USS Detroit (LCS 7) Decommissioned

KEY WEST, Fla. (June 5, 2020) The Freedom-variant littoral combat ship USS Detroit (LCS 7) passes Fort Zachary Taylor Historic State Park near the southern tip of Key West, Fla., preparing to pull into Naval Air Station Key West's Truman Harbor. (U.S. Navy photo by Danette Baso Silvers)
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MAYPORT, FL, UNITED STATES

Story by Lt. Ayifa Brooks, 09.29.2023

Commander, Littoral Combat Ship Squadron TWO

NAVAL STATION MAYPORT (Sept. 29, 2023) – Freedom-variant littoral combat ship (LCS) USS Detroit (LCS 7) was decommissioned in Mayport, Fla., September 29.

As an operational unit, Detroit and its crew played an important role in the defense of our nation and maritime freedom. Detroit and its Sailors were key to determine the

operational success and deployment capabilities of today’s LCS platform.

During the ceremony guest speaker, Capt. Meger Chappell, Commanding Officer, Destroyer Squadron Four Zero, wished the crew of Detroit fair winds and following seas as they bid farewell to their ship.

“To the Sailors who have served aboard the USS Detroit, both past and present, I extend my deepest appreciation for your service.” said Capt. Meger Chappell, Commanding Officer, Destroyer Squadron Four Zero. “Your unwavering commitment and dedication to duty have been an inspiration to us all. The legacy of Detroit will live on through your stories, your achievements, and the impact you have made on our nation’s defense.”

Detroit and its Sailors contributed a tremendous amount of work and time to ensure success of the LCS program during the ship’s time in naval service. USS Detroit (LCS 7) began the year with a Light Off Assessment (LOA) on January 30. The crew performed with distinction through several major milestones to include LOA, contractor sea trials, and the basic/advance phase in preparation for her 2023 deployment. Detroit completed her most recent deployment to Fourth Fleet in April 2023 partnered with the embarked US Coast Guard Law Enforcement Detachment, other US warships, Department of Defense, Department of Justice, Department of Homeland Security. Detroit participated in two fleet experiments off the coast of San Juan, Puerto Rico, which greatly contributed to C4F’s tactical mission set. Detroit and her embarked LEDETs, seized an estimated total of 900kg of cocaine from entering the United States. Detroit provided maritime security presence enabling the free flow of commerce in key corridors of trade.

“USS Detroit, the sixth ship to her name, represented the city

of Detroit, the great state of Michigan, and her Nation with honor and distinction," said Cmdr. Kyle Hickman, Detroit's Commanding Officer. "Deploying four times to the SOUTHCOM AOR in just seven years, Detroit led the way in training, operations as a Surface Mission Module test platform, and critical COMFOURTHFLT tasking to include counter-drug interdiction, interoperability, and cooperative engagements throughout the Caribbean."

Detroit was designed by Lockheed Martin and constructed by Marinette Marine Corporation (Fincantieri) Marinette, Wisconsin. Detroit was commissioned October 22, 2016, in Lake Michigan. Mrs. Barbara Levin, wife of former U.S. Senator Carl Levin, served as the ship's sponsor.

USS Detroit (LCS 7) is the sixth US Navy vessel to bear the name of Michigan's largest city. The ship represents the proud people of the Detroit community. Upon decommissioning, its Sailors will receive follow-on orders to new assignments.

LCS are fast, agile, mission-focused platforms designed to operate in near-shore environments, winning against 21st-century coastal threats. LCS are versatile and are capable to support a broad spectrum of fleet missions and operate alongside regional navies and coast guards while supporting forward presence, maritime security, sea control, and deterrence missions around the globe.

For more news from Commander, Littoral Combat Ship Squadron Two, visit https://www.surflant.usff.navy.mil/lcsron2/ or follow on Facebook at https://www.facebook.com/comlcsron2/
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General Dynamics Electric Boat Awarded $967 Million Contract Modification for Virginia-Class Submarines

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GROTON, Conn. (October 3, 2023) – General Dynamics Electric Boat, a business unit of General Dynamics, announced today it has been awarded a $967 million contract modification from the U.S. Navy for Lead Yard Support and Development and Design efforts for Virginia-class fast-attack submarines.

