Collins Aerospace Completes Modernization of legacy E-6B Block I aircraft

An E-6B Mercury. NAVAIR

CEDAR RAPIDS, Iowa – Collins Aerospace Systems, a unit of Raytheon Technologies Corp., has successfully completed modernizing the E-6B Mercury Block I aircraft fleet, part of the Navy's Airborne Command Post and Take Charge and Move Out (ABNCP/TACAMO) Weapon System missions, the company said in a Dec. 7 release.

The upgraded aircraft features a new command and control battlestaff, communications central control, multi-enclave voice/data/video distribution system, and an Internet Protocol Bandwidth Expansion (IPBE) digital backbone. Collins Aerospace acted as the Mission System Integrator (MSI), designing, developing, producing, installing, and qualifying the recapitalization of the mission system.

"The Block I contract is an example and testament to Collins Aerospace's ability to deliver comprehensive, integrated and durable solutions to the Navy and E-6B community," said Heather Robertson, vice president and general manager, Integrated Solutions, Mission Systems, Collins Aerospace. "As a result of this upgrade, crews have a modern, multi-enclave mission system that provides a full picture of their operating environment."

As part of the ABNCP mission, the E-6B is an airborne command post and communications relay for U.S. nuclear forces. For the TACAMO mission, the E-6B provides the survivable communications link to our submarine forces using Collins Aerospace's Very Low Frequency (VLF) terminal.

The work was completed at Will Rogers Airport where the company's co-located modification facility completed the 8-year full-rate Production (FRP) effort. With over 50 years of working within the TACAMO community, Collins Aerospace continues to deliver integrated solutions that ensure the utmost performance for the Navy's critical, no-fail, missions.

Boeing, Navy Complete First MQ-25 Test Flight with Aerial Refueling Store

Boeing and the U.S. Navy flew the MQ-25 T1 test asset with an aerial refueling store (ARS) for the first time on Dec. 9, 2020. The successful flight with the Cobham ARS – the same ARS currently used by F/A-18s for air-to-air refueling – tested the aircraft's aerodynamics with the ARS mounted under the wing. Boeing / Dave Preston

ST. LOUIS – Boeing and the U.S. Navy have for the first time flown the MQ-25 T1 test asset with an aerial refueling store (ARS), a significant milestone informing development of the unmanned aerial refueler, the company said in a Dec. 9 release.

The successful 2.5-hour flight with the Cobham ARS – the same ARS currently used by F/A-18s for air-to-air refueling – was designed to test the aircraft's aerodynamics with the ARS mounted under the wing. The flight was conducted by Boeing test pilots operating from a ground control station at MidAmerica St. Louis Airport in Mascoutah, Illinois.

“Having a test asset flying with an ARS gets us one big step closer in our evaluation of how MQ-25 will fulfill its primary mission in the fleet – aerial refueling,” said Capt. Chad Reed, the U.S. Navy’s Unmanned Carrier Aviation program manager. “T1 will continue to yield valuable early insights as we begin flying with F/A-18s and conduct deck handling testing aboard a carrier.”

Future flights will continue to test the aerodynamics of the aircraft and the ARS at various points of the flight envelope, eventually progressing to extension and retraction of the hose and drogue used for refueling.

“To see T1 fly with the hardware and software that makes MQ-25 an aerial refueler this early in the program is a visible reminder of the capability we’re bringing to the carrier deck,” said Dave Bujold, Boeing’s MQ-25 program director. “We’re ensuring the ARS and the software operating it will be ready to help MQ-25 extend the range of the carrier air wing.”

The Boeing-owned T1 test asset is a predecessor to the engineering development model aircraft being produced under a 2018 contract award. T1 is being used for early learning and discovery, laying the foundation for moving rapidly into development and test of the MQ-25. Following its first flight last year, T1 accumulated approximately 30 hours in the air before the planned modification to install the ARS.

Earlier this year the Navy exercised an option for three additional MQ-25 air vehicles, bringing the total aircraft Boeing is initially producing to seven. The Navy intends to procure more than 70 aircraft, which will assume the tanking role currently performed by F/A-18s, allowing for better use of the combat strike fighters.

Navy Announces Aerial Vehicle Operator Warrant Officer Specialty

Boeing conducts MQ-25 deck handling demonstration at its facility in St. Louis, Missouri, in this 2018 photo. U.S. Navy / The Boeing Co.

