

Coast Guard Establishes Cyber Reserve Component and Cyber Billets



A Coast Guard Information Systems Technician adjusts cables inside a server room at the Telecommunication and Information Systems Command (TISCOM) Jan. 24, 2013. *U.S. COAST GUARD / Petty Officer 2nd Class Etta Smith*

ARLINGTON, Va. – The Coast Guard is creating three reserve entities to strengthen its cyber capabilities, the service's headquarters announced in an internal message.

The Coast Guard's Office of Cyberspace Forces' team in charge of implementing the cyber mission specialist (CMS) rating is creating a 39-member Reserve Cyber Protection Team.

Also being created are positions for 48 Reserve Cyber Advisors. These personnel will be assigned to Coast Guard operational commands within the Marine Transportation System.

In addition, a 15-member Coast Guard cyber reserve unit is being established at U.S. Cyber Command.

“These teams, along with the [Coast Guard Cyber Reserve Division, will consist of enlisted members from the CMS and IS [Intelligence Specialist] ratings, Cyber Mission Management (CMM) warrant officer specialty and commissioned officers,” the message said.

Navy Requests Concepts for Attributable Mother Ship for Unmanned Systems



The large unmanned surface vessel Nomad transits the Pacific Ocean to participate in Exercise Rim of the Pacific (RIMPAC) 2022. The Navy's concept for an attritable unmanned mother ship (AUMS) for delivering large numbers of unmanned systems could resemble a smaller version of a Project Overlord ship. *U.S. NAVY / Mass Communication Specialist 1st Class Tyler R. Fraser*

ARLINGTON, Va. – The U.S. Navy has issued a Request for Information for concepts for an attritable unmanned mother ship to “cost-effectively deliver large numbers of UxVs (unmanned systems) to forward locations in a contested environment,” the published notice of the request said.

The Attritable UxV Mother Ship (AUMS) Program stressed in the Oct. 31 announcement that the ship should cost as minimal as possible so that loss of such a ship would be acceptable.

The program office also said the AUMS concept “should explore modular open system approaches to have the ability to quickly insert the latest technology into a midlife upgrade.”

The RFI listed the following operational parameters for the AUMS:

- Open-ocean transit distance of 1,500 nautical miles (may vary from 1,000 to 2,000 depending on cost)
- Top speed from 12 to 20 knots
- Survivability in Sea State 5; full mission capability in Sea State 4
- Five days of operation without onboard human intervention
- Support of a 20-foot container (either towed or onboard, with capability to push it over the side); upon drop off, the container will be self-sustaining
- Be unmanned, capable of navigating via waypoints with GPS
- Have Over-the-Horizon and Line of Site Communications.
- Feature capability for resistance to boarding and

tampering

- Self-scuttling capability upon remote order
- System will only traverse in the open ocean, will never operate less than three nautical miles from any shoreline untended.
- Minimum service of the vessel would be five years, with longer service life desired if obtainable for a small cost increase

Government furnished equipment initially would include the command, control, communications, computers and intelligence (C4I) suite and a modularized 20-foot ISO container with UxVs.

The Navy is aiming to award a design and construction by mid-2026, with delivery of the first AUMS within 24 months of contract award.

The RFI was issued by the Unmanned Maritime Systems Program Office of the Program Executive Office (PEO) Unmanned and Small Combatants (USC). Responses must be received by Dec. 15.

USS Zumwalt Returns from First Western Pacific Deployment



The Zumwalt-class guided-missile destroyer USS Zumwalt (DDG 1000) sails through the Pacific Ocean. *U.S. NAVY / Mass Communication Specialist 3rd Class Christopher Sybert*

ARLINGTON, Va. – The guided-missile destroyer USS Zumwalt (DDG 1000), lead ship of its three-ship class, completed a short deployment to the Western Pacific Ocean on Nov. 11, marking the first operational employment the class as part of the fleet integration process.