The cost-plus-fixed fee modification to a previously awarded contract totals $967,185,528. Work will be performed in Groton, Connecticut; McLeansville, North Carolina; Newport News, Virginia; and Newport and Quonset Point, Rhode Island. Work is expected to be completed by October 2024. This contract was awarded on September 29. 2023.

“This contract award supports critical work to further advance the capability and superiority of the Virginia class submarine,” said Kevin Graney, president of General Dynamics Electric Boat. “We are proud to continue our tradition of delivering this state-of the-art platform that ensures the

safety of our sailors and their continued dominance in the undersea domain.”

Virginia-class submarines are designed for the full range of 21st-century mission requirements, including anti-submarine and surface ship warfare and special operations support.

General Dynamics Electric Boat is the prime contractor and lead design yard for the Virginia class and constructs the ships in a teaming arrangement with HII’s Newport News Shipbuilding in Virginia.

VMM-364 transfers Horn of Africa mission to VMM-261

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10.03.2023

Story by Petty Officer 2nd Class Rion Codrington

Camp Lemonnier, Djibouti

AMP LEMONNIER, Djibouti (October 1, 2023) – Marine Medium Tiltrotor Squadron 364 reinforced (VMM-364) handed off their mission as the Aviation Combat Element in the Horn of Africa to VMM-261 (REIN) following a transfer of authority ceremony at Camp Lemonnier, Djibouti, Oct. 1.

Both squadrons are forward deployed to Camp Lemonnier to provide 24/7 crisis response in support of Combine Joint Task Force – Horn of Africa in order to enhance partner nation capacity, promote regional stability, deter conflict, and protect U.S. and partner force interests.

“Every one of you play an integral role in the success of our mission here,” said U.S. Army Maj. Gen. Jami Shawley, commanding general of Combined Joint Task Force-Horn of Africa. “It is your collective efforts, determination, and unwavering commitment to one another that we can overcome all obstacles.”

During their deployment, VMM-364 executed 2,300 flight hours, supporting the transportation of over 2 million pounds of cargo, and thousands of passengers in multiple named operations.

“Not only have the Purple Foxes made a difference here in theater, but helped provide an important layer of defense and deterrence for freedom and democracy around the world,” said U.S. Marine Corps Lt. Col. John Miller, commander of VMM-364.

VMM-261 has a history in providing humanitarian aid, and assault support for amphibious and shore operations such as Operation Urgent Fury in Grenada.

“Since our inception in 1951, the Raging Bulls have an impressive metric of success, giving our superiors what they need, when they need it,” said U.S. Marine Corps Maj. Benjamin Weiss, executive officer of VMM-261.

With the turnover finalized, VMM-261 hopes expand of the successes of VMM-364, said Weiss.

“As the successors to VMM-364, we aim to improve upon their foundation and maintain or exceed their capacity to support the joint force.” said Weiss. “It is our intent to set the standard and support CLDJ, it’s tenants commands and the region.”

CLDJ is an operational installation that enables U.S., allied, and partner nation forces to be where and when they are needed to ensure security in Europe, Africa, and Southwest Asi

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SECNAV Names Future Nuclear-Powered Attack Submarine USS San Francisco (SSN 810)

Photo By Chief Petty Officer Shannon Renfroe | Secretary of the Navy Carlos Del Toro, today, announced that the future Virginia-class nuclear-powered attack submarine SSN 810 will be named USS San Francisco, Oct. 3. In addition, Secretary Del Toro announced the Speaker Emerita Nancy Pelosi agreed to be the ship's sponsor. Secretary Del Toro made the announcement during Fleet Week San Francisco.
Release from the Secretary of the Navy Public Affairs

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Secretary of the Navy Carlos Del Toro, today, announced that the future Virginia-class nuclear-powered attack submarine SSN 810 will be named USS San Francisco.

Secretary Del Toro made the announcement during San Francisco Fleet Week.

