

National Security Cutter Kimball Arrives at New Homeport in Hawaii

HONOLULU – The U.S. Coast Guard Cutter Kimball arrived at its new homeport of Honolulu Dec. 22, according to the 14th Coast Guard District.

Kimball is the seventh of the Coast Guard's national security cutters (NSCs) and the first to be homeported in Hawaii. The vessel is arriving following a transit from Pascagoula, Mississippi, where it was built.

A second NSC will arrive next year. Known as the Legend-class, NSCs are designed to be the flagships of the Coast Guard's fleet, capable of executing the most challenging national security missions, including support to U.S. combatant commanders. NSCs are 418 feet in length, 54 feet in beam and 4,600 long tons in displacement. They have a top speed of more than 28 knots, a range of 12,000 nautical miles, an endurance of up to 90 days and can hold a crew of up to 150. These new cutters are replacing the aging high-endurance Hamilton-class cutters (378 feet) that have been in service since the 1960s.

Kimball will routinely conduct operations from South America to the Bering Sea. The cutter's unmatched combination of range, speed, and ability to operate in extreme weather provide it the mission flexibility necessary to conduct alien migrant interdiction operations, domestic fisheries protection, search and rescue, counter-narcotics and homeland security operations at great distances from shore, keeping threats far from the U.S. mainland.

The cutter's namesake is Sumner J. Kimball. While Kimball was not a member of the Coast Guard, he was appointed the superintendent of the Life-Saving Service, a predecessor

service of the Coast Guard. Kimball reformed the Revenue Cutter Service and established a training school for young officers that would later develop into the U.S. Coast Guard Academy. His efforts to transform the collection of facilities around the U.S. coastline led to a coherent and well-trained organization.

Future USS Paul Ignatius Successfully Completes Acceptance Trials

PASCOGOULA, Miss – The future USS Paul Ignatius (DDG 117) successfully completed acceptance trials on Dec. 20, returning to Huntington Ingalls Industries' (HII's) Pascagoula shipyard after spending two days at sea in the Gulf of Mexico, Naval Sea Systems Command said in a Dec. 21 release.

During acceptance trials, the ship and its crew performed a series of demonstrations for review by the U.S. Navy's Board of Inspection and Survey (INSURV). These demonstrations are used by INSURV to validate the quality of construction and compliance with Navy specifications and requirements prior to delivery of the ship to the U.S. Navy.

"The ship performed very well, which is a testament to the preparation and commitment of the Navy-shipbuilder team," said Capt. Casey Moton, DDG 51 class program manager, Program Executive Office Ships. "The ship also previously performed a successful SM-2 shoot during builder's trials, further demonstrating the readiness of the ship's Aegis weapon system and ship's force. These trials put the ship on a solid path towards delivery to the Navy."

The DDG 51-class ships currently being constructed are Aegis Baseline 9 Integrated Air and Missile Defense destroyers with increased computing power and radar upgrades that improve detection and reaction capabilities against modern air warfare and ballistic missile defense threats. When operational, DDG 117 and its sister ships will serve as integral assets in global maritime security.

The future USS Paul Ignatius is expected to be delivered to the Navy early next year. HII's Pascagoula shipyard is also currently in production on the future destroyers Delbert D. Black (DDG 119), Frank E. Peterson Jr. (DDG 121), Lenah H. Sutcliffe Higbee (DDG 123) and Jack H. Lucas (DDG 125), the first Flight III ship. HII was recently awarded a contract for the design and construction of six additional DDG 51 class Flight III ships.

Australian Navy Frigate Seizes Illegal Drug Shipments in the Middle East

CANBERRA, Australia – The Royal Australian Navy frigate HMAS Ballarat seized more than 900 kilograms of heroin worth approximately \$195.2 million during two boarding operations that took place Dec 21-23 as part of Operation Manitou, the Australian Ministry of Defence said in a Dec. 28 release.

HMAS Ballarat conducted flag verification checks by boarding vessels of interest, under the direction of the Combined Maritime Forces' Combined Task Force 150 in international waters in the Arabian Sea. The fishing vessels, known as dhows, were believed to be engaging in illegal activity.

The boarding team discovered and seized illegal narcotics on both dhows; 165 kilos of heroin was found on the first dhow, and 766 kilos on a second. The drugs were transferred to Ballarat for disposal.

“A thorough search by the boarding parties uncovered a large quantity of heroin intended for distribution around the world,” said Comdr. Paul Johnson, commanding officer of HMAS Ballarat. “By keeping these illegal narcotics out of the hands of those that exploit others, we improve the lives of those in the region. The crew is well prepared for these activities and I am glad that they have been able to showcase their professionalism in supporting security in this complex maritime environment.”