The Zumwalt, which departed Naval Station San Diego on Aug. 1, operated in the U.S. 3rd Fleet and U.S. 7th Fleet areas of responsibility. The deployment involved a wide variety of training, testing and evaluation of operational concepts, fleet integration, crew size and ship systems, said Capt. Shea Thompson, commodore of Surface Development Squadron One, and Capt. Amy McInnis, commanding officer of USS Zumwalt, in a Nov. 16 media roundtable.

The deployment, which concentrated on fleet integration, was termed “very successful” by Thompson who called it an

important milestone for the DDG 1000 class and for the Navy” and that it marked “significant strides in learning how to employ, integrate and sustain Zumwalt as she operated forward” and a “significant step forward for the future of this class.”

During the deployment, the Zumwalt operated and trained in joint simulated fires training with a Japanese destroyer and a U.S. Air Force B-1B bomber; mine countermeasures proof of concept work with a forward-deployed explosive ordnance detachment; operations with fleet maritime operations centers, and the staff of the 7th Fleet’s Task Force 71; and operations with U.S. Army aviation. The ship also conducted expeditionary maintenance in Pearl Harbor – a location outside of home port – with contractor maintenance support, which Thompson said was by design for the Zumwalt class.

McInnis, who joined the crew as executive officer in January 2020 and fleeted up to command of the ship in November 2021, said that during a year of work-ups with the crew of 171 the ship practiced integrated and advanced scenarios, as well as radar, acoustic, thermal and magnetic signature testing.

She said the ship did not carry a helicopter detachment during the deployment but did carry two rigid-hull inflatable boats for mine countermeasures exercises.

Thompson said the Zumwalt exercised all of its mission areas typical for a DDG. He also said the ship took advantage of the deployment for testing and assessment of signature management, about which he was not at liberty to detail because of classification.

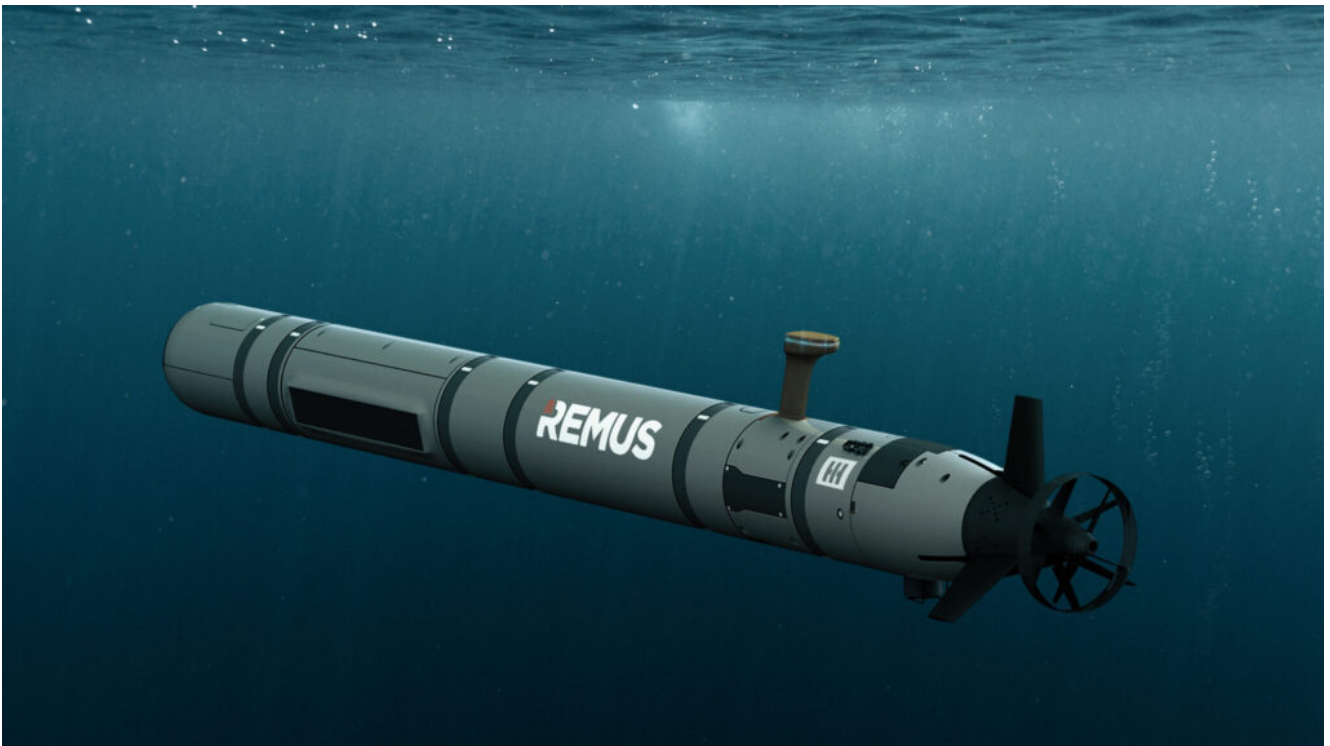
“We expect to capitalize on those lessons learned as we continue to employ the ship forward and integrate that platform into fleet operations and exercises,” Thompson said.

