Marine Corps to Cease Deployments, Water Ops of AAV7 Vehicles

An AAV7A1 assault amphibious vehicle conducts a wet-gap amphibious crossing as part of a company-sized infiltration on Camp Lejeune, North Carolina, Aug. 10, 2021. *U.S. MARINE CORPS / Lance Cpl. Jacqueline C. Arre*

ARLINGTON, Va. — The Marine Corps has decided to cease deploying AAV7 assault amphibious vehicles as well as operating them in water during exercises, the Corps said in a release.

The decision is a consequence of a fatal mishap on July 30, 2020, with the sinking of an AAV7 off California, resulting in the deaths of eight Marines and a Navy corpsman.

The AAV7, which entered service in 1972, is the prime amphibious vehicle of the Marine Corps. It has gone through upgrades since. It is being replaced by the Amphibious Combat Vehicle.

The following statement was released by Maj. Jim Stenger, a Marine Corps spokesman:

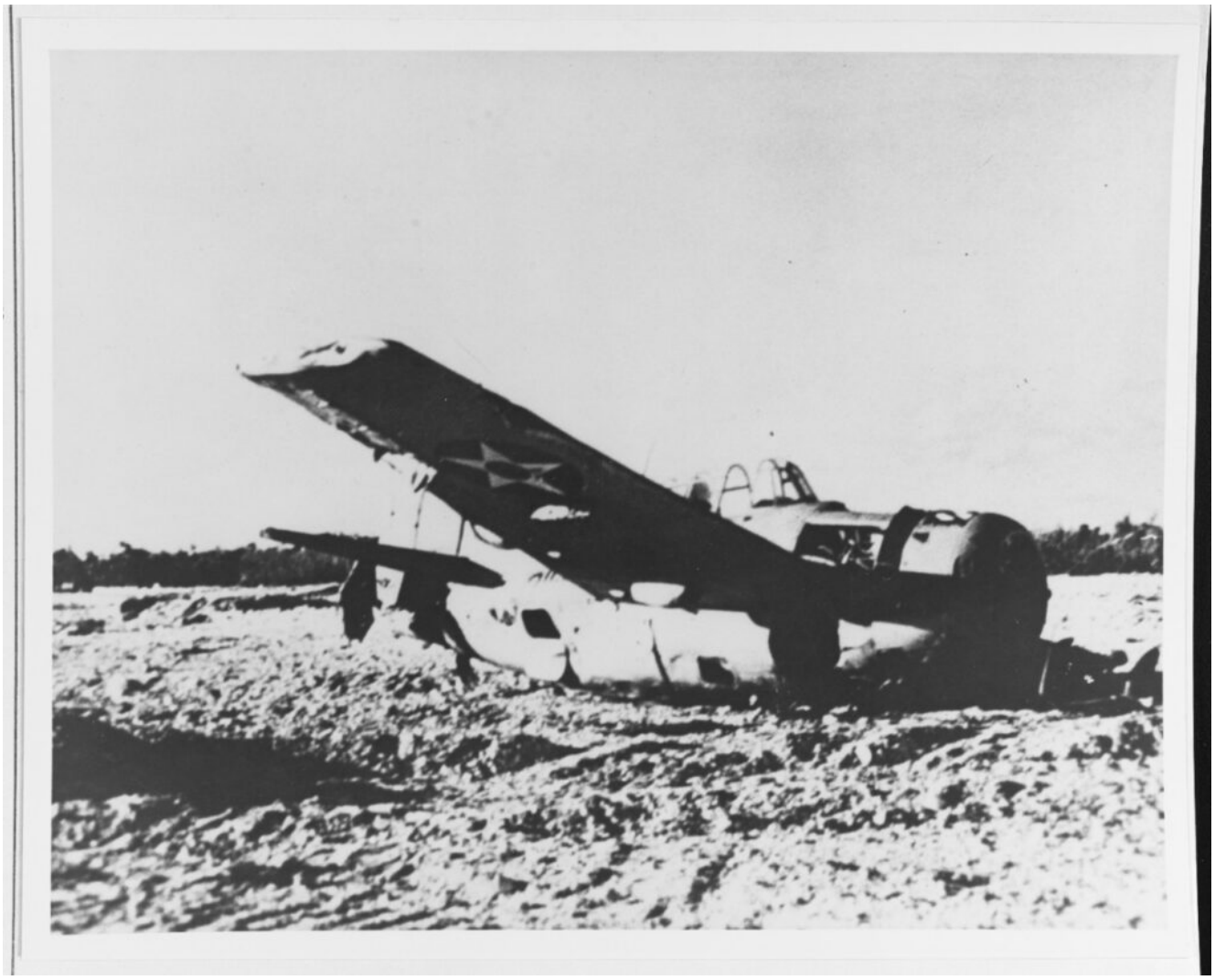
“The Marine Corps stands by the efficacy of the recommendations that came from the multiple investigations into the AAV mishap from the summer of 2020, and with those recommendations implemented and sustained, the AAV is a safe and effective vehicle for amphibious operations.

