Navy Awards Advance Acquisition for Low-Rate Initial Production of MQ-25

A Boeing unmanned MQ-25 aircraft is given operating directions on the flight deck aboard the aircraft carrier USS George H.W. Bush (CVN 77). *U.S. NAVY / Mass Communication Specialist 3rd Class Hillary Becke*

ARLINGTON, Va. – The U.S. Navy has awarded Boeing a contract for advanced acquisition of the MQ-25A Stingray aerial refueling unmanned aerial vehicle.

The Naval Air Systems Command awarded Boeing a $47.5 million "firm-fixed-price advance acquisition contract for the production and delivery of MQ-25 Stingray low-rate initial production lot 1 for the U.S. Navy," a Sept. 28 Defense Department contract announcement said.

Boeing was selected Aug. 30, 2018, for the design, development, fabrication, testing, delivery and support of four MQ-25As, followed in April 2020 with an order for three more, according to the Navy's program office. The MQ-25 test asset, known as T1, made its first flight Sept. 19, 2019. In summer 2021, the MQ-25 T1 test asset successfully refueled three different carrier-based aircraft: F/A-18F, F-35C and E-2D aircraft in 2021. The Unmanned Carrier Aviation Demonstration was conducted in December 2021 on board the USS George H.W. Bush (CVN 77). This event marked the first time the MQ-25 T1 test asset was tested aboard an aircraft carrier.

The MQ-25 will leverage existing line-of-sight and beyond-line-of-sight communications links and interface with existing ship- and land-based command and control systems.MQ-25 will be an integral part of the future carrier air wing, increasing the mission effectiveness range with its enhanced refueling capabilities and increasing the number of F/A-18E/Fs available for the strike fighter mission by relieving them of the tanking role. The MQ-25 will also pioneer manned-unmanned teaming and pave the way for future unmanned systems to pace emerging threats.

The MQ-25 Stingray is designed to deliver a robust aerial refueling capability and secondary intelligence, surveillance and reconnaissance capability that extend the range and operational capability of the carrier air wing and carrier strike group, according to the Navy's program office. The MQ-25 will leverage existing line-of-sight and beyond-line-of-sight communications links and interface with existing ship- and land-based command and control systems.

The MQ-25A is scheduled to achieve initial operational capability in 2025. It is anticipated that 72 air vehicles will be procured.

Work under this contract is expected to be completed in

September 2026.

Gerald R. Ford to Deploy at Last, With Slightly Reduced Air Wing

Sailors assigned to the first-in-class aircraft carrier USS Gerald R. Ford (CVN 78) and the “Tridents” of Helicopter Sea Combat Squadron (HSC) 9 conduct an ammunition onload, Sept. 25, 2022. *U.S. NAVY / Mass Communication Specialist 1st Class William Spears*

ARLINGTON, Va. — The lead ship U.S. Navy’s newest class of nuclear-powered aircraft carrier, USS Gerald Ford (CVN 78), will depart Norfolk, Virginia, next week on its first major deployment. The carrier is scheduled to deploy next year in

support of regional combatant commanders.

The Ford is making what the Navy calls a “service-retained” deployment, meaning it is operating by the authority of the chief of naval operations under command and control of the U.S. 2nd Fleet, rather than under the command and control control of a regional combatant commander under the Global Force Management Concept.

Vice Adm. Daniel Dwyer, commander of the U.S. 2nd Fleet, said Carrier Strike Group 12 (CSG 12), of which the Ford is a part, will range throughout the Atlantic Ocean operating with navies of allied and partner nations.

Dwyer, speaking to reporters Sept. 26, said the deployment would provide the Ford CSG commander “a chance to test the carrier’s air operability prior to embarking on its first Global Force Management deployment next year. This historic service-retained deployment is an opportunity for the U.S. Navy to come together with other members of the NATO Alliance to exercise and train together within the Atlantic and its littorals while testing out advanced technologies on the first new class of U.S. aircraft carrier in more than 40 years.”

