MBDA Introduces Naval Versions of MMP Ground Combat Missile System

PARIS – MBDA has unveiled its new naval offering based on the fifth-generation MMP ground combat missile at Euronaval, the company announced in an Oct. 23 release. This decision follows the operational evaluation campaign carried out at the end of the summer by the French armed forces in Djibouti to confirm the reliability and operational performance of the MMP system in a hot environment, both from the ground and from a rigid-hull inflatable boat (RHIB) moving at high speed.

A total of nine MMP missiles were fired with all reaching their target. Two of these shots were fired by the maritime force of marines and commandos from an ECUME RHIB. A first firing from the sea-to- land and the second from sea-to-sea have demonstrated the ease of use of the MMP.

The success of this evaluation allows MBDA to extend the integration perspectives of the MMP system and to propose it on fast attack craft or semi-rigid boats for missions against hostile ships, coastal defenses or armored vehicles, especially in support of a landing of small units or special forces.

On fast patrol boats, the MMP will be fired from a stabilized turret carrying four ready-to-fire ammunitions installed in launchers protecting the missiles from the maritime environment. The turret can be controlled from a dedicated console or from a multifunction console in the ship's operations center.

"Today's launch of a family of naval systems based on the MMP missile is aligned with the trajectory we initiated with the French armies at the launch of the MMP program in 2011," said

Antoine Bouvier, chief executive of MBDA. “By deciding at that time to introduce the most modern technologies of guidance and propulsion together with a multi-effect warhead, we laid the foundations of a family of weapons capable of meeting the most demanding constraints the armed forces may encounter in the field, in terms of tactical effects, in terms of mobility, as well as in environmental terms. The MMP family sees today the advent of naval versions. I have no doubt that the MMP will give birth to other more powerful versions in the near future.”

L3 ASV to Conduct Autonomous Navigation Study for U.K. Government

PORTCHESTER, England – L3 ASV has received U.K. government funding for a pioneering project on autonomous navigation of maritime vessels, the company announced in an Oct. 23 release. The company will conduct a study with its partners in the Maritime & Coastguard Agency (MCA) and U.K. Hydrographic Office (UKHO), focusing on the future of marine navigational data and charts.

The project is funded by the Department for Transport’s Transport Technology Research Innovation Grant (T-TRIG) and aims to promote early-stage science, engineering or technology innovations with the potential to advance the U.K.’s transport system.

L3 ASV’s T-TRIG project will begin by exploring the characteristics of navigational data and charts in terms of what they comprise, their structure and how they are updated.

“Current navigational data and charts have been developed over centuries to be read and interpreted by humans,” said Dan Hook, senior director of business development at L3 ASV. “Today, and over the coming decade, more and more marine vessels will be operating unmanned, and the charts will be read by computers.”

The project will identify the technical data requirements to enable the development of a Smart Chart system, which will then provide information to autonomous vessels to enable safer navigation.

“Understanding the data requirements of autonomous vessels is going to be hugely important for the MCA if we are to continue to ensure the safety of navigation in U.K. waters to save lives and combat pollution,” said Tim Wilkes, product manager for the MCA. “This project will help us identify some of the regulatory issues that accompany a shift to smart and autonomous shipping and will highlight how the MCA can use its wealth of bathymetric and ship movement data to support this growing industry.”

“As we move through the 21st century, technology will continue to transform the U.K.’s world-leading maritime sector,” said Shipping Minister Nusrat Ghani. “Innovations such as Smart Charts pave the way for automation and Smart Shipping, and we are keen to support British companies making the most of new technologies, giving our vibrant sector a competitive edge. Technology and innovation are a key part of our Maritime 2050 initiative, which will set a vision for the growth and success of our maritime sector over the next 30 years.”

