PEO-Ships: ‘No Shortage of Challenges’ in Shipbuilding, Sustainment

ARLINGTON, Va. — The admiral in charge of U.S. Navy shipbuilding said there is no shortage of challenges in building the fleet and keeping it in fighting condition.

Speaking at an Aug. 25 webinar conducted by the Navy League of the United States and sponsored by L3Harris Corp. and Tri-Tec, Rear Adm. Tom J. Anderson, program executive officer-ships, listed the top challenges the Navy faced in optimizing the procurement and sustainment of ships.

At the top of his list are the capacity and capability of the industrial base in a time of change.

“What do we have today, what do we need for tomorrow, and how do we efficiently and effectively transition between the two,” Anderson listed. “It’s not an easy process to change, and we need to do it mindfully.”

Shipyard workers watch last July as the upper bow unit of the future aircraft carrier USS John F. Kennedy is fitted to the primary structure of the ship at Huntington Ingalls Industries Newport News Shipbuilding. U.S. NAVY / Huntington Ingalls Industries by Matt Hildreth

Anderson for one mentioned the supply chain, noting that “any plans we have going forward need to take into account their health and avoid the whipsaw that we do … to provide stable work to the industrial base.”

Design technology maturity was the second concern that Anderson mentioned during the webinar.

“We need to use what’s on the shelf and figure how best to

apply to the requirements that we have," he said. "That's our fastest path to success. Where there is a requirement that can't be met today, we need to think through how we develop and mature it in a way that allows it to be produced efficiently without the need for going back and making significant changes while we are constructing [a ship]."

"For ships and ship systems which are a little unique, that can mean some form of land-based testing," he said. "How do we get the risk out of that platform before going into the production run and we get to that smooth and efficient production that we need?"

Timing of new starts in ship construction is another consideration, Anderson said, interspersed with stable production lines.

"We can't go change the entire force structure at one time," he said. "We don't have the capability, so what is our programmatic and production bandwidth for new starts? How much can we do concurrently? We need to take into account the expertise both in the Navy and in industry when it comes to new starts, and at the same time we need to account for transition between the production."

Anderson also stressed that stability in the Navy's shipbuilding plan is important, noting that "uncertainty has multiple negative impacts to cost and schedule."

"Significant production runs are more cost-effective in the acquisition of a vessel," he added. "We need to be looking at what the long game is with regard to when we determine we're going to build a platform, how long we're going to build it for. Efficiency comes as a result of repetition."

Also speaking in the webinar were Rear Adm. Eric Ver Hage, commander of the Regional Maintenance Centers, and director, surface ship maintenance and modernization, and John Rhatigan, chairman of the Maritime Machinists Association.

Bryan Clark, senior fellow at the Hudson Institute, served as moderator.

Three Mine Countermeasures Ships Set for Decommissioning

Special Warfare Boat Operator 1st Class Nick Fajardo, a member of the U.S. Navy Parachute Team, the Leap Frogs, comes in for a landing during the decommissioning ceremony of the mine countermeasure ship USS Champion on Aug. 18. U.S. NAVY / Mass Communication Specialist 3rd Class Kevin C. Leitner

ARLINGTON, Va. – The U.S. Navy will decommission three of its Avenger-class mine countermeasures ships over the next few days, commander, Naval Surface Force, U.S. Pacific Fleet (CNSFP) said in an August 20 release.

The USS Champion, the USS Scout and the USS Ardent officially will be decommissioned at Naval Base San Diego on Aug. 25, Aug. 26 and Aug. 27, respectively. Their retirements will leave eight MCMs remaining in service, forward deployed to Sasebo, Japan, and Manama, Bahrain. Ceremonies marking their retirements were held this week.

"Due to public health safety and restrictions of large public events related to the novel coronavirus … pandemic, the ceremonies were virtually celebrated with ship plank owners and former crew members," according to CNSFP.

The 14 Avenger-class MCMS were part of the naval build-up of the 1980s. The MCMs were "designed as mine sweepers/hunter-

killers capable of finding, classifying, and destroying moored and bottom mines," the CNSFP release said.

"These ships use sonar and video systems, cable cutters, and a mine-detonating device that can be released and detonated by remote control. They are also capable of conventional sweeping measures. The ships are fiberglass sheathed, wooden hull construction."

Three MCMs preceded their sister ships into retirement: The Avenger was decommissioned on Sept. 30, 2014, followed by the Defender on Oct. 1, 2014; the Guardian left service in 2013 after being grounded near the Philippines.

