

# Marine Corps Sets New Milestone with GA-ASI MQ-9A Reaper UAV

SAN DIEGO – Over the last year, the U.S. Marine Corps' Marine Unmanned Aerial Vehicle Squadron 1 (VMU-1) blazed a trail of firsts and was awarded the 2018 Marine Corps Aviation Association Unmanned Aircraft Squadron of the Year.

A major component of the squadron's accomplishments included use of the MQ-9A Reaper unmanned aircraft system (UAS), which to date has more than 4,800 flight hours of direct support reconnaissance over a 12-month period, General Atomics Aeronautical Systems Inc. (GA-ASI) said in a release.

The multi-sensor reconnaissance equipped MQ-9A UAS produced by GA-ASI has provided crucial support to the Corps' forward operations on the battlefield as well as serving as a proof of concept for the Deputy Commandant's Marine Aviation Plan. Building the Corps' Group 5 UAS community, this initiative will help inform the Marine Air Ground Task Force (MAGTF) UAS Expeditionary (MUX) program while also meeting the 38th Commandant's planning guidance to expand unmanned capabilities.

VMU-1 utilized leased MQ-9A Reaper aircraft to fulfill a request for intelligence, surveillance and reconnaissance (ISR) in Afghanistan since September 2018.

"We congratulate the officers and Marines of VMU-1 for their superb performance this year, winning the John I. Hudson Award as the Marine Unmanned Aircraft Squadron of the Year," said David R Alexander, president, GA-ASI.

"GA-ASI looks forward to working with VMU-1 as the USMC transitions its Company Owned/Company Operated (COCO) MQ-9A

contract to a Government Owned/Government Operated (GOGO) contract in the coming year.”

The GOGO capability fulfills the commandant’s directive for Marine Corps Group 5 persistent ISR capability with strike and will achieve IOC in 2020. VMU-1 will be the test bed and incubator to provide crucial information, lessons learned, requirements and tactics, techniques, and procedures that will aid in Marine efforts for a successful acquisition and fielding of MUX.

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## **Navy Shallow-Draft LCS Increases U.S. Access, Presence in Southeast Asia**



The USS Montgomery steams in the Gulf of Thailand during an exercise as part of AUMX. The first AUMX, co-led by the U.S. and Royal Thai navies, includes maritime forces from the U.S. and all 10 ASEAN member states. U.S. Navy/Mass Communication Specialist 1st Class Greg Johnson

ARLINGTON, Va. – When the littoral combat ship (LCS) USS Montgomery (LCS 8) visited Davao City, a port on the Philippine island of Mindanao, earlier this summer, it was the first port call there of a U.S. Navy ship in who knows how long.

Speaking to reporters Sept. 11 in a media roundtable teleconference, Cmdr. Edward A. Rosso, commanding officer of the ship’s Blue Crew, was making the point that the LCS, with its shallow draft, allows the Navy to make port calls in locations that would not accommodate larger vessels such as

destroyers, cruisers and amphibious warfare ships.

The draft of the aluminum trimaran-hull, Independence-variant Montgomery is 15.1 feet, compared with the 30.5-foot draft of an Arleigh Burke-class destroyer.

“The U.S. Navy, along with our partners and allies, has long known the importance and value of working together, and from my perspective, that is exactly what Montgomery has done during this deployment,” Rosso said. “We began our time in theater with a historic port visit to Davao City in the Philippines. It perfectly suited to receive our shallow-hull littoral combat ship. This was the first visit by a U.S. warship to that location in recent memory.”

“It was a great opportunity to build relationships, learn from one another, improve interoperability, and appreciate culture,” he added. “Overall, port visits like this allow us to demonstrate our commitment to maritime security in the region while strengthening relationships with our friends, partners and allies.”

The Montgomery is the first rotational deployment to the Western Pacific of an LCS in 18 months and is the first of three LCSs the Navy plans to deploy this year.

The last LCS to deploy, USS Coronado (LCS 4), returned from the western Pacific on Dec. 5, 2017. It had been preceded by the USS Freedom (LCS 1) and its Freedom-class sister ship, USS Fort Worth (LCS 3), in 2015 and 2016, respectively.

During the deployment, Montgomery participated in the 25th annual CARAT (Cooperation Afloat Readiness and Training) exercise and the ASEAN-US Maritime Exercise (AUMX).

