Navy EOD Group Praises Mk18 UUV Performance in Aleutian Waters

Operations Specialist First Class Sean McNamara, assigned to Explosive Ordnance Disposal Mobile Unit One (EODMU1), launches the Mk 18 Mod 2 Kingfish for an initial underwater survey of Sweeper Cove on Adak Island in the Alaska's Aleutian chain. U.S. Navy/ Senior Chief Petty Officer Brandon Raile

ARLINGTON, Va. — The commodore of a Navy explosive ordnance disposal (EOD) group has praised the performance of the unmanned underwater vehicles (UUVs) that were used in a recent exercise in the Bering Sea off the Aleutian island chain.

"The technology that is being incorporated in the Mk18 Mod 1 and 2 and also in our smaller next-generation UUVs [is] incredible," said Capt. Oscar E. Rojas, commander of EOD Group One and commodore of Combined Task Force 35, speaking Sept. 11 to reporters in a media roundtable teleconference. "The resolution of the images that we are getting back from the topography of the seabed is so amazingly clear that it makes our job in IDing so much easier. That's why when we say a lane is clear of explosive hazards, we have an almost 100% confidence factor that is a fact because of this technology that has been introduced. It is a true game-changer.

"The future of warfighting is unmanned systems," Rojas said.

The Mk 18 Mod 1 Swordfish, Mk 18 Mod 2 Kingfish and other smaller UUVs were deployed to Adak, an island halfway along the Aleutian chain from the Alaskan mainland, for the Arctic Expeditionary Capabilities Exercise (AECE), the first exercise of its kind. Adak is the site of a former naval air station and deep-water port that were active during the Cold War.

Rojas stressed that this exercise was the first time that the Navy EOD community had exercised its expeditionary mine countermeasures (MCM) capabilities is such a high latitude. He also noted that after 18 years of becoming experts in clearing improvised explosive devices on land in Afghanistan and Iraq, the EOD expertise is being turned toward maritime mine countermeasures in an era of great power competition, although he declined to identify no specific competitor.

The scenario of the exercise was the employment of MCM capabilities to prepare the landing zone for amphibious forces of a Marine Corps Special-Purpose Marine Air-Ground Task Force.

He said the exercise was intended to increase agility in places where EOD forces have not deployed in a very long time and to test the EOD and MCM technology in cold water. One of the goals was to see how the cold water affected the life of lithium batteries in the UUVs and tethered remotely operated vehicles. Another was to see how the UUVs performed in areas of strong rip currents and widely varying tidal changes, and the effect of 40-knot winds on UUV-deploying boats and communications systems.

“It is important for us to operate in these conditions,” Rojas said. “The environment [in future conflict] is going to be very much like the one we’re training in now.”

He said that the exercise was an opportunity to operate unmanned systems that were designed for “a more benign environment” and to see if the systems were “going to break or going to function as designed.”

The commodore also noted that many of the hydrographic charts of the Aleutian are were outdated, with several shipwrecks found that were not marked on the charts.

Rojas said he tested five different communications systems and exercised the command-and-control systems in a satellite

communications-denied environment, also using High-Frequency radios for communications.

The EOD group also exercised its scalable units of action. In this exercise, approximately 150 personnel from the EOD forces were involved. The EOD group can deploy in three C-17 transport aircraft or with just a few equipment cases on a commercial airliner.

Navy E-2D With Aerial Refueling Joins Squadron

An E-2D Hawkeye prepares to land and be received by the Greyhawks of Carrier Airborne Early Warning Squadron (VAW) 120 on Monday, September 9 at Naval Station Norfolk. U.S. Navy/Mass Communication Specialist 3rd Class Nikita Custer
NORFOLK, Virginia – An E-2D Advanced Hawkeye capable of aerial refueling landed at Naval Station Norfolk Sept. 9, officially marking the arrival of this upgraded aircraft to the fleet, Commander, Naval Air Force Atlantic Public Affairs said in a Sept. 12 release.

