Navy Orders Full Production for Boeing's HAAWC Air-Launched Torpedo Kits

In an artist’s rendering, a High Altitude Anti-Submarine Warfare Weapon Capability, or HAAWC, deploys from a Boeing P-8A Poseidon multi-mission maritime patrol aircraft. *Boeing illustration*

ARLINGTON, Va. — The Navy has awarded Boeing a full-rate production contract for the High-Altitude Anti-Submarine Warfare Weapon Capability (HAAWC), a weapon which will allow the P-8A maritime patrol aircraft the ability to launch anti-submarine torpedoes from high altitudes.

The Naval Sea Systems Command awarded Boeing a 25.6 million "fixed-firm-price, cost-plus-fixed-fee and cost-only, full-rate production contract for the production of High-Altitude Anti-Submarine Warfare Weapon Capability Air Launch Accessory (ALA) equipment, related engineering and hardware repair services, and other direct cost support," the Defense Department said in an Aug. 19 contract announcement.

HAAWC is an all-weather add-on glide kit that enables the Mk54 torpedo to be launched near or below the cruising altitude of the P-8A Poseidon. The kit consists of a modular ALA that strapped to a Mk54 torpedo, enabling it with precision navigation to glide to a target area, where the ALA separates and drops the torpedo into the water.

"This is an important milestone because it brings HAAWC one step closer to becoming fully operational and deployed by the Navy," said Dewayne Donley, Boeing's HAAWC program manager, in a release. "Our solution transforms the Mk54 into a precision glide weapon in GPS-aided and GPS-denied environments. The HAAWC system provides flexibility by allowing the Navy to carry out anti-submarine operations throughout the full flight envelope of the P-8A."

"There are also provisions for Boeing to provide engineering such as design studies, testing, prototyping and/or analyses of production related issues," the Boeing release said. "Repair service provisions include hardware repair and maintenance services for government-owned HAAWC ALAs and associated hardware and equipment. A provision item order option also allows the Navy to procure spare hardware in support of the program."

This contract includes options, which, if exercised, would bring the cumulative value of this contract to $121,4 million. Work is expected to be completed by September 2024. If all options are exercised, work will continue through September 2030.

Navy’s Light Amphibious Warship Will Be A ‘Great Enabler’ for Marine Littoral Regiments, General Says

The crew of U.S. Army logistics support vessel Lt. General

William B. Bunker (LSV-4), loaded equipment and supplies on LSV-4 in Guam in July 2021 for theater distribution operations in support of Defender Pacific 2021. Some call for the LSV to be used as a bridge to the Navy's planned light amphibious warship. *U.S. ARMY / Staff Sgt. Kevin Martin*

ARLINTON, Va. — The U.S. Navy's concept of the Light Amphibious Warship (LAW), more formally designated as a medium landing ship (LSM), is advancing within the Pentagon as the Navy and Marine Corps define some goals and the concept gels as a part of the Marine Corps' Force Design 2030 concept.

"The [LAW] AoA [Analysis of Alternatives] has been signed," said Marine Maj. Gen. Marcus Annibale, director of Expeditionary Warfare in the Office of the Chief of Naval Operations, speaking Aug. 18 at the Surface Navy Association' Waterfront 2022 West Coast symposium in San Diego. "We're working through some details on that. OSD CAPE [Office of the Secretary of Defense Cost Assessment and Program Evaluation] has given us some comebacks on it. We need to get it as close to right as we can."

The LAW, as a warship, is designed to help the Marine Corps operate within the engagement zone of China, deploying Marine littoral regiments (MLRs) as stand-in forces. The MLR, armed with anti-ship cruise missiles and an air-defense capability, among others, will be able to complicate China's ability to operate within the first island chain.

"We put our own A2AD [anti-access/area denial] capability in their back yard as the stand-in force," Annibale said.

"One important thing to maneuver the MLR and sustain the MR is a warship that can move over distance with speed and capacity to support the MLR," he said. "That is the LAW. We're working through the baseline for that."

The general said that Chief of Naval Operations Adm. Michael Gilday has signed off on an initial capacity of 18 LAWs.

“What that maps out to, we’re looking at about nine LAWs for each MLR,” he said. “We’re working the technical aspects of the ship. We’ve looked at different commercial capabilities. We’re experimenting in the Pacific with some contract surrogate shipping. … It’s going to be a great enabler for those MLRs.”