“A wealth of marine geospatial data, from bathymetry depicting the seafloor to the speed and direction of the tides, supports navigation across our oceans,” said Mark Casey from the UKHO. “For over 200 years, the UKHO has supplied this information to shipping and defense to help keep mariners safe at sea. And we have developed our expertise in sourcing and processing this

location-based information to help others better understand the marine environment. With this expertise and knowledge, we are well placed to help our partners identify the data requirements and standards needed to support autonomous vessels of the future.”

Vigilant Shield Homeland Defense Exercise Set to Begin

PETERSON AIR FORCE BASE, Colo. – The North American Aerospace Defense Command (NORAD) and U.S. Northern Command (USNORTHCOM), in conjunction with the Canadian Joint Operations Command, will conduct its 13th annual homeland defense exercise, Vigilant Shield 19, Oct. 24-28.

This is a binational exercise between the United States and Canada designed to assess and enhance the readiness of NORAD and USNORTHCOM, its components and mission partners to defend the homelands from attack. More than 5,500 personnel from across the United States and Canada will participate, including the three commands’ headquarters, the Alaskan and Canadian NORAD Regions, USNORTHCOM components (U.S. Army North, U.S. Navy North, U.S. Marine Forces North and Special Operations Command North), and other subordinate units and mission partners.

“The homeland is no longer a sanctuary and conducting exercises like Vigilant Shield is just one example of the many active measures taken every day by NORAD and USNORTHCOM as we continue enhancing our ability to defend our nations,” said Air Force Gen. Terrence O’Shaughnessy, NORAD and USNORTHCOM Commander.

The Continental NORAD Region and U.S. Air Force North continue conducting their homeland defense missions from Langley Air Force Base (AFB), Virginia. However, they will have minimal participation in Exercise Vigilant Shield 19 in order to allow service members and families to focus on recovering from Hurricane Michael damage at Tyndall AFB, Florida, which is the home station of both organizations. While most facilities at the base were damaged, NORAD and USNORTHCOM have well established contingency plans that account for such events to allow the Department of Defense to execute its mission without interruption. Vigilant Shield 19 will go forward with some changes to the exercise.

Vigilant Shield 19 provides NORAD and USNORTHCOM opportunities to examine and refine strategies, evaluate processes and procedures, and demonstrate the ability to address threats in various environments and domains. It is primarily a Command Post Exercise using simulated forces and involves the commander, the staff, and communications within and between headquarters. While the overall exercise scenario is classified, it is designed to assess and enhance NORAD and USNORTHCOM's ability to defend the homeland across all domains, which include air, land, maritime, space and cyber.

NORAD provides aerospace warning, aerospace control and maritime warning for North America. USNORTHCOM conducts homeland defense, civil support and security cooperation to defend and secure the U.S. and its interests. The two commands have complementary missions and are co-located together on Peterson AFB.

Canadian Joint Operations Command leads most Canadian Armed Forces operations in Canada, North America and around the world. It directs Canadian Armed Forces missions from planning to closing, to meet national and international strategic goals.

Airbus Helicopters to Showcase H135 as Future Navy Helicopter Trainer

GRAND PRAIRIE, Texas – Airbus Helicopters is showcasing its H135 aircraft as the future training helicopter for the U.S. Navy at the Naval Helicopter Association's Fleet Fly-in at Naval Air Station Whiting Field in Pensacola, Florida, from Oct. 22-26, the company said in a release.

"Airbus Helicopters is convinced the H135 is the best solution to prepare the next generation of U.S. Navy pilots for decades to come, both technically and economically," said Chris Emerson, president of Airbus Helicopters Inc. and head of the North America region. "We look forward to demonstrating why this aircraft is the best solution for the Navy's helicopter training needs."

Airbus pilots will conduct orientation flights with U.S. Navy pilots and other stakeholders to demonstrate the H135's capabilities at the October fleet fly-in.

Equipped with the most advanced technologies available like 4-axis autopilot and One Engine Inoperable (OEI) training mode, the FAA Instrument Flight Rules (IFR) Certified H135 provides future aviators with an ideal platform for training missions, a critical requirement for the Navy as it trains its pilots over water and in reduced visibility.

