

Marine Corps Replacing Fixed-Wing Small UAS with VTOL Types



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.).

**Chaplain Admiral: Navy
Growing Chaplain Force by 90**

to Staff Destroyers



PEARL HARBOR (July 7, 2022) U.S. Navy Chief of Chaplains, Rear Adm. Gregory Todd speaks to partner-nation members during the International Chaplaincy Symposium at Joint Base Pearl Harbor as part of Rim of the Pacific (RIMPAC) 2022. Twenty-six nations, 38 ships, four submarines, more than 170 aircraft and 25,000 personnel are participating in RIMPAC from June 29 to Aug. 4 in and around the Hawaiian Islands and Southern California. The world's largest international maritime exercise, RIMPAC provides a unique training opportunity while fostering and sustaining cooperative relationships among participants critical to ensuring the safety of sea lanes and security on the world's oceans. RIMPAC 2022 is the 28th exercise in the series that began in 1971. (U.S. Navy photo courtesy of Royal Australian Navy LSIS Kylie Jagiello)

ARLINGTON, Va. –The U.S. Navy's chief of chaplains said the service expects to increase the number of serving chaplains by 90 over the next five years in order to provide chaplains to the guided-missile destroyer (DDG) fleet as those ships deploy.

Two years ago the commander, Naval Surface Forces, requested that the Navy provide chaplains to DDGs. Previously, sea-going billets for chaplains were typically limited to ships – such as aircraft carriers and amphibious warfare ships – that had large crews.

Rear Adm. Gregory N. Todd, chief of chaplains, speaking in an online conversation with retired Rear Adm. Frank Thorp IV, President and CEO of the U.S. Navy Memorial in Washington as one of the memorial's SITREP Speaker Series events, said the program to assign chaplains to deploying DDGs is in place and is showing good results.

“The data that is coming as a result of that is a reduction in

a lot of the bad behavior—NJP [non-judicial punishment, low morale issues, retention issues,” Todd said. “It’s apparent that the chaplains on board are change agents. Can we pinpoint exactly how that change happens? Not yet. But we do know that there is some sort of concurrent effect of attending to people’s spirituality or spiritual readiness within that [DDG’s] command, creating a venue where it’s okay and then its resultant impact on some of their negative behaviors.”

First Increase in Chaplains Since Cold War

Todd oversees a force of about 1,100 chaplains – active and reserve – plus enlisted religion affairs specialists that provide service to 570,000 Sailors, Marines and Coast Guardsmen and their families.

The increase in the number of chaplains is the first time the force has grown since the end of the Cold War, Todd said.

“The Navy is hiring, and I’m trying to beat the bushes to the religious organizations of America,” the admiral said. “Send us your best. It’s a great opportunity; it’s a great place to work.

“If I were to hold up what’s unique about this ministry, it’s the interaction with 18-to-25-year-olds,” he said. “We’re just immersed in a world of leadership. ... It’s operating in the public square, not confined to the church on the corner. Here we are, interacting with the whole Navy trying to impact the institution for the better.”

Todd said the Coast Guard “has put us on notice that they intend to ask for more [chaplains], and the Marine Corps as well is looking at the question of adding more chaplains. So, right now, there is a realization that spiritual readiness does have an impact on the operational forces. If you attend

to individual readiness in the aggregate, you'll also build the readiness of the unit and the team."

Earlier in his career, Todd served as Chaplain of the Coast Guard and Chaplain of the Marine Corps.

Marine Corps Adds KC-130J Squadron to Support Marine Littoral Regiment



A U.S. Marine Corps KC-130J aircraft assigned to Marine Aerial Refueler Transport Squadron 153 prepares to land on Marine Corps Air Station Kaneohe Bay, Marine Corps Base Hawaii, Jan. 6, 2023. Jan. 6, 2023. VMGR-153 will formally activate as a KC-130 squadron of Marine Aircraft Group 24, 1st Marine Aircraft Wing, on Jan. 13, 2023. (U.S. Marine Corps photo by Cpl. Chandler Stacy)

ARLINGTON, Va. – A new Marine Corps squadron has been activated in Hawaii to enhance mobility of the Corps' first Marine littoral regiment. Marine Aerial Refueler/Transport Squadron 153 (VMGR-153) was activated at Marine Corps Air Station (MCAS) Kaneohe Bay, Hawaii, in a Jan. 13 ceremony. The squadron is equipped with Lockheed Martin KC-130J Super Hercules tanker/transport aircraft.