ARLINGTON, Va. — The Navy announced on Dec. 9 a new warrant officer specialty designator whose job will be to operate carrier-based MQ-25 Stingray unmanned aerial vehicles, which are expected to start appearing in fleet carrier air wings sometime in 2024.

The establishment of the Aerial Vehicle Operator (AVO) warrant officer specialty became a reality in October with Secretary of the Navy Kenneth J. Braithwaite's approval of the new designator, which was announced in NAVADMIN 315/20.

Over the next six to 10 years, the Navy will recruit, train and send to the fleet, a community of roughly 450 warrants in grades W-1 through W-5.

Those selected for the program will first complete Officer Candidate School in Newport, Rhode Island. Upon graduation, they will be designated as Warrant Officer One and must complete basic flight training as well as advanced training on the MQ-25 aerial vehicle. Once complete with basic flight training, these officers will earn their own distinctive Navy "wings of gold" warfare device and be assigned the 737X designator.

"AVO's will start out operating the MQ-25 Stingray, the Navy's

first carrier based unmanned aerial vehicle, which is expected to join the fleet with an initial operating capability in 2024," said Capt. Christopher Wood, aviation officer community manager at the Bureau of Naval Personnel in Millington, Tennessee.

The use of warrant officers as the primary operators of unmanned aerial vehicles came about because the expected career path they'll have as they move up the ranks will be as technical specialists who complete repetitive tours, which fits the Navy's model on how warrant grades are utilized.

"Unlike traditional Navy Chief Warrant Officers, the majority of these officers will be accessed much younger and trained along the lines of current Naval Aviators and Naval Flight Officers in the unrestricted designators," Wood said.

"However, Naval Aviators and Naval Flight Officers require assignments that progress in tactical and leadership scope to be competitive for promotion, while warrant officer AVO's will be technical specialists and spend their careers as operators."

Navy Recruiting Command will begin accepting applications for initial AVO accessions in fiscal year 2022. In addition to street-to-fleet warrants, enlisted Sailors will also be able to apply for the program, and potentially earn the 737X warrant officer designator.

"Currently, the plan is to grow the community from the ground up with Warrant Officer AVOs," Wood said. "However, Naval Aviation will continue to evaluate the requirements of the program as it matures."

Commanding and executive officers, as well as department heads of MQ-25 squadrons, will be filled by aviators and flight officers administratively screened for those commands.

"During the first four to five years of the program, some

MQ-25 AVOs will come from other Type/Model/Series as we build up the knowledge base, with the first 3-4 deployments having a mix of existing unrestricted line and new warrants making up the ready room."

And though right now the community will be focused on the MQ-25, in the future, warrant officer AVOs may also operate the MQ-4C Triton while on shore duty following their initial MQ-25 sea tour. As the Navy's footprint in unmanned aerial vehicles increases, so could the scope of the AVO community.

Lockheed Martin: AI, Data Analytics Will Transform Navy Ship, Aircraft Repairs

Aviation Ordnanceman 3rd Class Mike Schmid conducts maintenance on the weapon system of a MH-60S Seahawk helicopter on the flight deck of the amphibious assault ship USS Bataan (LHD 5). U.S. Navy / Mass Communication Specialist 3rd Class Evan Thompson

BETHESDA, Md. – Sailors will soon spend more time focused on the mission and less on aircraft and ship repairs with a new information system driven by artificial intelligence and predictive analytics, Lockheed Martin said in a Dec. 9 release.

Digitally re-engineering more than 20 standalone applications into one integrated system, this new tool enables Sailors and Marine Corps maintainers, to anticipate and resolve potential maintenance issues or part failures on aircraft, ships and

other systems.

The U.S. Navy is digitally transforming its legacy maintenance systems with a fully modernized, responsive logistics information systems solution developed by Lockheed Martin.

Lockheed Martin partnered with the Navy to rapidly develop and test the integrated logistics information systems solution, emphasizing simplified user interfaces, streamlined workflows, and time-saving features such as auto-population and smart searching.

“Lockheed Martin’s solution is both intuitive and streamlined to maximize end user efficiency,” said Capt. Allan Walters, former program manager of the Navy’s Command and Control Systems Program Office. “The ability to execute rapid and flexible changes to the software is impressive and designed to improve Navy readiness both ashore and afloat through reduced failure rates and improved repair times.”