CSG-12 and Destroyer Squadron Two staffs will be embarked in the Ford, as will Carrier Air Wing Eight. Deploying with the group will be Ticonderoga-class guided-missile cruiser USS Normandy (CG 60); the Arleigh Burke-class guided-missile destroyers USS Ramage (DDG 61), USS McFaul (DDG 74), and USS Thomas Hudner (DDG 116); the Legend-class national security cutter USCGC Hamilton (WMSL 753); the Henry J. Kaiser-class fleet replenishment oiler USNS Joshua Humphpries (T-AO 188), and the Lewis and Clark-class dry cargo and ammunition ship USNS Robert E. Peary (T-AKE 5).

Units from eight allied and partner nations that will operate with the CSG and include ships from Canada, Denmark, Finland, France, Germany, The Netherlands, Spain and Sweden. The CSG

includes 17 ships and one submarine.

While deployed, the Ford CSG will conduct group steaming, air-defense exercises, maritime domain awareness, long-range maritime strike, distributed maritime operations, antisubmarine warfare exercises and naval integration, Dwyer said.

“Innovation and interoperability are the key focal points of this deployment,” Dwyer said. “And we will work together with allies and partner nations to strengthen our collective defense of the Atlantic by maturing our integration for future maritime operations.”

All eight squadrons of Carrier Air Wing Eight will be onboard for the deployment but some will not be at full strength in terms of numbers of aircraft.

“It won’t be the full complement, but it will be nearly the entire air wing,” Dwyer said. “And that is not because of any lack of capacity aboard Ford, but only where the air wing is in the Global Force Management process. We’re still sizing the numbers, but it will be a fairly full air wing, but not the complete air wing.”

New Technology

The Ford, commissioned in 2017, is deploying with 43 new technologies, including the Electro-Magnetic Aircraft Launch System, and the Advanced Arresting Gear.

The Ford’s commanding officer, Capt. Paul Lanzilotta, said in a Sept. 29 interview that all systems have been tested and are ready to go, and some will go through further operational testing.

Lanzilotta, a native on Long Island, New York, is an E-2 Hawkeye naval flight officer. He said the Ford has “incredible network connectivity.”

Several Ford crew members were made available for interviews on Sept. 29 pierside in Norfolk.

Chief Machinist's Mate (select) Kera Archambeault, who accrued two previous deployments on the Nimitz-class aircraft carrier USS Carl Vinson (CVN 70), said the Ford has better amenities for the crew, "like all spaces having better air conditioning, the food is really good, the gallies are really open to bring everyone together."

"We're very by the book here," said Boatswain's Mate Second Class Patrick Schlosser, for whom this will be his first deployment, asked about the ease of maintenance on a new ship. "There are a lot of new systems – this is the biggest, the baddest, the newest ship in the fleet – there are a lot of learning curves that we have to get across. We are able to conduct and do what we need to do regularly with a relative amount of ease and we're pretty efficient at it. … This crew is ready for anything that comes at us. Everybody would overcome any obstacle that they deal with as far as maintenance goes and any equipment that we deal with."

USS Zumwalt Operates with 7th Fleet for the First Time

USS Zumwalt (DDG 1000) approaches the Gov. William Preston Lane Memorial Bridge, also known as the Chesapeake Bay Bridge, as the ship travels to its new home port of San Diego, California, in 2016. *U.S. NAVY / Liz Wolter*

ARLINGTON, Va. — The guided-missile destroyer USS Zumwalt (DDG 1000) is operating under the command of the U.S. 7th Fleet for the first time, according to a Navy release.

The Zumwalt completed its first port call in Guam on Sept. 19, according to Commander, Task Force 71/Destroyer Squadron 15 Public Affairs. This "marks the farthest it's ever been from its home port of Naval Base San Diego since its commissioning," the squadron's release said.