“These drug seizures support Australia’s long-term mission to ensure maritime security, stability and prosperity in the region,” said Rear Adm. Jaimie Hatcher, commander of Australian Forces in the Middle East. “This operation will impact on the flow of narcotics around the world and the use of drug money to fund extremist organizations. This is a promising start to Ballarat’s work here and the crew should be very pleased with this excellent result.”

These are the first seizures Ballarat has made since starting operations in the Middle East Region during November in support of Operation Manitou.

**Coast Guard Concludes
Maritime Security Ops for**

Economic Leaders Week

ALAMEDA, Calif. – U.S. Coast Guard members recently completed loading six small boats and accompanying equipment onboard the USS Green Bay in Townsville, Australia, for transport back to the United States.

The loadout follows the Coast Guard's recent deployment to Port Moresby, Papua New Guinea (PNG) where 94 Coast Guard personnel logged more than 2,000 underway hours providing round-the-clock maritime security during the 2018 Asian Pacific Economic Cooperation (APEC) Economic Leaders Week, Nov. 12-18. The high-profile summit was attended by leaders and senior officials from 21 nations, including Vice President Mike Pence representing the United States.

A first-of-its kind Memorandum of Understanding signed by U.S. Ambassador Catherine Ebert-Gray and PNG Police Commissioner Gary Baki provided temporary authority for the Coast Guard to deploy small boats and specialized members as part of an adaptive force package (ADF) that provided port security, waterside protection, and anti-terrorism capabilities prior to and during the summit.

Operating under the control of the U.S. Indo-Pacific Command, the ADF worked in cooperation with PNG's Joint Security Task Force and the Australian Defense Forces.

The ADF was led by Port Security Unit (PSU) 305, based in Fort Eustis, Virginia, and included Reserve and active-duty service members from PSU 301 based in Cape Cod, Massachusetts, PSU 308 based in Kiln, Mississippi, and PSU 313 based in Everett, Washington, along with Maritime Safety and Security Team (MSST) Honolulu, MSST Seattle, MSST San Francisco and MSST Los Angeles/Long Beach.

"As a global leader in maritime law enforcement and port security, the U.S. Coast Guard was proud to work with the PNG

Joint Security Task Force and our Pacific partners to ensure safety and security throughout the APEC Economic Leaders Week," said Cmdr. Michael McCarthy, commanding officer of PSU 305.

The deployed service members and their international partners conducted waterway security at three separate maritime restricted areas around Port Moresby including waterways surrounding the APEC Haus, the main venue during the summit, and several cruise ships which served as lodging for global leaders and dignitaries during the summit.

Throughout the deployment the ADF operated from the Royal Australian Navy's HMAS Adelaide, a 757-ft long Australian amphibious assault ship equipped with a well deck that

allowed for launching and recovering the Coast Guard's six 32-foot transportable port security boats.

Coast Guard personnel participated with their international partners in a Remembrance Day Ceremony Nov. 11 commemorating the 100th anniversary of World War I on the Adelaide's helicopter landing deck.

The APEC security mission is one of several recent joint operations conducted by the Coast Guard in the Western Pacific. In August, the service participated in the 17th annual Southeast Asia Cooperation and Training exercise, which brought together service members from navies and coast guards from nine nations to focus on increasing maritime domain awareness through collaborative and coordinated information sharing.

The Coast Guard is also engaged in the Oceania Maritime Security Initiative, with law enforcement detachments deployed on supporting U.S. Naval vessels such as the USS Shoup, assisting Pacific nations with protecting their exclusive economic zones and combating illegal, unreported and unregulated fishing.

“The United States is a Pacific nation,” said Vice Adm. Linda Fagan, commander, Coast Guard Pacific Area. “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 Pacific, governed by a rules-based international system that promotes peace, security, and shared prosperity.”

LRASM Reaches Early Operational Capability Status on U.S. Air Force B-1B

ORLANDO, Fla. – Lockheed Martin has delivered the first Long Range Anti-Ship Missiles (LRASM) to U.S. Air Force operational units, achieving early operational capability (EOC) status ahead of schedule.

After successfully completing the required integration, flight testing and modeling and simulation, warfighters accepted the first of many tactical production units, meeting key criteria for the EOC declaration milestone.

“This event is the culmination of successful partnerships with the U.S. Air Force, Navy and DARPA,” said David Helsel, LRASM director at Lockheed Martin Missiles and Fire Control. “This milestone serves as a great example of collaboration to bring critical capabilities to the warfighter at accelerated acquisition timelines.”