“This is an important day for naval aviation as we continue to increase our capabilities and maintain our competitive edge in the skies,” said Rear Adm. Roy Kelley, commander of Naval Air Force Atlantic, “This capability will extend the endurance of Hawkeyes, increasing the Navy’s battlespace awareness and integrated fire control – both from the air and the sea.”

The aerial-refueling-capable E-2D joined the “Greyhawks” of Carrier Airborne Early Warning Squadron (VAW) 120.

“Aerial refueling capability is a game-changer for the E-2D

community and future operations in the high-end fight," said Cmdr. Scott Wastak, VAW-120 commanding officer. "We will now begin to train instructor pilots and refuel with several different Navy and Air Force tanker aircraft, including F/A-18s."

VAW-120 is only the first step in rolling out this new capability. The Navy will transition two operational fleet squadrons to aerial refueling capable E-2Ds by 2020.

VAW-120 is a Fleet Replacement Squadron attached to Airborne Command & Control and Logistics Wing commanded by Capt. Matthew Duffy. Its mission it to train naval aviators, naval flight officers, Navy aircrewmen and qualified maintainers to safely and effectively operate E-2 and C-2 aircraft.

Coast Guard Repatriates 18 Migrants to the Dominican Republic

SAN JUAN, Puerto Rico – The crew of the Coast Guard Cutter Heriberto Hernandez (WPC-1114) repatriated 18 migrants to a Dominican Republic Navy vessel just off the Dominican Republic Sept.11 following the interdiction of two illegal migrant voyages Sept. 8 in the Mona Passage.

Four men, among the interdicted migrants, remain in Puerto Rico to face possible federal prosecution on charges of violating 8 USC 1326, which carries a potential maximum term of imprisonment of 20 years and a fine of up to $250,000.

The interdictions were a result of ongoing efforts in support

of Operation Unified Resolve, Operation Caribbean Guard and the Caribbean Border Interagency Group (CBIG). Since October 2018, the Coast Guard and CBIG federal and state partner agencies have interdicted over 2,026 migrants at sea near Puerto Rico.

“Migrants risk their lives when they attempt to cross the Mona Passage aboard makeshift vessels with little or no lifesaving equipment,” said Capt. Eric King, Commander of Coast Guard Sector San Juan. “What many of them do not realize is that they potentially risk going to prison when they attempt to enter the country illegally.”

“The seas around Puerto are unpredictable and unforgiving,” said Lt. Andrew Russo, commanding officer of the cutter Heriberto Hernandez. “These two cases highlight the inherent and explicit danger each illegal venture poses. I am proud of my crew and thankful for the support from our partner agencies as we work to ensure the safety of all lives at sea.”

While on patrol in the Mona Passage Sept. 8, the crew of a Customs and Border Protection (CBP) Air and Marine Operations DHC-8 marine patrol aircraft crew sighted a migrant boat just off Mona Island, Puerto Rico. Cutter Heriberto Hernandez diverted to the scene and interdicted the 18-foot boat with 13 migrants aboard. The cutter crew safely embarked 12 men and a woman, who claimed Dominican Republic nationality.

In a separate case shortly thereafter, two Puerto Rico Police Joint Forces of Rapid Action marine units interdicted a second 18-foot migrant boat Sept.8Sunday night just off the coast of Aguadilla, Puerto Rico. Coast Guard watchstanders at Sector San Juan diverted cutter Heriberto Hernandez to the scene, where the crew safely embarked seven men and two women, who claimed Dominican Republic nationality.

Ramey Sector Border Patrol agents in Mayaguez, Puerto Rico received custody of the four migrants awaiting federal

prosecution.

Once aboard a Coast Guard cutter, all migrants receive food, water, shelter and basic medical attention.

Navy, Marine Corps Beef Up Relief Efforts in the Bahamas

U.S. Navy Sailors transport supplies on Sept. 7 in response to Hurricane Dorian. U.S. Navy/Mass Communication Specialist 3rd Class Katie Cox

ARLNGTON, Va. — The U.S. Navy and Marine Corps have increased their forces involved in relief and rescue efforts in the Bahamas as recovery efforts continue after Hurricane Dorian devastated some of the islands.