"The future USS San Francisco, once commissioned, will be our nation's newest Virginia-class nuclear-powered fast-attack submarine. USS San Francisco will build upon the legacy of her

namesakes, and will no doubt represent the people of this city and our nation with honor wherever she may sail," said Secretary Del Toro.

In addition, Secretary Del Toro announced the Speaker Emerita Nancy Pelosi agreed to be the ship's sponsor. In that role, Speaker Emerita Pelosi will represent a lifelong relationship with the ship and crew.

"For over 36 years, Speaker Emerita Pelosi has represented the people of San Francisco with honor and distinction in Congress and has served as a staunch advocate for our national security and the promotion of our democratic values around the world," said Secretary Del Toro. "She is a champion for justice and equality, to ensure every American is afforded the dignity and respect they deserve."

"It is with great pride and patriotism that I serve as the sponsor of the magnificent USS San Francisco, which will bring luster to our City as it sails the seas defending our Nation," Speaker Emerita Nancy Pelosi said. "The naming of this ship comes as our City and our Nation continue to mourn the loss of our beloved Dianne Feinstein: our Forever Mayor, a champion of San Francisco and a proud patriot. It is fitting that we announce the naming of this ship during San Francisco Fleet Week, a tradition that she began as Mayor more than four decades ago. As we honor Senator Feinstein's towering legacy, may the USS San Francisco always find fair winds and following seas."

This is the fourth vessel to honor San Francisco. The first San Francisco, a steel protected cruiser, blockaded Havana, Cuba, during the Spanish-American War and served as a mine planter in the North Sea during World War I.

The second San Francisco, a heavy cruiser, had an equally distinguished career, participating in operations and

engagements at Cape Esperance, Guadalcanal, Guam, the Marshall Islands, and Okinawa during World War II. In total, the ship and its crew earned 17 Battle Stars, a Presidential Unit Citation, four Medals of Honor, and 32 Navy Crosses.

The third San Francisco was a Los Angeles-class nuclear submarine (SSN 711), which completed multiple deployments to the western Pacific, earning a Navy Unit Commendation and Navy Expeditionary Medal among other awards. Decommissioned in 2022, the venerable boat now serves as a moored training vessel for the Naval Nuclear Power Training Unit, Charleston, South Carolina.

Attack submarines like the future USS San Francisco are designed to seek and destroy enemy submarines and surface ships; project power ashore with Tomahawk cruise missiles and Special Operation Forces (SOF); carry out Intelligence, Surveillance and Reconnaissance (ISR) missions; support battle group operations; and engage in mine warfare.

More information on attack submarines can be found here.
https://www.navy.mil/Resources/Fact-Files/Display-FactFiles/Article/2169558/attack-submarines-ssn/

Secretary Del Toro Tours Historic West Coast Facility, Explores Ways to Increase

Shipyard Capacity in the Pacific

Release from Secretary of the Navy Public Affairs

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VALLEJO, CA, UNITED STATES

10.02.2023

Office of the Secretary of the Navy

A week after calling for a new, bold maritime statecraft, Secretary of the Navy Carlos Del Toro and key members of his team visited the Mare Island Dry Dock, located on the historic Mare Island Shipyard, in Vallejo, Calif., Oct. 2.

Established in 1854, Mare Island Naval Shipyard was the Nation’s first Navy base in the Pacific. During World War II,

it was one of the busiest naval shipyards in the world. In its last 25 years of operation, it was the leading submarine port for the West Coast.

Today, with strategic competition challenges in the Pacific, Secretary Del Toro, joined by U. S. Rep. John Garamendi, toured the Mare Island Dry Dock facility, met with shipyard leadership, and discussed opportunities and options to address emerging maritime challenges and increase shipyard capacity in the Pacific.

“We’re making a concerted effort to improve our naval shipbuilding and repair industry – both public and commercial – with historically high investments in the industrial base,” said Secretary Del Toro. “That’s how we grow our nation’s strategic advantage at sea.”

During the visit, Secretary Del Toro expressed how impressed he was with the facilities and the amount of capacity and infrastructure that remains.