"Champion, Scout and Ardent Sailors, past and present, are a special breed," said Vice Adm. Roy Kitchener, commander, Naval Surface Force, U.S. Pacific Fleet, said at the Scout's ceremonies.

"These Sailors served with distinct pride and dedicated tremendous energy in representing the U.S. Navy's mine-sweeping community over the lifespan of these unique ships. As this chapter comes to a close, we look back proudly on the efforts of these Iron Sailors, their families and these tested and proven wooden ships as they all played an important role in the defense of our nation and maritime freedom around the globe."

The following brief histories of the ships were provided by CNSFP:

The Champion was built in Marinette, Wisconsin, by Marinette Marine Corp. and commissioned on Feb. 8, 1991. Originally assigned to active Naval Reserve, Mine Countermeasures Squadron 2, the Champion spent most of its years homeported in either Ingleside, Texas, or San Diego. Since 2000, the Champion has operated exclusively in the Gulf of Mexico and Pacific Coast. Its stateside presence allowed for

continuous improvement of mine-warfare technologies and crew training for forward-deployed naval forces in Bahrain and Japan.

The fourth ship to bear the name, the Scout was laid down on June 8, 1987, at Peterson Builders in Sturgeon Bay, Wisconsin. It was launched on May 20, 1989, and commissioned on Dec. 15, 1990. Among the Scout's achievements were helping to evacuate refugees from Kosovo in 1999, supporting Operation Iraqi Freedom in 2003, and joining Hurricane Katrina relief operations in 2005.

USS Ardent was commissioned on Feb. 8, 1994. In 1998, in the North Arabian Gulf, the Ardent received emergent tasking to assist USNS Catawba in locating and recovering a downed F/A-18C. Later that year, it conducted operations inside Iraqi territorial waters in Mine Danger Area (MDA) 10 in support of Operation Desert Fox. The Ardent departed on an emergency sortie from Mina Salman Port, with all other ships, in the wake of USS Cole bombing in Port of Aden, Yemen, in October 2000.

Navy Maturing Next-Generation Air Dominance Acquisition Approach

ARLINGTON, Va. — The U.S. Navy has acknowledged that it has stood up a program office for the Next-Generation Air Dominance (NGAD) program and is maturing the acquisition approach for the carrier-based power projection concept.

The Navy has taken a go-slow approach to acknowledging the

existence of the NGAD program office, given its highly classified nature. *Seapower* sent a query on June 10 to the Program Executive Office for Tactical Aircraft Programs (PEO(T)), but the Navy did not make a statement until two months later.

During an Aug. 12 teleconference with reporters with James F. Geurts, assistant secretary of the Navy for research, development and acquisition, responding to a question from *Seapower,* confirmed that the program office has been established. Guerts said the program was in its early stages and that the Navy and U.S. Air Force are working to avoid duplicating each other's efforts.

On Aug. 17, PEO(T) responded to *Seapower*'s original query with a statement: "As part of the Navy's commitment to building a more lethal force, the Next-Generation Air Dominance (NGAD) Program Office (PMA-230) has been established under the Program Executive Office for Tactical Aircraft Programs (PEO(T)).

"PMA-230 was established on May 7, 2020, by the Assistant Secretary of the Navy for Research, Development and Acquisition per SECNAV's [secretary of the Navy's] and CNO's [chief of naval operations'] direction to develop the next generation air dominance capabilities that will provide advanced carrier-based power projection capabilities that operate in advanced anti-access/area denial threat environments," the statement said. "The capabilities being pursued are informed by the Navy's NGAD Analysis of Alternatives."

PEO(T) added on Aug. 19 that, "We are currently maturing the NGAD acquisition approach to support the NGAD Program Office activities.

Capt. Albert Mousseau Jr. is the program manager for PMA-230.

Navy’s Medium USV to Be Based on Commercial Vehicle

An artist’s conception of the L3Harris MUSV. L3HARRIS TECHNOLOGIES

ARLINGTON, Va. — The Medium Unmanned Surface Vehicle (MUSV) being designed and built by L3Harris Technologies will be a purpose-built commercially derived vehicle, the company said in an Aug. 19 release.

Although the Navy’s selection of Camden, New Jersey-based L3Harris was announced by the Defense Department on July 13, the company’s own Aug. 19 announcement provided a few additional program details.