“Co-led by the U.S. and Royal Thai navies, AUMX consisted of pre-sail activities in Thailand, Singapore and Brunei, followed by a sea phase in international waters of Southeast Asia, including the Gulf of Thailand and South China Sea,” a

Navy release said. "It concluded in Singapore. Participating nations included Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, United States and Vietnam. AUMX included eight warships and four aircraft from seven countries, and more than one thousand personnel representing all ten ASEAN member states and the United States."

The Montgomery deployed with the Surface Warfare Mission Package, including an MH-60S helicopter and an MQ-8B Fire Scout unmanned aerial vehicle.

Rosso praised the value of the LCS Maintenance Support Team deployed to Singapore to support LCS deployments to the area. The team can stage to various ports in the region to rapidly respond to maintenance needs of a deployed LCS. In one such response, the team made a major repair at Sattahip, Thailand.

He also praised his crew, of which he said, "The things on this ship wouldn't have happened without my crew," whom he called "100 people of excellence."

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## **Navy EOD Group Praises Mk18 UUV Performance in Aleutian Waters**



Operations Specialist First Class Sean McNamara, assigned to Explosive Ordnance Disposal Mobile Unit One (EODMU1), launches the Mk 18 Mod 2 Kingfish for an initial underwater survey of Sweeper Cove on Adak Island in the Alaska's Aleutian chain. U.S. Navy/ Senior Chief Petty Officer Brandon Raile

ARLINGTON, Va. – The commodore of a Navy explosive ordnance disposal (EOD) group has praised the performance of the unmanned underwater vehicles (UUVs) that were used in a recent exercise in the Bering Sea off the Aleutian island chain.

“The technology that is being incorporated in the Mk18 Mod 1 and 2 and also in our smaller next-generation UUVs [is] incredible,” said Capt. Oscar E. Rojas, commander of EOD Group One and commodore of Combined Task Force 35, speaking Sept. 11 to reporters in a media roundtable teleconference. “The resolution of the images that we are getting back from the topography of the seabed is so amazingly clear that it makes our job in IDing so much easier. That’s why when we say a lane is clear of explosive hazards, we have an almost 100% confidence factor that is a fact because of this technology that has been introduced. It is a true game-changer.

“The future of warfighting is unmanned systems,” Rojas said.

The Mk 18 Mod 1 Swordfish, Mk 18 Mod 2 Kingfish and other smaller UUVs were deployed to Adak, an island halfway along the Aleutian chain from the Alaskan mainland, for the Arctic Expeditionary Capabilities Exercise (AECE), the first exercise of its kind. Adak is the site of a former naval air station and deep-water port that were active during the Cold War.

Rojas stressed that this exercise was the first time that the Navy EOD community had exercised its expeditionary mine countermeasures (MCM) capabilities is such a high latitude. He also noted that after 18 years of becoming experts in clearing improvised explosive devices on land in Afghanistan and Iraq, the EOD expertise is being turned toward maritime mine countermeasures in an era of great power competition, although he declined to identify no specific competitor.

The scenario of the exercise was the employment of MCM capabilities to prepare the landing zone for amphibious forces of a Marine Corps Special-Purpose Marine Air-Ground Task

Force.

He said the exercise was intended to increase agility in places where EOD forces have not deployed in a very long time and to test the EOD and MCM technology in cold water. One of the goals was to see how the cold water affected the life of lithium batteries in the UUVs and tethered remotely operated vehicles. Another was to see how the UUVs performed in areas of strong rip currents and widely varying tidal changes, and the effect of 40-knot winds on UUV-deploying boats and communications systems.

“It is important for us to operate in these conditions,” Rojas said. “The environment [in future conflict] is going to be very much like the one we’re training in now.”

He said that the exercise was an opportunity to operate unmanned systems that were designed for “a more benign environment” and to see if the systems were “going to break or going to function as designed.”

The commodore also noted that many of the hydrographic charts of the Aleutian area were outdated, with several shipwrecks found that were not marked on the charts.

Rojas said he tested five different communications systems and exercised the command-and-control systems in a satellite communications-denied environment, also using High-Frequency radios for communications.

The EOD group also exercised its scalable units of action. In this exercise, approximately 150 personnel from the EOD forces were involved. The EOD group can deploy in three C-17 transport aircraft or with just a few equipment cases on a commercial airliner.