"As a twin-engine helicopter, the H135 provides a training environment most similar to the Navy's warfighting rotorcraft fleet, creating opportunities for cost and operational efficiencies compared to a single-engine aircraft," said Scott

Tumpak, vice president of military programs at Airbus Helicopters Inc.

With its maneuverability, cockpit visibility, advanced safety features, endurance and best-value performance attributes, the H135 is the preeminent military training helicopter in the world. More than 130 units are providing training for military pilots in 13 countries, including Germany, Switzerland, the United Kingdom, Australia and Japan.

The H135 has executed over 300,000 military training flight hours. Globally, the H135 operates in more than 60 countries and has flown more than 4.8 million hours.

The H135 boasts the Airbus-developed, state-of-the-art Helionix avionics package designed by pilots specifically for helicopters. The H135's advanced cockpit design improves pilots' situational awareness while reducing workload, which enhances safety. The high-set main rotor and Fenestron shrouded tail rotor contribute to improved operational safety.

Airbus produces the U.S. Army's primary training helicopters, the twin-engine UH-72A Lakota. Since contract award in 2006, Airbus has delivered 431 Lakotas on time, on cost and on quality. Also, the Lakota is the primary trainer aircraft for the Navy's Advanced Test Pilot School in Patuxent River, Md.

The H135 trainers for the Navy would be produced at the company's facility in Columbus, Miss., where the Lakota is manufactured. The Columbus workforce is comprised of more than 40 percent U.S. military veterans.

"A multimission and economical workhorse, the H135 is the right tool to support U.S. Navy initial pilot training," Tumpak said. "Airbus' global success in delivering rotary wing training platforms is recognized worldwide."

General Dynamics Mission Systems Launches Latest UUV at Oceans 2018

QUINCY, Mass. – General Dynamics Mission Systems has released the new Bluefin-9 autonomous unmanned underwater vehicle (UUV) at Oceans 2018 in Charleston, South Carolina, the company said in an Oct. 23 release.

The completely re-engineered vehicle combines high navigational accuracy, outstanding sonar resolution and precision manufacturing to deliver defense, commercial and academic customers highly-detailed subsurface data in minutes rather than hours.

The two-man portable UUV provides the same data collection capabilities of larger UUVs, and can be deployed and recovered from piers, a rigid-hulled inflatable boat (RHIB) or other vessels of opportunity.

The Bluefin-9 includes a removable data storage module (RDSM) which stores high-definition images, video and sonar data that can be accessed within minutes of the vehicle's recovery. It delivers mission endurance of up to eight hours at a speed of three-knots and can reach speeds of six-knots and dive to 200 meters.

Because of its modularity, customers can exchange both the RDSM and battery to redeploy the Bluefin-9 in 30 minutes or less. These capabilities align with environmental surveying, water quality measurement, search and recovery, security, intelligence, surveillance and reconnaissance, and other tactical missions.

“General Dynamics has invested in the redesigned Bluefin-9 and a broad team of engineering experts has made significant improvements to the design, production quality, modularity and reliability of the entire Bluefin Robotics product family to deliver cost-effective UUVs with more mission capability and range,” said Carlo Zaffanella, a vice president and general manager of General Dynamics Mission Systems. “We are proud to introduce this first product of a new generation of UUVs, designed to meet the dynamic operational challenges of our defense and commercial customers.”

Davidson is Navy’s Newest ‘Old Salt’

WASHINGTON – Adm. Philip S. Davidson, commander of U.S. Indo-Pacific Command (USINDOPACOM), became the Navy’s newest “Old Salt” during an award presentation Oct. 22 at the Pentagon, the Navy News Service reported.

The “Old Salt” award is given to the active-duty officer who has held the Surface Warfare Officer (SWO) qualification for the longest amount of time.