While in the region, the Zumwalt is assigned to Task Force 71/Destroyer Squadron 15, the 7th fleet's principal surface force.

The Zumwalt is the lead ship of a three-ship class of DDGs, two of which have been commissioned and one is still under construction. All three are or will be assigned to Surface

Development Squadron One in San Diego.

The Zumwalt class has been selected to be the initial platform for the Navy's Conventional Prompt Strike capability. The ships' Advanced Gun Systems will be removed to make way for Large Missile Vertical Launch Systems to handle hypersonic missiles because the ship's existing Mk57 launchers for its Standard and Tomahawk missiles are too small to accommodate the CPS missile.

The Zumwalt will be the first ship to receive the modifications. The Navy's Supervisor of Shipbuilding, Conversion, and Repair, Bath, Maine, awarded General Dynamics Bath Iron Works a $20 million cost-plus-fixed-fee contract modification "for procurement of long-lead time material for the Large Missile Vertical Launch System [LMVLS] launch module fabrication on DDG 1000," an Aug. 18 Defense Department contract announcement said. Work is expected to be completed by June 2024.

The Navy plans to field the Conventional Prompt Strike capability on the Zumwalt in 2025. The Conventional Prompt Strike capability will be fielded later in the decade on the Block V version of the Virginia-class attack submarine.

The Zumwalt is commanded by Capt. Amy McInnis.

CNO: Navy Needs to Maintain the Lead on Ship Design

An artist’s conception of the future USS Constellation (FFG 62). *FINCANTIERI MARINETTE MARINE*

ARLINGTON, Va. — The chief of naval operations praised the trend of the Navy leading the teams developing its ship designs in a recent interview, citing a recent success, and looking forward to more with the next-generation frigate and destroyer designs.

“We’re learning a lot, as we can see with FFG [the FFG 62 Constellation-class frigate program],” said Adm. Michael Gilday, speaking in a Sept. 14 interview with Deputy Editor Bradley Peniston during Defense One’s State of Defense webinar, commenting on the subject of the Navy’s DDG(X) next-generation destroyer program.

“We’re beginning to make progress on that first ship [FFG 62],” Gilday said.

“I think it’s important that the Navy maintain the lead on design,” he said. “So, what we’ve done with DDG(X) is we’ve brought in the private shipbuilders so that they can help inform the effort. So, it’s a team, but it’s Navy-led. So, both of the companies that produce DDGs are involved in that initial design. Our intent is to go into build with a mature

design. So, that would mean at more than the 80% complete point when we actually start bending metal.

“We have seen great success of that, with Columbia [-class ballistic-missile submarine] as an example, where we were at more than 80% design that we began that first hull,” Gilday said.

“So that’s going to be something that we’re going to play close attention to, because it actually drives down technical risk,” he said. “Technical risk has been a challenge for us, whether it has been Zumwalt [DDG 1000], LCS [littoral combat ship] or Ford [aircraft carrier] in particular. [With] those three builds, we have accepted technical risk, and it has cost us in terms of keeping those ships not only on budget but also on schedule.”

The CNO said the design plan for DDG(X) will be to migrate the Arleigh Burke-class DDG combat systems to the larger-hull DDG(X), much as with the successful migration of the combat systems of the Ticonderoga-class guided-missile cruiser to the Arleigh Burke in the late 1980s. He said the DDG(X) also will have increased space, weight, and power to handle future capability growth over time, possibly to include hypersonic missiles, which require larger launchers than the current Mk41 and MK75 vertical launching systems.

Navy, Marine Corps Set to Reach 2022 Recruiting Goal,

Raven Says

A U.S. Marine Corps drill instructor with Lima Company, 3rd Recruit Training Battalion, introduces himself to new recruits on Marine Corps Recruit Depot Parris Island, S.C., Sept. 2. *U.S. MARINE CORPS / Lance Cpl. Bradley Williams*

ARLINGTON, Va. — As fiscal 2022 approaches its close, the Navy and Marine Corps are set to reach their recruiting goals, the Navy Department's undersecretary said. But the department is not resting, looking ahead to future years to sustained campaigning in the face of demographic challenges.