“That said, given the current state of the amphibious vehicle program [the program that manages both AAVs and ACVs], the commandant of the Marine Corps has decided the AAV will no longer serve as part of regularly scheduled deployments or train in the water during military exercises; AAVs will only return to operating in the water if needed for crisis response. This decision was made in the interest of the long-term health of the amphibious vehicle programs and future capabilities. The AAV will continue to operate on land; 76% of its tasks are land-based. In doing so, we reserve the capability to reverse this decision should the need arise.

“The Marine Corps will continue deployments with myriad lethal capabilities which currently exist, and we remain committed to fielding the Amphibious Combat Vehicle.

“ACVs were temporarily suspended from open-ocean waterborne operations as we worked to solve an issue that was identified with the towing mechanism. We expect that issue to be resolved soon and for ACVs to return to the water early in the New Year.”

Berger: Pacific Stand-In Forces Will Rely on Allies, Joint Force Sensors to Avoid Another Wake Island



Wreckage of a U.S. Marine Corps F4F-3, Photographed on Wake following its capture by the Japanese on Dec. 23, 1941. *NATIONAL ARCHIVES*

ARLINGTON, Va. — Marine Corps Stand-In Forces are needed in the contested sea lanes and littorals of the Western Pacific as the leading edge of a maritime defense-in-depth that can disrupt the plans of potential adversaries, according to the Corps' commandant.

The Marine Corps recently released A Concept for Stand-in Forces, which maintains that small but lethal, resilient, forward-postured forces, operating in contested areas – capable of transitioning rapidly from competition to crisis to conflict and back again – can extend the reach of the fleet and joint force.

Depending solely on a stand-off force of large vessels 1,000 miles away from China "works right into their strategy," Gen. David Berger told a Dec. 14 virtual "fireside chat" with the Center for New American Security, a Washington think tank. "They'll be exactly where they want to be five years from now."

The People's Liberation Army Navy likes to build a bubble or shield within a contested area, Berger said, and "push it way, way out and then operate without being seen. That's perfect for them. That's what happened in the South China Sea."

That's why a stand-in force of small, highly mobile Marine expeditionary units, dispersed in contested areas by numerous smaller, cheaper, low signature surface vessels is necessary, Berger said. "How are you going to sense what's in front of us every day? How are we going to assure our partners and allies? We have to be there, up close and forward". The concept paper said Stand-In Forces would be supplied by expeditionary advanced bases.

Berger was asked how such forward-deployed units, even armed with long-range precision fires, could avoid a fate like the advanced naval and air base at Wake Island, which fell to the Japanese 80 years ago.

"Wake Island only happened because we couldn't see it coming early enough. We have to be forward as a Stand-In Force. We have to be the eyes and ears of the joint force," Berger said.

Wake Island, an uninhabited atoll in the Central Pacific, more than 2,000 miles west of Hawaii, was home to a half completed

aircraft and submarine base in early December 1941, as war with Japan threatened. Wake was defended by an understrength battalion of 449 Marines, a handful of Navy and Army personnel and a dozen Marine Corps Grumman F4F Wildcats, all but four of them destroyed in a Japanese air raid just hours after Pearl Harbor was attacked. The base had no radar equipment.

Marine shore batteries and the remaining Wildcats repulsed a Japanese naval assault on Dec. 11. Two Japanese destroyers and a submarine were sunk, 21 aircraft shot down and several other Japanese vessels were damaged. However, Wake Island's defenders were overrun by a second naval assault and surrendered on Dec. 23, 1941. Before the surrender, a Navy task force sent as relief mission to Wake was recalled under still controversial circumstances.

