

Coast Guard Interdicts Suspected Migrant Smuggling Boat off Florida Coast

MIAMI – The Coast Guard Cutter Bernard C. Webber crew interdicted a boat with six people, including four who did not have current U.S. visas, attempting to illegally enter the United States, near Sunny Isles, Jan. 19, the 7th Coast Guard District said in a release.

At approximately 2:40 p.m., the crew of the cutter Bernard C. Webber crew sighted the 20-foot boat heading west approximately 30 miles east of Sunny Isles. Aboard the boat were two U.S. citizens, two Jamaicans, one Dominican and one Bahamian, all adult males.

“While the Coast Guard continues to deal with the lapse in appropriations and identify methods to alleviate the impacts to our workforce, this illegal activity in the Florida straits that threatens our maritime border security, remains a top priority for our service,” said Rear Adm. Peter J. Brown, commander of the 7th Coast Guard District. “I continue to be humbled and inspired by our dedicated Coast Guard women and men who stand the watch and remain dedicated to serve the public during this time of personal financial uncertainty.”

One of the migrants had previous convictions for kidnapping, aggravated assault and narcotics trafficking. A second had previous convictions for the sale of narcotics.

In coordination with the Department of Justice’s Southern District of Florida, the crew of the Bernard C. Webber transferred all persons to Homeland Security Investigations and U.S. Customs and Border Protection for further investigation and possible prosecution.

National Security Cutter Bertholf Departs for Western Pacific Patrol

ALAMEDA, Calif. – On a gray and foggy morning, tears intermingled with rain as family members braved the elements to say goodbye to the 170 crewmembers of Coast Guard Cutter Bertholf, a 418-foot national security cutter, which departed Alameda, California, Jan. 20 for a patrol in the Western Pacific Ocean, the Coast Guard Pacific Area said in a release of the same date.

The U.S. Coast Guard has an enduring role in the Indo-Pacific going back over 150 years. The service's ongoing deployment of resources to the region directly supports U.S. foreign policy and national security objectives in the Indo-Pacific Strategy and the National Security Strategy.

"The United States is a Pacific nation," said Vice Adm. Linda Fagan, commander, Coast Guard Pacific Area, who was present to see the cutter depart. "We have deep and long-standing ties with our partners in the region, and more importantly, we share a strong commitment to a free and open Indo-Pacific, governed by a rules-based international system that promotes peace, security, prosperity and sovereignty of all nations."

Bertholf will be operating in support of U.S. Indo-Pacific Command, which oversees military operations in the region. As part of its planned operations, the cutter will engage in professional exchanges and capacity building with partner nations.

"Security abroad equals security at home," said Fagan.

“Enhancing our partners’ capabilities is a force multiplier in combating transnational criminal and terrorist organizations and deterring our adversaries.”

As both a federal law enforcement agency and an armed force, the Coast Guard is uniquely positioned to conduct defense operations in support of Combatant Commanders on all seven continents. The service routinely provides forces in joint military operations worldwide, including the deployment of cutters, boats, aircraft and deployable specialized forces.

“I’m excited to see Bertholf sail today to the Indo-Pacific region of operations,” said Fagan, who described the cutter as one of the most capable in the Coast Guard fleet.

“They will be serving alongside other DoD military forces, particularly the U.S. Navy, and I know they will contribute key capabilities to that mission set. This crew has worked incredibly hard to get ready for today’s sailing, and I can’t think of a better ship and crew to be sending to the Indo-Pacific.”

Commissioned in 2008, Bertholf is the first of the Coast Guard’s Legend-class national security cutters. These advanced ships are 418-feet long, 54-feet wide, and have a 4,600 long-ton displacement. They have a top speed in excess of 28 knots, a range of 12,000 nautical miles, endurance of up to 90 days and can hold a crew of up to 170.

The Coast Guard is scheduled to commission its seventh national security cutter, Kimball, in 2019. Kimball, along with the Midgett, which is currently under construction, will be homeported in Honolulu and will enhance the Coast Guard’s presence throughout the Indo-Pacific.

“The U.S. Coast Guard’s unique authorities, capabilities, and missions make us the maritime safety and security partner of choice for sea-going countries around the world,” said Capt. John Driscoll, Bertholf’s commanding officer. “Our increased

presence throughout the Indo-Pacific will enhance regional stability and improve maritime governance and security.”

In an address to the families and crew before the cutter set sail, Driscoll emphasized how critical family support is to crew wellbeing and readiness.

“Support from our families, wherever they live, is vital to ensuring we are ready to sail and answer the demands of our nation,” Driscoll said. “We must ensure our families are ready to weather the storm at home. We operate in a dangerous and high-consequence environment, and your ability to focus on mission can become easily compromised if you are worried about family.”