As Secretary Del Toro outlined in his recent address at Harvard, “The maritime industry is a strategic sector critical to our economic and national security. It is vital to achieving resilient global supply chains and is ripe with opportunity to partner with a greater number of shipbuilders here in the U.S. and with our closest allies overseas, including Japan and South Korea. It also requires urgent U.S. public investment and international statecraft to attract the necessary private capital.”

The visit to Mare Island Dry Dock is the latest shipyard engagement by the Secretary. In July, Secretary Del Toro visited Pearl Harbor Naval Shipyard and Intermediate Maintenance Facility (PHNSY & IMF). In August, he toured Bayonne Drydock & Repair Corp.

The visits are part of the Department of the Navy’s efforts toward a new maritime statecraft that is bold and founded on a strong Navy and Marine Corps to fulfill our national security interests and address future challenges.

Additionally, the administration is working to set the necessary conditions to attract the most advanced shipbuilders in the world to open U.S.-owned subsidiaries and invest in commercial shipyards here in the U.S., modernizing and expanding our shipbuilding industrial capacity and creating a healthier, more competitive shipbuilding workforce.

Systems Models Keep Submarines Mission Ready

BY TRACY GREGORIO

An important, yet often underappreciated challenge for undersea warfare is keeping submarine systems well-maintained and available. Every command has a budget for reliability, maintainability, and availability (RMA), but those resources are limited and need to be carefully allocated to keep warfighting systems mission-ready.

For decades now, maintenance planning has been performed by seasoned engineers who understand how component lifecycles and failure rates can affect their systems. This process of expert-driven failure modes and effects analysis (FMEA) is time consuming, expensive, and can take months to complete by veterans whose expertise is sorely needed elsewhere.

Additional time is also needed to evaluate changes using the Risk Management Framework (RMF), to identify cybersecurity

vulnerabilities that may degrade system availability.

Model-Based Approach.

To address this challenge, a model-based system engineering (MBSE) approach is starting to automate failure mode analysis, facilitating more efficient RMA planning. This shift provides additional time for design optimization, refinement of reliability predictions, and comprehensive analysis of casualty reporting. The result is better mission-readiness for our fleet, while consuming fewer resources.

Reliability analysis is important to ensure that a warfighting platform has no single point of failure across its many components. Between a ship's tight spaces and funding limitations, it's impossible to go to sea with spares for everything.

One organization using this new MBSE approach is the Undersea Communications & Integration Program Office, PEO C4I / Program Manager, Warfare (PMW 770). Their Program Manager, Captain David Kuhn explained, "If spares are not available, we have to plan for alternate ways of accomplishing a mission, even if it's less stealthily. To ensure we optimize our ability to change parts and/or have redundant paths for missions, we build forecasts based on how often parts are used. If a component fails early and there is no spare on board, it could be a mission kill."

The MBSE models enable program managers, like Kuhn, to create forecasts better and faster, while
tying together different engineering disciplines and stakeholder communities. "Engineers specialized in systems design, cyber, and reliably each have their own approach," said Kuhn. "They need different views and have historically used different models. Now they use the same model, each getting the views they need, and enabling analysis that just couldn't be done before."

Confidence in Outcomes

These consolidated models enable analysis and simulation on a fully validated data set that increases confidence in predicted outcomes. Kuhn illustrated the value of this analysis by describing a recent upgrade needed to improve system monitoring through the addition of passive data taps. “What normally would have needed 60 or 90 days we accomplished in a couple weeks, letting us quickly deploy the upgrades to the fleet.”

The models also enable green or less experienced engineers to address critical maintenance planning elements. “MBSE helps new people coming on to look at a failure diagram and understand it faster and more accurately,” notes Kuhn. This MBSE approach is being used by engineers adapting systems to field on the new classes of submarine to plan and optimize their maintenance schemes. This approach will ensure that component failures don’t interfere with the platform’s most important mission threads.

“The hull designs of the new sub class have an impact on how we design and maintain our antenna systems,” explained Kuhn. “Through the MBSE model, we saw how a change in one subsystem increased tensions in another. While each element was meeting its defined requirements, the model showed that failure risk increased. While we might have eventually caught the issue, the model helped us see it easily and early in the design cycle.”

