Increased Maritime Capacity Important Factor for AFRICOM

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Arlington, Va. – The United States has an enduring commitment to Africa, said U.S. Marine Corps General Michael Langley, commander of the U.S. Africa Command (AFRICOM) in a March 2 digital press briefing sponsored by the U.S. Department of State. AFRICOM represents a partnership of 53 African nations, all working toward the joint goal of security and stabilization across the continent.

Increased maritime capacity is an important factor in that overall strategy.

Gen. Langley stated that, from a U.S. national security standpoint, Africa is a geopolitical force that will require a

strong U.S./Africa relationship today that will serve as an "important foundation" for our shared future. AFRICOM takes a "whole nation" perspective to security challenges in the region, said Langley. This includes a "3D" approach that includes diplomatic efforts from the Department of State, development efforts from the U.S. Agency for International Development (USAID), and defense efforts from the Department of Defense.

The focus on the importance of diplomacy was reiterated throughout the briefing. Langley stated that AFRICOM applauds the efforts of both the Department of State and USAID as U.S. diplomats, and development teams work with leaders in both the Democratic Republic of the Congo (DRC) and Rwanda to address the M23 terrorist crisis – a key example of how collaboration can influence the ultimate goals of stability and security in Africa.

Langley also touched on several joint exercises that address both interoperability and capacity building throughout the continent, such as Cutlass Express, a "U.S. Naval Forces Africa-led, all-domain exercise in East African coastal regions and the West Indian Ocean," and Obangame Express, the "largest multinational maritime exercise in Western and Central Africa."

AFRICOM will continue to develop partnerships in coordination and cooperation with African partners to tackle shared challenges such as violent extremist organizations, illegal fishing, piracy, and transnational crime, said Langley. Identifying and building on the capacities of local governments in an important step in the right direction to solve complex problems and prevent terrorist from spreading across the continent, he added.

USMC Calls for GPN

U.S. Marines with Headquarters Company, Headquarters Regiment, 2nd Marine Logistics Group, stage vehicles in support of Exercise Trident Juncture 18 on Camp Lejeune, N.C., Aug.27, 2018.

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New Marine Corps Logistics Plan Calls for Pre-Positioned Stocks to be Integrated into a Global Positioning Network

ARLINGTON, Va. — The Marine Corps is refining its logistics concepts in conjunction with the commandant's Force Design 2030 to provide sustainable logistics in a contested environment. The plan includes integrating its pre-positioned stocks into a Global Positioning Network (GPN), the Corps said in a Feb. 23 press teleconference.

The plan – Installations and Logistics 2030 – was released Feb. 23 by Marine Corps Commandant Gen. David H. Berger, who said in the accompanying release that, "[a]ny student of military history understands the critical nature of logistics and sustainment capabilities. We are focusing on diversifying distribution models, resourcing and improving sustainment capabilities, and ensuring the most resilient installations."

"One broken link in a supply chain can result in an untethered force," said Lt. Gen. Edward Banta, deputy commandant for Installations and Logistics. "A web mentality assures sustainment of the force and can absorb disruption."

Logistics Upgrades Needed

The plan directs myriad studies and experiments to re-vamp the logistical systems and make them more forward and resilient, modify force structure tailored the Stand-In Force operating inside an enemy's engagement zone, and to and able to take advantage of emerging technologies, including unmanned systems, tele-maintenance, 3D printing, and alternative energy sources.

"Stand-in Forces are small, low signature, mobile, relatively simple-to-maintain-and-sustain forces designed to operate across the competition continuum within a contested area," the release said. "They are the leading edge of a maritime defense-in-depth in order to intentionally disrupt the plans of a potential or actual adversary."

"We are changing our global posture with a new Global Positioning Network (GPN) that leverages afloat and ashore capability sets for responsiveness," Banta said. "The GPN also matures our relationships with partners and allies for access, basing, and overflight. Within the GPN we will be pushing higher echelons of maintenance further forward, as well as leveraging the already existing global presence of commercial industry partners. An example here is the ability of forklift

operator to reach over to a Caterpillar dealer in the region, versus having to order a part from back in the Continental United States."