Annibale said the Navy conducted a classified survivability study on the LAW as part of the AoA.

“It’s a warship,” he said, “It’s not a commercial ship, even though we’re going to experiment with some commercial ships.”

Annibale said that the rank for a LAW commanding officer is under discussion, floating the option of an O-4 lieutenant commander as a skipper and the nine-LAW squadron under an O-5 commander.

U.S. Naval Special Warfare Establishes Assessment Command

Rear Adm. Hugh Howard III, commander, Naval Special Warfare Command, addresses the crowd at the establishment ceremony for Naval Special Warfare Assessment Command (NSWAC). NSWAC conducts outreach, assessment, selection, and development of future and current Naval Special Warfare operators. *U.S. NAVY / Mass Communication Specialist 1st Class Benjamin K. Kittleson*

SAN DIEGO – U.S. Naval Special Warfare Command established Naval Special Warfare Assessment Command (NSWAC) under the Naval Special Warfare Center during an Aug. 18 ceremony onboard Naval Amphibious Base Coronado, said Petty Officer 2nd Class Alex Perlman in an Aug. 19 release.

NSWAC substantively transforms the Navy's commando force in its ability to compete for talent capable of solving the hardest problems from the maritime domain. It proactively engages diversity in all forms and enrolls future candidates who possess the Force's standards and ethos. This new command

accelerates the ways the Force continuously assesses and selects for the character, cognitive and leadership attributes necessary for the highest complexity and risk maritime operations mission to expand national leverage and deterrence options- and win if deterrence fails.

During the ceremony, Cmdr. Aaron Brown, a Navy Special Warfare Officer, assumed command. Rear Adm. H.W. Howard, III, commander, U.S. Naval Special Warfare Command, was the presiding officer of the establishment ceremony.

“Across the spectrum of warfare, the United States and its allies face new challenges and threats. The complexity of the strategic and operating environments demand we evolve quickly and creatively,” said Howard. “We’re aggressively seeking an edge in human capital and technology to expand the margins between mission success and failure. The Assessment Command is at the forefront of our urgent initiatives to deliver the step changes in capability and professionalism across the Force. Modernizing approaches to recruitment, assessment, selection and training underpin our transformations to be ready for the uncertainties ahead.”

Attendees for the event included commander, Special Operations Command, Gen. Richard Clarke; Vice Chief of Naval Operations, Adm. Bill Lescher; Chief of Naval Personnel, Vice Adm. Richard Cheeseman; Deputy Commander, Navy Education and Training Command, Rear Adm. Scott Ruston; Commander, Navy Recruiting Command, Rear Adm. Alexis Walker; and the incoming commander of U. S. Naval Special Warfare Command, Rear Adm. Keith Davids.

According to Howard, Naval Special Warfare initiated this effort in the Fall of 2020 to build the sustainable architecture for diversified outreach, more rigorous pre-assessments for character, cognitive and leadership attributes across the Assessment and Selection pathway and implement the

innovative initiatives that strengthen continuous assessment across the continuum of a Naval Special Warfare.

Howard also noted how the Assessment Command conducts outreach and enrollment opportunities across the United States to proactively engage under-represented demographics and geographic areas in the Force.

“The Assessment Command will identify, engage and enroll the next generation of candidates we need to solve the hardest problems from – on – and under the sea,” said Howard. In partnership with CNRC, the Assessment Command will lead candidate assessment programs that deepen our Force’s diversity and capabilities.”

According to Capt. Brian Dreschler, commanding officer, NSWCEN, over the past year as the team deliberately iterated to build this new command, the team conducted 60 outreach events partnered with local Navy Talent and Acquisition Groups (NTAGs). More than half of the outreach events were specifically focused on increasing Force diversity and inclusivity, with under-represented demographics.

“The Assessment Command is a mission imperative for the Force’s relevance, survivability and lethality to contribute in irregular ways to Integrated Deterrence options,” said Capt. Brian Dreschler, the commanding officer of NSWCEN. “Not only are we adapting the way we assess and select our potential candidates, but we are also evolving the assessment and selection of our leadership, officer and enlisted, at all levels of command. The Assessment Command is also charged with learning from the Joint Force, allies and partners, and from private sector innovations to reinforce our culture of continuous assessment – the candid assessments for feedback, self-improvement and optimal leadership and team formation decisions.”