The MBSE model also generates the reports and views needed to get system changes through the
RMF approval process. Kuhn, explaining the practical consequences, stated, “We use the model to assess RMF compliance faster and with more accuracy, in part by eliminating the possibility of ‘fat finger’ data re-entry errors. Our team says they can complete RMF diagrams in a third of the normal time.”

That is a huge time-saver for engineers, and a safety net

against errors. The system uses the following key components:

1. A digital model of the warfighting platform is created to replicate all components, connections, and system functionality. This model is capable of simulating every system operation, effectively capturing the interactions between various components. It also illustrates their relationship with the officers and sailors who are responsible for the operation and maintenance of the system.
2. The model is populated with reliability data from COTS manufacturers and field experience, generating reliability diagrams correlated to mission threads.
3. Engineers use the model to simulate planned maintenance or upgrades and test operational threads for mission success, reviewing different alternatives for impacts on mission readiness.
4. The models export field-level instructional resources directly into interactive electronic technical manuals (ITEMs). This reduces the cost and time needed to give sailors up-to-date information for their individual hull, so they can maintain mission readiness and quickly respond to unexpected failures.

This approach is not limited to the latest-generation submarines. Maintenance planners are constantly dealing with obsolescence replacement.

“Our C4I systems make heavy use of commercial off-the-shelf servers and hard drives that go obsolete in as little as four years,” said Kuhn. “The models help us identify where one change drives a companion change in another system. For instance, we might need to make a firewall change for data to flow properly. We have to replace those elements quickly without waiting for a major availability cycle that might be

five years out. We can’t afford for our systems to be the reason a sub is not out at sea.”

Transition Challenges

There are challenges in moving to a new approach in terms of the tools and skillsets needed by the workforce. Comparing MBSE transition challenges to those encountered during the shift to Computer-Aided Design (CAD), Kuhn said, “Just as we had to transition from engineers with drafting expertise into those who could work in CAD, now we need engineers that know how to use MBSE tools. It’s not as easy as opening Microsoft Word, but it can be done. The real key will be changing entire processes to adapt to the MBSE models. Using the same old processes, but just layering on the new tools will not be effective. It requires a cultural change, just as happened when we went from pencil drafting to CAD.”

This approach can improve the maintainability of any sea-going platform with integrated MBSE models that span engineering disciplines, cyber, RMF compliance, and reliability. It doesn‘t happen overnight, but can make an impact, one model and one command at a time.

Marine Corps deactivates historic F/A-18 training squadron

MIRAMAR, CA, UNITED STATES

09.29.2023
3rd Marine Aircraft Wing

MARINE CORPS AIR STATION MIRAMAR, Calif. – The 3rd Marine Aircraft Wing deactivated VMFAT-101, an historic F/A-18 Hornet training squadron, here on September 29, 2023.

Since 1969, instructor pilots of the VMFAT-101 “Sharpshooters” have qualified combat aviators and sent them to operational squadrons worldwide.

The squadron commemorated the event by “flying the barn” – launching 18 aircraft in a single flight. More than 300 Marines, Sailors, veterans, family members, and community supporters then gathered for a sundown ceremony to commemorate the squadron’s history and contributions to Marine Corps readiness.

“Pilots come to VMFAT-101, cut their teeth, and are

transformed into aviation warriors," said Col. William J. Mitchell, commanding officer of MAG-11.

Since October 2019, VMFAT-101 has trained Navy and Marine Corps aviators as the only remaining F/A-18 Hornet Fleet Replacement Squadron in the Department of the Navy.

"Thousands of aircrew have passed through the halls of VMFAT-101 – fighter pilots, fighter radar intercept officers, fighter weapon systems officers, and it's bigger than that," said Brig. Gen. Robert B. Brodie, Assistant Wing Commander of 3rd MAW. "This squadron has trained more maintenance Marines than any other in the Marine Corps. It's a holistic approach to ensure we are ready to fight and win."