“L3Harris will integrate the company’s ASView autonomy technology into a purpose-built 195-foot commercially derived vehicle from a facility along the Gulf Coast of Louisiana,” the announcement said. “The MUSV will provide intelligence, surveillance and reconnaissance to the fleet while maneuvering autonomously and complying with international collision regulations, even in operational environments.”

As prime contractor, L3Harris will be the lead systems integrator for the MUSV program and will provide the mission autonomy and perception technology for the vessel. Gibbs & Cox and Incat Crowther will design the vessel, which will be constructed by Swiftships in Morgan City, Louisiana.

Naval Sea Systems Command awarded to L3Harris a $35 million fixed-price-incentive-firm-target contract for the design and fabrication of a prototype MUSV.

This contract includes “options for up to eight additional MUSVs, logistics packages, engineering support, technical data, and other direct costs, which, if exercised, will bring the cumulative value of this contract to $281 [million],” the Pentagon announcement in July said.

The prototype MUSV is expected to be completed by December 2022.

“The MUSV program award reinforces our investments in the unmanned market and demonstrates our ongoing commitment to bring mission-critical capabilities to our warfighters,” Sean Stackley, president of integrated mission systems for L3Harris , said in the Aug. 19 release. “L3Harris is continuing to develop a full range of highly reliable and affordable autonomous maritime capabilities to enable distributed maritime operations in support of the National Defense Strategy.”

MDA Considering Navy’s Aegis System for Homeland Missile Defense

The Missile Defense Agency and U.S. Sailors manning the Aegis Ashore Missile Defense Test Complex at Kauai, Hawaii, conduct a flight test in 2018. MDA is investigating using the Aegis and the SM-3 Block IIB missile as part of a U.S. homeland defense.

WASHINGTON – The Missile Defense Agency (MDA) is investigating the feasibility of using the Navy’s Aegis Combat System and Standard Missile-3 (SM-3) Block IIA as segment of a layered

defense of the U.S. homeland.

“We are investigating the possibility of deploying layered homeland defense for additional opportunities to engage long-range missile threats,” said Vice Adm. Jon A. Hill, director of MDA, speaking in an Aug. 18 webinar sponsored by the Heritage Foundation, a Washington think tank.

“This means we are investigating the potential of existing proven weapon systems such as Aegis ballistic-missile defense using Standard Missile-3 [SM-3] Block IIA and if that weapon can contribute to homeland defense.”

Hill said that later this year the MDA will conduct the first Aegis test with SM-3 Block IIA interceptor against an intercontinental ballistic missile (ICBM). He said that the COVID-19 pandemic slowed the preparations but that the test will go ahead.

“We were ready and postured to go to the Pacific to execute Flight Test Maritime 44 (FTM-44), the first Aegis weapon system engagement against an intercontinental ballistic missile – a long-range ballistic threat being engaged by a ship that’s maneuvering with the SM-3 Block IIA missile,” he said. “Our plan right now is to get that test under our belt before the end of the calendar year. We’re on track to do that.”

Hill said the FTM-44 test is to be conducted in a “defense of Hawaii” scenario, with a ship and the SM-3 Block IIA.

“We’re going to really stress the SM-3 Block IIA way outside of its design space,” he said. “It was designed for medium- and intermediate range. Now we’re going against a long-range intercontinental ballistic missile. The analysis says we’ll be successful. But nothing is real to any of us until we actually get the empirical data from being out on the flight range.”

Hill said that a successful test will not be the end of the

work.

“There will be upgrades required to the missile based on threats,” he said. “We will have to certify the combat system, and we’ve got to work very closely with the Navy about where these ships would deploy and how fast we can increase the production line on the Block IIAs to get those out to sea and where we need them to add that complement to the Ground-Based System. If we succeed with Aegis … [U.S. Northern Command] can decide where they want these assets placed to provide that sort of layered defense.”

The FTM-44 test will be against an ICBM without countermeasures.

“It allows us to take a missile that wasn’t designed for that space and just go after that target,” Hill said. “It’s going to be very stressing because of the very long range that it flies, the error that it builds up, so we’ll see how we do.”

The admiral said that a successful test will allow the MDA “to start to think through that architecture and start working more closely with the warfighters and where they would position a ship. Then we want to march up to another test where would test against a very complex ICBM, one that has a lot of separation debris, one that has a lot of countermeasures. We want to make sure the system in total – from the space assets to the radar to the engage-on-remote capability that passes that information to the ship – and the ship can actually sift through all of that and say, ‘that’s the RV [re-entry vehicle] and that’s where the missile is going to go.’”