“It is a tremendous honor to receive this award. I have been fortunate to be part of this organization for more than 35 years, serving alongside a number of amazing men and women. This award honors them, those who have come before, and those still yet to serve,” said Davidson, who became the 20th recipient of the award, which is sponsored by the Surface Navy Association (SNA).

A 1982 graduate of the U.S. Naval Academy, Davidson is the 25th commander of USINDOPACOM, America’s oldest and largest

military combatant command located in Hawaii. As a surface warfare officer, he has deployed across the globe in frigates, destroyers, cruisers and aircraft carriers.

Davidson received the award from Adm. Kurt W. Tidd, commander of the U.S. Southern Command.

Initiated in 1988, the “Old Salt” award is accompanied by a bronze statue depicting a naval officer on the pitching deck of a ship. The statue is cast from metal salvaged from historic U.S. naval ships, most notably the battleship USS Maine, which exploded and sank in Havana Harbor in 1898, precipitating the Spanish-American War.

Holding the award since 2015, Tidd said, “From its very earliest days, our Navy has been before all else a profession of Sailors – that closely knit team of men and women who have made it their life’s work to ‘go down to the sea in ships.’ It’s been an honor and a privilege to play a small part in the history of this organization and to have held the title of ‘Old Salt.’ As I pass this distinction on to Adm. Davidson, I also pass along my very best wishes to him, our Navy’s newest ‘Old Salt’.”

“Old Salts” have their names engraved on brass plates attached to the base of the “Old Salt” statue. The statue is then held in the custody of the current “Old Salt” during the recipient’s active duty tenure. The “Old Salt” trophy may be kept in possession of the recipient or displayed by the command to which the Old Salt is assigned.

The issuance of the Old Salt Award is a tribute to the Navy’s customs and traditions which call the respected, experienced, knowledgeable and senior surface warfare officer with the designation as “old salt.”

At the ceremony, Davidson and Tidd took a photo with Taylor Randall, the youngest SWO in the room, who received her service warfare qualification in 2016.

Upon Davidson’s retirement, the statue will be passed on to the next officer, who will be determined by a search of records, a recommendation by director of surface warfare, and approval by the Board of the SNA, which is a professional organization composed of both military and civilian members dedicated to enhance awareness and support of the U.S. Navy and the surface forces.

The Surface Warfare director of the Department of the Navy determines which officers meet the award criteria which include being in continuous active duty and surface warfare qualification letters.

Navy Holds Ceremony to Mark First Dedicated UAS Test Squadron

PATUXENT RIVER, Md. – The U.S. Navy commissioned its first Unmanned Aircraft System (UAS) test and evaluation squadron during a ceremony Oct. 18 at Naval Air Station Patuxent River’s Webster Outlying Field.

The new unit, Air Test and Evaluation Squadron (UX) 24, flies more than 23 fixed- and rotary-wing UASs including the MQ-8 Fire Scout, RQ-20 Puma, RQ-21 Blackjack, RQ-26 Aerostar and a number of commercial systems.

During the ceremony, Cmdr. Matthew Densing officially assumed leadership of UX-24.

“This squadron centralizes the Navy’s technical excellence in unmanned aviation,” said Densing. “As the Navy continues to

require the broad range of capability offered by UAS, UX-24 will always challenge the status quo.”

In April, Chief of Naval Operations Adm. John Richardson approved establishment of UX-24 to provide research, development, test and evaluation support for Navy and Marine Corps UAS as growth in the field required establishment of a command dedicated solely to that mission. The ceremony marked the squadron’s official transition from what was formerly known as NAWCAD’s UAS Test Directorate.

Densing previously oversaw the former UAS Test Directorate. Under his leadership, the directorate executed more than 2,200 flight hours and 2,000 ground test hours in support of UAS developmental test.