"The latest information that I have is that both the Navy and Marine Corps are set to meet their targets for this year," said Erik Raven, undersecretary of the Navy, speaking Sept. 7 at the Defense News Conference in Arlington.

"We are looking very carefully at what the next fiscal year — 2023 — will mean," Raven said. "There are some challenges there. Secretary [of the Navy Carlos] Del Toro has directed that we have an organized campaign to make sure that we are able to meet our recruiting goals, not just in '22 but in '23 and beyond. That means keeping very close track. I've made some really good friends at the recruiting commands because we're talking almost all the time about where we are on our

numbers, what we're hearing from recruiting stations across the nation. I've talked with recruiters and understand the headwinds that they're facing."

Raven said the headwinds involve several issues.

"When unemployment is low, recruiting is more challenging," he said. "We're also seeing the propensity of Americans to serve — and the ability to serve — has been declining over time.

"We really to engage with the public in a new way to help explain what the value of military service is to our nation, not just as a Navy and Marine Corps equity, but in terms of the career opportunities young people can pursue, what the compensation benefits of military service are, and what we can provide for, not just a career in the military, but outside the military," he said.

"We're pulling out all the stops to be able to do that, and a lot of this will also be engaging with schools," he said. "We need to make sure that our recruiters have access to schools, to just have that conversation and offer up opportunities to young Americans who may be looking at their options as they graduate."

Also speaking at the conference was Gen. Eric Smith, assistant commandant of the Marine Corps, who was asked by an attendee what keeps him up at night.

"As a father of a Marine, what keeps me up at night is people and recruiting," Smith said. "We are at a point now where recruiting is a challenge and I think we are all collectively not doing a good enough job of explaining the virtue and value of military service. … Military service is not just a good thing. It is an honorable thing.

"There's this narrative out there that you come in, you're going to leave broken, you're going to leave damaged," the general said. "A small percentage, yes. We put our lives on

the line, as you know for certain, when we go to war. But in the main, you come in, and you leave four to 35 years later, with a skill that you didn't have. What keeps me up at night is trying to remind people, is that we are warfighters, we bring lethality, that's what we do: we defend the Constitution. … the value of military service is that you defend your Constitution, defend your nation, gain a skill, and return to civil society as, hopefully, a better person than we found you.

"But that narrative seems to be getting lost, and that concerns me, because we do have to recruit and retain our people, because people are the most valuable thing," he said. "That's who fight and win wars. Machines don't do that; it's people."

First Steel Cut for Navy's Constellation-Class Frigate

An artist’s conception of the future USS Constellation. *FINCANTIERI MARINETTE MARINE*

ARLINGTON, Va. — The construction of the U.S. Navy’s next class of guided-missile frigates officially began Aug. 31 with the first steel for the ship cut in a small ceremony at the Fincantieri Marinette Marine Shipyard in Marinette, Wisconsin.

The future USS Constellation (FFG 62) will be the lead ship of a class of at least 20 frigates and is slated for delivery in 2026. The hull of the frigate will be based on the Italian FREMM-class frigate and will be equipped with proven weapons and combat systems.

“There is no doubt that the future USS Constellation and the 19 follow-on ships will bring an out-sized punch to surface warfare patrols with our cruisers, destroyers and littoral combat ships as well as with our allied and partner navies,” said Tommy Ross, performing the duties of the assistant secretary of the Navy for Research, Development and Acquisition, speaking to reporters in an Aug. 29 roundtable at the Pentagon. “We need the capabilities these ships will bring now, and we will need them for decades.”

Ross said the frigate program “reflects many hard lessons learned in proven shipbuilding practices, mature designs in combat systems such as Aegis Baseline 10 to modern life-cycle improvements like land-based testing, conditions-based maintenance, and a fully cyber-resilient architecture. The supporting infrastructure also is well developed.”