Thompson said that in his assessment, Zumwalt achieved Initial Operational Capability “today.”

The commodore said the Zumwalt had no direct interaction with Chinese navy ships during the deployment.

The Zumwalt will be modified during 2024-2025 with Conventional Prompt Strike hypersonic missile launchers for its primary strike mission, he said.

HII Announces REMUS 620 Next-Generation, Submarine-Deployable Medium UUV



HII's REMUS 620 *HII*

ARLINGTON, Va. – HII's Mission Technologies division has developed a new generation of medium unmanned underwater vehicle (MUUV) – the REMUS 620 – that leverages advances incorporated in its smaller REMUS 300 UUV, the company said in a Nov. 7 press conference and news release.

The REMUS 620 is based on the design of the REMUS 300, which has been selected by the U.S. Navy as its new Lionfish small UUV. The REMUS 620 will feature longer range and endurance, capable of a battery endurance of up to 110 hours and a range of 275 nautical miles. With a synthetic-aperture sonar installed, the REMUS 620 will have a battery life of 78 hours and a range of 200 nautical miles. The MUUV can sprint up at 8 knots and will have a navigation accuracy of 0.1% of distance travelled, said Duane Fotheringham, president of Mission Technologies' Unmanned Systems business group.

The 12 $\frac{3}{4}$ -inch-diameter REMUS 620 has the same size and weight as the REMUS 600, of which the company has delivered 175 to customers in the United States, United Kingdom, Australia and Japan. The REMUS 600 is the basis for the U.S. Navy's MUUVs currently used by mine countermeasures squadrons (Mk18 Mod 2 Kingfish), Naval Oceanographic Office (Littoral Battleship Sensing-Autonomous Undersea Vehicle) and submarine force (LBS-Razorback). The REMUS 620 is designed for such missions as mine countermeasures, hydrographic surveys, intelligence collection, surveillance, cyber warfare and electronic warfare.

The REMUS 620, developed with HII's internal funding, features modern core electronics and navigation and communications systems and modular, open architecture interfaces to accommodate wet or dry payloads, including towed payloads and custom payloads developed by customers. The UUV includes HII's Odyssey suite of advanced autonomy solutions for intelligent, robotic platforms, including the Odyssey Mission Management Software.

Mission data can be offloaded from the UUV by a removable hard drive, WiFi and Iridium satellite link, with other options including line-of-sight RF, high-data rate transmission, acoustic modems, optical modems and plug-in ethernet, Fotheringham said.

The REMUS 620 features several interchangeable batteries that can be quickly exchanged for fully charged batteries.