F-35B Finishes Initial Testing Aboard HMS Queen Elizabeth

PATUXENT RIVER, Md. – British sailors and members of the F-35 Integrated Test Force (ITF) at Naval Air Station (NAS) Patuxent River completed a successful opening phase Oct. 16 of the first-of-class flight trials being conducted aboard the U.K.’s new aircraft carrier, HMS Queen Elizabeth, near the U.S. eastern seaboard, the Program Executive Office-Joint Strike Fighter said in a release.

The first of three such phases to be held on the ship, the developmental testing (DT-1) aimed to generate enough flight test data to certify the F-35B Lightning II as ready for future operational testing aboard the ship.

The two F-35Bs involved were vertically landed aboard HMS Queen Elizabeth for the first time Sept. 25, piloted by Royal Navy Comdr. Nathan Gray and Royal Air Force Squadron Leader Andy Edgell, both test pilots with the Pax River ITF. By Oct. 8, the ITF had collected enough data to support operational test.

“It has been a superb effort by everyone across the ITF and HMS Queen Elizabeth so far in the UK’s F-35B sea trials,” said Royal Navy Capt. Jerry Kyd, the ship’s commanding officer. “I could not be more pleased with the team spirit and dynamism from all that has delivered a volume of quality data which has put us well ahead of where we expected to be at this stage. I am very grateful to all the ITF folk who have been focused, professional and willing to go the extra mile – more to come!”

Within days of the first landing, Gray, Edgell and two other ITF test pilots on the FOCFT(FW) – Marine Corps Maj. Michael Lippert and Peter Wilson – qualified for daytime flight operations aboard the carrier. Nighttime flight operations began the next day and Edgell and Wilson soon became qualified for nighttime operations.

On Oct. 2, with winds over the deck exceeding 40 knots, the test team worked on wind envelope expansion conducting short takeoffs from the carrier’s ski jump along with vertical landings on the deck, which comprises a tower for the Bridge and a second tower for FLYCO (Flight Control). The team conducted the same maneuvers nine days later, but with winds on deck above 50 knots.

The first-ever shipborne rolling vertical landing (SRVL) of an F-35B came on Oct. 13, a movement the United Kingdom plans to use that allows the jets to land onboard with heavier loads, meaning they won’t need to jettison fuel or weapons before landing. Vertical landings on the ship were made by the jet coming to a hover to the side of the ship, translating sideways over the deck, and then lowering to land. The SRVL

uses a more conventional landing pattern by approaching the ship from the aft end at speed and then using the thrust from the nozzle and lift created by air over the wings to touch down and come to a stop as soon as possible.

Three days after the first SRVL was made, DT-1 testing wrapped up and the aircraft returned to NAS Patuxent River. In all, across 38 total flights, the team conducted 98 short takeoffs from the ski jump, 96 vertical landings and two SRVLs.

“It is humbling to be involved in setting the foundation operating envelopes that the Lightning will use to operate from the U.K. carriers for the next 40-plus years,” said Royal Navy Commander Stephen Crockatt, team leader of U.K. personnel embedded within the ITF at both Pax River and Edwards Air Force Base, California. “With this combination the United Kingdom will have a formidable capability with true global reach.”

The test team – comprising nearly 175 ITF members aboard the ship – completed several needed parameters during DT-1, including day and night short-takeoffs and vertical landings with minimal deck motion, in varying wind conditions and with and without internal stores.

“I’m very proud of the test accomplishments by the combined team of the 1,500 personnel comprised of the ITF, the carrier strike group and the crew of HMS Queen Elizabeth with her embarked 820 and 845 squadrons,” said Andrew Maack, the F-35 Pax River ITF’s chief test engineer. “It was impressive to see the excellent teamwork at all levels of the organizations.”

Crockatt agreed.

“It was great to see the ship and the ITF working in harmony to efficiently get the best data possible,” he said. “Watching the HMS Queen Elizabeth and the Lightning come together as a single capability has been remarkable.”

Beyond the completed DT-1 test requirements – which were performed within the same flight envelope as will be used in the first operational test phase – the ITF also conducted about half of the testing that falls under the DT-2 threshold, or the flight envelope needed to reach initial operational capability (Maritime).