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# Navy E-2D With Aerial Refueling Joins Squadron



An E-2D Hawkeye prepares to land and be received by the Greyhawks of Carrier Airborne Early Warning Squadron (VAW) 120 on Monday, September 9 at Naval Station Norfolk. U.S. Navy/Mass Communication Specialist 3rd Class Nikita Custer NORFOLK, Virginia – An E-2D Advanced Hawkeye capable of aerial refueling landed at Naval Station Norfolk Sept. 9, officially marking the arrival of this upgraded aircraft to the fleet, Commander, Naval Air Force Atlantic Public Affairs said in a Sept. 12 release.

“This is an important day for naval aviation as we continue to increase our capabilities and maintain our competitive edge in the skies,” said Rear Adm. Roy Kelley, commander of Naval Air Force Atlantic, “This capability will extend the endurance of Hawkeyes, increasing the Navy’s battlespace awareness and integrated fire control – both from the air and the sea.”

The aerial-refueling-capable E-2D joined the “Greyhawks” of Carrier Airborne Early Warning Squadron (VAW) 120.

“Aerial refueling capability is a game-changer for the E-2D community and future operations in the high-end fight,” said Cmdr. Scott Wastak, VAW-120 commanding officer. “We will now begin to train instructor pilots and refuel with several different Navy and Air Force tanker aircraft, including F/A-18s.”

VAW-120 is only the first step in rolling out this new capability. The Navy will transition two operational fleet squadrons to aerial refueling capable E-2Ds by 2020.

VAW-120 is a Fleet Replacement Squadron attached to Airborne Command & Control and Logistics Wing commanded by Capt. Matthew Duffy. Its mission is to train naval aviators, naval flight officers, Navy aircrewmen and qualified maintainers to safely and effectively operate E-2 and C-2 aircraft.

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## **Coast Guard Repatriates 18 Migrants to the Dominican Republic**

SAN JUAN, Puerto Rico – The crew of the Coast Guard Cutter Heriberto Hernandez (WPC-1114) repatriated 18 migrants to a Dominican Republic Navy vessel just off the Dominican Republic Sept. 11 following the interdiction of two illegal migrant voyages Sept. 8 in the Mona Passage.

Four men, among the interdicted migrants, remain in Puerto Rico to face possible federal prosecution on charges of violating 8 USC 1326, which carries a potential maximum term of imprisonment of 20 years and a fine of up to \$250,000.

The interdictions were a result of ongoing efforts in support of Operation Unified Resolve, Operation Caribbean Guard and the Caribbean Border Interagency Group (CBIG). Since October 2018, the Coast Guard and CBIG federal and state partner agencies have interdicted over 2,026 migrants at sea near Puerto Rico.

“Migrants risk their lives when they attempt to cross the Mona Passage aboard makeshift vessels with little or no lifesaving equipment,” said Capt. Eric King, Commander of Coast Guard Sector San Juan. “What many of them do not realize is that

they potentially risk going to prison when they attempt to enter the country illegally.”

“The seas around Puerto are unpredictable and unforgiving,” said Lt. Andrew Russo, commanding officer of the cutter Heriberto Hernandez. “These two cases highlight the inherent and explicit danger each illegal venture poses. I am proud of my crew and thankful for the support from our partner agencies as we work to ensure the safety of all lives at sea.”

While on patrol in the Mona Passage Sept. 8, the crew of a Customs and Border Protection (CBP) Air and Marine Operations DHC-8 marine patrol aircraft crew sighted a migrant boat just off Mona Island, Puerto Rico. Cutter Heriberto Hernandez diverted to the scene and interdicted the 18-foot boat with 13 migrants aboard. The cutter crew safely embarked 12 men and a woman, who claimed Dominican Republic nationality.

In a separate case shortly thereafter, two Puerto Rico Police Joint Forces of Rapid Action marine units interdicted a second 18-foot migrant boat Sept. 8 Sunday night just off the coast of Aguadilla, Puerto Rico. Coast Guard watchstanders at Sector San Juan diverted cutter Heriberto Hernandez to the scene, where the crew safely embarked seven men and two women, who claimed Dominican Republic nationality.

Ramey Sector Border Patrol agents in Mayaguez, Puerto Rico received custody of the four migrants awaiting federal prosecution.