"The chance of a 21st century Wake Island goes up if we do not have the ability to do sensing forward, the ability to strip away an adversary's eyes and ears," Berger said, calling for reconnaissance measures that would also counter Chinese surveillance efforts. "The balance of sensors has to be from the satellite all the way down to terrestrial. All of it, so that nothing happens in front of us without us knowing it, without us understanding it."

"The Stand-In Force that we're working on isn't just Marines," the commandant said. It could also include the Coast Guard and Special Operations, he said. "It could be the subsurface fleet, allies and partners – all of them forward – and Wake Island doesn't happen."

Marine CH-53Ks Partner with Navy to Test Future Force Operating Concepts

U.S. Marine Corps Pfc. Zackary Riffle with Combat Logistics Battalion 24, Combat Logistics Regiment 2, 2nd Marine Logistics Group waits for a CH-53K King Stallion to take off during a Helicopter Support Team operation at Tactical Landing Zone Albatross on Camp Lejeune, North Carolina, Nov. 19. *U.S. MARINE CORPS / Lance Cpl. Meshaq Hylton*

ARLINGTON, Va. — In a first for the Marine Corps, Marines from Marine Operational Test & Evaluation Squadron One (VMX-1) conducted over-the-horizon heavy lift and troop transport ship-to-shore operations aboard CH-53K King Stallions over the Atlantic Ocean, Nov. 19-21, Headquarters Marine Corps said Dec. 3.

These exercises are a critical component of the Marine Corps' future force operating concepts, such as expeditionary

advanced base operations and distributed operations.

“We are excited to continue advancing the commandant’s vision of the future force by partnering with the Navy and finding ways to optimize how we operate and thrive in a strategic competition environment,” said VMX-1 Commanding Officer Col. Byron Sullivan. “We remain the nation’s naval expeditionary force, ready to fight in any clime or place at any time.”

VMX-1, evaluating the King Stallion’s ability to meet program specification for the over-the-horizon heavy lift evolution, tested the King Stallion’s capability to transport a 27,000-pound light armored vehicle (LAV-25) from the Wasp-class amphibious assault ship USS Iwo Jima (LHD 7) to a landing zone ashore. The troop transport evolution evaluated the King Stallion’s ability to move troops over the horizon to a location ashore and return to ship without refueling, covering as much as 220 nautical miles roundtrip.

Combat Logistics Battalion 24 and 2d Battalion, 2d Marines from Camp Lejeune, North Carolina, provided personnel and equipment to assist VMX-1 with their testing, and sailors from the USS Iwo Jima assisted VMX-1 with shipboard and flight deck operations.

The Marine Corps is progressing through initial operational test and evaluation (IOT&E) of the CH-53Ks prior to fielding them to the Fleet Marine Force. The pilots, maintainers, and contractors of VMX-1, the squadron tasked with conducting operational test and evaluation of Marine Corps aviation platforms and systems, play a significant role in shaping the tactics, techniques and procedures of CH-53K utilization. Additionally, VMX-1 personnel will put the aircraft through rigorous evaluations in order to determine its suitability and effectiveness before arriving to the fleet.

“We have the most professional and capable individuals maintaining the aircraft and are also appreciative to the

Blue-Green Team, who demonstrate the superb ability to operating harmoniously," said VMX-1 CH-53K Detachment Operations Officer Maj. Joshua Banks.

Marines Test JAGM From AH-1Z Viper

Marine Corps aviation ordnance Marines assigned to Marine Operational Test & Evaluation Squadron One (VMX-1) conduct operational checks on an AH-1Z Viper to ensure the aircraft remains ready during the operational test and evaluation of the joint air-to-ground missile, Nov. 4. *U.S. MARINE CORPS / Maj. Jay Hernandez*

ARLINGTON, Va. — Marines from Marine Operational Test &

Evaluation Squadron 1 (VMX-1) conducted an operational test and evaluation of the joint air-to-ground missile (JAGM) from an AH-1Z Viper, Nov. 3-7 at Eglin Air Force Base in Florida, the Corps announced Dec. 2.

VMX-1 fired and evaluated the JAGM to determine its suitability and effectiveness to support expeditionary advanced base operations, such as conducting sea denial operations within the littorals and supporting sea control operations.

Personnel from Air Test and Evaluation Squadron 21 (HX-21), Naval Air Systems Command Direct and Time-Sensitive Strike program office (PMA-242), Army Program Executive Office Missiles and Space, Air Force 780th Test Squadron, as well as industry partners, were on location to observe and analyze the data from the test event. This event can lead to significant improvements in lethality of attack helicopters by arming them with newer munitions equipped with two sensor technologies and optimizes missile performance on maritime targets.