The production go-ahead was given by Capt. Kevin Smith, the FFG 62 program manager, after completion of the critical design review in May and the production readiness review in July, said Rear Adm. Casey Moton, program executive officer for Unmanned and Small Combatants.

“We’re excited to begin production,” Moton said.

The admiral said the FFG program strove to reduce risk by using a proven parent design for the hull and non-developmental systems and government program-of-record combat and C4I (command, control, communications, computers and intelligence) systems.

Ross said getting the first ship “up and going” and getting the builder’s shipyard “up in cadence” is step one in building the class of 20 frigates.

“We are in a good place to meet the requirements we have in coming years,” he said.

The Navy has the option of building more than the current program of 20 frigates but is not ready to move on that option, which Moton said would depend on requirements, industrial capacity, and the budget topline.

The admiral stressed that the FFG 62 program is a team effort of the PEO, Fincantieri Marinette Marine, and Gibbs & Cox, which produced the 3D model digital design of the ship. He said the design team met and exceeded the goal of 80% completion at construction start.

The Constellation will be a multi-mission warship that Ross said “gives commanders a lot more options.”

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 FFG 64. Marinette Marine is now under contract for those first three FFGs with options for seven more.

Although based on the FREMM frigate, the Constellation will have 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 unmanned aerial vehicle, and two 7-meter rigid-hull inflatable boats. Delivery of Constellation is anticipated for 2026.

Smith said the ship was equipped to operate two MH-60Rs or two MQ-8C unmanned aerial vehicles if needed.

The CAPTAS-4 variable-depth sonar (VDS) was selected to replace the Raytheon DART VDS, which was developed for the littoral combat ship’s anti-submarine warfare mission package and which Moton said had some “technical challenges principally in hydrodynamics and transducers.”

Moton made the VDS decision in concert with the shipbuilder and noted the CAPTAS-4 was “pretty close in cost” with the DART VDS.

NAVAIR Orders 12 More MH-60R Helicopters for Australia

Boatswain's Mate Seaman Maria Torres signals to an MH-60R Sea Hawk helicopter attached to Helicopter Maritime Strike Squadron (HSM) 48, during flight operations aboard the guided-missile destroyer USS Nitze (DDG 94) in the Gulf of Aden Aug. 30. *U.S. NAVY / Mass Communication Specialist 2nd Class Cryton Vandiesal*

ARLINGTON, Va. – The U.S. Navy has placed on order to Lockheed Martin to procure 12 more MH-60R Seahawk helicopters for the Australian government.

The Naval Air Systems Command has awarded Lockheed Martin

Corp. a $503.7 million firm-fixed-price order for the production and delivery of the 12 MH-60Rs for the Commonwealth of Australia, an Aug. 29 Defense Department contract announcement said. Work on the order is expected to be completed by October 2026.

The sale was approved in October 2021 by the U.S. State Department. The entire sale, including the helicopters, engines, mission systems, guns, spare parts, technical documentation, logistics support and other items was then estimated to total $985 million.

Australia previously ordered 24 MH-60Rs, the last of which was delivered to the Royal Australian Navy in July 2016. One of these was lost in a mishap in the Philippine Sea in October 2021.

The Royal Australian Navy uses its MH-60Rs to perform anti-surface, antisubmarine warfare vertical replenishment, search and rescue, and communications relay missions.

In addition to the U.S. and Australian navies, the MH-60R is operated by or on order for the Royal Danish Air Force, the Royal Saudi Navy, the Republic of Korea Navy, the Indian Navy and the Hellenic Navy.

CNO: U.S. Navy Brings to Bear ‘Global Maneuverability’

The Chief of Naval Operations, Adm. Michael Gilday, second from right, visits Patrol Squadron Nine in Keflavik, Iceland, in June. *U.S. NAVY / Lt. Joseph Reed*

WASHINGTON – The chief of naval operations said the U.S. Navy's forward presence and ability to move its forces, including its headquarter staffs, rapidly to an area where it is needed demonstrates its value to the maritime security of the nation and the world.

