Navy's Triton UAV to Provide Targeting for LRASM



MQ-4C Triton | Credit: Northrop Grumman By Richard R. Burgess, Senior Editor

ARLINGTON, Va. – An upgrade to the U.S. Navy's MQ-4C Triton unmanned aerial vehicle will enable it to provide targeting for the AGM-158 Long-Range Anti-ship Missile (LRASM), senior Navy officials said.

In a May 1, 2024, Nickolas H. Guertin, assistant secretary of the Navy for Research, Development and Acquisition; Vice Admiral James Pitts, deputy chief of naval operations for Warfighting Requirements and Capabilities; and Lieutenant General Karsten S.Heckl, deputy commandant for Combat Development and Integration and Commanding General, Marine Corps Combat Development Command, testified before the Subcommittee on Seapower of the Senate Armed Services Committee. A written joint statement was submitted for the record and provided some detail on the planned MQ-4C upgrades.

"The MQ-4 program is meeting schedule objectives, completing Initial Operational Capability (IOC) in July 2023 with its first orbit stand up in INDOPACOM [U.S. Indo-Pacific Command," the statement said. "The Program is currently in the process of standing up its remaining two operational orbits in EUCOM [U.S. European Command] and CENTCOM [U.S. Central Command], scheduled for Q2FY24 and Q1FY25 respectively."

The MQ-4C, built by Northrop Grumman, is now deployed to Andersen Air Force Base in Guam and Naval Air Station Sigonella in Sicily. The site of the future CENTCOM deployment has not been announced.

"The MQ-4 will undergo continuous spiral upgrades throughout the next four years, to include Link-16 targeting with LRASM in 2024 culminating in Full Operational Capability in FY28 enabling near-24/7 ISR [intelligence, surveillance, and reconnaissance] coverage in simultaneous theaters of operation," the statement said.

The LRASM, built by Lockheed Martin Missiles and Fire Control, is designed to be deployed on Navy F/A-18 Super Hornet strike fighters and P-8A Poseidon maritime patrol aircraft, as well as Air Force B-1B Lancer bombers.

As noted in a May 1 Defense Department contract announcement, the Navy awarded Lockheed Martin a \$288 million contract modification to support development of the AGM-158C-3, an extended-range version of the LRASM. The C-3 version would include "advanced communications and survivability capabilities while supporting maritime strike missions for the Navy," the announcement said.

BlueHalo to Test C-UAS System on Marine Corps JLTV



By Richard R. Burgess, Senior Editor

ARLINGTON, Va. — BlueHalo will be testing its LOCUST Laser Weapon System on a U.S. Marine Corps Joint Light Tactical Vehicle (JLTV), the company's chief executive officer (CEO) said.

BlueHalo' s primary focus is on defeating Group1, 2, and 3 unmanned aerial systems (UAS), as well as counter-rocket and counter-mortar systems, said Jonathan Moneymaker, CEO of Blue Halo, in an interview with *Seapower*.

"As the foundation of P-HEL, BlueHalo's LOCUST Laser Weapon System (LWS) combines precision optical and laser hardware with advanced software, artificial intelligence (AI), and processing to enable and enhance the directed energy "kill chain," the company said in a release. "LOCUST LWS addresses the inherent need for mobility and quick deployment—tracking, identifying, and engaging of a wide variety of targets with its hard-kill high energy laser.

"We look at it from an integrated layered defense strategy," Moneymaker said. "Five years ago, we saw the evolution of drone warfare, today one of the fastest-evolving threat vectors. We wanted to engage that from a variety of modalities. We offer solutions and products that range from passive detection in our Skyview product to RF detect-anddefeat in our Titan product, our LOCUST Laser Weapon System, expanding into more global C2 [command and control], and starting to expand into our next-gen kinetic interceptor.

As of April 2024, BlueHalo had delivered two P-HEL systems to the U.S. Army, which has deployed them to unspecified locations.

"It is most certainly [deployed] in areas of conflict," Moneymaker said. "It's real, it's deployable, it's reliable, and frankly needed to bring service members home."