The new document says that the current logistics concept "relies on deliberate, multi-modal movement of equipment and supplies across a linear logistics and supply chain, requiring large warehousing and trans-shipment nodes to break down, consolidate, and repackage shipments for delivery to the end user. Our supply chains have been developed for efficiency, not effectiveness. One broken link in the supply chain can result in an untethered force."

The GPN will be designed to be a supply web instead of a supply line.

"Instead of relying on a singular, vulnerable chain, we must build a more resilient supply web that can adapt to temporary broken links or obstructions," the new document said. "Improving sustainment will demand global logistics solutions that are non-linear and distributed, have a smaller physical footprint at any one site, and limit the vulnerability of forward forces."

The Marine Corps maintains prepositioned stocks of weapons, equipment, and supplies on Military Sealift Command ships at Diego Garcia and the Marianas, plus a stock at a facility in Norway. The Corps will be integrating its pre-positioned stocks into the GPN.

In response to a question from Seapower Magazine about the pre-positioned stocks, Col, Michael Mulvey, Futures branch head for Logistics Vision and Strategy said, "[We] are looking at an integrated global positioning network now. So that's, that's a combination of both afloat and ashore platforms that enables campaigning. So that's steady state operations that Marines will do from day to day. And by having that forward position [with] the equipment and capabilities inside the

first island chain and in the Indo Pacific, we can transition much more efficiently from campaigning to a conflict scenario if we need that."

"The logistical challenge in front of us is massive. But the risks of not implementing change are clear – the Naval Expeditionary Force becomes unnecessarily vulnerable, particularly while operating in forward and distributed formations," Berger said in the new document. "Transforming our current installations and logistics related capabilities, capacity, and resiliency to support the future force more effectively, while reducing risk to our units, Marines, Sailors, families, and allies and partners is paramount. The time for action is now."

Installations and Logistics 2030 can be downloaded from the USMC website.

Navy Admirals Detail Russian Arctic Build-Up

The Los Angeles-class fast-attack submarine USS Pasadena (SSN 752) breaks through the ice in ICEX, which happened concurrently with Arctic Edge 2022. Arctic Edge is a U.S. Northern Command biennial defense exercise designed to demonstrate and exercise the ability to rapidly deploy and operate in the Arctic. (U.S. Navy Photo by Mass Communication Specialist 2nd Class Trey Hutcheson) Photo by Petty Officer 2nd Class Trey Hutcheson

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WASHINGTON – Senior U.S. Navy leaders in the Atlantic and European regions discussed, in some detail, the nature of the Russian build-up and naval activity in the Arctic region during a recent seminar in Washington.

Speaking Feb. 9 at a seminar sponsored by the Wilson Center's Polar Institute and the Center for Maritime Strategy (CMS), a think tank of the Navy League of the United States – Deterring Russia at Sea in the High North – were Adm. Daryl Caudle, commander, U.S. Fleet Forces Command and Vice Adm. Dan Dwyer, commander, U.S. Second Fleet. The seminar was moderated by retired Adm. James Foggo, dean of CMS.

“Russia now has six bases, 14 airfields, 16 deep-water ports, and 14 icebreakers built,” Caudle said of the Russian build-up.

“They dominate the Arctic geography and possess the corresponding ability to dominate in capability and infrastructure,” he said. “They do have legitimate sovereign interests and have elevated their Northern Fleet to constitute its own military district – think, combatant command.”

For decades, Russia and its prior Soviet Union entity have been especially protective of the northern approaches of the Barents Sea and Artic Ocean out of a desire to maintain a protective bastion for its nuclear-tipped missile force deployed on its ballistic-missile submarines.

Caudle said Russia has the largest icebreaker fleet in the world and has even armed icebreakers with the Kalibr cruise missile.

“They have an active defense system that has high readiness, mobility, and firepower in the Northern Fleet,” he said. “They centralize the command-and-control authority of the S-400 [surface-to-air] missile system. They have strong anti-access and access-denial capability that reaches from the Arctic to the Baltic to the GIUK [Greenland-Iceland-United Kingdom] Gap. They have long-range, precision-guided strike weapons especially focused in and near the Kola Peninsula.”