“Watching these professionals from across the services and industry come together to test the effectiveness and work on improvement for this weapon system is truly a phenomenal experience,” said VMX-1 Commanding Officer Col. Byron Sullivan. “The team is doing everything possible to ensure this capability will be the needed upgrade that enhances our ability to use precision strikes against fast-moving maritime targets.”

The team observed the test from locations across Eglin Air Force Base, honing in on weather considerations, telemetry and instrumentation, coordinating with the pilots, and observing the impact zone. Ultimately, the data collected will be analyzed to determine overall system effectiveness and develop the tactics, techniques, and procedures for its employment.

“Executing this type of concept development is very critical

to get it right on paper and put more effective systems in the hands of the warfighter," said Maj. Thomas Hutson, the Assault Support department head at VMX-1 and member of the JAGM test team.

This test is part of a larger effort to upgrade the AH-1Z and UH-1Y aircraft, in alignment with the Commandant's vision of force modernization vision to maintain a competitive edge against potential adversaries.

The mission of VMX-1 is to conduct operational test and evaluation of Marine Corps aviation platforms and systems.

Marine F-35B Squadron Completes Historic Deployment on HMS Queen Elizabeth

U.S. Marines with Marine Fighter Attack Squadron (VMFA) 211 conduct pre-flight checks on an F-35B Lightning II on the flight deck of HMS Queen Elizabeth in the Mediterranean Sea on Nov. 24. VMFA-211 aircraft landed at Naval Station Rota as the first stop on their redeployment to Marine Corps Air Station Yuma, Arizona. *U.S. MARINE CORPS / 1st Lt. Zachary Bodner*

ARLINGTON, Va. – The U.S. Marine Corps F-35B squadron that deployed on board the U.K. Royal Navy aircraft carrier departed the ship last week for Naval Station Rota, Spain, from which the squadron would return to its home base of Marine Corps Air Station Yuma, Arizona.

Marine Fighter Attack Squadron 211 (VMFA-211) – known as the Wake Island Avengers – completed a six-month deployment on board HMS Queen Elizabeth to the Western Pacific, Indian Ocean, and Mediterranean Sea as a unit of the U.K. Carrier Strike Group.

According to a spokesperson of the HMS Queen Elizabeth, VMFA-211 and its Royal Air Force/Royal Navy counterpart, the Dambusters of 617 Squadron, flew 1,278 sorties, “clocking

up more than 2,200 hours in skies around the globe. They also carried out 44 missions in support of the U.S.-led Operation Inherent Resolve – conducting air strikes against Daesh [Islamic State]."

"The 10 F-35B of VMFA-211 undertook their final launch from HMS Queen Elizabeth bringing to a close 16 months of integration with the United Kingdom Carrier Strike Group," said Capt. James Blackmore, Royal Navy Air Wing and Strike Warfare Commander. "Embarked for the whole of CSG21, forging ever-greater links between the U.K. and the U.S., VMFA-211 and the 200-plus Marines have been an integral part of the inaugural deployment. Operating with a range of allies, especially the U.S., provides an invaluable opportunity to gain further experience of the highly capable Lightning F-35B with Merlin and Wildcat helicopters from the Queen Elizabeth-class carriers. I wish the Wake Island Avengers well with their future operations."

"The CSG21 deployment has seen VMFA-211, a U.S. Marine Corps F-35B squadron, integrated throughout," said Commodore Steve Moorhouse, commander, U.K. Carrier Strike Group. "It has been the most tangible demonstration of the U.K. and U.S. special relationship and our united efforts to ensure stability, security and freedom of the seas. As the U.K. Carrier Strike Group says farewell to our Marine Corps colleagues, I wish to thank them for their commitment, loyalty, professionalism and great humor. The achievements on this deployment have been ground-breaking and raised the bar in terms of integration. As the saying goes; if you want to go fast, go alone but if you want to go strong then go together. Semper fidelis."

Commandant: Many Unvaccinated Marines Swayed by Disinformation

Marines and Sailors continue to receive the COVID-19 vaccine on Marine Corps Air Station Miramar, March 25, 2021. *U.S. MARINE CORPS / Lance Cpl. Rachelanne Woodward*

WASHINGTON – Because the U.S. Marine Corps is the nation's ready force, the commandant says he is concerned that "disinformation" has made thousands of Marines reluctant to get a mandatory vaccination against coronavirus.