In a Sept. 9 Pentagon briefing, Jonathan R. Hoffman, assistant to the secretary of defense, said that U.S Northern Command had received 30 relief requirement requests and had deployed 1,200 personnel in support of those requests.

"Secretary [of Defense Mark T.] Esper authorized NORTHCOM to utilize 30 Army and Navy helicopters to provide transportation logistics and conduct assessments of transportation nodes to facilitate the delivery of humanitarian assistance," Hoffman said. "We are pursuing options to assist in airspace deconfliction as well."

The amphibious assault ship USS Bataan has deployed to the Bahamas and is operating Marine Corps MV-22B Osprey tilt-rotor and CH-53E Super Stallion heavy-lift helicopters in support of the relief efforts. Navy MH-53E Sea Dragon

helicopters also have been providing logistics for the relief efforts.

“Four U.S. Marine Corps MV-22 Ospreys from the USS Bataan transported a U.S. Air Force airfield assessment team to conduct its mission,” Hoffman said. “The airfield assessment team completed its evaluation of Grand Bahama International Airport and reported the field is C-130 and C-17 capable.”

The Coast Guard continues its rescue-and-recovery efforts in the Bahamas with five MH-60T helicopters and five cutters. As of Sept. 9, the service had rescued 383 people.

Coast Guard Continues Response to Hurricane Dorian in Bahamas

A U.S. Coast Guard MH-60 Jayhawk helicopter pilot flies over the aftermath of Hurricane Dorian in the Bahamas on Sept. 6. The Coast Guard is supporting the Bahamian National Emergency Management Agency and the Royal Bahamian Defense Force, which are leading search-and-rescue efforts in the Bahamas. U.S. Coast Guard

ARLINGTON, Va. — The Coast Guard is continuing rescue-and-recovery operations in the Bahamas in the wake of Hurricane Dorian.

As of 9 a.m. on Sept. 8, Coast Guard forces had rescued 308 people in the Bahamas, the Coast Guard 7th District said in a release.

The Coast Guard has five MH-60T Jayhawk helicopters conducting

missions in the area, including search and rescue, logistics and for assessments. The helicopters are staged out of Andros Island, site of the Atlantic Undersea Test and Evaluation Center, where the U.S. Navy stages helicopters for antisubmarine training such as torpedo drops.

The Coast Guard also has five cutters providing support in the disaster recovery operations.

Navy MH-53E Sea Dragon helicopters from Naval Station Norfolk, Virginia, also are participating in the relief efforts under the auspices of U.S. Northern Command.

The 7th District said that all ports have been re-opened.

Navy Anticipates Abundance of Technology for Unmanned Maritime Systems, But Infrastructure Also Needed

WASHINGTON –
The Navy may attract more unmanned technology than can handle and deploy as it
develops its unmanned surface vehicles and unmanned underwater vehicles (UUVs),
a Navy official said, noting that industry also has opportunities to provide
the supporting infrastructure.

“We’re going
to have way more technology available than we’re going to be

able to field in an operational manner until we build up infrastructure, Sailor training, pier space, supply network, spare parts, the transportation systems, the logistical support networks or all of the stuff," said Capt. Pete Small, the Navy's program manager for Unmanned Maritime Systems. speaking last week at the Association for Unmanned Vehicle Systems International's Unmanned Systems—Defense. Protection. Security. Conference in Washington.

"I am focused on that and would put out that industry consider that not all of the investment needs to be in cutting-edge machine learning and autonomy," Small said. "I'm not implying that we don't need that, but if we just focus on that without all of the more mundane logistics trails, there's a whole giant assumption of a logistical infrastructure network to get to the warfighter where the capability is needed, to do a lot to bridge that gap to deploy the system at that far forward point.

"There's absolutely an industry role in doing that as well," he said. "We're going to need help to get all of that stuff."

He also mentioned the need for infrastructure such as piers, cranes and test ranges to support unmanned vehicle development and deployment.

Small said the Navy does not need to re-learn lessons from the UAV [unmanned aerial vehicle] community with regard to providing enough bandwidth and other infrastructure requirements.