Once aboard a Coast Guard cutter, all migrants receive food, water, shelter and basic medical attention.

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# **General Atomics Awarded Contract for Columbia Submarine Bearing Support Structures**

SAN DIEGO – General Atomics Electromagnetic Systems (GA-EMS) has been awarded a contract from Naval Surface Warfare Center, Carderock Division (NSWCCD), to fabricate and deliver two large bearing support structures for Columbia-class ballistic-missile submarines, the company said in a release.

“This contract leverages our extensive manufacturing competencies to ensure these critical structures are delivered to NSWCCD as the first new Columbia-class submarine begins construction in October 2020,” said Scott Forney, president of GA-EMS.

GA-EMS will manufacture the two bearing support structures at their facilities in Tupelo, Mississippi. The Navy intends to build 12 Columbia-class submarines over the next 20 years.

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# **L3Harris Delivers AAV Capability to U.K.’s Defence Science and Technology Lab**

PORTCHESTER, U.K. – L3Harris Technologies has delivered a brand-new class of Autonomous Surface Vehicle (ASV) with advanced capabilities to enable the United Kingdom’s Royal

Navy to understand how to maintain a technical advantage over potential adversaries, the company said in a release.

The Maritime Autonomy Surface Testbed (MAST) 13 is a 13-meter (41-foot) high-speed system capable of fully autonomous navigation. The ASV uses L3Harris' ASView autonomous control system and advanced algorithms developed for the United Kingdom's Defence Science and Technology Laboratory (Dstl).

Designed, built and commissioned by L3Harris' Unmanned Maritime Systems team based on the south coast of the United Kingdom, MAST 13 was officially launched on Sept. 11 at DSEI in London. The system carried out unmanned surveillance and force protection in the Victoria Dock at DSEI.

"MAST 13 reflects the increased use of unmanned systems in the military domain. This vehicle serves as a test platform to support new concepts for the Royal Navy, allowing them to exploit unmanned systems and maintain a technical advantage," said Alasdair Gilchrist, Above Water Systems program manager at the lab.

Since 2014, L3Harris and Dstl have collaborated to develop ASVs that support new concepts for the Royal Navy and act as a testbed for innovative technologies.

"As the program continues, we welcome collaboration with other organizations to test new algorithms, sensors, payloads and novel concepts. We encourage any such organizations to get in touch," Gilchrist said.

Predecessor MAST systems developed by L3Harris and Dstl have carried out numerous high-profile operations, including the Royal Navy's Unmanned Warrior in 2016 and the Australian Defence Showcase, Autonomous Warrior in 2018. MAST 9 is in Portugal for the NATO exercise REPMUS. The high-speed vessel is operating autonomously, beyond line-of-sight, to carry out reconnaissance, interdiction and patrol tasks.

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# Coast Guard Repatriates 46 Migrants to the Dominican Republic

SAN JUAN, Puerto Rico – The crew of the Coast Guard Cutter Joseph Doyle (WPC-1133) repatriated 46 migrants on Sept. 10 to a Dominican Republic navy vessel just off Samaná following the interdiction of two illegal migrant voyages in the Mona Passage, the Coast Guard 7th District said in a release.

Four of the interdicted migrants – three men and a woman – remain in Puerto Rico to face possible federal prosecution on charges of attempted illegal re-entry into the United States.

The interdictions resulted from ongoing efforts in support of Operation Unified Resolve, Operation Caribbean Guard and the Caribbean Border Interagency Group.

While on a routine patrol of the Mona Passage on Sept. 8, the crew of the Coast Guard Cutter Heriberto Hernandez (WPC-1114) detected and interdicted a 22-foot makeshift boat with 22 migrants aboard about eight nautical miles northwest of Aguadilla, Puerto Rico. The Heriberto Hernandez's crew safely embarked 14 men and eight women who claimed to be Dominicans.

A Customs and Border Protection (CBP) Air and Marine Operations DHC-8 marine patrol aircraft crew sighted a second migrant boat on Sept. 8 about 56 nautical miles northwest of Aguadilla, Puerto Rico. The Heriberto Hernandez diverted to the scene and interdicted a 16-foot boat with 28 migrants aboard. The cutter's crew safely embarked 26 men and two

women, all of whom also claimed to be Dominican.