"We're very proud to be the first operationally deployed [HEL] system," Moneymaker said, noting that its system has surpassed operational 10,000 hours and that the customer having a system that "has finally reached a level of reliability that they've been looking for as they've been fielding these capabilities."

He said that the next expansion would be a mobile high-energy laser weapon — on an infantry squad vehicle or a JLTV. The first mobile system was delivered in late March.

"The JLTV integration will be on the Marine Corps' JLTV, so we've been working with all of the services as it relates to deployment of LOCUST," he said. "We certainly have been having initial conversations with afloat Navy on how can we deploy these systems in the best configuration to counter some of the activity we're seeing in the Red Sea."

Moneymaker said he sees great potential in the "proven, ready [P-HEL] system" for naval use with its roll-on/roll-off capability.

The work for the Marine JLTV is through the Department of the Navy's Ground-Based Air Defense program, as well as through the Joint Capabilities Office and U.S. Army Rapid Capabilities and Critical Technologies Office (RCCTO).

Moneymaker said the LOCUST is very effective against a [drone] swarm, noting that the capability is part of the test criteria. The LOCUST uses Wizard artificial intelligence and machine learning for target identification and aimpoint recognition.

The P-HEL is powered by a generator or batteries, and the company is looking at how to tie the HEL into shipboard power.

The company's HEL is built primarily at the BlueHalo campus in Albuquerque, New Mexico, with work expanding to Huntsville, Alabama, and Rockville, Maryland. BlueHalo, headquartered in Arlington, Virginia, employs 2,400 workers and is approaching revenue of \$1 billion annually. The company has other facilities in Dayton, Ohio, and Fort Lauderdale, Florida.

USS George Washington Deploys to U.S. Southern Command,

Eventually Headed to Japan



NORFOLK (April 25, 2024) The Nimitz-class aircraft carrier USS George Washington (CVN 73) departs Naval Station Norfolk, April 25, 2024, for a deployment to the U.S. Southern Command area of operations as part of Southern Seas 2024. (U.S. Navy photo by MC3 Maxwell Orlosky) By Richard R. Burgess, Senior Editor

ARLINGTON, Va. – A major homeport shift involving two Nimitzclass aircraft carriers is underway with the April 25, 2024, departure of USS George Washington (CVN 73) from Norfolk, Virginia, to the U.S. Southern Command area of responsibility. The voyage will take the carrier to NAS North Island, California, where it will embark Carrier Air Wing Five (CVW-5) from USS Ronald Reagan and replace that carrier as the one forward-deployed to the U.S. Seventh Fleet in Yokosuka, Japan.

Embarked in the George Washington are the Carrier Strike Group

10 staff and aircraft and personnel of Carrier Air Wing Seven (CVW-7).

"USS George Washington (CVN 73), along with USS Porter (DDG 78) and USNS John Lenthall (T-AO 189), are scheduled to conduct passing exercises and operations at sea with partner nation maritime forces as the ships circumnavigate South America," Commander, Naval Air Force Atlantic said in an April 24 Facebook post. "Engagements are planned with Argentina, Brazil, Chile, Colombia, Ecuador, Peru, and Uruguay, with port visits planned for Brazil, Chile, and Peru."

The George Washington was the forward-deployed carrier based in Japan from 2008 until 2015, when it was replaced in Japan by the Ronald Reagan. In 2017, the George Washington entered a Refueling and Complex Overhaul at the Huntington Ingalls Industries' Newport News Shipbuilding yard in Virginia, an evolution that took six years, including the duration of the COVID-19 pandemic. The George Washington's nuclear propulsion plant is fueled to run another 25 years.

SECNAV Advocates Increased Legal Immigration to Increase Shipbuilder Workforce



Secretary of the Navy Carlos Del Toro visits industry booths during the Navy League of the United States' Sea-Air-Space Exposition 2024 at National Harbor, Maryland, April 9. U.S. Navy | MC2 Jared Mancuso By Richard R. Burgess, Senior Editor

ARLINGTON, Va. – The secretary of the Navy said the shortage of workers in the U.S. shipbuilding industry could be partially alleviated by allowing more legal immigrants into the country to work in the shipyards.