“We envision lots of unmanned vehicles providing the capacity that we need,” he said.

The Navy has established one UUV squadron and a surface development squadron on the West Coast. Small anticipates that the Navy will need to establish a second UUV squadron on the East Coast.

Geurts: Navy Cloud Migration Showcases Agility, Innovation

ARLINGTON, Va. — The Navy Department’s recent completion of migration of some networks to a server cloud is seen as an example the kind of procurement agility and innovation the Navy is looking for in its programs servicewide.

“The Navy Enterprise Resource Planning (ERP) “tech refresh” completed Aug. 19, 10 months ahead of the projected completion date — the Navy’s

largest system migration to the cloud," the Program Executive Office for Enterprise Information Systems and Naval Supply Systems Command Public Affairs offices said in a release.

The effort went "from cold start to contract in 45 days," said James F. "Hondo" Geurts, assistant secretary of the Navy for research, development and acquisition, speaking to reporters Aug. 23 at a media roundtable at the Pentagon.

The effort, which cost $100 million as part of a larger information technology contract, was scheduled to take 20 months but instead was accomplished in 10 months, Geurts said.

"The Navy ERP tech refresh is a major milestone toward consolidating all Department of the Navy financial systems into a single general ledger, which is essential to the department's ability to produce accurate financial information, obtain a clean audit opinion and improve our data analytic capability," said Thomas Harker, assistant secretary of the Navy for financial management and comptroller, who also briefed reporters at the roundtable.

Harker said the effort combined eight general ledger systems into to one. Those legacy systems were based on COBALT or home-grown software.

He said that the goal of the effort was toward “being auditable” and “being transparent using modern business practices.”

“This will increase our ability to do data analytics and provide much better information for decision-making,” Harker said.

Geurts said the ERP may have been the largest cloud migration ever conducted in North America.

Navy ERP now is available to about 72,000 users across six Navy commands: Naval Air Systems Command, Naval Sea Systems Command, Naval Information Warfare Systems Command, Naval Supply Systems Command, Strategic Systems Programs, the Office of Naval Research.

Navy ERP “is now entirely cloud-based, operating significantly faster in memory, data storage and processing,” the release said. “Prior to the migration, Navy ERP operated on a Systems, Applications, and Products (SAP) server-based Oracle platform. During the tech refresh, Navy ERP upgraded to the SAP HANA (high-performance analytic appliance) cloud-based platform.”

Harker said that one immediate impact of ERP will be an ability to produce reports in 30

minutes that used to take five or six hours. He said the impact will be felt in improving customer support, getting rid of inefficiencies and enhancing the ability to make rapid decisions.

He said the ERP "gives the Navy the capacity to bring on new customers so we are moving the half of the Navy that isn't already on the ERP system onto the ERP system over the next two years."

The ERP cloud incorporates rigorous, widely accepted cyber protections, with its coherent single system reducing the attack surface compared with legacy systems.

The prime system integrator for the ERP implementation was Advanced Solutions Inc., a small business.

"The magnitude of this accomplishment is incredible," Navy Secretary Richard V. Spencer said in the release. "The Navy ERP tech refresh is our largest system cloud migration to date and will enhance the performance of our force.

"I am proud of the team efforts to accomplish this on an accelerated schedule, cutting the projected timeline nearly in half," Spencer said. "The team managed this through innovative approaches to problem-

solving and close
collaboration with integration teams, network engineers and industry partners."

The Navy ERP program is
managed by Program Executive Office for Enterprise Information Systems' (PEO
EIS) Navy Enterprise Business Solutions program management office.

Knifefish UUV Enters Low-Rate Initial Production

A crane is used aboard the USNS Spearhead to transport a Knifefish UUV, which will now enter low-rate initial production. U.S. Navy/Mass Communication Specialist 2nd Class Anderson W. Branch

ARLINGTON, Va. – The Navy has awarded a contract to begin low-rate initial production (LRIP) for the Knifefish Surface Mine Countermeasure Unmanned Undersea Vehicle (UUV), a key mission module for the littoral combat ship's Mine Countermeasures Mission Package.