One of NSWAC's assessment programs is Naval Special Warfare Leader Assessment Program (NLAP). Enhancing NSW's culture of continuous assessment, NLAP evaluates and selects NSW operators at every level. During NLAP, operators participate in purpose-filled events to select for officer and enlisted career milestones. Through feedback from peers, leaders, and subordinates, NLAP assesses an operator's leadership, character, physical and mental attributes. According to Brown, this program ensures NSW places the right leaders in the right assignments, while offering critical professional development to guide the force into the future.

"I'm humbled to assume command of this mission imperative," said Brown. "With this high-performing team of professionals, we will strengthen the precision of candidate identification, assessment, selection, enrollment, training and development."

NSWAC is headquartered at Naval Amphibious Base Coronado in Coronado, California with a detachment in Virginia Beach, Virginia. Alongside Basic Training Command and Advanced Training Command, NSWAC will be a subordinate command to NSWCEN.

"With the establishment of the Assessment Command, Howard said, we are in position to compete for talent and more rigorously assess, select, train and retain men and women who embody the courage, integrity, humility, creativity, team-ability, creativity and grit that expand competitive edge to remain the Nation's preeminent maritime special operations force."

NSWCEN provides initial assessment and selection and subsequent advanced training to the Sailors who make up the Navy's SEAL and Special Boat operational formations. The Naval Special Warfare mission is to provide maritime special operations forces to conduct full-spectrum operations, unilaterally or with partners, to support national objectives.

For more information on the NSW assessment, selection and training pathways, visit https://www.sealswcc.com/.

Construction of Navy's New Frigate to Begin This Month, Admiral Says

An artist's rendering of the Constellation-class guided missile frigate. *U.S. NAVY*

ARLINGTON, Va. — Construction of the U.S. Navy's next-generation guided-missile frigate (FFG) is to take begin later this month, a Navy admiral said.

"[Regarding] the FFG 62 Constellation class, we're going to start bending metal later this month," said Rear Adm. Fred

Pyle, director, Surface Warfare Division in the Office of the Chief of Naval Operations, speaking Aug. 18 at the Surface Navy Association's Waterfront 2022 West Coast symposium. "That's a success story. This frigate is going to bring DDG-like capability. We need to build small surface combatants in numbers [and] get this fighting frigate to sea. So, we're excited about the Constellation-class frigate."

Three Constellation-class FFGs—Constellation (FFG 62), Congress (FFG 63), and Chesapeake (FFG 64) currently are on order. In June, the Navy exercised a contract option to order to build FFG 64 from Wisconsin-based Fincantieri Marinette Marine, the ship's builder.

The Marinette Marine shipyard is currently working on the detailed design for the future USS Constellation.

The Navy has a requirement for 20 frigates. Marinette Marine is now under contract for the first three FFGs with options for seven more.

The Constellation class FFG is based largely on the Italian FREMM frigate, but with a longer hull and features modified to meet U.S. Navy standards on reliability, survivability, maintainability, habitability and lethality. The 496-foot-long steel ship will displace 7,300 tons and have a beam of 64.6 feet and a draft of 18 feet. It will be powered by a combination diesel electric and gas turbine propulsion system.

The FFG will feature a Mk41 Vertical Launching System, canister-launched Naval Strike Missiles, Mk110 57 mm gun, RAM Mk49 launcher, CAPTAS-4 variable-depth sonar, TB-37 Multi-Function Towed Array, SQQ-89(V)16 undersea combat system, SLQ-25E Nixie, SLQ-32(V)6 SEWIP Block 2, SPY-6(V)3 FFG Radar, Aegis Baseline 10 combat system, one MH-60R helicopter, one MQ-8C, and two 7-meter rigid-hull inflatable boats. Delivery of Constellation is anticipated for 2026.

Marine Corps to Gain Three More CH-53K Helicopter Flight Simulators

Marine Corps aviators in the CH-53K Containerized Flight Training Device (CFTD) experience a highly immersive virtual environment allowing flight crews to train on the full scope of Marine Corps heavy lift missions, including external lift operations. *U.S. MARINE CORPS*

ORLANDO, Fla. – The United States Marine Corps will gain additional training opportunities preparing them to operate the Sikorsky CH-53K heavy lift helicopter, Lockheed Martin said in an Aug. 16 release. The aircraft is the most modern and powerful helicopter in Department of Defense inventory capable of moving troops and equipment from ship to shore, and

to higher altitude terrain, more quickly and effectively than ever before.