Fagan acknowledged the current lapse in appropriations and government shutdown has added stress and feelings of uncertainty to the typical emotions that surround a cutter departure.

“I know it is hard for these crews to be leaving behind their dependents and spouses – it’s a thousand times more so when everyone is wondering when our next paycheck will be, and how they can support the family they are leaving behind,” Fagan said.

“There has been an incredible outpouring of support for the families here in the Alameda area, but the tension and the anxiety for the crew is real,” said Fagan. “We are standing by to help support those families who are left behind the same way that we are going to support the crew as they sail for the Western Pacific.”

Leonardo DRS to Extend GE LM2500 Gas Turbine Packaging for U.S. Navy

ARLINGTON, Va. – Leonardo DRS Inc. has extended its LM2500 Gas Turbine packaging supply agreement with GE’s Marine Solutions through the end of 2024, with an option to extend through 2029, the company announced in a Jan. 16 release.

This strategic agreement covers the manufacture of GE-designed LM2500 packages for U.S. Navy and selected international platforms. For the three LM2500 engine sizes (LM2500, LM2500+ and LM2500+G4), Leonardo DRS provides the baseplate, enclosure, and a fully instrumented, wired and piped package for turbine start and fire protection systems. It represents a continuation of the long and successful relationship with GE which started in 2011. This relationship recently reached a significant milestone when Leonardo DRS recently delivered its 100th LM2500 enclosure package.

“The long-term partnership between GE and Leonardo DRS has provided our U.S. Navy customer with high-quality gas turbine package systems giving the needed power and propulsion for our country’s naval fleet,” said Greg Reed, senior director for business development of the DRS Naval Power Systems Group. “This agreement continues that strong partnership between Leonardo DRS and GE’s Marine Solutions to ensure our customer receives the best quality systems.”

Leonardo DRS builds naval power systems to meet stringent U.S. military and GE specifications and quality requirements. DRS ships the U.S. Navy packages to GE in Evandale, Ohio, where the gas turbine is inserted, and the package is subjected to full-load production qualification testing.

Raytheon Selected for Marine Corps Hornet AESA Radar Upgrade

EL SEGUNDO, Calif. – The U.S. Marine Corps has selected Raytheon's APG-79(v)4 AESA [active electronically scanned array] radar to equip its F/A-18C/D Hornet fleet, the company said in a Jan. 15 release. Raytheon will begin delivering radars in 2020 and complete deliveries by 2022.

The APG-79(v)4 is a scaled version of the APG-79 AESA radar integrated on the U.S. Navy and Royal Australian Air Force's Super Hornets and EA-18G Growlers. Along with improved targeting capabilities, crews gain an edge in crucial operations across the spectrum – including air dominance, maritime strike and air-to-surface missions.

“With AESA radars, fighter jet pilots and crews tip the scales in their favor over their adversaries,” said Eric Ditmars, vice president of Raytheon Secure Sensor Solutions. “Now that the APG-79(v)4 is slated to fly on the classic Hornet, Marine Corps pilots will be able to identify, track and engage more targets over a greater distance than ever before.”

Crews will see improved radar reliability, reducing maintenance hours while increasing availability for flight. Because the APG-79(v)4 shares more than 90 percent commonality with the APG-79, the Marine Corps will benefit from the same global sustainment and upgrade path already in place for the system.

Huntington Ingalls Industries to Acquire Fulcrum IT Services

NEWPORT NEWS, Va. – Huntington Ingalls Industries (HII) has entered into an agreement to acquire Fulcrum IT Services LLC, an information technology and government consulting company headquartered in Centreville, Virginia, HII said in a Jan. 18 release.

The planned acquisition is expected to close in February. Financial terms of the transaction were not disclosed.

Fulcrum expands HII's capabilities in enhanced situational awareness and predictive threat analytics through its advanced engineering, cybersecurity, software development, big data engineering, and intelligence and special operations experience. Fulcrum will join HII's Technical Solutions division.

"Fulcrum's capabilities in software development, data analytics, cybersecurity and advanced engineering are strongly aligned with national security priorities and complement our priority practice areas," said Andy Green, executive vice president of HII and president of Technical Solutions. "The company's unique experience and capabilities across the C5ISR [command, control, communications, computers, combat systems, intelligence, surveillance and reconnaissance] domain grow our reach and support in the intelligence and special operations communities."

HII's Technical Solutions division provides a wide range of professional services through its Fleet Support, Mission

Driven Innovative Solutions, Nuclear & Environmental, and Oil & Gas groups.