With a Nov. 28 deadline looming for all active duty Marines to be fully vaccinated, an estimated 13,000 still have not gotten the first shot to counter COVID-19.

"I'm concerned about it because every Marine has to be ready to deploy," Gen. David Berger said Nov. 4 at the in-person 2021 Aspen Security Forum. "We are the ready force. We have to

be ready to go.”

Berger said he could not say exactly why so many Marines haven’t rolled up their sleeves yet. Some have submitted requests for a religious or medical waiver.

“Those are being answered quickly. Within a week, they’ll get an answer back.” However, “Very few have been granted,” he said.

“The ones who flat out refuse? You’d have to ask each individual Marine their reasons why. I think we’re challenged by disinformation,” which Berger said raises questions “about how did this vaccine get approved? Is it safe? Is it ethical?

“All that swirls around on the internet and they read all that. They see all that,” Berger said. But Marines are trained and “taught that your unit is more important than you are.”

Berger is also concerned that 56% of Marines in the Ready Reserve have not been vaccinated. They have until Dec. 28 to do so. Berger said it is difficult to track vaccination rates among reservists because they are spread across the country in local units.

“We are one Marine Corps, active duty and Reserve, so it is important for them to get vaccinated as well,” he said.

Marine Corps Headquarters issued guidance Oct. 23 stating Marines who are not fully vaccinated by the deadline, without an approved administrative, medical or religious exemption, will be subject, pending appeal, to administrative separation from the Corps.

“A Marine who has not been fully vaccinated is not considered worldwide deployable and shall be assigned or reassigned, locally, to billets which account for health risks to the unvaccinated Marine and those working in proximity to the Marine,” according to the guidance. While their cases are

under appeal, Marines who refuse vaccination, could also be barred from re-enlistment, promotion or holding a command.

“The approach we took is: Take all the ambiguity out of it. It’s black and white from the secretary of defense. We need to protect ourselves,” Berger said, explaining the hardline approach. “We wrote that instruction to make it clear all the way down. There is no gray area. You must get vaccinated.”

He noted that Marine recruits already get 12 other vaccinations just to get through boot camp. Berger said he didn’t think the Marines will be losing thousands of Marines after Nov. 28 because of the mandatory vaccination order.

The number of vaccine refusals is changing every day, Berger said.

“Partly because we have a younger force and they wait to see how leaders do. And when the leaders do, they get in line quickly. I think it’s really hard to predict, because it’s not a straight line between now and the end of November.”

Carrier Group Deployment Allows Combined F-35 Integration in Indo-Pac, say Senior US, UK Officers

Distinguished visitors from the USS Carl Vinson (CVN 70) and Carrier Strike Group One observe an F-35B Lightning II with the United Kingdom’s (UK) 617 Squadron launch aboard HMS Queen Elizabeth as part of Carrier Integration Operations in the Bay

of Bengal on Oct. 17. Dual-carrier operations between Carrier Strike Group One and the U.K.'s Carrier Strike Group 21 demonstrate the unmatched interoperability the F-35 provides. *U.K. ROYAL NAVY Royal Navy / LPhot Unaisi Luke*

The United Kingdom's deployment of its HMS Queen Elizabeth carrier strike group on its CSG21 mission has provided opportunities for F-35 joint strike fighter user countries to conduct combined integration and training in the Indo-Pacific region, senior U.S. Navy and U.K Royal Navy officers told the Pacific Future Forum conference in October.

The CSG's airwing is already an integrated, combined F-35 unit, with the 18 embarked F-35B Lightning II short take-off/vertical landing JSFs comprising 10 U.S. Marine Corps and eight Royal Navy or Royal Air Force aircraft.

However, recent activities in the Indo-Pacific theater have enabled much wider F-35 training and demonstration of multinational integration, U.S. Indo-Pacific Commander Adm. Chris Aquilino told the U.K. government-backed conference, held Oct. 20-21 on the aircraft carrier HMS Prince of Wales at HM Naval Base Portsmouth.

Aquilino highlighted CSG21's presence in a multinational exercise, in the Philippine Sea in early October, which involved four "large deck" carriers: three aircraft carriers, the Royal Navy's HMS Queen Elizabeth and the U.S. Navy's USS Carl Vinson and USS Ronald Reagan; and an amphibious ship, the Japan Maritime Self-Defense Force's JS Ise.