Lockheed Martin will provide an additional Containerized Flight Training Device (CFTD) to the U.S. Navy with options for three more under the terms of a recent contract award. This follows up on the success of the first training device delivered in 2020 to Marine Corps Air Station (MCAS) New River in Jacksonville, North Carolina.

“Marine pilots have smoothly transitioned from the training device to the actual CH-53K’s fly-by-wire cockpit and completed missions in the fleet environment – such as air-to-air refueling” said Flash Kinloch, Lockheed Martin, vice president of Training and Simulation Solutions. “Training in this highly immersive virtual environment permits flight crews to train the full scope of tasks that can be performed on the aircraft in a safe, cost effective and realistic manner.”

Flight crews will train on the full scope of Marine Corps heavy lift missions, including external lift operations, using the full-mission flight simulator that also replicates the various environmental conditions in which the aircraft is likely to fly. Through this new effort, Lockheed Martin is helping the Marine Corps expand proven and critical CH-53K Flight Training with training capability to more Marines.

The training devices include a full cockpit for the aircraft operated by a pilot and co-pilot, an instructor operating station as well as a brief/debrief room. The newest training devices will include upgrades that improve system performance, increase cost savings, and more closely align to the CH-53K aircraft for increased training realism.

The Marine Corps achieved Initial Operational Capability (IOC) for the CH-53K in April following a successful test period that resulted in over 3,000 mishap free hours flown in challenging environments and terrain.

The CH-53K CFTD provided the capability to train mission scenarios which were then completed during Initial Operational Test & Evaluation (IOT&E). They include:

- Day and night air-to-air refueling
- Air-to-air refueling with 27,000 lb. external load
- Sea trials with over 350 landings
- Operation in Degraded Visual Environments

AeroVironment Acquires Navigation Solutions Provider Planck Aerosystems

Planck Aerosystems' advanced flight autonomy and navigation solutions will be deployed and integrated with AeroVironment's existing portfolio of intelligent, multi-domain robotic systems, such as JUMP 20 medium unmanned aircraft systems. *AeroVironment Inc.*

ARLINGTON, Va. – AeroVironment Inc. has acquired Planck Aerosystems Inc., a leading provider of advanced unmanned aircraft navigation solutions, Aerovironment said in an Aug. 17 release. The acquisition will significantly accelerate AeroVironment's development of advanced autonomy capabilities.

Founded in 2014, Planck has worked closely with customers from the U.S. Department of Defense, security agencies, allied governments and offshore industrials to develop customer-centric unmanned aircraft solutions. Planck's products include embedded technologies and fully integrated unmanned aircraft systems (UAS) and leverage their deep technical expertise in UAS guidance and navigation, autonomy and artificial

intelligence.

Planck is a small technology company based in San Diego, California and will be acquired by AeroVironment's Petaluma-based medium unmanned aircraft systems (MUAS) business segment to focus on integrating its flight autonomy solutions, such as ACE (Autonomous Control Engine), into AeroVironment's offerings to enable safe, autonomous takeoff and landing from moving platforms on land or at sea in GPS-denied environments. Other solutions include AVEM, a fully integrated mobile tethered sensor platform designed for persistent autonomous operation from moving vehicles and vessels in any environment, and a suite of machine-learning object detection and tracking systems that are customized for specific end-user needs.

"Planck has a compelling product and technology roadmap with valuable capabilities that we plan to deploy and integrate with AeroVironment's existing portfolio of intelligent, multi-domain robotic systems," said Wahid Nawabi, AeroVironment chairman, president and chief executive officer. "The Planck team has developed advanced unmanned autonomy and navigation solutions for various defense and commercial customers and by working together, we believe we offer more compelling and differentiated solutions to our customers moving forward."

"This transaction accelerates AeroVironment's innovation in flight autonomy, increasing the effectiveness of our solutions in contested environments and reducing the cognitive load of operators, and adds a tethered SUAS to our portfolio of systems, creating exciting opportunities for upcoming programs of record," Nawabi added.

"AeroVironment's heritage of creating innovative solutions to meet customer needs is an ideal fit for the Planck team," said Josh Wells, Planck chief executive officer. "We couldn't be more excited about joining forces with AeroVironment to deliver innovative, multi-domain unmanned systems to the next generation of U.S. and allied warfighters. AeroVironment's

reach, technical capabilities and portfolio of unmanned systems will enable the Planck team to scale our products to more customers, and to provide better solutions in less time.”