The Heriberto Hernandez later rendezvoused with the cutter Joseph Doyle and transferred the 46 migrants for their repatriation. The Heriberto Hernandez also rendezvoused with Ramey Sector Border Patrol agents in Mayaguez, Puerto Rico, who received custody of the four migrants awaiting prosecution.

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## **LAV Meets ARV: Researching the Marines' Next-Generation Light Armored Vehicle**

ARLINGTON, Va. – The Office of Naval Research (ONR) is sponsoring research to develop the next-generation Armored Reconnaissance Vehicle (ARV), slated to replace the Marine Corps' current Light Armored Vehicle (LAV), the office's public affairs said in a release.

The LAV supports Light Armored Reconnaissance Battalions, which perform sustained reconnaissance, counter-reconnaissance and security missions in all weather. It's been in service since the early 1980s, and the Marine Corps plans to start replacing it at the end of the next decade.

ONR's ARV effort is part of the Department of the Navy's Future Naval Capabilities program, which aims to discover, assess and fast-track the most mature and useful new technologies into acquisition programs of record once the research is complete.

The ARV will provide transformational sensor, communications

and combat capabilities to collect and communicate information, while integrating robotics and artificial intelligence in manned-unmanned teams. Using ARV, a crew will be able to use advanced onboard sensors and unmanned systems to detect, recognize and identify threats at extended ranges.

Beginning in 2018, ONR awarded several contracts for full-system concept/trade studies and for individual advanced technology research efforts. This year, ONR has awarded contracts to two defense companies to design, fabricate and test full-scale technology-demonstration vehicles.

One vehicle, by General Dynamics Land Systems, will incorporate advanced technologies available today or in the near future around a theoretical unit price. This is known as the "base-vehicle" approach.

The other vehicle, by SAIC, is conceived as an "at-the-edge" vehicle with advanced technologies that, while fully mature today, could be incorporated into the ARV as new capabilities when threats and missions evolve. The objective of this approach is to envision the most advanced technology, beyond current capabilities.

Both technology-demonstrator platforms should be ready for government evaluation near the end of 2020.

Additionally, ONR is investing in component technology development meant to enhance the armored reconnaissance mission of the future through investments in platform cybersecurity; logistics management; mobility; and autonomous aerial vehicles with Battelle, Cougar Software, QinetiQ and SRI International, respectively.

To ensure full collaboration and a smooth transition of research products to the Marine Corps, close alignment is maintained with acquisition and requirements representatives from the Program Manager for Light Armored Vehicles within the Marine Corps Systems Command and the Ground Combat Element

Division within the Marine Corps Combat Development Command.

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# Navy, Marine Corps Beef Up Relief Efforts in the Bahamas



U.S. Navy Sailors transport supplies on Sept. 7 in response to Hurricane Dorian. U.S. Navy/Mass Communication Specialist 3rd Class Katie Cox

ARLINGTON, Va. – The U.S. Navy and Marine Corps have increased their forces involved in relief and rescue efforts in the Bahamas as recovery efforts continue after Hurricane Dorian devastated some of the islands.

In a Sept. 9 Pentagon briefing, Jonathan R. Hoffman, assistant to the secretary of defense, said that U.S. Northern Command had received 30 relief requirement requests and had deployed 1,200 personnel in support of those requests.

“Secretary [of Defense Mark T.] Esper authorized NORTHCOM to utilize 30 Army and Navy helicopters to provide transportation logistics and conduct assessments of transportation nodes to facilitate the delivery of humanitarian assistance,” Hoffman said. “We are pursuing options to assist in airspace deconfliction as well.”

The amphibious assault ship USS Bataan has deployed to the Bahamas and is operating Marine Corps MV-22B Osprey tilt-rotor and CH-53E Super Stallion heavy-lift helicopters in support of the relief efforts. Navy MH-53E Sea Dragon helicopters also have been providing logistics for the relief efforts.

“Four U.S. Marine Corps MV-22 Ospreys from the USS Bataan transported a U.S. Air Force airfield assessment team to conduct its mission,” Hoffman said. “The airfield assessment team completed its evaluation of Grand Bahama International Airport and reported the field is C-130 and C-17 capable.”

The Coast Guard continues its rescue-and-recovery efforts in the Bahamas with five MH-60T helicopters and five cutters. As of Sept. 9, the service had rescued 383 people.