"Do we have enough fleet headquarters to go around? One could argue that we don't," said CNO Adm. Michael Gilday, speaking on his Navigation Plan for the Navy Aug. 25 at The Heritage Foundation, responding to a question about the way the Navy's numbered fleets are distributed around the world to respond to the actions of China and the need for the Navy to increase its operations in the Arctic. "One of the great things the Navy brings to bear – our headquarters included – is global maneuverability."

Gilday said his top regional focus is on the Pacific and the Atlantic, with the Indian Ocean "being a close third."

The admiral said “in terms of opportunities of the future, we absolutely have to look at the Arctic. As the ice cap continues to recede, think about trade routes in the next 25 years between Europe and Asia: fundamentally changing.”

He pointed out NATO member Iceland is typically thought of in a trans-Atlantic fashion.

“Think about it in a trans-polar fashion,” he said. “We need to think about that area much more deeply, particularly with both Finland and Sweden joining the alliance. I see opportunities in the high north that we need to continue to operate up there with allies and partners.”

Gilday pointed that Iceland has graciously allowed Navy P-8 maritime patrol aircraft operate rotationally from Iceland, which hosted a maritime patrol aircraft presence during the Cold War.

Regarding adding another numbered fleet, Gilday said he “would prefer to focus any monies I have on capabilities and more ships rather than more headquarters. What our Navy has done, as an example, with the newly formed U.S. 2nd Fleet out of Norfolk, is we’ve used them in an expeditionary manner. Their light, agile headquarters that has actually operated out of Iceland. They’ve travelled from Norfolk to operate on our command-and-control ship [the USS Mount Whitney] in the Mediterranean and in the high north up by Norway. They [also] have gone down to North Carolina and operated with the Marine Corps.”

Navy Ready to Christen New Overlord USV ‘Mariner’

The Navy’s newest medium unmanned surface vessel, soon to be christened Mariner, on display at the U.S. Naval Academy in Annapolis. *RICHARD R. BURGESS*

ANNAPOLIS, Md. — The U.S. Navy’s newest Overlord medium unmanned surface vessel (MUSV) is moored at the U.S. Naval Academy in Annapolis, Maryland, for its Aug. 23 christening ceremony after a period of tours by dignitaries, Navy officials, academy midshipmen and media reporters.

The MUSV, produced by prime contractor Leidos, with Gulf Craft of Franklin, Louisiana, as the builder, is to be christened “Mariner” by Stacy Small, wife of Capt. Pete Small, program manager for Unmanned Maritime Systems in the Program Executive Office, Unmanned and Small Combatants (PEO-USC).

The Mariner is the fourth Overlord MUSV to be acquired by the Navy, although the third vessel, Vanguard, is still under construction. The first two Overlord MUSVs, Ranger and Nomad, were built under the Strategic Capabilities Office's Ghost Fleet Overlord Program and transferred to the Navy early in 2022. They are assigned to Unmanned Surface Vessel Division One in San Diego, California and participated in the Rim-of-the-Pacific Exercise off Hawaii this summer.

The Mariner, delivered to the Navy in March, recently completed a period at Little Creek, Virginia, for installation of some government-furnished equipment, said Brian Fitzpatrick, principal assistant program manager. Eventually it will be transferred to USV Division One via a transit of the Panama Canal.

Rear Adm. Casey Moton, program executive officer, PEO-USC, said the Overlord program is leveraging both at-sea and land-based testing. The at-sea testing is used to evaluate the performance of the MUSV in a corrosive salt-water environment.

Casey pointed out that each of the four Overlord vessels is different, with a variety of different hull, mechanical, and engineering systems and mission systems. Each MUSV also is evaluated with different mission systems that are changed out.