Canaccord Genuity served as the exclusive financial advisor to Planck Aerosystems, Inc. in connection with the transaction.

U.S. Navy’s Military Sealift Command Conducts Maintenance in India

The Lewis and Clark-class dry cargo ship USNS Charles Drew (T-

AKE 10) moors pier side in L&T Shipyard in Kattupalli, near Chennai, India, Aug. 7, 2022 for scheduled maintenance. As part of Military Sealift Command's Combat Logistics Force (CLF), Charles Drew enables U.S. Navy ships to remain at sea and combat ready for extended periods of time. *Joel Garcia*
CHENNAI, INDIA – Military Sealift Command's (MSC's) Lewis and Clark-class dry cargo ship USNS Charles Drew (T-AKE 10) conducted maintenance at Larsen & Toubro Ltd, commonly known as L&T shipyard, in Kattupalli near Chennai, India, Aug. 7-17, MSC Far East Public Affairs Spokeswoman said in a release.

"India's initiative to offer logistics, repairs, and refits to the U.S. ships assumes special significance in furthering the strategic partnership between India and the United States, thereby promoting harmony in South Asia under the Indo-Pacific initiative," said Dr. Ajay Kumar, defense secretary of India.

Both Secretary of Defense Lloyd Austin and U.S. Secretary of State Antony Blinken expressed their intent to conduct maintenance in India during the U.S.-India 2+2 Ministerial Dialogue in April.

"This inaugural repair of a United States naval ship, the Charles Drew, conducted by the L&T Kattupalli shipyard, is a landmark development to be celebrated as a symbol of our strengthened U.S.-India partnership," said Judith Ravin, U.S. Consul General in Chennai.

"Today marks another step forward in Indian and American maritime cooperation. Our shipping industries positively contribute to a free and open Indo-Pacific by partnering to deliver effective, efficient, and economical repair of military vessels We look forward to seeing the outcomes of this endeavor and where our partnership may go in the future," said Defense Attaché at the U.S. Embassy at New Delhi Rear Adm. Michael Baker, when the ship first arrived in India.

Routine maintenance conducted aboard Charles Drew in India included repairs to safety and crew habitability systems and equipment.

“We appreciated the opportunity to complete this maintenance in India which will ensure we are ready for any tasking,” said Charles Drew’s Third Officer Anna Lewis, who serves as the ship’s navigator and operations officer.

Charles Drew is one of the many ships that are part of the U.S. Navy’s MSC’s Combat Logistics Force (CLF). CLF are the supply lines to U.S. Navy ships while at sea. These ships provide virtually everything Navy ships need including fuel, food, fleet ordnance, dry cargo, spare parts, mail, and other supplies.

CLF ships enable the Navy fleet to remain at sea and combat ready for extended periods of time. In addition to U.S. Navy ships, CLF ships also resupply international partners and allies operating in the Indo-Pacific Region.

MSC Far East ensures approximately 50 ships in the Indo-Pacific Region are manned, trained, and equipped to deliver essential supplies, fuel, cargo, and equipment to warfighters, both at sea and on shore. Under Commander, U.S. Pacific Fleet, 7th Fleet is the U.S. Navy’s largest forward-deployed numbered fleet and routinely interacts and operates with 35 maritime nations in preserving a free and open Indo-Pacific Region.

Navy Contracts MQ-9 Reapers

for Marine Corps, Extending Range for Future Operations

The MQ-9 Reaper provides Marines with a long-range intelligence, surveillance and reconnaissance capability in support of expeditionary advanced based operations, littoral operations in contested environments, and maritime domain awareness. *U.S. MARINE CORPS*

PATUXENT RIVER, Md. – The U.S. Navy recently awarded a $135.8 million contract to General Atomics Aeronautical Systems Inc. (GA-ASI) for eight MQ-9A Extended Range (ER) Unmanned Aircraft Systems that are scheduled for delivery to the Marine Corps in late 2023, the Naval Air Systems Command said in a release.

MQ-9A ER will provide a large scale, long-range intelligence, surveillance and reconnaissance capability for the Marine Expeditionary Force. It is designed to extend the aircraft's

endurance to more than 30 hours and equipped with triple redundant avionics architecture.