Leonardo DRS to Provide Advanced Hybrid Electric Drive for Second Coast Guard OPC

ARLINGTON, Va. – Leonardo DRS Inc. will provide a second hybrid electric drive (HED) system for the U.S. Coast Guard's next offshore patrol cutter (OPC) under a contract from Eastern Shipbuilding, the company announced in a Jan. 15 release. Eastern Shipbuilding is the prime contractor and builder of the next-generation OPCs.

Under the contract, originally announced in 2017, Leonardo DRS would provide the HED systems for the first nine ships of the OPC program with a contract value totaling \$10.7 million. The first HED system is set to be delivered in mid-2019.

Under the contract, Leonardo DRS will provide its high-performance, permanent magnet motor-based Auxiliary Propulsion System. This integrated hybrid electric drive system provides capability for the ship to operate much more efficiently at slower speeds, increases mission duration capability, reduces emissions and provides emergency take-home capability in the event of a failure of the main propulsion diesel engines. When coupled to the main propulsion gearbox, the system allows the ship to operate quietly and efficiently during loitering operations while providing superior fuel economy for increased on-station operations and capability.

“Our hybrid electric drive will offer crews of these new ships operational flexibility when they need it, while significantly increasing cost savings in yearly maintenance and fuel,” said Christine Borglin, senior program manager for DRS Naval Power Systems. “As we move from design and development onto production of the first HED system, and now to this second drive, we are proud to continue to be a part of the Eastern Shipbuilding team for this vital program.”

The Auxiliary Propulsion System includes two of the most power-dense permanent magnet motors on the market today. They have significant advantages in size, weight, efficiency and performance over conventional electric induction motors and produce more torque from the same amount of supplied current. Their smaller footprint allows greater flexibility in engine room design and increased cargo space, while the simpler more rugged construction results in proven reliability and durability.

Using propulsion diesel engines at slow speeds adds significant wear and tear on the engines and increases the potential for coking/wet stacking. By adding this electric Auxiliary Propulsion System, the Coast Guard will have a built-in advantage of reducing fuel, maintenance requirements and lifecycle costs, while increasing safety for the fleet.

U.S. Navy, Air Force Award Lockheed Martin Second Production Lot for LRASM

ORLANDO, Fla. – Lockheed Martin has received a \$172 million contract from the U.S. Navy and Air Force for Long Range Anti-

Ship Missile (LRASM) production, the company said in a Jan. 15 release.

The contract continues the production for the air-launched variant of LRASM, including a full production run of missiles and engineering support. This is the second of several expected annual production lots that will deliver next-generation anti-ship missiles to the U.S. Navy and U.S. Air Force.

“LRASM brings a game-changing capability to both the U.S. Air Force and the Navy,” said David Helsel, LRASM director at Lockheed Martin Missiles and Fire Control. “This second production lot will provide anti-ship missiles for both the B-1B and F/A-18E/F, bringing sea control back to our warfighters.”

LRASM is designed to detect and destroy specific targets within groups of ships by employing advanced technologies that reduce dependence on intelligence, surveillance and reconnaissance platforms, network links and GPS navigation in electronic warfare environments. LRASM will play a significant role in ensuring military access to operate in open ocean/blue waters, owing to its enhanced ability to discriminate and conduct tactical engagements from extended ranges.

LRASM is based on the successful Joint Air-to-Surface Standoff Missile-Extended Range. It is designed to meet the needs of U.S. Navy and U.S. Air Force warfighters in contested environments. The air-launched variant provides an early operational capability for the U.S. Navy’s offensive anti-surface warfare Increment I requirement. With the recent early operational capability declaration by the U.S. Air Force for the B-1B, the focus is now on the U.S. Navy’s F/A-18E/F Super Hornet in 2019.

Coast Guard's Only Heavy Icebreaker Arrives at Antarctica

ALAMEDA, Calif. – The 150 crew members of the U.S. Coast Guard Cutter Polar Star arrived Jan. 17 in Antarctica along with a resupply vessel during Operation Deep Freeze – a joint military service mission to resupply U.S. interests in Antarctica, the Coast Guard Pacific Area said in a release.

Homeported in Seattle, the 42-year-old cutter is the United States' only operational heavy icebreaker, and the crew is making their sixth deployment in as many years to directly support the resupply of McMurdo Station – the United States' main logistics hub in Antarctica.

Operation Deep Freeze is a joint military service mission in support of the National Science Foundation – the lead agency for the United States Antarctic Program. Since 1955, U.S. Indo-Pacific Command has assisted in providing air and maritime support throughout the Antarctic continent. This year marks the 63rd iteration of the annual operation.

Each year, the Polar Star crew creates a navigable path through seasonal and multiyear ice, sometimes as much as 21-foot thick, to allow a resupply vessel to reach McMurdo Station. The supply delivery allows Antarctic stations to stay operational year-round, including during the dark and tumultuous winter.