The solution’s advanced software capabilities use the latest Department of Defense-approved DevSecOps tools, so software updates can happen in days or weeks instead of months and years, enabling the Navy’s vision of “Compile to Combat in 24 Hours.”

Navy maintainers can create, view and complete maintenance work orders from a mobile device. Instead of referencing a paper or digital manual, sailors can view 3-D models of objects and see where they’re located in the context of an entire ship or aircraft.

“Our logistics solution provides a digital twin capability, integrating 3-D model visualization with material data, maintenance history and the entire operational environment,” said Reeves Valentine, vice president of Lockheed Martin Enterprise Sustainment Solutions. “Sailors can simulate a maintenance action and see its results before doing it on the real thing. Having this capability will result in a greater

ability to predict part failure, resulting in optimized maintenance actions to improve asset readiness.”

Smart searching and auto-population functionality help identify proper parts and common issues when creating work orders, which eliminates work and reducing errors.

Lockheed Martin partnered with non-traditional vendors IFS – an enterprise software developer – and Beast Code, a Florida software start-up, to create the logistics information systems solution, which will be initially fielded at 10 Navy sites with about 10,000 users. The delivered solution is part of the U.S. Navy Naval Operational Business Logistics Enterprise (NOBLE) family of systems providing enhanced situational awareness, planning, execution, and management of maintenance and supply logistics and business functions for more than 200,000 sailors.

Coast Guard Lights LED Upgrade to Oak Island Lighthouse, N.C.

The Coast Guard lit a first-of-its-kind, LED-based rotating beacon at Oak Island Lighthouse on Caswell Beach, N.C., Dec. 7, 2020. The upgrade will provide a permanent, cost-effective, and energy-efficient solution for the lighthouse. U.S. Coast Guard

PORTSMOUTH, Va. – The Coast Guard lit a first-of-its-kind, LED-based rotating beacon at Oak Island Lighthouse on Caswell Beach, N.C., Dec. 7, the Coast Guard 5th District said in a Dec. 8 release.

This upgrade is the Coast Guard's first LED-based rotating beacon for an active aid to navigation and will provide a permanent, cost-effective, and energy-efficient solution for the lighthouse. Necessary renovations of the lighthouse to prepare for the new beacon began in October.

"Lighthouses have navigational and historic significance here in North Carolina," said Lt. Brittany Akers, chief of waterways management at Coast Guard Sector North Carolina. "The Oak Island Lighthouse is especially notable as it marks the entrance to the Cape Fear River. The modernization of the light will ensure its continued reliable service to the mariner in a cost-effective way that respects the historical significance of the lighthouse."

The Oak Island Lighthouse was completed in 1958 on property that has been in use as a Coast Guard station since the 1930s. In 2004, the lighthouse was deeded to the Town of Caswell Beach, which maintains the property. However, the Coast Guard continues upkeep of lighthouse since serves as an active aid to navigation for the Frying Pan Shoal area.

The lighthouse is currently not open for public tours due to COVID-19 mitigation measures.

BAE Systems Receives Order for LRASM's Advanced Seeker

The Long-Range Anti-Ship Missile. BAE Systems will build and deliver additional advanced missile seekers for the program. BAE Systems

NASHUA, N.H. – BAE Systems has received a $60 million contract

from Lockheed Martin to manufacture and deliver additional advanced missile seekers for the Long-Range Anti-Ship Missile (LRASM), BAE Systems announced in a Dec. 8 release. The seeker comprises long-range sensors and targeting technology that help the stealthy missile find and engage protected maritime targets in challenging electromagnetic environments.

“Our warfighters need resilient, long-range precision strike capabilities to compete with modern adversaries,” said Bruce Konigsberg, Radio Frequency Sensors product area director at BAE Systems. “We’re proud to partner with Lockheed Martin in delivering this distinct competitive advantage to U.S. warfighters.”

LRASM combines extended range with increased survivability and lethality to deliver long-range precision strike capabilities. LRASM is designed to detect and destroy specific targets within groups of ships by employing advanced technologies that reduce dependence on intelligence, surveillance and reconnaissance platforms, network links, and GPS navigation in contested environments.