The activation of VMGR-153 is one enactment of Marine Corps Commandant Gen. David H. Berger's Force Design 2030 concept, which is re-aligning the Corps to conduct expeditionary advance base operations inside an adversary's weapon

engagement zone. The Corps is activating three self-deployable, multi-domain Marine littoral regiments (MLRs) to conduct such operations, the first of which – the 3rd MLR – was activated last March. The 12th MLR will be activated this year in Okinawa, Japan.

VMGR-153 brings to four the number of active-component VMGR squadrons in the Corps, three of which – including the new squadron – are positioned to support Marine Forces Pacific, the other two being VMGR-152, based at MCAS Iwakuni, Japan, and VMGR-352, based at MCAS Miramar, California. The fourth squadron, VMGR-252, is based at MCAS Cherry Point, North Carolina.

Until last month, the Marine Corps Reserve also fielded two KC-130J squadrons. VMGR-452 was de-activated Dec. 2 at Stewart Air National Guard Base in New York. Remaining is VMGR-234 at Naval Air Station Joint Reserve Base Fort Worth, Texas.

T-6B Training Aircraft Crashes in Alabama



ARLINGTON, Va. – A U.S. Navy T-6B Texan II training aircraft crashed near Foley, Alabama, Jan. 17. The instructor pilot and student naval aviator ejected successfully.

The T-6B crashed at approximately 10:50 CST in an unpopulated area near Barin Naval Outlying Field near Foley, the Chief of Naval Air Training Public Affairs Office [said in a release](#). The two flyers were treated for minor injuries.

The T-6B was assigned to Training Air Wing Five at Naval Air Station Whiting Field, Milton, Florida. The T-6B is flown by three training squadrons at Whiting Field, VT-2, VT-3 and VT-6, to train naval aviators for the Navy, Marine Corps, Coast Guard, and some foreign militaries. The aircraft also is flown by two training squadrons – VT-27 and VT-28 – assigned to Training Air Wing Four at NAS Corpus Christi, Texas.

The aircraft loss was the Navy's first in calendar 2023 and the first loss of a Navy T-6B since October 2020, when another – also assigned to Training Air Wing Five – crashed near Foley.

The cause of the incident is under investigation.

Small Torpedo Being Prototyped by Raytheon to Arm the Navy's Submarines



YOKOSUKA, Japan (Oct. 18, 2022) The Los Angeles-class fast-attack submarine USS Springfield (SSN 761), arrives at Fleet Activities Yokosuka for a scheduled port visit, Oct. 18, 2022. Springfield is forward-deployed to Guam and routinely operates in the U.S. 7th Fleet area of responsibility, conducting maritime security operations and supporting national security interests. *U.S. NAVY / Mass Communication Specialist 2nd Class Travis Baley*

ARLINGTON, Va. – Raytheon is building prototypes of a small torpedo that is designed to attack hostile submarines and defend the U.S. Navy's submarines from incoming torpedoes.

The Compact Rapid Attack Weapon (CRAW) is designed to be

launched from a submarine's decoy launcher rather than the submarine's torpedo tubes, and thus will not require a separate launcher to be installed on a submarine, said Bill Guarini, Raytheon's director of Requirements and Capabilities for Under Systems, in a Jan. 6 interview with [Seapower](#).

Applied Physics Design in Action

Raytheon was awarded a Navy contract in September in a down-select decision to take a data package from Penn State's Applied Physics Laboratory's design of its nine-foot-long Very Lightweight Torpedo, updated with Technology Insertion 1 – that addresses obsolescence issues – and develop a prototype of the CRAW. Raytheon is to build 18 CRAW prototypes and 12 turn-around kits, the latter to be used to restore used CRAW prototypes to a re-usable condition. The prototypes will be delivered to the Navy with the Technology Insertion 2 data package.

Guarini sees the CRAW as a natural fit with Raytheon's existing torpedo business. The company builds the Mk54 lightweight torpedo deployed in surface warships and anti-submarine aircraft.

The CRAW prototypes will be built at the company's facility in Portsmouth, Rhode Island.