Speaking April 23 at the Stimson Institute, a Washington think tank, SECNAV Carlos Del Toro acknowledged that supply chain issues caused by the COVID-19 pandemic negatively affected the ability on shipyards to meet delivery schedules of Navy ships, said he thought "the bigger problem than that ... is actually the lack of blue-collar workers that we have in this country.

"Regretfully, we're a pretty divided country politically, you

might say, but it really is time for Congress to get together and pass comprehensive reform and increase the amount of legal immigration that we actually allow into this country [and] increase the amount of work visa programs that are authorized for blue-collar workers to come from other nations and actually do the work here as has actually existed since the founding of our government, very much so," Del Toro said.

The SECNAV noted the current unemployment rate in many U.S. states is low, "but what we've got to do is open up the spigot a bit, basically, on legal immigration to allow blue-collar workers to come here and also to devote an enormous amount of resources into re-training individuals so they can actually work in our shipyards and be employed by the types of trades that are open to shipyard workers, for example."

Del Toro noted the U.S. government will in the next five years "be pumping in \$15 billion investment into the submarine industrial base alone and an additional billion-dollar investment into the surface industrial base as well."

The SECNAV also noted that the atrophied U.S. commercial shipbuilding industry needs to be reinvigorated by a "whole-of-government effort around a national maritime statecraft."

Insitu Going Strong at 30, Focusing on Maritime Operations



Insitu's FLARES system carries an Integrator SUAS aloft to launch it. Photo Credit: Insitu By Richard R. Burgess, Senior Editor

NATIONAL HARBOR, Md. – Insitu, one of the most experienced companies in the small unmanned aerial systems (SUAS) market, will mark 30 years of operations in May.

The company (in parent company Boeing's Booth 1337), noted for its ISR (intelligence, surveillance, and reconnaissance) services and sales of modular SUAS such as ScanEagle and Integrator, especially for U.S. and allied operations in Afghanistan, is emphasizing maritime deployment of its SUAS with the shift of U.S. focus to the Indo-Pacific region, Diane Rose, president and CEO of Insitu, said in an interview with Seapower.



The Integrator UAS gets VTOL capability using the FLARES system. Photo Credit: Insitu Insitu's SUAS have flown 175,000 sorties, accumulating 1.5 million flight hours, including 70,000 hours of maritime operations, Rose said. The SUAS are operated by or for 40 customers – to include 20 navies and coast guards – in 35 countries. The SUAS have been operated from 28 classes of naval vessels.

Insitu's SUAS have been provided to Ukraine via Foreign Military Sales and have been "very successful in that space," she said, and Insitu will "continue to support that effort."

Insitu continues to manufacture air vehicles and provide spare parts, system upgrades, and training to users. Modular sensors, provided by partner companies, can be swapped in the field to flexibly meet mission requirements.

"Our architecture allows us to integrate very quickly thirdparty sensors and payloads," Rose said. "With the customer's interests and missions in mind, we have a unique capability to offer solutions that support whatever the customer's needs may be."

Rose said there was a downtick in ISR services at land-based sites for the United States military since the end of the war in Afghanistan, but an uptick in international interest in Insitu's products and services, especially focused on the maritime domain in the Indo-Pacific region, with an associated evolution in technology to satisfy emerging and changing customer needs.

The U.S. Navy and Coast Guard continue to use Insitu's ISR services. The Navy also has procured Insitu SUAS. Navy units continue to use the RQ-21A Blackjack version of the Integrator, while Navy Special Warfare units use the RQ-27B version of the ScanEagle.

"Maritime operations are hard, and this is what 30 years of experience gives us," Rose said. "Shipboard movement, shipboard radars and antennas, the EMI [electro-magnetic interference] environment, the harsh weather conditions, global logistics — how do you re-supply your systems, how do you meet the ships at the various ports?

"There's a lot to supporting maritime operations, and I think that's really why you see the success of our systems' enduring," she said, speaking of the long service of ScanEagle in the ever-evolving field of uncrewed aerial systems.