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

contested 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 a precision-guided, anti-ship standoff missile based on the successful Joint Air-to-Surface Standoff Missile–Extended Range. It is designed to meet the needs of U.S. Navy and Air Force warfighters in contested environments.

The air-launched variant, integrated onboard the U.S. Air Force's B-1B, provides an early operational capability meeting the offensive anti-surface warfare Increment I requirement. LRASM is on schedule to achieve EOC on the U.S. Navy's F/A-18E/F Super Hornet in 2019.

Lockheed Martin Meets 2018 F-35 Production Target with 91 Aircraft Deliveries

FORT WORTH, Texas – Lockheed Martin delivered the 91st F-35 aircraft for the year, meeting the joint government and industry delivery target for 2018 and demonstrating the F-35 enterprise's ability to ramp to full-rate production, the company announced Dec. 20

The 91 deliveries in 2018 represent nearly a 40 percent increase from 2017 and about a 100 percent production increase compared to 2016. Next year, Lockheed Martin is set to deliver more than 130 F-35s representing yet another 40 percent increase in production.

“This milestone demonstrates the F-35 enterprise is prepared for full rate production and ready to deliver on increasing demand from our customers worldwide,” said Greg Ulmer, Lockheed Martin vice president and general manager of the F-35 program. “Year-over-year, we have increased production, lowered costs, reduced build time, and improved quality and on-time deliveries. Today, the F-35 is the most capable fighter jet in the world, and we’re delivering more aircraft per year than any other fighter on the market at equal to or less cost.”

The 91st aircraft is a U.S. Marine Corps F-35B, to be delivered to Marine Corps Air Station Beaufort, South Carolina. In 2018, deliveries included 54 F-35s for the United States, 21 for international partner nations, and 16 for Foreign Military Sales customers.

To date, more than 355 F-35s have been delivered and are now operating from 16 bases worldwide. More than 730 pilots and over 6,700 maintainers are trained, and the F-35 fleet has surpassed more than 175,000 cumulative flight hours. Ten nations are flying the F-35, seven countries have F-35s operating from a base on their home soil, four services have declared initial operating capability, and two services have announced their F-35s have been used in combat operations.

Campbell Returns Following Counter-Narcotics Patrol

BOSTON – The crew of Coast Guard Cutter Campbell returned to Kittery, Maine, on Dec. 18 following a three-month counter narcotics patrol in the eastern Pacific Ocean, the 5th Coast

Guard District said in a release.

During the patrol, the crew of the Campbell seized approximately 5,300 kilograms of cocaine with an estimated value of \$159 million and detained six suspected smugglers.

“Campbell’s crew demonstrated unwavering dedication and operational excellence during the 90-day deployment in the eastern Pacific Ocean,” said Cmdr. Mark McDonnell, commanding officer of Campbell. “We enjoyed strong support from our international and interagency partners, helping us thwart criminal networks’ illicit operations in the Western Hemisphere.”

The Campbell crew also located and rescued a sea turtle that had become entangled in a net. During the deployment, the crew of Campbell navigated 20,849 nautical miles.

Campbell is a 270-foot medium-endurance cutter with a crew of 106 and has been homeported in Kittery since 2003.

Thetis Crew Returns to Key West After 90-Day Patrol

KEY WEST, Fla. – The crew of the Coast Guard Cutter Thetis returned to its homeport after a 90-day patrol in support of Operations Southeast Watch and Unified Resolve in the Caribbean Sea in support of alien migrant interdiction operations, the 7th Coast Guard District said in a Dec. 19 release.

The Thetis crew, along with other Coast Guard units, worked alongside the Puerto Rico Joint Forces of Rapid Action to

interdict and repatriate 219 migrants from the Dominican Republic and Haiti attempting to illegally enter the United States. While off the coast of Haiti, the cutter crew rescued six Jamaicans who were stranded at sea for three days with little food and water.

“The crew of the Thetis worked with the Haitian Coast Guard and National Police, the Dominican Republic Navy, the Cuban Border Guard, and the Royal Bahamas Defence Force as well as key United States agencies including the U.S. Citizenship and Immigration Service, strengthening our domestic and international partnerships,” said Cmdr. Randall Chong, commanding officer of Thetis. “I’m very proud of my crew for our continued contributions to stopping the flow of illegal migrants while rescuing those without basic survival equipment who were found drifting in the ocean for several days.”

Adm. Karl Schultz, commandant of the Coast Guard and Master Chief Petty Officer Jason Vanderhaden, master chief petty officer of the Coast Guard, joined the crew for a Thanksgiving meal in Guantanamo Bay, Cuba, where they expressed gratitude for crew’s sacrifices made while underway during patrol. The commandant specially recognized several crewmembers for their commitment to excellence and for exemplifying his guiding principles: ready, relevant and responsive.