The REMUS 620 can be deployed from submarines, surface combatants, amphibious warfare ships, small manned or unmanned craft and helicopters. The new UUV can also be a platform from which to launch small UUVs or UAVs.

Fotheringham said that the U.S. Navy has said it has launched and recovered REMUS 600 Razorbacks from the dry-deck shelters of submarines and out of torpedo tubes.

“Recently there has been quite a bit in the press about the Navy’s efforts for launch and recovery of UUVs back into the torpedo tubes,” he said. “Those stories indicated the Razorback vehicles are being tested with that capability of recovery back into a torpedo tube.”

He said the capability to recover UUVs back into a torpedo tube is being worked by Woods Hole Oceanographic Institution, where the REMUS technology originally was developed.

“That solution that [Woods Hole] is developing for torpedo tube recovery is also compatible with the REMUS 620,” Fotheringham said.

“Retaining a forward strategic advantage requires the ability to deliver a multitude of effects from under the sea,” Fotheringham said. “The REMUS 620 is the first medium UUV designed to accurately deliver this range of advanced above-and-below water effects at long range.”

“We are prototyping and building the first vehicle now,” Fotheringham said. “We expect the first vehicle to be completed and in the water in 2023 with customer delivery in late ’23 or early ’24.”

He said HII was in discussions with the U.S. Navy about the REMUS 620 but was not free to offer details.

Admiral: Guam Weather 'Challenging' for Navy's Triton UAV Operations



A U.S. Navy MQ-4C Triton assigned to Unmanned Patrol Squadron (VUP) 19 prepares to take off from the flightline at Marine Corps Air Station (MCAS) Iwakuni, Japan, Oct. 5, 2022. *U.S. MARINE CORPS / Lance Cpl. David Getz*

ARLINGTON, Va. – The weather in Guam has proved to pose challenges to operations of the Navy's MQ-4C Triton high-altitude, long-endurance unmanned aerial vehicle, a Navy admiral said. He also praised the value of the Triton as a targeting platform.

In a situation report late last summer to the maritime patrol reconnaissance community, Rear Adm. Adam "Kujo" Kijek,

commander, Patrol and Reconnaissance Group, said the “most impactful lesson” of the Early Operational Capability deployment of the Triton to Guam was one “delivered by mother nature.”

Kijek said the “weather in Guam, and associated OP Areas [operations areas], can be very challenging for UAV operations. During ‘monsoon’ season, and with a stated goal of 16 missions per month, there were many days that Triton could not get airborne or access required operating areas due to adverse weather. However, when weather permits Triton has proven its operational worth.”

The admiral said that “to help combat these environmental anomalies, we executed a Seasonal Relocation Plan (SRP) to Misawa AB [Air Base] last summer, and Iwakuni [Marine Corps Air Station] this summer. Exercising these expeditionary muscles and harvesting lessons learned will pay huge dividends when Triton Multi-INT shows up in theater next year.”

Kijek noted that “there is tremendous value in providing the persistent ISR [intelligence, surveillance and reconnaissance] that Triton brings by establishing pattern of life and building a real-time Common Operational Picture for Fleet and Combatant Commanders. However, from a tactical perspective, I have been most impressed when Triton works as a targeting platform in concert with other aircraft and surface units.”

The admiral said he believed “the operational impact of Triton will grow exponentially” when the UAV’s Multi-Intelligence Integrated Functional Capability-4 upgrade is deployed in 2023.

“The ability of Triton’s SIGINT [signals intelligence] package to exploit the electromagnetic spectrum and the sheer volume of information harvested will present significant challenges to the Intel Community,” he said. “Simply adding a SIGINT Coordinator (SC) to every Triton aircrew is not enough. We are

working closely with the C10F [Commander, U.S. 10th Fleet and NAVIFOR [Navy Information Forces] to ensure that Triton is postured to take full advantage of Navy's Distributed SIGINT Operations architecture to realize its full potential. Achieving these linkages will be a primary focus during my tenure."