For customers who procure Insitu SUAS, the company provides training on how to operate the systems and also operates a 24/7 Operations Action Center, which provides customers engineering support and responses to trouble reports.

This year at the Navy League's Sea-Air-Space (SAS) Expo, Insitu will be highlighting its vertical takeoff capability in the FLARES (Flying Launch and Recovery System (FLARES) octocopter, which it introduced at the 2023 SAS. FLARES can carry an Integrator UAS aloft 500 feet and launch it on its mission, enabling the Integrator to maintain its range, endurance, and payload capacity. The octocopter alleviates the need for a launch rail, reducing the footprint of the system and making shipboard and expeditionary operation easier. The recovery method remains the same.

Rose said Insitu has one customer so far for FLARES that carries a ScanEagle aloft.



At Sea-Air-Space, Insitu will highlight its FLARES systems, which provides VTOL capability to fixed-wing UAS Photo Credit: Insitu She said the 570-employee company is interested in growing its technical talent but emphasizes lean and efficient operations in a highly competitive industry.

Insitu continues to press forward to address battlespace challenges, including SUAS operations in a GPS-denied environment and with kinetics. The company has conducted inert-drop flight tests from Group2/3 SUAS.

Navy Awards Boeing Additional Funds for MQ-25 Drones for Testing



The Boeing-owned MQ-25 test unmanned aerial vehicle, T1. (Boeing)

By Richard R. Burgess, Senior Editor

ARLINGTON, Va. - The Navy has awarded Boeing funds to enhance the production of MQ-25A Stingray carrier-based aerial refueling unmanned aerial vehicles, bringing to five the number procured for testing.

The Naval Air Systems Command awarded The Boeing Company a cost-plus-fixed-fee, cost-plus-incentive-fee, fixed-price incentive (firm-target) \$657.1 million contract modification for the aircraft, according to a March 29 Defense Department contract announcement.

"This modification adds scope for the production and delivery of two additional MQ-25 System Demonstration Test Article aircraft (air vehicles four and five), to include associated tooling and communication system changes for the Navy," the announcement said. "Additionally, this modification definitizes obsolescence phase two for non-recurring engineering to address product baseline obsolescence to support low-rate initial production for the MQ-25 Stingray program."

The MQ-25A is a single-engine carrier-based UAV designed to refuel other aircraft while in flight. The Navy is procuring the Stingray to refuel F-35 Lightning II and F/A-18E/F Super Hornet strike fighters, EA-18G Growler electronic attack aircraft, and E-2D Advanced Hawkeye command and control aircraft.

Procurement of the MQ-25A will allow the Navy to free up Super Hornet strike fighters from the aerial refueling role for their primary combat missions. It also will help preserve the service life of the Super Hornet fleet.

The Navy ordered four development models of the MQ-25A in August 2018, followed by an order for three more in April 2020. The company-owned prototype made its first flight in September 2019 and in 2021 demonstrated its ability to refuel the F-35C, F/A-18E/F, and the E-2D. The September 2022, the Navy awarded Boeing a contract for advance materials for Low-Rate Initial Production Lot 1. Initial operational capability is expected in 2026. The Navy plans to procure 72 Stingrays.

Benign 4th Fleet AOR Useful for Unmanned Vehicle Operationalization, Admiral Says



230913-N-N3764-1001 NAVAL STATION KEY WEST, Fl. – (Sept. 13, 2023) – Commercial operators deploy Saildrone Voyager Unmanned Surface Vessels (USVs) out to sea in the initial steps of U.S. 4th Fleet's Operation Windward Stack during a launch from Naval Air Station Key West's Mole Pier and Truman Harbor, Sept. 13, 2023.

By Richard R. Burgess, Senior Editor

ARLINGTON, Va. – The Navy's use of unmanned systems in the U.S 4th Fleet area of operations (AOR) is enabling the fleet to move from experimentation to operationalization of the unmanned systems, even discovering unanticipated advantages of those systems.