Caudle said those weapons include submarine-launched Kalibr submarine-launched land-attack cruise missiles, the Kinzhal long-range anti-ship missile, and the Screwdriver mobile land-attack cruise missile.

Arctic Upgraded as Russian Priority

Dwyer, whose fleet had increased its excursions into the High North, said “[t]he stability that we enjoyed in the High North

is in fact being challenged not only by climate change but by Russia themselves.

He said that in July 2022 Russia released its new maritime doctrine, "prioritizing the Arctic as its most important maritime direction, pledging to protect these waters 'by all means.' This includes increasing attention on the Arctic littorals as well as the introduction of new missile capabilities … to focus on its bastion of the Northern Fleet…. Prior to this announcement, the Arctic was their number three priority. The Atlantic was their number one priority. Now Russians realize that the Arctic is the key to their economy and to their defense as they see the receding of the Arctic ice cap."

Dwyer also noted that in August 2022, Russia, "unveiled plans for a new strategic missile-carrying submarine cruiser for Atlantic operations. Moreover, in September Russia conducted Exercise Inka in the Arctic, deploying several submarines together, showing their capability in the High North. It is worth noting that Russia has renovated many Arctic sites and opened new ones. This is why we at JFC [NATO's Joint Forces Command] Norfolk do everything in our power to manage and mitigate risk, prevent escalation, and ensure transparency of NATO operations in the Arctic."

HII Plans Additional Demonstration for Pharos Launcher for LDUUVs

HII press conference 14 Feb 2023
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ARLINGTON, Va. – Huntington Ingalls Industries (HII) is seeking an opportunity to demonstrate its new launch and recovery platform for large-diameter UUVs (LDUUVs) at sea on a U.S. Navy amphibious landing platform dock ship, a company official said.

Brian Blanchette, vice president for Quality and Engineering at HII's Ingalls Shipbuilding, spoke to reporters in a teleconference at West 2023 on Feb. 14, a trade show and symposium of the Armed Forces Communications and Electronics Association and the U.S. Naval Institute, and said the company would welcome a demonstration of the Pharos launch and recovery system from the well deck of an LPD either underway or in port.

The Pharos system is a prototype cradle large enough to accommodate an LDUUV than can be streamed behind the well deck of an LPD or a well-deck-equipped amphibious assault ship (LHA/LHD) to launch the LDUUV or recover it. The cradle is tethered to a winch.

The Pharos concept was developed by HII and underwent additional testing through cooperative agreements with the Naval Surface Warfare Center Panama City, Florida, and the Naval Undersea Warfare Center Division Newport, Rhode Island.

The Pharos was tested dockside in the HII Ingalls shipyard in Pascagoula, Mississippi in June 2022 and towed in a river, Blanchette said. The payload for the demonstration was HII's Proteus LDUUV.

He said that interface testing was conducted in September 2022 with a surrogate for the Navy's Snakehead LDUUV, followed in October 2022 with a ballast/de-ballast test with the Snakehead.

Scalable Concept

"When we went through the design process for this vehicle [Pharos], we did computations, including dynamic studies, to evaluate where in the wake zone of the LPD would be a favorable location for a launch and recovery vehicle and also did model basin testing at the University of New Orleans in their tow tank to look at a physical scale model and better understand the capabilities of the system at speed simulating a tow.

"We feel like we understand some of the challenges and have designed the system around those, but we look forward to at-sea testing to further validate the concept," he said. "We are in talks with the Navy trying to find a target of opportunity to interface with an LPD either pier-side or at sea."

HII also plans this year to integrate the Pharos with the REMUS 6000 UUV.

Blanchette said the Pharos concept is scalable and could be built to accommodate extra-large-diameter UUVs such as the Orca being developed by Boeing for the Navy.

Cooper: U.S. Navy, Partners Put the Squeeze on Iranian Arms Shipments

Seized weapons displayed on the flight deck of a U.S. Navy ship in the U.S. 5th Fleet area of operations, Feb. 1. *U.S. NAVY*

ARLINGTON, Va. — The maritime forces of U.S. Naval Forces Central Command and their allied and partner navies have enjoyed considerable success in recent months in intercepting Iranian arms shipments to Houthi rebels in Yemen, the Navy's regional commander said.