Navy to Merge Mine-Countermeasures Helicopter Squadrons



An MH-53E Sea Dragon helicopter from Helicopter Mine Countermeasures Squadron (HM) 12 participates in a nine-aircraft formation flight alongside HM-14 and HM-15. *U.S. NAVY / Mass Communication Specialist 3rd Class Jesse Schwab*

ARLINGTON, Va. – The Navy plans to deactivate one of its two fleet helicopter mine countermeasures squadrons next year and combine many of its personnel and helicopters with the remaining squadron.

Helicopter Mine Countermeasures Squadron 14 (HM-14), which operates the MH-53E Sea Dragon helicopter from Naval Station Norfolk, Virginia, is scheduled for de-activation effective July 31, 2023, according to a Navy directive.

HM-14's sister squadron, HM-15, also based in Norfolk, will absorb 102 full-time and 48 reserve enlisted personnel and four full-time and eight reserve officers from HM-14 in order to retain "as much airborne mine countermeasure capability as possible," the directive said.

The directive used the term "HM-15 MAX" to describe the enlarged squadron.

HM-14 and HM-15 are considered combined Active-Reserve squadrons, with an 80/20 mix of personnel from the two components.

HM-14 maintains a detachment in Pohang, South Korea, in support of the U.S. 7th Fleet, while HM-15 maintains a detachment in Manama, Bahrain in support of the U.S. 5th Fleet.

Another squadron, HM-12, serves as a fleet replacement squadron for the MH-53E fleet.

The Sikorsky-built MH-53E Sea Dragon has two primary missions: airborne mine countermeasures and Navy heavy lift and vertical onboard delivery. The aircraft is a derivative of the CH-53E Super Stallion but is heavier and has a greater fuel capacity and range. Capable of transporting up to 55 troops, the MH-53E can carry a 16-ton payload 50 nautical miles or a 10-ton payload 300 nautical miles. In its primary mission, the MH-53E can tow a variety of mine countermeasures systems, including

the Mk105 magnetic minesweeping sled, the AQS-24A side-scan sonar and the Mk103 mechanical minesweeping system. Mission duration can exceed four hours.

The Navy plans to keep the MH-53E in service at least until 2025.

Navy to Consolidate Fire Scout UAVs on West Coast



Aviation Electronics Technician 1st Class Nathan Thomas and Aviation Electrician's Mate 2nd Class Tristan Persky, assigned to the "Sea Knights" of Helicopter Sea Combat Squadron (HSC) 22, Detachment 5, prepare an MQ-8C Fire Scout for takeoff on the flight deck of the Freedom-variant littoral combat ship USS Milwaukee (LCS 5) Jan. 29, 2021. U.S. NAVY / Mass

Communication Specialist 2nd Class Danielle Baker

ARLINGTON, Va. – The Navy plans to consolidate operations of its Fire Scout unmanned helicopters to the West Coast in 2023, a Navy spokesman said.

The MQ-8 Fire Scouts have been by detachments of Helicopter Sea Combat Squadron 22 (HSC-22) on the East Coast and by HSC-21 and HSC-23 on the West Coast. The squadrons operated Fire Scouts alongside their MH-60S Seahawk helicopters.

“The Navy plans to pivot all MQ-8 operations to the West Coast in [fiscal 2023] with HSC-21 transitioning from the MQ-8B to the more capable MQ-8C. HSC-23 already operates the MQ-8C,” said Cmdr. Zach Harrell, spokesperson for Commander, Naval Air Forces, in an email to Seapower.

According to a Sept. 27 Navy directive, the East Coast squadron, HSC-22, will be de-activated effective June 30, 2023.

“Currently, there are no plans to expand Fire Scout operations to other helicopter sea combat (HSC) squadrons,” Harrell said.