**Fleet Forces Commander:
Surface Warships Need to be**

'Plug and Play'



CIVITAVECCHIA, Italy (Jan. 3, 2023) The Arleigh Burke-class guided-missile destroyer USS Nitze (DDG 94) departs Civitavecchia, Italy, following a scheduled port visit, Jan. 3, 2023. The George H.W. Bush Carrier strike Group is on a scheduled deployment in the U.S. Naval Forces Europe area of operations, employed by U.S. 6th Fleet to defend U.S., allied, and partner interests. (U.S. Navy photo by Mass Communication Specialist 2nd Class Cryton Vandiesal)

ARLINGTON, Va. – The U.S. Navy's surface combatants need to be able to operate independently but also integrate with a strike group seamlessly, the admiral in charge of setting fleet doctrine said.

The Navy needs "to capitalize on our Navy's greatest strength: its ability to distribute and concentrate lethal effect, and out timing and tempo," said Adm. Daryl Caudle, commander, U.S. Fleet Forces Command, speaking Jan. 11 at the annual Surface Navy Association symposium in Arlington.

"This requires our surface combatants to be much more plug and play inherently," Caudle said. "Our ships should not have to work up together to fight effectively together."

Caudle said that "[f]rom my vantage point, the way we accomplish this is by redesigning the core carrier strike group. In my view of the model, the core strike group would be built on a CVN [aircraft carrier], of course, an air-defense missile ship, and a re-supply oiler. These units matriculate through the core OFRP [Optimized Fleet Response Plan] based on the CVN's required phases."

The OFRP is the fleet's standard ship cycle construct that guides a roughly 36-month readiness roadmap. It is designed to provide the fleet with continuously ready, fully certified

warships ready to accomplish a full range of on-demand missions at all times. The ships in a strike group go through maintenance, deploy, and stand ready to surge together.

Deploy Independently, Seamlessly Integrate

“By removing and de-coupling the requirement that all supporting ships are tied to the CVN’s OFRP phase length, I optimize each surface ship based on a more tailored set of requirements allows me in concept to improve the readiness and availability of our surface Navy to deploy and respond,” Caudle said. “Each surface ship would be trained and certified on their pre-determined set of warfare area competencies beyond basic operations, enabling them to deploy independently and plug into a strike group seamlessly at the point of need. In conflict, this is an absolute necessary.”

Caudle said the Navy is re-examining training and deployments to align with what already is happening in the fleet.

“The beauty of this re-designed strike group concept is that it becomes an interchangeable force that can integrate [in a fungible way] into a myriad of environments, with multiple commanders across AORs [areas of responsibility] worldwide,” Caudle said. “This and many other problems and challenges reduce the O [optimized] in the OFRP and are being examined by a cross-functional team led by my fleet readiness officer.”

Fleet Forces Commander Scolds

Weapons Industry for Supply Chain Woes



POLARIS POINT, Guam (Sept. 13, 2021) Sailors and civilian mariners assigned to the submarine tender USS Emory S. Land (AS 39) and Sailors assigned to the Los Angeles-class fast-attack submarine USS Asheville (SSN 758) offload a Mark 48 advanced capability torpedo from Asheville during a weapons handling evolution, Sept. 13, 2021. Emory S. Land is one of two U.S. Navy submarine tenders that provide maintenance, berthing and logistical support to submarines and surface ships in the U.S. 5th and 7th Fleet areas of operation. (U.S. Navy photo by Mass Communication Specialist 3rd Class Naomi Johnson)

ARLINGTON, Va. – The Navy’s admiral who sets manning, training, and equipping the fleet scolded the weapons industry in a blistering response to a question from an audience of naval personnel and defense industry officials about delays in delivery of equipment such as weapons. This countered a common industry citation of supply chain woes related to the COVID-19 pandemic.

“I’m not as forgiving of the industrial base – I’m just not,” said Adm. Daryl Caudle, commander, U.S. Fleet Forces Command, speaking Jan. 11 at the annual [Surface Navy Association](#) symposium in Arlington. “I am not forgiving of the fact that you are not delivering the ordnance that we need.”

“All this stuff, about COVID this, parts, supply chain this – I just don’t really care. We’ve all got tough jobs,” Caudle said, sparking a round of applause from the audience. “I need SM-6s [Standard Missile-6s] delivered on time, I need Mark 48 torpedoes delivered on time. We’re talking about warfighting, national security and going against a competitor here and a

potential adversary that's like nothing we've ever seen, and we kept dilly-dallying around with these deliveries."