"In fact, in just the last two months alone, five major interdictions at sea have resulted in U.S. and partner maritime forces seizing more than 5,000 weapons, 1.6 million rounds of ammunition, 7,000 proximity fuses for rockets, over 2,000 kilograms of propellant that are used for rocket-propelled grenades, or RPGs, and $60 million worth of illegal drugs," said Vice Adm. Brad Cooper, commander, U.S. Fifth Fleet and commander, Naval Forces, U.S. Central Command,

speaking Feb. 13 during an off-camera, on-the-record briefing transcript of United States-Gulf Cooperation Council Working Group Meetings in Riyadh, Saudi Arabia.

“And these numbers are part of an overall two-year trend. In 202 – or rather, since 2021 we’ve seized over a billion – with a B – dollars in illicit drugs and nearly 15,000 illegal arms,” Cooper said. “The weapons were unlawfully headed to Yemen, as I think is well-documented.”

Also speaking at the council was Dana Stroul, U.S. deputy assistant secretary of Defense for the Middle East.

“Let me start out by saying we have seen no change in Iranian willingness or activities to transfer weapons to the Houthis, despite their work with increasing military cooperation with Russia for the war in Ukraine, number one,” Stroul said. “And number two, there has been a decrease in Houthi attacks against Saudi Arabia because of the truce that has been in place. Now, the actual truce has expired, and at this point in time, all sides are not resuming hostilities, though the truce has not been formally extended.”

Cooper also leads two major maritime coalitions, the 38-member Combined Maritime Force, which he describes as “the largest maritime partnership in the world,” and the 11-member International Maritime Security Construct.

“Everything we’ve accomplished both in recent months and over the last two years is the direct result of great work our maritime forces are doing, really, in two key areas, strengthening partnerships and accelerating innovation,” he said.

Shipbuilding Industry Workforce, Not Capacity, Is Limiting Shipbuilding and Repair for Navy

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ARLINGTON, Va. — The nation's shipyards have the facilities capacity to handle increased shipbuilding for the U.S. Navy but are limited by skilled workforce shortages, a shipbuilding executive told Congress, also noting the importance of stability in the demand signal from the Navy.

"The single biggest issue facing the [shipbuilding] industry is people, and that's going to be the case going forward, and we've got to be more creative in our workforce development," said Matthew Paxton, president of the Shipbuilders Council of America, testifying Feb. 8 before the House Armed Services Committee.

In reply to a question from Rep. Bob Wittman, R-Virginia regarding the Navy saying that the shipbuilders cannot deliver three Arleigh Burke destroyers funded last year, Paxton said the shipbuilding industry, “has under-utilized assets, and assets not utilized at all. There is capacity in the shipyard industrial base across new shipbuilding and ship repair. Whatever the demand signal is from Congress, we’re going to meet it … because we’re going to sequence our yards to be more productive and we’re going to train up the workforce and we’re going to deliver those assets.”

“I think private industry fundamentally disagrees [that] we don’t have the assets,” he said.

Paxton thanked the committee for its support for federal investments in the shipbuilding industrial base. He also noted that the private shipbuilding industry “every day of the week is investing in their workforce. They have training facilities, apprenticeship programs, they team with local community colleges, so investments like this from the federal level get bang for the buck for what the private industry is doing as well. While we care deeply about the submarine industrial base, the fact is that some of these monies are going to go across other shipbuilding programs is absolutely critical. It’s also critical for our supply chain.”

“Shipyards and shipyard repair facilities are highly capital-intensive enterprises, … and a lot of our shipyards employ thousands of employees,” Paxton said. “We get a new shipbuilding plan every year. It sends a confusing message industry. To the extent that we can have stable budgets and a stable demand signal, industry will respond accordingly. They have in the past.”

Paxton added that, “Acquisition strategies like incremental funding, advance procurement, block-buy contracting are huge for shipyards because that gives them long-lead-time materials that they need to sequence ships, to have that [material] come

in, whereas some of the material that they are buying [that used to take] only 18 months to get now [takes] two to three years to get."

He said the stability of a 10-year horizon "allows shipyards to make critical investments in [their] facilities and in [their] workforce."