The ITF returns to the ship in late October for DT-2, which will concentrate on external stores testing, minimum performance short-takeoffs and SRVLs, and night operations.

A third developmental test for FOCFT(FW), followed by operational testing, is scheduled for 2019. Together, the tests will help the U.K. Ministry of Defence reach F-35B initial operational capability (Maritime) in 2020.

Airborne Tracking and Targeting System Tested During RIMPAC

SAN DIEGO – General Atomics Electromagnetic Systems (GA-EMS) announced in an Oct. 19 release that it participated in the Rim of the Pacific Exercise (RIMPAC) to conduct demonstrations and testing of the Missile Defense Agency's (MDA) Airborne Tracking and Targeting System (ATTS).

The ATTS is configured on an MQ-9B remotely piloted aircraft to generate precision tracks and imagery of targets of interest. The system was employed throughout the RIMPAC exercises conducted near the Hawaiian Islands.

"We tested MDA's ATTS under operational conditions to help

further characterize its tracking performance against real-world targets of interest," said Dr. Michael Perry, vice president for lasers and advanced sensors at GA-EMS. "Exercises like RIMPAC provide us with a unique opportunity to shake out and stretch the system's capabilities. We can now take the test data we've obtained and analyze it to further improve ATTS' ability to effectively track and target a variety of threats at long-range and in real-time.

"GA-EMS continues to develop and advance its portfolio of missile defense weapon systems and technologies to support air, sea and land platforms," said Scott Forney, president of GA-EMS. "In an increasingly more complex, multi-layered warfare environment, systems like ATTS will enhance our military forces ability to improve tracking and targeting accuracy to protect lives and achieve mission success."

Held every two years, RIMPAC is the world's largest multinational maritime warfare exercise. The RIMPAC 2018 Exercise was underway from June 27 to Aug. 2, and included 25 nations, 46 ships, approximately 200 aircraft, five submarines, and 25,000 personnel.

General Atomics Awarded Contract for Lithium Batteries for Manned Submersibles

SAN DIEGO – General Atomics Electromagnetic Systems (GA-EMS) has been awarded a contract from U.S. Special Operations Command (USSOCOM) to develop and deliver a prototype Lithium-

ion Fault Tolerant (LiFT) battery system capable of powering the propulsion and support systems for manned undersea vehicles capable of transporting Special Operations Forces and payloads for a variety of missions, the company said in an Oct. 22 release.

USSOCOM undersea mobility platforms can be deployed from the shore and various host platforms. GA-EMS is under contract to deliver the LiFT battery systems for integration and testing.

“We continue to lead in the development of robust, flexible lithium-ion fault tolerant battery technologies to provide safe, reliable power and energy for a variety of manned and unmanned submersible platforms,” said Scott Forney, president at GA-EMS. “In addition to this new contract, we have delivered prototype LiFT battery systems for the DoD’s small, portable Semi-Autonomous Hydrographic Reconnaissance Vehicle and for SOCOM’s new dry undersea mobility platform.”

“We continue to work closely with our customers to demonstrate and successfully test LiFT battery systems to ensure they are approved for use aboard Navy vessels and will effectively support operations in the extreme environments our military forces often find themselves in,” said Rolf Ziesing, vice president of programs at GA-EMS.

The LiFT battery system’s modular design and single cell fault tolerance is designed to prevent uncontrolled and catastrophic cascading lithium-ion cell failure, improving the safety of personnel and platforms while keeping power available for high mission assurance. The flexible architecture of the high energy density LiFT battery system can be configured to meet the most demanding needs of manned and unmanned underwater vehicles.

LiFT battery systems have undergone rigorous at-sea testing, including use in other undersea vehicles that have been classified by Det Norske Veritas Germanischer Lloyd, an

international accredited registrar and classification society for the maritime industry, further demonstrating the safe operation of the LiFT battery system architecture.