This LRASM seeker contract continues the transition of the program from Accelerated Acquisition to Low-Rate Production. BAE Systems has delivered more than 50 systems to date that have demonstrated excellent technical performance over multiple test events. The company also is working to make the seeker system smaller, more capable, and more efficient to produce.

The LRASM is being Deployed on Air Force B-1B bombers and Navy F/A-18E/F strike fighters.

BAE Systems’ LRASM seeker technology builds on the company’s decades of experience designing and producing state-of-the-art electronic warfare technology, and its expertise in small form factor design, signal processing, target detection, and identification.

Work on the LRASM sensor will be conducted at BAE Systems' facilities in Wayne, New Jersey; Greenlawn, New York; and Nashua, New Hampshire.

Coast Guard Repatriates 12 Dominican Migrants from Illegal Voyage

The crew of the Coast Guard Cutter Joseph Napier repatriates 12 interdicted migrants and transfers two men, rescued in a separate case, to a Dominican Republic Navy vessel Dec. 7, 2020 near Punta Cana, Dominican Republic. U.S. Coast Guard

SAN JUAN, Puerto Rico – The Coast Guard Cutter Joseph Napier repatriated 12 migrants from an interdicted illegal voyage and transferred two men, who were rescued in a separate case, to a Dominican Republic navy vessel Monday near Punta Cana, Dominican Republic, the Coast Guard 7th District said in a Dec. 7 release.

The migrant interdiction is the result of ongoing multiagency efforts in support of Operation Caribbean Guard and the Caribbean Border Interagency Group (CBIG).

"I commend the performance of the Joseph Napier crew in both of these cases," said Lt. Matthew Miller, cutter Joseph Napier commanding officer. "Their swift and assertive actions ensured the safe transfer of two rescued boaters and 12 migrants to Dominican Republic navy authorities."

The migrant interdiction occurred Dec. 6, when the crew of a Puerto Rico Police Joint Forces of Rapid Action marine unit

stopped a 35-foot makeshift boat, approximately three and half nautical miles west of Aguadilla. Coast Guard watchstanders diverted the cutter Joseph Napier to assist.

Once on scene, the crew of the cutter Joseph Napier safely embarked 10 men and two women from the grossly overloaded boat. The crew of the Joseph Napier provided the migrants with lifejackets before embarking the Coast Guard cutter, and once they were safely aboard, they received food, water, shelter and basic medical attention.

Later Sunday afternoon, Coast Guard watchstanders in Sector San Juan received a communication from a Good Samaritan aboard the motor vessel Statia Glory, who reported being on scene with a disabled vessel with two people aboard, approximately eight nautical miles south of Mona Island, Puerto Rico. The cutter Joseph Napier diverted and once on scene embarked the two men from the disabled vessel that was taking on water from incoming swells. The men, who claimed to be Dominican Republic nationals, had no life jackets, marine radio or cell phone communications onboard.

Cutter Joseph Napier is a 154-foot fast response cutter homeported in San Juan, Puerto Rico.

GA-ASI Completes Full-Scale Static Testing on MQ-9B SkyGuardian Wing Structure

A SkyGuardian flies over the Atlantic Ocean on the way to a

U.K. Royal Air Force event. General Atomics Aeronautical Systems

SAN DIEGO – General Atomics Aeronautical Systems Inc. recently completed full-scale static (FSS) testing on the MQ-9B remotely piloted aircraft (RPA) wing after three months of extensive testing, the company said in a Dec. 7 release.

MQ-9B variants include SkyGuardian and SeaGuardian RPA produced by GA-ASI.

The testing included multiple load cases to 150 percent of expected maximum flight loads. The wing was loaded using specially designed fixtures to apply a distributed load across the wingspan – simulating gust and maneuver flight conditions – with no failures.

"Successful completion of FSS testing on the MQ-9B wing was a critical step in proving that our design meets stringent certification standards for structural strength and integrity," said Dee Wilson, vice president, Engineering Research Development & Design Hardware. "The wing performed as expected, matching analytical predictions closely. Our engineering design, stress and test teams are commended for an exceptional effort in meeting this critical milestone."