Paxton also noted that the shipbuilding industry "has benefited when we split various ship sizes across shipyards. There is goodness in trying to get series construction going, keep hot production lines going, and keep the workforce learning."

Navy, MSC, Coast Guard Ships Involved in Search and Recovery of Chinese Balloon Payload

The next generation landing craft, ship to shore connector (SSC), landing craft, air cushion (LCAC), successfully completed well deck interoperability testing with the amphibious dock landing ship USS Carter Hall (LSD 50) and demonstrated the craft are another step closer to fleet integration.
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ARLINGTON, Va. – Three U.S. Navy ships, a Military Sealift Command ship, and three Coast Guard cutters have sortied from the U.S. East Coast and are participating in the search and recovery effort for the payload of the Chinese balloon that was shot down over U.S. territorial waters off South Carolina.

The Harpers Ferry-class dock landing ship USS Carter Hall (LSD 50), Ticonderoga-class guided-missile cruiser USS Philippine Sea (CG 58) and Arleigh Burke-class guided-missile destroyer USS Oscar Austin (DDG 79) took up station to track the descent of the balloon’s payload as it fell into the water.

The ships now include the USNS Pathfinder (T-AGS 60), an oceanographic survey ship operated by the Military Sealift Command.

The Coast Guard also has deployed to the salvage area three cutters – USCGC Venturous (WMEC 625), USCGC Richard Snyder (WPC 1127), and USCGC Nathan Bruckenthal (WPC 1128) – as well as small boats and aircraft to ensure the safety of the salvage area.

According to the Defense Department, the payload fell into a depth of 47 feet of water, a depth easily accessible to divers.

Gen. Glen VanHerck, Commander, North American Aerospace Defense Command and United States Northern Command, briefing reporters Feb. 6, said that the recovery effort was being led by Adm. Daryl Caudle, commander of U.S. Fleet Forces Command and U.S. Naval Forces, U.S. Northern Command.

VanHerck said the Navy ships in the vicinity of the splashdown of the balloon are collecting and categorizing debris.

“The Pathfinder is a ship that conducts survey operations using sonar and other means to map out the debris field,” VanHerck said. “It’s capable of conducting oceanographic, hydrographic, bathymetric surveys of the bottom of the ocean to do that. And they’ll eventually produce us a map – they’re in the process of doing that, and I expect to have much more today – of the full debris field. But we expect the debris field to be of the rough order of magnitude of about 1,500 meters by 1,500 meters, and so, you know, more than 15 football fields by 15 football fields. But we’ll get a further assessment of that today.”

VanHerck said that “[y]esterday’s sea states did not allow us to conduct some of the operations that we would have liked to have conducted such as underwater surveillance. And so those forces that provide the explosive ordnance disposal to make

sure the scene is safe, they're out today, this morning, and they went out in what's called a rigid hull inflatable boat this morning, Eastern time approximately 10:00 o'clock, to proceed to the – the area to utilize unmanned underwater vehicles using side scan sonar to further locate sunken debris. And so, we expect them to get on there and to do some additional categorization of potential threats such as explosives that may be on, hazardous materials that could be in batteries, et cetera, so we're working very hard.

The Military Sealift Command operates two dedicated salvage ships, but both are based in the Pacific Ocean.

The balloon, floating at about 60,000 feet above sea level, was launched by China on Jan. 21 and crossed into U.S. airspace over the Aleutian Islands on Jan. 28. It crosses over Canada and into the continental United States over Idaho on Jan. 31. President Joe Biden gave the order to shoot down the balloon on Feb. 1.

"Military commanders determined that there was undue risk of debris causing harm to civilians while the balloon was over land," a senior Defense Department official said in a Feb. 5 briefing to reporters. "As a result, they developed a plan to down the balloon once it was over water in U.S. territorial airspace. That mission has now been successfully completed. At the direction of the president, the U.S. military, at 2:39 p.m. this afternoon, shot down the high-altitude surveillance balloon off the coast of South Carolina and within U.S. territorial airspace."

According to Pentagon spokesman Brig. Gen Patrick Ryder, the Chinese balloon was steerable, and therefore able to be guided over sensitive U.S. defense bases.