"I don't see good accountability, I don't see a good return on investment from the government side," he said. "If you want to take me to a room and show me your sob story, I'd be happy to hear it, but at the end of the day, I want the magazines filled, all of the ships' tubes filled."

Robbing Peter to Pay Paul

"I don't want to have to bring a strike group back so I can rob Peter to pay Paul so the next one [strike group] can go, and then if I want to help a country out like Ukraine, I'm not sitting, talking about what it is doing to me, I'm talking about, 'Of course we're going to help a country, deliver the stuff we need so they can win that conflict against Russia and it's not going to send me back to the Dark Ages,'" Adm. Caudle said.

"I'm frustrated ... because it's so essential to winning, and in my position and for people in the room in uniform, that's all that matters, and I can't do that without ordnance," he said.

Surface Navy Boss Sets Goal of 75 Mission-Capable Ships on Any Day



ARLINGTON, Va. – The type commander of the Navy’s surface combatant fleet has set a goal of sustaining a fleet of 75 mission-capable (MC) ships.

“We’ve come up with a North Star goal to drive all of our readiness objectives, and that’s get at 75 mission-capable ships ready on any given day,” said Vice Adm. Roy Kitchener, commander, Naval Surface Forces and commander, Naval Surface Force, U.S. Pacific Fleet, speaking to reporters in a virtual roundtable on Jan. 5 – embargoed until Jan. 10.

Data-Accessed Readiness Goals

“The goal is not arbitrary,” Kitchener said. “It’s not random. It was born from our investment in our data analytics, a really good, thorough assessment across the fleet’s operational requirement. That 75 drives every program and action we take across our force.”

The admiral characterized the initiative as “sharpening the competitive edge” to produce the most capable ships, weapons technologies and the Sailors that will use them, and “getting more ready” for potential conflict in the Western Pacific.

The 75 MC ships initiative is modelled after an effort by the Naval Aviation Enterprise to achieve a certain number of mission-capable strike fighters. The initiative was in an effort to overcome a lack of readiness that was hampering naval aviation’s combat readiness and aircrew flight proficiency and retention.

The surface boss is defining ship readiness in three categories:

- Not Mission-Capable (NMC): a ship in deep maintenance or just emerged from deep maintenance

- Mission-Capable (MC): readiness to deploy with a certain level of certification but not fully mission-capable
- Full Mission-Capable (FMC): all certifications complete, deployed, ready for high-end combat

Kitchener is establishing readiness groups to staff, train, and equip ships for combat; a Surface Response Plan to prioritize and allocate ships where most needed; and surface maintenance operations centers to reduce engineering casualty reports (CASREPs).

He emphasized the need to more fully stock ships with spare parts to make equipment readiness more sustainable when deployed at sea.

The ships included in the North Star goal include all surface warships with the exception of Zumwalt-class guided-missile destroyers and Lewis B. Puller-class expeditionary sea base ships.

Navy's SPY-6 Radar to Reach Initial Operational Capability in 4th Quarter Fiscal 2024



The fixed-face antenna of the SPY-6-(V)1 radar is shown on the future USS Jack H. Lucas (DDG-125), the first ship equipped with the radar. (Raytheon)

ARLINGTON, Va. – The U.S. Navy’s new SPY-6(V)1 Air and Missile Defense Radar is scheduled to reach Initial Operational Capability (IOC) during the fourth quarter of fiscal 2024, a Raytheon official said.

The radar, which first went to sea for trials on Flight III Arleigh Burke-class guided-missile destroyer Jack H. Lucas (DDG 125) in December, met all of its test objectives, said Mike Mills, Raytheon’s senior director for Naval Radar Programs in a Jan. 6 interview with Seapower, noting that the radar will be ready for IOC late next year.

New Year, New Radar

The fixed-face SPY-6(V)1 replacing the SPY-1 in the newest version of the Arleigh Burke class DDG, Flight III.

Mills said more software enhancements to the radar will be made as it is readied for the Navy’s acceptance trials scheduled for May or June.

Raytheon is under contract for 25 SPY-6 radars of the various versions, including six SPY-6(V)1 variants for DDGs. The future USS Ted Stevens (DDG 128) will be the second ship DDG to be fitted with the SPY-6(V)1.

The SPY-6(V)2 Enterprise Air Search Radar (EASR) is a rotating antenna version that is first being installed on the Flight I San Antonio-class amphibious platform dock ship Richard M. McCool Jr., the transition ship to the Flight II of the class.