This particular wing design is the culmination of a large development effort from multiple areas within GA-ASI and represents a major milestone in qualifying the MQ-9B SkyGuardian and SeaGuardian RPA to fly in non-segregated airspace. The wing test success also establishes the baseline wing design for the entire MQ-9B product line. This is critical as GA-ASI starts deliveries to the multiple customers pursuing the MQ-9B including the United Kingdom, Belgium and Australia.

USS Ralph Johnson Conducts Maritime Interdiction in North Arabian Sea

Sailors assigned to the guided-missile destroyer USS Ralph Johnson (DDG 114) pose with seized narcotics following a visit, board, search, and seizure operation in support of Combined Maritime Forces (CMF) Combined Task Force (CTF) 150 in the Arabian Sea, Dec. 4. U.S. Navy / Mass Communication Specialist 3rd Class Anthony Collier

NORTH ARABIAN SEA – The guided-missile destroyer USS Ralph Johnson (DDG 114), deployed to U.S. Fifth Fleet and operating in support of the Combined Maritime Forces (CMF), interdicted a shipment of more than 2,000 pounds (900 kilograms) of suspected narcotics from a stateless dhow in the international waters of the Arabian Sea, Dec. 4, CMF Public Affairs said in a Dec. 7 release.

This seizure, conducted in direct support of CMF's Combined Task Force (CTF) 150, marks the fourth CMF drugs seizure since October. The narcotics are currently in U.S. custody awaiting analysis. To mitigate the risk of contracting and spreading COVID-19, the boarding team undertook carefully executed precautionary measures during and after the boarding, to include decontamination of all seized contraband.

Ralph Johnson initially identified a dhow loitering without power in international waters. When the ship approached to determine if the dhow required assistance, they failed to produce flag registration documentation. A subsequent search discovered the narcotics.

CMF is a multinational maritime partnership to counter illicit non-state actors in international waters, promoting security, stability and prosperity in the Arabian Gulf, the Red Sea,

Gulf of Aden, Indian Ocean and Gulf of Oman. CTF 150 conducts maritime security operations outside the Arabian Gulf to disrupt criminal and terrorist organizations, ensuring legitimate commercial shipping can transit the region, free from non-state threats. CTF 150 is currently led by the Royal Saudi Naval Force, the second time the country's navy has led the task force.

USS Sioux City Completes Drug-Interdiction, Disaster Relief Deployment

The Freedom-variant littoral combat ship USS Sioux City (LCS 11) prepares to moor at Naval Station Mayport. Sioux City returned to Mayport following a deployment to the U.S. 4th Fleet area of operations. U.S. Navy / Mass Communication Specialist 1st Class Brian G. Reynolds

MAYPORT, Florida – The Freedom-variant littoral combat ship USS Sioux City (LCS 11) returned to Mayport, Florida, Dec. 4, following its deployment to the U.S. 4th Fleet area of operations, the Fleet said in a release.

Sioux City, along with the "Sea Knights" of Helicopter Sea Combat Squadron (HSC) 22, Detachment 6, deployed on August 30, 2020, to conduct U.S. Southern Command and Joint Interagency Task Force South's enhanced counter-narcotics operations missions in the Caribbean Sea and Eastern Pacific Ocean.

During their deployment. Sioux City participated in a multi-lateral passing exercise (PASSEX) with the British River-class Corvette HMS Medway, and the Jamaican Coast Guard Cutter HMJS

Nanny of the Maroons, a successful exercise displaying the capabilities of interoperability in the 4th Fleet area of operations.

Along with their embarked U.S. Coast Guard Law Enforcement Detachment (LEDET) 104, Sioux City disrupted approximately 2,120 kilograms of cocaine, which has an estimated street value of 148 million dollars. In addition, Sioux City conducted a medical evacuation (MEDEVAC) for a tanker in distress and completed multiple days of hurricane assistance and disaster relief in Honduras, collecting and delivering over 36,000 pounds of supplies in support of U.S. Southern Command's Hurricane Iota relief efforts in Central America.

While completing its mission, Sioux City traveled approximately 14, 000 nautical miles, visited six ports, and launched and recovered her embarked aircraft 304 times.

"The success of this deployment is a direct reflection of the hard work that the Sioux City Sailors have put in over the past nine months," said Cmdr. Dan Reiher, the commanding officer of Sioux City. "This deployment gives a new meaning to our motto of 'Forging a New Frontier,' because we have begun to define the capabilities of Sioux City and littoral combat ships as a whole."