The stability of the region and the relatively benign environment – from high-end threats – of the fleet's AOR has enabled the fleet to experiment with unmanned systems and develop trust in them, said Rear Admiral James Aiken, commander, U.S. 4th Fleet and commander, Naval Forces, U.S. Southern Command, in a March 27 Defense One webinar conversation.

"This is a take-risk AOR," Aiken said, noting that the environment allows the fleet to experiment in "creative ways" with unmanned systems.

"We want to take unmanned systems and operationalize them," he said.

For one example, he said that unmanned surface vessels can identify ships and boats engaged in illegal fishing.

The admiral said that leasing unmanned systems for experimentation – as opposed to procuring them – enables the fleet to more easily discontinue use of systems that prove inadequate. He mentioned one system – which he did not name – that proved to be deficient for its role in high sea states.

Aiken said that during the last UNITAS exercise with regional navies, a representative from the U.S. 5th Fleet attended as an advisor. The 5th Fleet's Task Force 59 has for several years conducted experimentation with unmanned surface vessels (USVs) in the Missile East.

Aiken said that one surprising discovery was the deterrent value of USVs. He said that the very presence of Saildrone USVs north of the northern coast of Haiti served as a deterrent to migrants seeking to reach another shore, including the United States.

Navy to Send Beach Group, Sealift Ships to Support Gaza Relief



A Joint Logistics Over-the-Shore Trident floating pier and causeway is shown under assembly. (US Army photo by Sgt. Ashunteia Smith)

By Richard R. Burgess, Senior Editor

ARLINGTON, Va. — The U.S. Navy is sending an expedition of beach cargo handling forces to assist in the establishment of a floating causeway and pier to handle delivery of relief supplies to Gaza.

Speaking on background, a Navy official told reporters on March 20 that Beach Group One, augmented by other logistics forces, would be deployed to the eastern Mediterranean Sea to deliver and assemble lighterage of the Joint Logistics Overthe-Shore (JLOTS) system to convey supplies to the Trident pier and causeway Joint Logistics Over-the-Shore (JLOTS) pier that will be assembled by the Army's Transportation Corps.

Beach Group One, based in San Diego, is a command that provides beachmasters and LCAC air cushion landing craft to amphibious warfare ships, as well as a JLOTS.

The JLOTS equipment – positioned in Jacksonville, Florida – will be transported to the Mediterranean on three sealift ships – 2nd USNS LT John P. Bobo, USNS1st LT Baldomero Lopez, and Maritime Administration's Ready Reserve Force ship Roy P. Benevidez – with the latter transporting Army equipment. The ships will deploy nonstop straight to operations area and remain on station off Gaza to provide berthing and support for the Sailors and Soldiers involved in the relief operation. The Beach Group One personnel will be flown to the Mediterranean to join their equipment.

The official said the Navy would be sending 260 personnel to the operation, including augmentees from Beach Group Two and Navy Cargo Handling Battalion One. The personnel would include boatswain's mates, Seabees, hospital corpsmen, quartermasters, and operations specialists, as well as other ratings.

The beach group will assemble a Roll-On/Roll Off Discharge Facility (RRDF), a 72-foot-by-270-foot floating platform built from nine sections that join together. The official said the RRDF takes four-to-five days to assemble. The RRDF, positioned three miles from the beach, will be moored alongside ships to accept their cargo containers, offloaded onto the RRDF by cranes. The containers are then loaded onto lighterage that are moved by tugboats to the Army Trident pier, which is attached to a causeway that leads to the shore. The containers are then trucked ashore by the tractor-trailers. The sealift ships and the JLOTS will be supported by medium landing craft, repair craft, and small boats.

The JLOTS was last used in Exercise Talisman Saber in July 2023. The official said that the JLOTS is assembled regularly for training and proficiency, usually once or twice per year.

The official confirmed that no U.S. military personnel will be operating ashore in Gaza. Contract personnel will be used to drive the tractor-trailers onto the pier to receive the cargo.

The duration of the operation is yet to be determined. The official said the beach group would be meeting whatever was required by its operational commander. He said the command-and-control structure in the theater was still being worked out.