"You can see these strike groups conducting multidomain operations, flight operations, air-defense exercises, simulated strikes, mixing together F/A-18 Super Hornets from Ronald Reagan, F-35Bs from the [U.K.], USMC F-35Bs, and F-35Cs from Carl Vinson. That's an impressive gathering of fifth-generation aircraft that can be moved and put anywhere at a place and time of our choosing," he said.

"This kind of combined military operation needs to become more

normalized. We need to orchestrate it through the lens of campaigns, to ensure we can counter any anti-access threat," Aquilino said. "This effort to plan, coordinate and execute these kinds of operations is at the core of US INDOPACOM's approach that you'll hear referred to as 'seize the initiative'."

In what he referred to as "quad-carrier' operations," Commodore Steve Moorhouse – the Royal Navy's commander, U.K. Carrier Strike Group, embarked at sea in Queen Elizabeth for CSG21 – said the Philippine Sea exercise brought together "a combined fourth- and fifth-generation airwing of well over 120 aircraft."

Briefing the conference from the carrier, Moorhouse said, the "exercise not only helped us to develop our tactics and procedures, but it also allowed us to pursue increasingly complex and integrated activities."

"Carrier strike has … a convening power to bring together like-minded countries, and indeed air forces and navies of all sizes and all types around the world," Moorhouse said.

He highlighted some examples relevant to F-35 capabilities.

"During our time out here, we've supported Japan operationalizing its F-35A capability, and [to] introduce into service their F-35B variant. We've engaged with the Republic of Korea, which also strengthened understanding of how to operate big decks and how it will integrate its own F-35B capability into the maritime."

South Korea is developing an aircraft carrier capability, under its CVX program, as the host platform for its F-35Bs.

Moorhouse also discussed how the Queen Elizabeth CSG's combined U.K./U.S. F-35B airwing had provided effects in the Euro-Atlantic theater, during the first phase of the CSG21 deployment.

“If I look back to our time in the Mediterranean, we were launching the first F-35 sorties from the Mediterranean north into the Black Sea – a round-trip of well over 1,000 miles – whilst also sending jets east into Iraq and Syria on six- and seven-hour missions in support of Operation Shader,” the U.K.’s counter-insurgency activity. Throughout, we were maintaining an on-deck, ready alert capability to respond to Russian air incursions and overflights.”

In the latter case, Moorhouse said over 30 live intercepts of armed Russian fighter and bomber aircraft were conducted in just over two weeks during that part of the mission.

MCSC Begins Fielding Amphibious Robot System for Littoral Missions

Sgt. Tyler Joles, an explosive ordnance disposal technician from Littoral Explosive Ordnance Neutralization Platoon, 7th Engineer Support Battalion, 1st Marine Logistics Group, controls a remotely operated vehicle with a human machine interface during a demonstration in San Diego, California, Oct. 6. The ROV asset aids the Marine Corps in naval force integration by giving Marines the capabilities to work alongside Navy EOD. *U.S. MARINE CORPS / Lance Cpl. Kristy Ordonez Maldonado*

MARINE CORPS BASE QUANTICO, Va. – In September, Marine Corps Systems Command (MCSC) began fielding an amphibious, unmanned robot system to support littoral operations globally. The Explosive Ordnance Disposal Remotely Operated Vehicle is a next-generation, box-shaped robot that enables Marines to

navigate safely and efficiently in shallow waters to identify and neutralize explosive hazards and other threats.

“This robot gives Marines eyes in the water,” said Master Sgt. Patrick Hilty, an Explosive Ordnance Disposal project officer at MCSC. “It is a capability the Marine Corps has never before had.”

The ROV employs sound navigation and ranging sensors, a high-definition video capability and cameras that provide real-time feedback for EOD divers. It includes an articulator arm that helps Marines maneuver through underwater foliage or neutralize explosive threats.

“It is a system that saves Marine divers from having to swim hundreds of meters, an activity that can tire them out,” Hilty said.

Marines can use the robot for various amphibious missions. For example, they can leverage the ROV to search harbors before docking a Marine Expeditionary Unit ship. Operators can use it for activities in very shallow waters, conducting littoral lost object searches, damage assessments and mine countermeasure missions.

Hilty applauded the ROV’s tether feature, which keeps EOD technicians at a safe distance from explosive hazards. Before the capability, Marine divers could only disrupt or dispose underwater explosive threats by swimming in close proximity, exposing them to hostile elements.