As part of the Marine Corps Force Design 2030 efforts, the Marines plan to transition Unmanned Aerial Vehicle Squadron (VMU) 3 located at Kaneohe Bay, Hawaii to MQ-9A operations. VMU-3 will utilize the MQ-9A ERs to support training for the Marine Littoral Regiment.

The Multi-Mission Tactical UAS program office (PMA-266), who manages the Marines MQ-9 program, used the Air Force's Agile Reaper Enterprise Solution (ARES) to award the contract. ARES is a five-year fixed indefinite delivery/indefinite quantity (ID/IQ) contract.

"Our team has ensured the development and fielding of a new combat capability, critical for the Marine Corps Force Design (FD) 2030 vision, at an exceptional speed," said Capt. Dennis Monagle, PMA-266 program manager.

Since the program's inception in 2018, PMA-266 has leveraged Air Force investments and contracting solutions to procure MQ-9, ultimately accelerating the fielding time. By tailoring and streamlining the typical acquisition strategy, the MQ-9 program commenced post-Milestone C, eliminating three to five years of traditional acquisition efforts.

"We closely aligned with the USAF MQ-9 System Program Office (SPO), National Guard Bureau, Marine Corps stakeholders, as well as our vendor teams in order to develop and integrate as quickly as possible," Monagle said.

The first two MQ-9 aircraft were delivered in 2019 to Marine Unmanned Air Vehicle Squadron (VMU) 1 and since then have flown over 15,000 operational flight hours. The program continues to develop new, unique payloads and capabilities to meet future requirements for Force Design 2030. These payloads include the Detect and Avoid System (DAAS), a Proliferated Low Earth Orbit (PLEO) satellite system, an airborne network

extension payload (Sky Tower), and an electronic warfare payload.

The MQ-9A and associated payloads will provide the Marines with organic network extension and intelligence, surveillance, reconnaissance, and targeting (ISR-T) in support of expeditionary advanced based operations, littoral operations in contested environments, and maritime domain awareness.

Silver Ships Delivers Marine Hydrographic Survey Vessel to U.S. Army Corps of Engineers

Silver Ships Inc. Press Release

MOBILE, Ala. – Silver Ships Inc. has delivered the largest

marine surveying vessel of its series, designed for the U.S. Army Corps of Engineers, to the Corps' Venice Sub Office in Venice, Louisiana, the company said in an Aug. 16 release. The 49-foot marine surveying vessel, Tobin, is the latest expansion in Silver Ships' Endeavor series of workboats.

Tobin is custom designed for the U.S. Army Corps of Engineers to hydrographically map the mouth of the Mississippi River. This mission-specific vessel will allow researchers to accurately and effectively obtain and document data on the rapidly changing waters in the Mississippi River. With the intent of keeping waterways open and preventing obstructions to marine navigation, Tobin is equipped to handle challenging river terrain. The custom vessel will conduct condition surveys of the river to further the safety of marine operations.

"Tobin will join a fleet of vessels operating out of the USACE Venice Sub Office that works year-round to provide river condition data to vessel operators," says Jason Powers, Director of Business Development for Silver Ships. "This data is essential to the safe and efficient transportation of goods up and down the Mississippi River."

The vessel is powered by twin Caterpillar C18 Tier 3 engines making 800 hp each to reach optimal speeds resulting in the prevention of research delays, which is important considering the frequent changes in Mississippi River conditions. The single Caterpillar C2.2 Tier 3 Genset provides 25 ekW of electric power for Tobin's air conditioning, echo sounder and other electrical needs onboard.

"Thompson CAT is proud to partner with Silver Ships for their power needs," says Richard Tremayne, Thompson's marine business manager. "Together our engineering teams have designed and built significant boats like Tobin over many years. High-performance power installations are always fun puzzles to solve with talented companies like the Silver Ships

team.”

Tobin operates with enhanced features such as the MGX5136RV Twin Disc marine gears, Michigan Wheel propellers, Furuno navigation and communication systems, Delta ‘T’ Systems engine room ventilation, Arid Bilge Series 4 system and Ayres paneling.

With speeds that reach 28 knots, the surveying vessel allows researchers to acquire data quickly and prevent inconsistencies caused by changes in the river bottom. Additionally, Tobin is equipped with state-of-the-art technology including the EchoTrac, E-20 survey system which is the key component that allows the vessel to take survey measurements. The E-20 uses a single-beam transducer that charts river depths and monitors water changes that could be potentially hazardous to marine navigation.