USS Jackson Deployment Used Manned/Unmanned Teaming with Fire Scout, Seahawk



An MH-60S Sea Hawk and MQ-8C Fire Scout unmanned aerial vehicle, assigned to Helicopter Sea Combat Squadron (HSC) 23, conduct concurrent flight operations as a manned-unmanned team (MUM-T) while embarked on the Independence-variant littoral combat ship USS Jackson (LCS 6). *U.S. NAVY / Lt. j.g. Alexandra Green*

ARLINGTON, Va. – The recently concluded Western Pacific of the Independence-class littoral combat ship USS Jackson (LCS 6) saw extensive use of the newest version of the Fire Scout unmanned helicopter, with the operations including manned/unmanned teaming (MUM-T) with an MH-60S Seahawk helicopter.

The USS Jackson, based in San Diego, deployed on July 11, 2021, to the Western Pacific for 15 months in support of the Oceania Maritime Security Initiative (OMSI). Both the ship's Blue and Gold crews each participated in two on-hull patrols during the deployment, which took the LCS to the South China Sea and Oceania. The Jackson, with a Coast Guard law-enforcement detachment embarked, operated with the armed forces of Brunei, France, Germany, Indonesia, Thailand and

Japan, and made port calls to several island nations including Palau, Tahiti and Fiji. The ship returned to its homeport on Oct. 15, 2022.

The Jackson was armed with surface warfare mission modules, including the Naval Strike Missile, an MQ-8C Fire Scout and an MH-60S Seahawk. The aircraft were operated alternatively by detachments of Helicopter Sea Combat Squadron 23. This marked the first Pacific deployment of the MQ-8C version of the Fire Scout.

“Jackson conducted multi-domain operations with our Fire Scout unmanned aerial vehicle and manned MH-60S Seahawk,” said Cmdr. Michael Winslow, commanding officer of the ship’s Gold Crew, during an Oct. 19 media roundtable. “We had a lot of success with the Fire Scout. We conducted about 20 hours of flight operations pushing out to distances in excess of 100 miles. Next year we have some NAVAIR operations scheduled to look at expanding the wind, pitch and roll restrictions that are currently on the Fire Scout. Absolutely a force multiplier in theater.”

Cmdr. Nick Van Wagoner, executive officer of the Jackson’s Blue Crew, said the Jackson “set the standard in 7th Fleet and really define what persistent operations with the MQ-8C looks like. As a result of that, I think our operational commanders are seeking new ways to employ that sensor alongside other manned and unmanned aircraft and surface vehicles.”

We did employ the manned/unmanned teaming tactic and concept with our aviation detachment from Helicopter Sea Combat Squadron 23 Detachment 6. We executed that approximately one dozen times and we saw over 100 hours of MQ-8C operations while deployed to the 7th Fleet area. While conducting those manned/unmanned teaming operations what we found was that having an unmanned aircraft that had many capable sensor payloads was really a force multiplier that we could use to develop our recognized air and maritime picture beyond the

horizon while using the MH-60S to conduct positive identification of things that we detected with the MQ-8C.

The MQ-8C is equipped with the ZPY-8 search radar, the Brite Star II electro-optical/infrared sensor and the Automatic Information System.

CNO Holds Fast on Ship Decommissionings, Fleet Readiness



Sailors assigned to the USS Monterey (CG 61) man the rails during its decommissioning ceremony. Monterey was commissioned on June 16, 1990, and was a U.S. Navy warship for 32 years. *U.S. NAVY / Mass Communication Specialist 3rd Class*

Rodrigo Caldas

WASHINGTON – The U.S. Navy's top officer held fast when discussing the controversial subject of decommissioning older ships in order to sustain a ready, relevant fleet in a discussion at an event in Washington.