“The ROV gives us a remote means to search underwater while also helping us stay at our best when having to prosecute explosive devices,” Hilty said.

Master Sgt. Matthew Jackson, a staff non-commissioned officer in charge of 1st EOD Company’s Littoral Explosive Ordnance Neutralization section, said the ROV is highly stable in an underwater environment. He noted how the machine requires

minimal equipment and reduces the Marine Corps' overall footprint during operations.

"This intuitive system has the ability to complete critical underwater tasks much deeper than manned missions can," Jackson said. "The ROV will serve as an important capability to support our tasks."

Jackson also praised the system for its ease of use. He said it requires minimal training compared with other unmanned underwater systems. This ultimately saves the Marine Corps time and money required for training.

"Instead of sending a Marine to a course for seven or eight weeks, it takes about four days to learn basic operations for successful employment," Jackson said.

The ROV also supports naval integration. In 2019, the Navy acquired this commercial off-the-shelf capability. The service conducted a series of tests to determine its viability for EOD missions. These tests included reliability and maintenance evaluations to test its effectiveness and ease of employment during simulated activities.

"Testing conducted by the Navy allowed us to field this capability to Marines more quickly," Hilty said. "Additionally, the Marine Corps and Navy both having this system increases interoperability among the services."

The robot is the first increment in the Littoral Explosive Ordnance Neutralization (LEON) Family of Systems. This series of robotic capabilities will allow Marines to search a wider area in the littorals, including the very shallow water, surf and beach zones. LEON systems, to be fielded gradually by MCSC over the next several years, will also help the Marine Corps complement Navy EOD teams in joint operations as it strives to evolve naval force integration in the future.

"Having this capability aids in naval force integration by

giving us the same equipment that the Navy is using," said Staff Sgt. Seth Barnes, EOD Technician with 1st EOD Company. "It allows us to bolt on with Navy EOD as we move forward."

Achieving Force Design 2030 remains an ongoing, concerted effort for the Marine Corps, as repeatedly stated by Commandant of the Marine Corps Gen. David Berger. This goal requires the acquisition of nextgeneration, unmanned systems, like the ROV, to support Expeditionary Advanced Base Operations.

"We're bringing the EABO concept to the modern day," said Ronald Diefenbach, a program analyst on the Explosive Hazard Team at MCSC. "Adhering to this concept, we can use the ROV to support Marines when operating from the littorals and while conducting island-hopping tasks."

Hilty said the Marine Corps has never before leveraged waters for missions. In the past, Marines would begin operations from land, typically a beach. This new concept requires a shift in the paradigm in how the Marine Corps operates. Fielding capabilities that conform to the vision to support an evolving naval fight will ultimately support the present and future Marine.

"We've always done this piece via the Navy," said Hilty. "Now that the Marine Corps is doing it, we are learning valuable skillsets, becoming much better-rounded and proving to be a bigger asset to the MAGTF [Marine Air-Ground Task Force]."

Marine Corps Acquires Two

MQ-9A Reaper UAVs

The Marine Corps' first MQ-9A at an undisclosed location in the Central Command area of responsibility. *U.S. MARINE CORPS*

SAN DIEGO – General Atomics Aeronautical Systems Inc. (GA-ASI) completed the transfer of two MQ-9A Reaper Block 5 unmanned aircraft to the U.S. Marine Corps on Oct. 15, the company said Oct. 20.

The two aircraft have been operated by the Marine Corps since 2018 under a company owned/company operated lease agreement in support of an urgent operational Need. The Reapers represent the first increment of the Marine Air-Ground Task Force unmanned aircraft expeditionary (MUX) program of record. The transfer of aircraft includes two ground control stations and associated support equipment.

The two COCO MQ-9As, using remote split operations from Marine Corps Air Station Yuma, have been in operation for the Marine Corps as part of a lease agreement between GA-ASI and Naval Air Systems Command, accruing over 12,000 flight hours supporting operations in the Middle East and informing the requirements and expectations for the MUX program of record. The program of record will include an additional 16 new MQ-9As, which the Marine Corps will begin procuring in 2022 to support an early operational capability in 2023 and initial operating capability in the U.S. Indo-Pacific Command by 2025.

"The Marine Corps leveraged the leased aircraft to better understand and articulate the needs of the MUX program, while simultaneously supporting the forward-deployed warfighter," said GA-ASI President David R. Alexander. "It was a great example of how a customer can 'try before you buy' our aircraft. Now they've seen firsthand how a persistent ISR

platform, like the MQ-9A, can support the Marine Corps' need for long-range sensing in the Pacific as a part of the commandant's force design initiative."