Naval Sea Systems Command awarded on Aug. 26 a $44.6 million contract modification to Knifefish prime contractor General Dynamics Mission Systems for LRIP of the UUV. The contract will fund the initial deliveries of the Knifefish that will be used to provide the "initial systems for the Navy to test and operate," the Defense Department release said.

Earlier on the date of the contract announcement, the Program Executive Officer for Unmanned and Small Combatants (PEO USC)

announced that it had granted Milestone C approval to the Knifefish program, which cleared the way for LRIP.

“The Knifefish system is designed for deployment from the littoral combat ship (LCS), vessels of opportunity or from shore to detect and classify buried, bottom and volume mines in high-clutter environments,” the PEO USC release said. “Knifefish is a critical element of the LCS Mine Countermeasure Mission Package and will reduce risk to Navy personnel and equipment.

The following are excerpts from the PEO USC release:

“The Knifefish system, which consists of two unmanned undersea vehicles along with support systems and equipment, uses cutting-edge low-frequency broadband sonar and automated target recognition software technology developed by the Naval Research Laboratory and successfully transitioned to industry. It acts as an off-board sensor while the host ship stays outside the mine field boundaries.

Members of a Knifefish test team man tending lines during crane operations as part of an operational test of the UUV, which is designed to deploy off littoral combat ships. U.S. Navy/Mass Communication Specialist 1st Class Brian M. Brooks

“Knifefish’s common open systems architecture design and modularity allow for platform flexibility and quick reconfiguration of the mission package to respond to evolving and dynamic mission requirements. Planned block upgrades will improve its sensors and automated target recognition software to keep pace with mine threats.

“Formal
developmental testing and an operational assessment were conducted from January
through May 2019 in multiple locations off the coasts of Massachusetts and
Florida. The Knifefish tests involved end-to-end operational

mine-hunting
missions against a deployed, simulated target field.

Operations performed by fleet Sailors during developmental testing and operational assessment included mission planning, launching and recovering the system, monitoring the sorties and processing data. The unmanned undersea vehicles were deployed from a support craft in the vessels of opportunity configuration for all test events to provide a characterization of the performance of the entire Knifefish system, including the launch and recovery subsystem.

“A full-rate production decision is expected in fiscal year 2022 after additional testing of LRIP systems. The Navy plans to procure 30 Knifefish systems in all, 24 in support of LCS Mine Countermeasure Mission Packages and an additional six for deployment from vessels of opportunity.”

Fortem Proposes DroneHunter UAS as Ship-Defense System

WASHINGTON – Fortem
Technologies has developed a counter-UAS (unmanned aerial system) that could be
used to protect ships as well as sites on land from localized drone threats.

Fortem displayed
its DroneHunter UAS in Washington at the Defense. Protection. Security. 2019
exposition sponsored by the Association for Unmanned Vehicle Systems

International along with the associated TrueView radar and the Fortem Skydome concept.

The DroneHunter is a fully autonomous, maneuverable UAV with six vertical rotors that allow it to hover. It uses artificial intelligence analytics and is equipped with GPS navigation day and night and in all weather.

It carries a small TrueView frequency modulation continuous-wave (FM-CW) lightweight radar that points in one direction but can scan as the drone maneuvers. A video system is used to image intruding drones. The drone also is equipped with two netguns that can be fired at an intruding drone and entangle that drone’s rotors or propellers with lightweight nets. The nets can be tethered to the DroneHunter so that it can retrieve the intruder if desired.

The DroneHunter is limited by its power to retrieval of drones below a certain weight, but its nets can disable much larger drones. The DroneHunter has an optional manual override or redirect capability.

The DroneHunter is an optional component of a Fortem SkyDome, an airspace protected by fixed-site or mobile TrueView FM-CW radars which detect intruding drones and vector the DroneHunter to intercept the intruder.

Adam Robertson, the chief technology officer for Fortem Technologies, told *Seapower* that the DroneHunter could serve as a ship-protection system in port or at sea. Because most shipboard radars are pulse radars, they have difficulty detecting UAVs that are close by between pulse and reception – creating a blind spot immediately around the ship – whereas the CW radars are always "on" and detect any anomaly that intersects their beams. Robertson said the SkyDome system would be ideal for security of a ship in or entering or exiting port, including against UAS or small-boat threats.