On Feb. 4, the balloon was intercepted by two F-22A Raptor fighters launched from Joint Base Eustis-Langley, Virginia. One of the F-22As fired an AIM-9X air-to-air heat-seeking

missile that deflated the balloon and sent the balloon's solar panels and payload crashing into the ocean off Myrtle Beach.

"We have multiple U.S. Navy vessels and Coast Guard vessels in the region right now, establishing a security perimeter, conducting search for any debris that may be on the water to ensure the safety of U.S. civilians, any maritime activity that is ongoing out in the water," a senior military official said in the Feb. 5 briefing. "We will provide, under NORTHCOM [U.S Northern Command] command and control, a salvage vessel, United States Navy, which will be on-scene within a couple of days. The debris is in 47 feet of water, primarily. The recovery, that will make it fairly easy, actually. We planned for much deeper water."

The downing of the balloon is the first aerial kill attributed to the F-22A. The two F-22As in the intercept used the callsigns Frank One and Luke One in apparent reference to Frank Luke Jr., the U.S. Army Air Service ace who was credited with downing 14 German observation balloons as well as four airplanes during combat over the Western Front during World War I. Luke died on Sept. 28, 1918, from German machine fire from the ground.

Navy Is Sustaining 10 Operational MQ-8C Fire Scout UAVs; Rest in Storage

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ARLINGTON, Va. – The U.S. Navy is operating and sustaining 10 MQ-8C Fire Scout unmanned aerial vehicles (UAVs), having place the rest in storage, from which the service can easily restore them to service. The Navy also has retired its fleet of smaller MQ-8B versions of the Fire.

According to information provided by the Navy's Program Executive Office for Strike and Unmanned Aviation, the Navy will keep in service 10 MQ-8Cs in service of the 38 procured and keep the remaining MQ-8Cs in Level 2 preservation.

Last year the Navy moved to keep all MQ-8Cs on the West Coast, operated by Helicopter Sea Combat Squadrons 21 and 23. The decision is congruent with the stationing on the West Coast of the Independence-class littoral combat ships on which the Navy will deploy the Mine Countermeasures Mission Package. The MQ-8C, built by Northrop Grumman, is an integral module of that mission package.

“As Fire Scout’s mission sets continued to evolve, an MQ-8C Endurance Upgrade Rapid Deployment Capability (RDC) effort was approved in Feb 2012,” the Navy said. “The larger MQ-8C, based on the Bell 407 airframe, incorporates the same control avionics as the MQ-8B but with an increased payload capacity and increased endurance. The air vehicles share a common mission control system, which is integrated with the ship’s combat systems. Additionally, the MQ-8 can be controlled by the Mobile Mission Control Station from land-based and larger ship-based sites and has developed a “portable” MCS (MCS-P) that is host platform agnostic.

“Designed to operate from the Littoral Combat Ship (LCS) and Suitably Equipped air-capable Ships, the MQ-8C Fire Scout system is capable of more than eight hours of operations providing coverage out to 150 nautical miles from the host ship,” the Navy said. “A baseline payload that includes electro-optical/infrared sensors and a laser designator enables Fire Scout to find, track and designate tactical targets, accurately provide targeting data to strike platforms and perform battle damage assessment. The system provides a significant improvement to organic surveillance capability.”

The Navy will add an optical mine countermeasures payload to the MQ-8C in the future.

The first deployments of the MQ-8C began in 2022 on USS Milwaukee in the 4th Fleet and USS Jackson in the 7th Fleet during 2022.

The Navy retired its fleet of MQ-8Bs by October 2022 after 13 years of operations, including operations from frigates off Libya and two years of operations inside Afghanistan. The MQ-8B deployed on board an LCS for the first time in 2014. The Navy procured a total of 30 MQ-8Bs from Northrop Grumman.

TE 2030 to Develop ‘More Offensively Minded’ Marine Infantry

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ARLINGTON, Va. – Marine infantry force-wide will be firing at moving robotic targets, not just static paper targets, as the Marine Corps continues integration of the new Advanced Rifle Qualification (ARQ) course to meet the requirements of warfighting in the future, the Corps said.