The training mission of VMFAT-101 will transfer to the "Death Rattlers" of VMFA-323, a 3rd MAW operational squadron at MCAS Miramar. As outlined in the 2022 Marine Corps Aviation Plan, the Hornet will continue to operate and provide combat capability until its complete transition to the F-35 Lighting II in 2030.

Brodie is an F/A-18 pilot and served as commanding officer of VMFAT-101 from 2011 to 2013. He and Lt. Col. Ryan J. Franzen, the final commanding officer of VMFAT-101, were joined by ten former VMFAT-101 commanding officers and two spouses representing their late husbands.

"We're standing on the shoulders of giants," said Franzen. "You helped shape the 'Sharpshooter' legacy."

USS Augusta Commissions Amidst the Morning Fog of Maine

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EASTPORT, ME, UNITED STATES

09.30.2023

Story by Julie Ann Ripley

Commander, Naval Surface Force, U.S. Pacific Fleet

EASTPORT, MAINE (Sept. 30, 2023) – Independence-variant littoral combat ship USS Augusta (LCS 34) commissioned at Eastport, Maine, Sept. 30.

In the week leading up to the commissioning ceremony, the

Augusta’s crew spent time with their ship’s sponsor, Chief Justice Leigh Saufley, and participated in community relations events in their namesake city to build a strong connection with their namesake city community.

During the ceremony guest speaker, The Honorable Jared Golden, U.S. Representative, Maine’s 2nd District, wished the crew of Augusta fair winds and following seas as they brought the ship to life and began its commissioned service via recorded remarks.

Remarks were also provided by Vice Adm. John Fuller, Naval Inspector General.

“Competing and being successful in the maritime starts at home. The state of Maine’s has a strong bond with the sea and our nation’s military. More than 30 ships proudly represent this state, its cities, places, and people” said Fuller. “The USS AUGUSTA and her crew will play an important role in defending our nation and enabling global maritime freedom and commerce. She will be integrated into operations that provide presence and support both sea control and power projection, which are at the core of the Navy’s mission.”

Rear Adm. James Downey, Special Assistant to the Assistant Secretary of the Navy for Research, Development, and Acquisition; the Honorable Mark O’Brien, Mayor of Augusta, Maine; and the Honorable Chris Gardner, Director of the Eastport Port Authority and Washington County Maine Commissioner. The ship’s sponsor is the Honorable Leigh Saufley, President and Dean of University of Maine School of Law and former Chief Justice of the Maine Supreme Judicial Court.

“This ship, born of American aluminum, is a testament to the versatility, resolve, and unwavering spirit that have defined our nation from its very inception. The USS Augusta stands as

a living embodiment of our shared commitment to safeguarding liberty, defending democracy, and preserving peace around the world," said Cmdr. Christopher Polnaszek, USS Augusta's commanding officer. "Augusta, Maine, a place steeped in tradition and history, has given rise to brave sons and daughters who have answered the call of duty time and again. From the early days of our nation's founding, through the trials of the Civil War, to the modern challenges of the 21st century, the people of Augusta have shown an indomitable spirit, unyielding in the face of adversity. As we commission this warship, we pay homage to that spirit. May it sail the seas as a testament to the enduring strength of the American spirit. Protecting the Frontier."

Augusta is the 17th Independence-variant LCS commissioned in the United States Navy, and the second U.S. Navy ship to bear this namesake.

Augusta (SSN-710), the first Naval vessel to be name for Maine's capitol, served from 1985 – 2009, taking part in Operations Enduring Freedom and Iraqi Freedom. Its sponsor was Mrs. Diana D. Cohen, wife of Senator William S. Cohen of Maine, who later served as the Secretary of Defense (1997–2001).

USS Manchester (LCS 14), USS Gabrielle Giffords (LCS 10), USS Mobile (LCS 26), and USS Oakland (LCS 24) are deployed to Commander, 7th Fleet area of operations under Destroyer Squadron 7. USS Jackson (LCS 6) is currently deployed and is supporting Pacific Partnership, the largest annual multinational humanitarian assistance and disaster relief preparedness mission conducted in the Indo-Pacific.