"For our last four budget cycles, readiness has been our number one priority, followed by modernization of the fleet that we have today – 70% of which we'll have a decade from now – and, finally, capacity at an affordable rate," said Chief of Naval Operations (CNO) Adm. Michael Gilday, speaking Oct. 19 at the Atlantic Council. "My approach has been, commensurate with my responsibilities, to field the most lethal force we can now and into the future."

Gilday said that fielding a lethal force involves maintaining ships; "not taking maintenance holidays – as sometimes we we've been prone to do in the past, when we made capacity king; to ensure that our supply storerooms are filled with the proper parts so that our ships are self-sustaining at sea; to ensure that our magazines are actually filled with weapons."

Referring to the issue of capacity, Gilday said that "when we make decisions on which ships we're going to decommission, the entering argument is the size of the fleet that we can afford."

Citing the current high monetary inflation, the CNO noted that 60% of the Navy's budget rises at a rate above inflation and has to be taken into account.

"Maintaining the fleet we have is extremely expensive," he said.

Gilday said the Navy looks at stratifying lethality across its platforms, ranking those platforms from 1 to 20, helping to inform decisions about which ships to decommission.

"It gets back to what we can afford," he said.

The CNO noted that some ships “haven’t seen a dry dock since 2000” and that some ships have 125 departures from specifications.

One example he cited was an engineering directive not to put a tugboat against one side of the ship because it could result in a hole puncture in the ship because the steel hull is too thin.

The CNO said that some Ticonderoga-class guided-missile cruisers are three years behind in completing maintenance at costs of \$80 million or more, and with a weapon system that is not going to be upgraded in time “to face the threat that the Chinese pose.”

Gilday said that “when it comes down to making hard decisions on where to put your next dollar, those are decisions that need to be made and debated within the Pentagon.”

The CNO pointed out that a few ships account for most of the delay days in maintenance.

The Navy has reduced maintenance delay days from 7,700 as of January down to a little over 3,000 today. Between 40% and 50% of the delay days can be attributed to six or seven ships that the Navy would like to decommission.

“They are old and not fit to fight against the current threat,” he said. “They were designed in the 1970s for a fight of a bygone age, but we’re still holding onto them.”

Vice Adm. Thomas: Triton

UAV's 'Tremendous Endurance' Benefits Fleet



A U.S. Navy MQ-4C Triton assigned to Unmanned Patrol Squadron (VUP) 19 prepares to take off from the flightline at Marine Corps Air Station (MCAS) Iwakuni, Japan, Oct. 5, 2022. *U.S. MARINE CORPS / Lance Cpl. David Getz*

ARLINGTON, Va. – The commander of the Navy's largest forward-deployed numbered fleet said the MQ-4C Triton high-altitude, long-endurance unmanned aerial vehicle currently deployed in the Western Pacific is proving to be a benefitting to his fleet's operations.

"Any sensor is goodness in my fleet," said Vice Adm. Karl Thomas, commander, U.S. 7th Fleet, speaking Oct. 14 at the U.S. Naval Institute in Annapolis, Maryland, in a Maritime Security Dialogue, a series conducted by the U.S. Naval Institute and the Center for Strategic and International Studies and sponsored by HII. "It's a huge AOR [area of

responsibility] and to have something that has that kind of legs [range] and that persistence really helps.”

“We’ve obviously been operating in theater with Triton for quite some time,” Thomas said. “We’re getting close to the IOC [Initial Operational Capability] level with Triton.

“We’re going to use Triton as a replacement for some of our surveillance aircraft,” he said. “So, the biggest benefit it brings clearly is its tremendous endurance. We’ve operated it out of Guam routinely. We’ve started to operate it out of various places in Japan, trying to not only make sure we have numerous places to take-off and land.”

The admiral said the fleet is working to build up an orbit “to learn our way through some of the capabilities that an EP-3 [Aries II Orion electronic reconnaissance aircraft] might bring back. It will be a different way of processing the information than we do with our EP-3s, so we’re working as a Navy to see how we seamlessly transition.”