The 399-foot, 13,000-ton Polar Star arrived after completing an 18-mile trip through the ice to McMurdo Sound, where 400 containers will be offloaded from the supply ship Ocean Giant.

Presently, the U.S. Coast Guard maintains two icebreakers –Healy, which is a medium icebreaker, and Polar Star. Protecting national interests in the polar regions is essential to ensure the Coast Guard’s national defense strategy and search-and-rescue capabilities are ready for action, but in order to do so, the icebreaker fleet requires modernization.

Commissioned in 1976, the Polar Star is showing its age. Reserved for Operation Deep Freeze each year, Polar Star spends the winter breaking ice near Antarctica, and when the mission is complete, it returns to dry dock in order to complete critical maintenance and repairs in preparation for the next Operation Deep Freeze mission. Once out of dry dock, the ship returns to Antarctica, and the cycle repeats itself.

During this year’s deployment, one of the ship’s electrical systems began to smoke, causing damage to wiring in an electrical switchboard, and one of the ship’s two evaporators used to make drinkable water failed.

The ship also experienced a leak from the shaft that drives the ship’s propeller, which halted icebreaking operations in order to send scuba divers in the water to repair the seal around the shaft. A hyperbaric chamber on loan from the U.S. Navy aboard the ship allows Coast Guard divers to make external emergency repairs and inspections of the ship’s hull.

Mercury Receives Integrated Subsystems Order for Naval

Electronic Application

Warfare

ANDOVER, Mass. – Mercury Systems Inc. has received a \$9.8 million follow-on order from a leading defense prime contractor for advanced subsystems with integrated radio frequency and digital microelectronics for a naval electronic warfare (EW) application, the company announced in a release. The order was booked in the company's fiscal 2019 second quarter and is expected to be shipped over the next several quarters.

Mercury Systems is a pioneer in high-performance, modular, open-system architectures integrating mixed-signal processing technologies for the most demanding electronic warfare applications. The company offers a complete portfolio of electronic warfare building blocks including OpenVPX microwave transceivers, field programmable gate array-based intermediate frequency and direct conversion solutions, and clock generation and distribution modules. Through adherence to the OpenVPX standard, these products support rapid development of front-end digitization and real-time processing technologies for next-generation EW systems.

“This prominent order further reaffirms Mercury's leadership position in the design and manufacturing of affordable, high-performance microelectronics delivering a strategic and tactical advantage to our nation's warfighters operating in harsh and unpredictable electromagnetic environments,” said Neal Austin, vice president and general manager of Mercury's Embedded Sensor Processing group.

L3 ASV and Dstl Complete Reconnaissance Missions at Autonomous Warrior

PORTCHESTER, England – L3 ASV has completed a series of demonstrations at the Australian Defence Showcase, Autonomous Warrior 18, in Jervis Bay, Australia, the company announced in a Jan. 15 release. In support of the Defence Science and Technology Laboratory (Dstl), L3 ASV operated a 9-meter (30-foot) vessel outfitted with advanced autonomous navigation capability for reconnaissance, interdiction and patrol tasks.

The vessel, dubbed MAST-9, operated in fully autonomous mode, including COLREG-aware collision avoidance, navigating the waterways at speeds of up to 40 knots, for over 80 hours, across the two-week event. MAST-9 successfully executed seven different task types comprising loiter, shadow, interdict, survey, patrol, target tracking and inspection.

“The reliability and consistency of the system was solid proof of the use case for autonomous surface platforms for persistent inspection and tracking at range, particularly in challenging environmental conditions,” said Dr. Howard Tripp, autonomous systems research and development lead, L3 ASV. “There were instances where the weather dictated that manned vessels had to return to harbor – the autonomous vessel, by its nature, was not subject to these concerns and was able to operate normally. This is where the real value in autonomy lies.”

“The exercise successfully showcased an integrated system of systems approach to executing autonomous defence tasks with little or no human intervention,” said Ian Campbell, Defensive Surface Warfare, Platform Systems Division, Dstl. “The ability to interface with the Maritime Autonomous Platform

Exploitation [MAPLE] system, coupled with the reliability of the vessel system, was key to the success of this demonstration.”

MAST-9 completed approximately 100 tasks commanded from the MAPLE system. Operational status and payload feedback were communicated to and from MAPLE using ASView, L3 ASV’s proprietary autonomous control system. Using an optical and infrared camera, MAST-9 demonstrated high-speed inspection capability. The ASView control system allowed the remote mission commanders to track and follow target vessels for interdiction tasks. The vessel, designed and built by L3 ASV, used radar to provide situational awareness, making it possible to detect and avoid other vessels accordingly.