Independence-variant Littoral Combat Ships are fast, optimally manned, mission-tailored surface combatants that operate in near-shore and open-ocean environments, winning against 21st-century coastal threats. LCS integrate with joint, combined,

manned and unmanned teams to support forward presence, maritime security, sea control, and deterrence missions around the globe.

Independence-variant littoral combat ships (LCS) are built by Austal USA in Mobile, Alabama.

The mission of Commander, Naval Surface Force, U.S. Pacific Fleet is to man, train, and equip the Surface Force to provide fleet commanders with credible naval power to control the sea and project power ashore.

For more news from Naval Surface Forces, visit https://www.surfpac.navy.mil/.

For more news from Commander, Littoral Combat Ship Squadron One, visit https://www.surfpac.navy.mil/comlcsron1/ or follow on Facebook at www.facebook.com/COMLCSRONONE/

Raytheon and Texas A&M Establish Texas' First Laser Weapon Test Site

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First high-energy laser demonstration in Texas takes down drone targets in flight at Texas A&M-RELLIS

BRYAN-COLLEGE STATION, Texas, Sept. 29, 2023 /PRNewswire-PRWeb/ — On Sept. 21 and 22, Raytheon, an RTX company, conducted an open-air test of an operational laser weapon on the Texas A&M-RELLIS campus at the George H.W. Bush Combat Development Complex (BCDC). Raytheon's high-energy lasers (HEL) are combat-ready weapons that use silent, invisible beams of light to destroy drone threats at great distances. The open-air test was the first such shot of a laser weapon in the State of Texas, creating a new capability to advance critical defense technologies.

"We are proud to collaborate with Raytheon on the latest technologies for national security," said John Sharp, chancellor of The Texas A&M University System. "This is another example of the world-changing impact that Texas A&M-RELLIS will have for generations to come."

“We see drone attacks having an out-sized impact in combat zones and even civilian settings, and they are extremely difficult to detect and defeat,” said Michael Hofle, senior director of high energy lasers at Raytheon. “That’s why we’re making Texas a hub for solving these challenges, side-by-side with the Bush Combat Development Complex. Our combat-ready laser weapons are a cheat code against drones. So, having the ability to test our systems in our own backyard is a game changer for getting this technology into the hands of uniformed personnel quickly and affordably.”

The 15-kilowatt laser weapon is the ninth Raytheon has produced in McKinney, Texas. Previous tests and demonstrations were conducted in other states where appropriate firing ranges already exist. With the successful test on the BCDC Innovation Proving Ground (IPG), Raytheon can now design, produce and test laser weapons in Texas.

“We are proud to collaborate with Raytheon on the latest technologies for national security,” said John Sharp, chancellor of The Texas A&M University System. “This is another example of the world-changing impact that Texas A&M-RELLIS will have for generations to come.”

The Raytheon test is an example of how the BCDC will help various customers accelerate innovative research and development on behalf of national security. The complex’s labs offer a wide array of capabilities for collaboration among the defense industry, universities, government and the tech sector.

A team of experts transported the laser weapon to the RELLIS campus for final adjustments, and the calibrations and tests performed on the laser weapon included tracking, targeting and destroying multiple drone targets while fine-tuning system parameters. The system will be shipped to the United Kingdom in October for final integration and delivery to the U.K. Ministry of Defense.

“When we met with Army Futures Command four years ago, they identified a need for our assistance in advancing their directed energy capabilities,” said BCDC director Tim Green. “Texas A&M System leadership then worked with the 2019 Texas legislature and the Board of Regents to obtain a combined $130 million toward the development of facilities here on Texas A&M-RELLIS, designed to accelerate the development of key national security technologies, including directed energy, at what is now known as BCDC. We are proud to bring together industry and academic experts, working closely together to provide a capability Texas needs to be a leader in delivering directed energy weapons to meet urgent military needs.”

When Raytheon representatives visited BCDC in February 2023, the BCDC team anticipated the primary discussion topic would be related to directed energy testing inside the Ballistic, Aero-optic and Materials (BAM) range, which is scheduled for completion in Spring 2024, and ongoing research at the Texas A&M Aerospace Laboratory for Lasers, ElectroMagnetics and Optics (ALLEMO). Following a full overview and tour, Raytheon officials saw an opportunity to test both weapon systems and potential platforms using the IPG, and they inquired about the ability to conduct open-air shots on the IPG.