“We have in our mind how we’re going to build [Marines] to be cognitive warfighting thinkers for the future,” said Lt. Gen. Kevin M. Iiams, commanding general of Training and Education

Command, discussing with reporters Jan. 24 about the upcoming rollout of the Marine Corps' Training and Education 2030 (TE 2030) concept, launching a series of initiatives in concert with Force Design 2030, the concept initiated three years ago by the Marine Corps commandant, Gen. David H. Berger. These initiatives are designed to lay the foundation for future training and education of Marines and assigned Sailors for warfighting in the future.

"We're getting away from where we were previously in the Marine Corps where we were about rote, repetitive training. We want cognitive, problem-solving thinkers for the future," Iiams said. "It is more offensively minded. It's combat related. It's positional shooting. Its teaching how they're actually going to employ their weapons in combat instead of just marksmanship."

In the more challenging and rigorous ARQ, Marine infantry in a combat scenario will start firing at the 500-meter line instead of the 200-meter line.

Advanced Simulation

Iiams said the Corps will introduce advanced simulation capability "to be able to train them to higher levels, to be able to use some of the robot targets that we're putting out there, to give them more realistic training scenarios in the field, not just shooting paper static targets but actually 3-dimensional roaming targets throughout the battlefield, which create a completely different scenario for them and cause them to figure out, are they going to shoot or not shoot as they move through some of these regimes."

"One of the systems currently being fielded is the Trackless Mobile Infantry Target (TMIT). TMITs are 3-dimensional, free-roaming, variable speed / variable acceleration moving targets with 360 degrees of untethered mobility that maneuver with teleoperation and semi-autonomous control," the TE 2030

document said. “They provide a dynamic and realistic representation of human targets in both live-fire and non-live fire training environments.”

The pilot ARQ course has been completed and the course is being implemented Corps-wide, progressing toward full operational capability.

The Corps also will be developing and incorporating an automatic scoring range to use training time more efficiently.

Marine Corps Replacing Fixed-Wing Small UAS with VTOL Types

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ARLINGTON, Va. – The Marine Corps is divesting some types of its short-range, short-endurance small unmanned aerial systems (SUAS) in favor of vertical takeoff and landing (VTOL) SUAS.

The Corps has retired its fixed-wing RQ-11B Raven and RQ-12A Wasp IV SUAS in favor of VTOL SUAS that are easier to launch and recover and can provide a hover-and-stare surveillance capability. They are being replaced by VTOL SUAS such as the SkyDio X2D (built by SkyDio), and the R80 SkyRaider (built by FLIR Systems).

“The Marine Corps’ future operating concepts emphasize the need for agile, distributed operations which require small UAS to be organically owned and operated by tactical units for situational awareness, force protection, target engagement, persistent command, control, communications, and electronic warfare,” said Maj. Joshua C. Benson, director of Communication Strategy & Operations for Deputy Commandant, Combat Development and Integration, in response to a query

from Seapower. “These systems equip small unit commanders with these capabilities at the lowest tactical echelons, and the transition to Vertical Take-Off and Landing (VTOL) capability enables maneuver units to operate in challenging terrain and austere operational environments, as the systems do not rely on traditional launch and recovery space.”

A Necessary Innovation

Benson said the Corps is procuring the SkyDio X2D as the squad/platoon electro-optical/infrared/full motion video (FMV) sensor. The R80D SkyRaider is being procured to “provide company-level FMV and selectable payload usage for the Ground Combat Element.”

He said the evolution to VTOL SUAS from the successful RQ-11 and RQ-12 is a necessary innovation.

“Rapid technological advancement of uncrewed aerial systems necessitates an
iterative approach to research, development, procurement, implementation, and re-evaluation of system capabilities,” he said. “This adaptive approach enables the service to transition to cutting-edge capabilities as industry and academia advance at the speed of innovation. Divestment of legacy systems and incorporation of new technologies is necessary to ensure our warfighters are equipped with the most capable systems and technology, in order to maintain pace with our peer and near peer adversaries.”

The Corps also operates other VTOL SUAS, including the Skyranger (FLIR Systems/Aeryon Labs); Indago 3 (Lockheed Martin); Instant Eye (Physical Sciences Inc.); PD-100 Black Hornet (FLIR Systems); and Scout (MITRE Corp.).