This vessel’s name honors Thomas G. Tobin who worked for the U.S. Army Corps of Engineers New Orleans District for more than 30 years. As a capable engineer and brilliant programmer, Tobin developed systems that automated the processing and mapping of daily navigation condition surveys collected. He was a part of the Engineering Division Channel Improvement team and he achieved success with their automated design functions that ensure successful operations of the Mississippi River. Mr. Tobin passed away in February 2016, at the age of 54, after a courageous battle with cancer. Mr. Tobin dedicated his skills to the Corps mission and made a broad, lasting, and meaningful impact on the entire district and the citizens of south Louisiana.

USS Bulkeley, Latest FDNF-E ship, Arrives in New Homeport Rota, Spain

The Arleigh Burke-class guided-missile destroyer USS Bulkeley (DDG 84) pulls into port at Naval Station (NAVSTA) Rota, Spain after completing a homeport shift, Aug. 17, 2022. *U.S. NAVY / Mass Communication Specialist 2nd Class Jacob Owen*

NAVAL STATION ROTA, Spain – The Arleigh Burke-class guided-missile destroyer USS Bulkeley (DDG 84) arrived in its new homeport, Naval Station Rota, Spain, as the U.S. Navy's last Forward Deployed Naval Forces–Europe (FDNF-E) destroyer scheduled to shift its homeport to Rota, Spain, Aug. 17, 2022, the ship's public affairs office said in a release.

Prior to arriving in Rota, Bulkeley visited Las Palmas, Spain, for a scheduled port visit. The visit marked Bulkeley's

arrival in the U.S. Naval Forces Europe-Africa (NAVEUR-NAVAF) area of operations and is the first port stop since the ship departed Naval Station Norfolk, Aug. 4, as part of the U.S. Navy's long-range plan to rotate the Rota-based destroyers of the Forward Deployed Naval Forces-Europe (FDNF-E) force.

"I could not be more proud of the crew," said Cmdr. Arturo Trejo, Bulkeley's executive officer. "The massive effort it takes to conduct a homeport shift is a representation of the hard work and brilliance everyday Americans and our allies do on a daily basis."

Arriving in a new homeport also brings unique opportunities to the Bulkeley crew.

"The crew of Bulkeley is happy to arrive in our new home, and we are looking forward to a continued partnership with our host nation, Spain, as well as continuing to foster the strong relationship with our NATO allies," said the ship's Command Master Chief Jeremiah Hoyt. "We'll have a few days to settle in, but we are ready to get back out and operate in the most dynamic environment in the U.S. Navy's surface fleet."

Earlier this year, USS Paul Ignatius (DDG 117), another FDNF-E ship, shifted its homeport to Rota, Spain. With Paul Ignatius and Bulkeley's arrival, fellow destroyers USS Porter (DDG 78) and USS Ross (DDG 71) will conclude their time stationed in Rota, heading back to the continental United States for their own home port shifts later this fall. These shifts mark the final scheduled homeport shifts in the long-planned FDNF-E rotation. These FDNF-E ships have the flexibility to operate throughout the waters of Europe and Africa, from the Cape of Good Hope to the Arctic Circle, demonstrating their mastery of the maritime domain.

"The Wolfpack aboard USS Bulkeley is excited to finally be joining our allies as part of Forward Deployed Naval Forces – Europe," said Capt. Mac Harkin, Bulkeley's commanding officer.

“We are grateful to our Spanish partners for welcoming us to Rota.”

Bulkeley will operate under Commander, Task Force 65 and Destroyer Squadron 60 in support of NATO’s Integrated Air Missile Defense architecture. These FDNF-E ships have the flexibility to operate throughout the waters of Europe and Africa, from the Cape of Good Hope to the Arctic Circle, demonstrating their mastery of the maritime domain.

Commissioned on Dec. 8, 2001, the ship is named in honor of Medal of Honor recipient Rear Adm. John Duncan Bulkeley, whose 55 years of naval service included action in both the Pacific and Atlantic theaters during World War II and the Korean War. Bulkeley was awarded the Medal of Honor for his actions as commander of Motor Torpedo Boat Squadron 3 in Philippine waters from December 7, 1941, to April 10, 1942. He died on April 6, 1996, and is buried at Arlington National Cemetery.