Dr. James Creel, a BCDC-directed energy senior research engineer, served as lead for the project.

“When Raytheon asked about our ability to perform live-fire tests, it did catch us off guard. But when we saw how much of a game changer this could be for the State of Texas and for our troops, we quickly established a team of experts from across the Texas A&M University System, and other state agencies like the Texas Department of State Health Services, (DSHS) to quickly develop the capability where that kind of test could be conducted safely here on the Texas A&M-RELLIS campus,” said Creel. “We’re proud of the way this team came together to provide this new capability, and we’re excited to work with Raytheon to help them develop future capabilities.”

BCDC is in the process of establishing a more formal relationship with Raytheon over the coming months.

“This type of HEL testing and evaluation was previously considered impossible within Texas. I am so thankful to have partners from Raytheon, other state agencies, and many system organizations working together to solve problems and create capabilities here that will help make us more secure and protect our military personnel,” Green said. “Dr. Creel did a great job pulling together our system teammates from RELLIS administration, safety, the Texas A&M Experiment Station (TEES) and the IPG. Col. (U.S. Army, Ret) Brian McHugh’s excellence at range operations was critical to winning state approval for the permit. I see this as the beginning of several emerging partnerships, and I’m honored to be a part of it.”

Directed energy weapons are proving to be a critical need as the U.S. and partner nations work to develop counter-drone capabilities. Industry, government and academia are working diligently to deliver the technology to protect both our forces as well as the homeland.

Coast Guard delivering upgraded multi-mission helicopters to Air Station Detroit

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Air Station Detroit

Sept. 29, 2023

MT. CLEMENS, Mich. – Coast Guard Air Station Detroit received its first upgraded MH-65E Dolphin helicopter Tuesday to replace the legacy MH-65D helicopters that support Coast Guard missions throughout the Great Lakes region.

The avionics upgrade to the “E” configuration provides enhanced search and rescue capabilities including modern “glass cockpit” technology that increases pilot and aircrew situational awareness and provides commonality with the service’s MH-60T Jayhawk fleet.

The Dolphin upgrades also include reliability and capability improvements for the automatic flight control system, enhanced digital weather and surface radar, and multifunctional displays with more accurate fuel calculations.

The upgrades comply with the Federal Aviation Administration’s

Next Generation Airspace Transportation System requirements and extend the aircraft service life to the late 2030s.
The transition of Air Station Detroit's five MH-65D helicopters to the upgraded "E" configuration is expected to take approximately two months.

During the upgrade period, the unit's 23 pilots will undergo a three-week transition course at the Coast Guard's Aviation Training Center in Mobile, Ala. Aircrew and mechanics will receive formal training specific to their roles and duties delivered by a team from the Coast Guard's Aviation Technical Training Center in Elizabeth City, N.C.

"The upgrades and advanced training will enhance the situational awareness of our aircrews and improve our mission planning capabilities" said Cmdr. Christian Polyak, commanding officer of Air Station Detroit. "The replacement and inspection of key aircraft components as a part of the upgrade also extend the aircraft's service life and enable us to continue ensuring maritime safety, security and stewardship far into the future."

Air Station Detroit Dolphin helicopter crews perform search and rescue, maritime law enforcement and marine environmental protection, and provide aids to navigation and ice patrol support throughout the Great Lakes region. Air Station Detroit helicopters and aircrews also provide support to augment the North American Aerospace Defense Command's airspace security mission in Washington, D.C., and throughout the country as required for national security.

Each MH-65D undergoes a six-month conversion to the MH-65E at the Coast Guard's Aviation Logistics Center in Elizabeth City, N.C. Detroit is the 11th of 13 MH-65 Air Stations to receive the upgraded MH-65E. The Coast Guard plans to complete conversion of all 98 of its Dolphin helicopters to the MH-65E configuration by the end of 2024.

For more information visit the MH-65 Program page at SRR – MH-65 (uscg.mil).