Gilday Takes Office as 32nd CNO at Ceremony

Chief of Naval Operations Adm. John Richardson is relieved by Adm. Mike Gilday at a change-of-office ceremony at the Washington Navy Yard on Aug. 22. U.S. Navy/Mass Communication Specialist 1st Class Raymond D. Diaz III

WASHINGTON –

Adm. Michael M. Gilday succeeded Adm. John M. Richardson as the chief of naval operations in ceremonies Aug. 22 at the Washington Navy Yard.

Navy Secretary Richard V. Spencer, who presided over the ceremonies, praised Gilday.

"As Adm. Richardson begins his well-deserved retirement, I know he's leaving feeling secure and able to sleep at night because Adm. Mike Gilday is assuming the

tiller as 32nd chief of naval operations," Spencer said.

"Adm. Gilday has already played a critical role in restoring readiness, and he is well-positioned to take over our integrated naval force as we march into the future. Just look at those shoulders, ladies and gentlemen. There is a mantle for some heavy weight and gravity."

Adm. Mike Gilday delivers his first remarks as the 32nd CNO during the change-of-office ceremony. U.S. Navy/Mass Communication Specialist 2nd Class Ryan U. Kledzik

"From his distinguished commands at sea to his cooperation with NATO allies to confront the great power competition to his innovation of Cyber Command, Adm. Gilday has demonstrated what an outstanding leader and officer he is," Spencer added. "His most recent as director of the Joint Staff has given visibility into the challenges he will now face. It's a unique transition in that regard. I am confident he will attack this responsibility with the urgency that I continually beat on the drum for the United States Navy. We can achieve our next-generation integrated naval force we need under his command. Of that I am sure."

Spencer also praised the service of Richardson.

"I could not have asked for a better business partner," Spencer said.

“Wearing the Title 10 hat that I do, that is the highest compliment I can pay John Richardson. He has done more for this Navy to put us in a ready lethal position than many before. No effort was too great, no detail too small, as he really did help us navigate the rocks and shoals to deliver the Navy the nation needs. … He has embraced emerging technologies, he has pushed this Navy forward on its front feet, to be faster, quicker to deliver what our Sailors and Marines need.”

Adm. John Richardson and his wife, Dana, walk through sideboys after his retirement and change-of -office ceremony at the Washington Navy Yard. Richardson had served as the 31st CNO since September 2015. U.S. Navy/Mass Communication Specialist 2nd Class Levingston Lewis

Richardson also praised his successor, saying that Gilday “is a true cutting-edge warfighter, a surface warrior who, by virtue of his leadership at 10th Fleet, fully appreciates the challenges we face in the cyberwarfare arena and the increasing pace of competition in new domains. His experience as the director of the Joint Staff will ensure that the Navy continues to look for every opportunity to collaborate with other services, allies and partners around the world. The Navy will be in good hands with Adm. Gilday at the helm.”

Gilday spoke briefly and praised the direction of the Navy set under Richardson.

> *Check out video of today's CNO change-of-office ceremony.https://t.co/YudvIL7JAX*
>
> *— Seapower Magazine (@SeapowerMag) August 22, 2019*

“I believe our Navy’s strategic direction is rock solid and that our Navy is in great shape,” he said. “We are recruiting and retaining a high-quality force, we are providing well-trained combat-ready forces forward, around the globe. We are modernizing our Navy at a scope and pace not seen in decades. I can say all that, in large part, due to the leadership of our 31st CNO.”

As the Navy’s most senior officer, Gilday also is a member of the Joint Chiefs of Staff, where he “acts as an adviser to the President of the United States, the National Security Council, the Homeland Security Council and the Secretary of Defense,” an Aug. 22 Navy release said. “Under direction of the secretary of the Navy, the CNO is responsible for the command, utilization of resources, and operating efficiency of naval forces and shore activities assigned by the secretary.”