With unmatched operational flexibility, MQ-9A Block 5 has endurance of over 26 hours, speeds of 220 knots true air speed and can operate up to 45,000 feet. It has a 3,850-pound (1,746 kilogram) payload capacity that includes 3,000 pounds (1,361 kilograms) of external stores. It provides a long-endurance, persistent surveillance capability with full-motion video and synthetic aperture radar. An extremely reliable aircraft, MQ-9A Block 5 is equipped with a fault-tolerant flight control system and triple redundant avionics system architecture. It is engineered to meet and exceed manned aircraft reliability standards.

DoN Concludes Investigations into Assault Amphibious Vehicle Tragedy

An AAV7A1 assault amphibious vehicle conducts a wet-gap amphibious crossing on Camp Lejeune, North Carolina, Aug. 10, 2021. *U.S. MARINE CORPS / Lance Cpl. Jacqueline C. Arre*

ARLINGTON, Va. – The U.S. Navy and Marine Corps released findings of separate investigations into the assault amphibious vehicle (AAV) tragedy that occurred July 30, 2020, the Navy said Oct. 6.

The investigations revealed that a combination of maintenance failures and human error caused the deaths of eight Marines and one Sailor.

The Navy investigation, conducted by commander, 3rd Fleet, examined the Navy's role in the incident and revealed gaps in doctrine and procedures by the Navy and Marine Corps.

"The Navy and Marine Corps learned from this tragedy and we are codifying the lessons we have learned as an organization so that the deaths of these Marines and Sailor are not in vain," said Vice Adm. Roy Kitchener, commander, Naval Surface Force, U.S. Pacific Fleet. "We are reworking procedures and doctrine, clarifying aspects of amphibious operations, and instituting new training requirements to prevent future tragedies.

"The investigation by 3rd Fleet led to comprehensive updates to the Wet Well Manual to include clarification regarding safety boat requirements, ship requirements to ensure positive control of AAVs during evolutions, as well as additional improvements to the integration of training between the Navy and Marine Corps," Kitchener said. "Additionally, all Navy commanding officers will attend the Senior Amphibious Warfare Course before taking command. Future AAV operations will require a comprehensive and integrated communications plan to be submitted before AAV operations can occur."

The Marine Corps previously concluded two investigations: a safety investigation, Oct. 1, 2020, and a command investigation, Feb. 25, 2021. As a result of these initial investigations, the Marine Corps directed 23 institutional actions to ensure the safe execution of AAV waterborne operations. These actions fall into one of three categories, equipment, procedures or training.

Equipment actions include a combination of equipment advances and additional inspections such as procurement and sustainment of a Waterborne Egress Capability program, electronic tablets for crewmembers to manage associated technical and procedural manuals, and new criteria for hull watertight integrity, bilge pump function, communications systems, and emergency egress

lighting systems.

To address procedural actions, the Marine Corps administered publication and policy reviews to operating procedures, technical manuals, and safety structure requirements during training. These include updates to training and qualification prerequisites, authority and decision-making procedures, and safety boat requirements.

Finally, training actions include implementing additional standards for water survival, underwater egress training for both crew members and embarked personnel, and standardized knowledge tests for crew members.

Recently, the Marine Corps concluded a subsequent command investigation, led by Lt. Gen. Carl E. Mundy, focused on the formation of the 15th Marine Expeditionary Unit (MEU). The investigation found a confluence of factors, including COVID-19 impacts, task-saturation and reduced manning, poor communication and inadequate training and equipping played significant roles in contributing to the conditions that allowed for the tragedy to occur. The investigation's recommendations include a comprehensive review of relevant orders, programs and training curricula as well as increases in material inspection and reporting requirements, leadership manning, preparation and oversight.

Senior Marine Corps and Navy personnel are conducting a Strategic Review of Amphibious Operations to build upon the findings and recommendations of these investigations. That review will assess all aspects of current amphibious operations with special consideration for future concepts of amphibious operations.

To view the Navy investigation, visit the SECNAV FOIA website.

To view the Marine Corps Investigation, visit the USMC FOIA website.

The Navy Command Investigation will be posted on the SECNAV FOIA reading website. Due to technical issues there may be a slight delay. A copy of the Navy investigation is available in the meantime here.