The Mariner, halfway built when the Navy bought it, is based on a fast supply vessel designed to service offshore oil rigs. The vessels are already significantly automated.

The MUSV is equipped with satellite communications; three radars of different bands; a mast-mounted electro-optical sensor, an electro-optical/infrared system camera system on six sides of the ship; Link 16; and several radios.

The Mariner, for example, can carry two 20-foot containers and four 40-foot containers on its aft section. The containers can

contain mission systems, spare parts, weapons and other systems.

The Mariner can accommodate a small crew – including two merchant marine captains – as needed while the technology and concepts of operation for the MUSVs are evaluated. Fitzpatrick showed reporters the "red button" at the bridge control panel that allows a captain to take control of the ship if needed.

The Mariner is powered by five 2,000-horsepower diesel engines that drive five water jets. The ship also is equipped with bow thrusters. The ship was built with two generators but a third was installed by the Navy to provide power for the expected needs of the payloads, some of which may be deployed on the ship with their own power and cooling systems.

Redundancy is necessary on an unmanned ship more than a manned ship, and for each of its diesel engines the Mariner is equipped with three oil filters instead of one.

'Pushing Boundaries'

The admiral said the Overlord vessels are designed to deploy in open oceans but declined to say they would be deployed to the Western Pacific, noting that the Ranger and Nomad deployed to Hawaii for RIMPAC.

Fitzpatrick said the Overlord MUSVs will need to be able to be refueled at sea, currently conducted by an onboard crew.

"We have to work through that," he said.

Fitzpatrick said the program is collecting massive amounts of data – 400 terabytes so far – and has started to process it.

Moton said the Overlord program will influence the discussion in Congress and the Navy on the value and operation of MUSVs and that the program will have an impact beyond the U.S. Navy into the international maritime market, including commercial operations.

The Vanguard will be longer than the Mariner – 205 feet vice 19 feet – with a wider beam and greater capacity for payloads. Fitzpatrick said the program is "purposely pushing boundaries" with the Vanguard.

Navy Taps BIW, Raytheon for Conventional Prompt Strike Work on Zumwalt DDGs

The Zumwalt-class guided-missile destroyer USS Michael Monsoor (DDG 1001) sails in formation during Rim of the Pacific (RIMPAC) 2022. *U.S. NAVY / Mass Communication Specialist 3rd Class Aleksandr Freutel*

ARLINGTON, Va. – As the U.S. Navy moves to deploy Conventional Prompt Strike missile systems on its three Zumwalt-class (DDG

1000) guided-missile destroyers, the service recently awarded two contracts to further that goal.

The Navy's Supervisor of Shipbuilding, Conversion, and Repair, Bath, Maine, has awarded General Dynamics Bath Iron Works a $20 million cost-plus-fixed-fee contract modification "for procurement of long-lead time material for the Large Missile Vertical Launch System [LMVLS] launch module fabrication on DDG 1000," an Aug. 18 Defense Department contract announcement said. Work is expected to be completed by June 2024.

Bath Iron Works is the prime contractor for the Zumwalt-class DDG. Raytheon is the contractor for the ship's Total Ship Computing Environment.

The Naval Sea Systems Command has awarded Raytheon an $11.2 million firm-fixed-price contract modification for "Total Ship Computing Environment Lab hardware for modernization/technical refresh and Conventional Prompt Strike to support DDG 1000-class combat system activation, sustainment and modernization," according to an Aug. 19 Defense Department contract announcement. Work is expected to be completed by November 2023.

The Navy plans to field the Conventional Prompt Strike capability on the USS Zumwalt in 2025 as the first platform for the new weapon. The LMVLS is needed because the ship's existing Mk57 launchers for its Standard and Tomahawk missiles are too small to accommodate the CPS missile.

The Conventional Prompt Strike capability will be fielded later in the decade on the Block V version of the Virginia-class attack submarine.