Navy Orders 17 Block III Super Hornets Plus Data Package



PHILIPPINE SEA (Dec. 4, 2023) An F/A-18E Super Hornet from the "Stingers" of Strike Fighter Squadron (VFA) 113 prepares to launch from the flight deck of the Nimitz-class aircraft carrier USS Carl Vinson (CVN 70). (USN photo by MC3 Joshua Sapien)

By Richard R. Burgess, Senior Editor

ARLINGTON, Va. — The Navy has ordered 17 more Block III F/A-18E/F Super Hornet strike fighters for the fleet, with the contract action also providing for the initial phase of delivery of the aircraft's data package.

In a March 19 Defense Department contract announcement, the Naval Air Systems awarded to Boeing a not-to-exceed \$1.14 firm-fixed-price, undefinitized contract modification to procure "10 F/A-18F Lot 46 aircraft, as well as two F/A-18F and five F/A-18E Lot 47 aircraft."

The contract also shows progress in resolution with Boeing over the rights to the aircraft's data package, important to the sustainment of the Super Hornet fleet. "This modification also provides for Phase One of the F/A-18E/F and EA-18G technical data package including the operation, maintenance, installation and training data in support of F/A-18 and EA-18G sustainment efforts for the Navy," the release said.

"The technical data package was a crucial part of this negotiation; it is necessary for naval aviation's operational readiness and post-production sustainment," said Rear Adm. John Lemmon, program executive officer for Tactical Aircraft Programs, in a March 19 Navy release. "The Super Hornet remains a predominant aircraft in the carrier air wing and will continue to provide significant combat capability into the 2040s. The Navy received appropriated funds from Congress to purchase these Super Hornets to help mitigate the strike fighter shortfall. The award is an Undefinitized Contract Action with the intent to definitize within the next few months."

Delivery of the new Super Hornets is scheduled from late 2026 through to begin in the winter of 2026, with final delivery no later than April 2027.

The Block III version of the Super Hornet completed its first carrier deployment last month with the return of the USS Carl Vinson from the Western Pacific Ocean. Strike Fighter Squadron 113 took the Block IIIs on the deployment.

Aircraft Carrier Suppliers Alarmed at Navy's Planned

Delay of CVN 82



STRAIT OF GIBRALTAR (Jan. 5, 2024) The world's largest aircraft carrier USS Gerald R. Ford (CVN 78) transits the Strait of Gibraltar, Jan. 5, 2024. (USN photo by MC2 Jacob Mattingly)

By Richard R. Burgess, Senior Editor

ARLINGTON, Va. – The coalition of suppliers of components, parts, and services for the construction of the U.S. Navy's aircraft carriers (CVNs) is alarmed at the proposed two-year delay of authorization for CVN 82 – the fifth Gerald R. Ford-class CVN – and the potential disruption to the supplier base for the ships.

Lisa Dante Papini, chair of the Aircraft Carrier Industrial Base Coalition (ACIBC), which represents more than 2,000 businesses, said she is "extremely concerned" about the proposed delay for CVN 82 from 2028 to 2030, noting that 40% of the suppliers said in a survey that they would be negatively affected by the delay.

Papini said the delay likely would involve worker layoffs, production lines going cold, and suppliers de-prioritizing military requirements and seeking more work in other sectors. She noted that re-starting cold production lines and hiring or re-hiring workers is a lengthy and expensive process. The skills needed – such as welding – are in high demand in other industries as well, complicating the attraction of new workers.

"That's why we're concerned about going cold," she said.

She also explained the need for advance funding for supplying aircraft carrier construction three years in advance of construction start.

"We're so far to the left of those delivery dates," she said. That's why we ask for advance funding."

Papini, like her counterparts in the Amphibious Warfare Industrial Base Coalition and the Submarine Industrial Base Coalition, emphasizes that stability and predictability of shipbuilding helps the supplier base "level-load their work;" recruit, train, and retain their workers; reduce costs, and deliver products on time.

The ACIBC met with senators and congressmen on March 20 on Capitol Hill to explain its concerns and priorities.