The first SPY-6(V)3 EASR rotating radar has been installed on the future aircraft carrier USS John F. Kennedy (CVN 79), currently under construction.

The SPY-6(V)4 version has a fixed-face antenna and will be

retrofitted on some Flight IIA DDGs in place of the SPY-1. Mills said an adapter plate will be installed on the ships to allow for the retrofit of the SPY-6(V)4 antennas. The existing power systems will be 95% leveraged for re-use, he said.

Mills said he expects a contract for the (V)4 to be forthcoming this year.

He said the commonality of the various SPY-6 variants will simplify logistics. They will have common software and common sensor cells.

Superior Defense Capabilities

All DDGs equipped with the SPY-6 will have defense capability against ballistic missiles, Mills said.

He also pointed out that the increased range of the SPY-6 will improve the defensive capability of a DDG and free up more missile launchers for offensive capability.

“We’ve got a whole lot of international interest,” Mills said, noting that several nations that currently use the SPY-1 radars would be potential customers for the SPY-6(V)1. He said his company has given numerous briefings to potential international customers.

Congress Orders Report on Plan for Future of Navy’s

Expeditionary Squadrons

EA-18G



A U.S. Navy EA-18G Growlers assigned to the “Garudas” Electronic Attack Squadron (VAQ) 134, Naval Air Station Whidbey Island, Washington, waits to receive air-to-air refueling from a Royal Air Force Voyager tanker assigned to 101 Squadron, RAF Brize Norton, United Kingdom, during a Red Flag-Nellis 22-1 mission Feb. 3, 2022, at Nellis Air Force Base, Nevada. *U.S. AIR FORCE / Airman 1st Class Zachary Rufus*

ARLINGTON, Va. – Congress rejected the U.S. Navy’s 2023 budget proposal to deactivate five electronic attack squadrons (VAQs) that operate the Boeing EA-18G Growler electronic attack jet in the defense policy bill recently signed into law by President Joe Biden. Instead, Congress directed the Defense Department to submit a plan to meet the joint airborne attack requirements.

In its 2023 budget submission, the Navy proposed to deactivate its entire expeditionary VAQ force, which deploys to overseas bases in order to provide electronic attack capabilities to the joint force. The five expeditionary VAQ squadrons are separate from the Navy’s VAQ squadrons that deploy aboard aircraft carriers.

The five squadrons originally slated for cut included a total of 25 EA-18Gs, which would have been placed in storage at the Aerospace Maintenance and Regeneration Group at Davis-Monthan Air Force Base in Tucson, Arizona. The cuts also would have freed up approximately 1,020 officers and enlisted personnel. The Navy estimated the savings over the Future Years Defense Plan would be \$807.8 million.

In the James M. Inhofe National Defense Authorization Act for Fiscal Year 2023, Congress directed the Navy to retain all 160

EA-1G aircraft and required the following:

A report outlining a strategy and execution plan for the Navy and Air Force to continuously and effectively meet airborne electronic attack training and combat requirements of the joint force, to include establishment or continuation of one or more land-based, joint service electronic attack squadrons and integration of both active and reserve components of both services.

The Navy is the only provider of expeditionary electronic attack jets to the joint force. The Air Force retired its last EF-111A Raven jets in 1998, and the Marine Corps retired its last EA-6B Prowler tactical jets in 2019. The expeditionary VAQ squadrons have deployed to Southwest Asia, Japan, and Italy over the years in support of U.S. and coalition forces. Last year, one squadron – VAQ-134 – was deployed to the European Command as part of the build-up of forces in support NATO's eastern flank after the Russian invasion of Ukraine.

The expeditionary VAQ squadrons are considered high-demand/high-value assets by the Joint Chiefs of Staff.

The Navy's five expeditionary VAQ squadrons are all based at Naval Air Station Whidbey Island, Washington: VAQs 131, 132, 134, 135, and 138. The Navy's only reserve VAQ squadron, VAQ-209, has also been used in an expeditionary role.

The carrier-deployable VAQ squadrons are VAQs 130, 133, 136, 137, 139, 140, 141, 142, and VAQ-144, the latter established in October 2022. All are based at Whidbey Island, except for VAQ-141, which is based at Marine Corps Air Station Iwakuni, Japan, as part of the forward-deployed Carrier Air Wing Five for the USS Ronald Reagan.