast Guard's Legacy support processes."

"Therefore, the Legacy Coast Guard support processes are going to remain the basis for study in baselining and for the performance gap analysis. Consistent measures will be developed and monitored between the two to see where benefit is gained or not gained."

#### Returning to Sea

The results of the new business practices and hardware designs were evident in early March 2004, when the vision became the reality as Integrated Coast Guard Systems representatives delivered the Cutter *Matagorda* back to the Coast Guard at Bollinger Shipyards' Lockport, La., facility.

"A little over a year ago, many of us gathered here for the temporary 'decommissioning' of the USCGC *Matagorda*," said Adm. Collins. "Today we gather to celebrate the *Matagorda* for a different reason. Honoring the *Matagorda's* role as the 'leading symbol of Coast Guard transformation.' Celebrating not the past, but the future – the imminent service of this cutter and her crew in support and defense of our nation in a time of unprecedented challenges."

In addressing some of those challenges, the Coast Guard Commandant noted that "A sense of urgency defines our multi-mission responsibilities and our homeland security efforts. Today's threats and vulnerabilities are changing the way we must conduct Maritime Homeland Security. The Coast Guard has risen to the challenge through an aggressive commitment to transforming the service to meet these needs. We are a thriving component of the Department of Homeland Security, building the right partnerships, internally and externally, to enable success. Our focus is on prevention and presence, as well as response. Our partnerships with ICGS and Bollinger are essential to safeguarding our nation's sovereignty, security, and safety. We are transforming our capabilities through modernization programs like 'Rescue 21' and Deepwater. We are building on existing relationships with governmental agencies and the armed services to enhance future capabilities."

"Unlike the Coast Guard's current cutters, aircraft, and associated command, control, and communications equipment that are aging and technologically obsolete, recapitalized Deepwater assets, starting with the delivery of the *Matagorda*, will not only leverage technology to perform maritime security more effectively, but be completely integrated and interoperable. More capable and interoperable platforms in recapitalized assets improves surveillance, detection, and response performance – improvement



United States Coast Guard sailors man the rails of the cutter *Matagorda* (WPB 1303) following a delivery ceremony at Bollinger Shipyards in Lockport, La., in March 2004. Bollinger handled the upgrade and modernization of the *Matagorda*.

that will make the critical difference in meeting the diverse Homeland Security challenges that confront America," he said.

"A growing demand for Coast Guard maritime homeland security operations will continue into the foreseeable future," Adm. Collins concluded. "The *Matagorda* and the recapitalized assets of the Deepwater Program will be central to the success of the Coast Guard of today and the future, as we proudly live our mission of safeguarding sovereignty, security, and safety in our homeland waters. As we continue to be the nation's life-savers and guardians of the sea, ever *semper paratus*."

As this publication goes to press, the USCGC *Matagorda* has returned to service. Four additional Island-class Cutters – *Metompkin*, *Padre*, *Attu*, and *Nunivak* – are undergoing yard upgrade, with the first two slated for delivery in the third quarter of FY04 followed by delivery of two more during the fourth quarter. Three additional cutters – *Vashon*, *Monhegan*, and *Matinicus* – are also contracted for conversion with deliveries back to the Coast Guard anticipated in first quarter FY 05, first quarter FY05, and second quarter FY05 respectively.

Although original program plans called for the upgrade of 49 cutters, as noted by Vice Adm. Barrett in his recent congressional testimony, the IDS program "was designed with the flexibility to enable rapid adjustments to such circumstances."

"Owing to the continued deterioration of the materiel condition of our Island-class 110-foot patrol boats, we also decided to accelerate the design and development of the Maritime Patrol Coastal Cutter to replace existing 110s," he said. "The Coast Guard has contracted for eight 110s to be converted to the more capable 123-foot cutter. The first, the Cutter *Matagorda*, was delivered in early March. Four more 110s will be converted in FY 2005. The FY 2004 appropriation provided funds to accelerate the design of the Maritime Patrol Coastal Vessel, and the Deepwater Program is conducting a business-case analysis to determine the appropriate number of 123-foot conversions to complete prior to the transition to the Maritime Patrol Coastal Vessel; a decision is expected later this year."