The cutter Thetis is a 270-foot Famous-class cutter, homeported in Key West and has a crew of 100.

Students Vie for Autonomous

Maritime System Dominance

ARLINGTON, Va. – Fifteen teams from three continents met on the beaches of Honolulu last week for the 2018 Maritime RobotX Challenge. The week-long biennial autonomous maritime system competition – co-sponsored by the Office of Naval Research (ONR), the Association of Unmanned Vehicles International Foundation and NAVATEK, a Hawaii-based company that designs ships, small crafts and other amphibious vehicles – wrapped up Dec. 15.

Like ONR's other sponsored robotic events – RoboBoat and RoboSub – this competition is designed to foster student interest in autonomous systems.

“This event rounds out the trifecta of maritime robotics competitions that ONR supports,” said Kelly Cooper, a program officer in ONR's Ocean Battlespace Sensing Department and RobotX judge. “Each of these events is designed to build upon skills learned in previous competitions, and participation in all can help build a solid foundation of engineering skills.”

Using a common boat platform called the Wave Adaptive Modular Vessel (WAM-V) surface craft, all teams must outfit their vessel with propulsion, sensor and control systems. These systems must be programmed to recognize and compute various data, to help the WAM-V make decisions autonomously as it traverses a course of seven increasingly difficult, maritime-related tasks.

“Besides having to accomplish a series of seven tasks without human interference, the vessels also have to deal with environmental issues like wind, rain and sun glare,” said Cooper. “Being in an open maritime environment like the North Pacific Ocean provides teams with more challenges than just what is laid out on paper in the mission requirements.”

The vessels – without human or computer interaction – had to

demonstrate navigation and control; obstacle avoidance; location and sequence; identification and docking; detection and delivery; underwater recovery; and situational awareness.

Teams also needed to create a website and video, write a technical design paper outlining their work and give a presentation.

Each task tested students' mechanical, electrical, computer and systems engineering skills – as well as their presentation prowess and teamwork – while competing for cash prizes totaling nearly \$100,000 (which go directly to the school, usually to a robotic club or program).

“RobotX brings together the international student engineering community to showcase their know-how and help find new solutions to autonomous challenges faced by industry and the military,” said Cooper. “In fact, they are truly helping to advance autonomous maritime technology through their fresh ideas.”

National University of Singapore took this year's top prize, while Australia's Queensland University of Technology and Embry-Riddle Aeronautical University placed second and third, respectively.

U.S. teams included: Florida Atlantic University, Georgia Institute of Technology, Old Dominion University, University of Florida, University of Hawaii at Manoa, and University of Michigan.

International teams included: Australia's University of Newcastle and University of Sydney, China's Harbin Engineering University, Japan's Osaka Prefecture University, Singapore's Nanyang Technological University, and Taiwan's National Chiao Tung University.

MBDA's Sea Venom-ANL Missile Marks Further Trials Milestone

PARIS – MBDA's Sea Venom-ANL anti-ship missile has successfully conducted a further firing trial, passing a significant new milestone for the Anglo-French cooperation program, the company said in a Dec. 12 release.

Conducted on Nov. 14 from a Direction Générale de l'Armement (DGA) Dauphin test helicopter at the DGA Missile testing range of Ile du Levant range, the trial was the final development firing for the missile prior to the start of qualification trials in 2019.

This latest trial highlighted Sea Venom-ANL's lock-on-before-launch (LOBL) capabilities, with images from the missile's infrared seeker being used by the operator to designate the target prior to launch.

"This latest successful trial is a great milestone for the program, which will provide a major increase in the naval strike capabilities of our armed forces," said Frank Bastart, MBDA's head of the Sea Venom-ANL program. "Throughout the trials campaign we have continued to push the system and its operating modes to its limits. The success of these tests is testament to the unrivalled performance of the Sea Venom-ANL missile."

Sea Venom-ANL is capable of being launched from a wide range of platforms and will be used on the U.K. Royal Navy's AW159 Wildcat and French Navy future HIL (Hélicoptère Interarmées Léger) helicopters. This 120-kilogram sea-skimming missile is

designed to enable navies to deal with a range of threats including fast moving patrol boats, corvettes and coastal targets.

The missile is capable of being fired in both LOBL and lock-on-after-launch modes, with a two-way datalink and imaging seeker giving the operator the ability to monitor the engagement, perform aim point refinement, select a new target, or abort the mission if necessary.

The missile is being developed under a unique joint program launched at the 2010 Lancaster House Summit, that is the first to take full advantage of consolidated centers of excellence created within the Anglo-French missile industry under the "One Complex Weapons" initiative.