Hill said another challenge is coordinating the engagement coordination between the different layers [of defense.] The systems ‘talk’ with each other already today but the challenge is to get them talking as being different layered defenders.

Navy Awards $430 Million Contract for Operation of Undersea Test Range

ARLINGTON, Va. – The Navy has awarded $430 million contract to a Maryland-based company to operate and maintain one of the service's most sophisticated test ranges.

The Naval Undersea Warfare Center Newport Division awarded the contract to Amentum Services Inc. of Germantown, Maryland, to operate and maintain the Atlantic Undersea Test and Evaluation Center (AUTEC), the Defense Department announced in an Aug. 12 release.

"AUTEC is the Navy's large-area, deep-water, undersea test and evaluation range. Underwater research, testing and evaluation of anti-submarine weapons, sonar tracking and communications are the predominant activities conducted at AUTEC," the release said. "The contractor performs AUTEC range operations support services and maintenance of facilities and range systems. In addition, the contractor is responsible for operating a self-sufficient one-square-mile Navy outpost."

The AUTEC range is located at Andros Island in the Commonwealth of the Bahamas. It is frequented by Navy maritime patrol aircraft, anti-submarine helicopters, and attack submarines for events such as tracking exercises, exercise torpedo launches and recoveries, and other uses.

Under the contract, Amentum is expected to run AUTEC through August 2025. With all options exercised, work would continue through August 2030.

Navy Orders 24 Harpoon Cruise Missiles from Boeing

USS Coronado, an Independence-variant littoral combat ship, launches the first over-the-horizon missile engagement using a Harpoon Block 1C missile three years ago. U.S. NAVY / Lt. Bryce Hadley

ARLINGTON, Va. – The U.S. Navy has ordered 24 Harpoon Block II+ Harpoon cruise missiles from Boeing Defense, Space & Security, the Defense Department said in an August 12 announcement.

The Naval Air Systems Command has awarded Boeing a $15.6 million firm-fixed-price order for the 24 missiles plus 25 captive air training missiles (CATMs).

The Harpoon Block II+ includes a new GPS guidance kit, improved weapon reliability and survivability, and a new data-link interface that enables in-flight updates and improved target selectivity. Fleet introduction of the Block II+ was achieved in 2017 on the F/A-18E/F followed by the P-8A in 2019.

A CATM is installed on the weapon pylon of an aircraft and gives the electronic signals of a live missile without an actual launch.

The order is expected to be completed in August 2023.

Navy Program Review: Columbia SSBN On Track

An artist rendering of the future Columbia-class ballistic missile submarine. U.S. NAVY

ARLINGTON, Va. – The U.S. Navy's top acquisition official said the Columbia ballistic-missile submarine is on track and ready for a fiscal 2021 official construction start.

Speaking Aug. 12 in a teleconference with reporters, James F. Geurts, assistant secretary of the Navy for research, development and acquisition, said the Columbia SSBN program went through a review Aug. 11 with program and shipyard teams.

"The design maturity of Columbia is exceeding 86% right now," Geurts said. "We're focusing on converting that design into manufacturing plans, instructions, [and] material parts. Advance construction is continuing on all of the super-modules."

The Navy announced on June 22 a contract modification with Electric Boat that featured an option – that already has been fully priced by the Navy – that would start construction of the first Columbia, SSBN 826, in October (the first quarter of fiscal 2021) and fund advance procurement, advance construction and 2024 construction start of the second Columbia sub, SSBN 827.

Geurts said at the time that the work of the Navy to price out the two SSBN contract options will help the service keep on schedule and achieve economies on materials and advance procurement for the Columbia class.

"We've got the Build 1 contract in place," he said in the latest teleconference. "We're ready to exercise that upon

appropriation and authorization in fiscal year 2021. … We're continuing to ensure that Columbia stays on track as our highest priority program."

He said that the COVID-19 pandemic "has not impacted Columbia in terms of readiness to proceed."

T-45C Engine Shortages Force Waivers for Some Student Aviators

A T-45C Goshawk makes an arrested landing on the flight deck of the aircraft carrier USS Abraham Lincoln. U.S. NAVY / Mass Communication Specialist 3rd Class Michael Singley

ARLINGTON, Va. — Training of some U.S. Marine Corps student aviators in carrier qualifications temporarily has been waived because of a shortage of engines for T-45C Goshawk jet training aircraft, a U.S. Navy spokeswoman said. The shortage also is forcing a reduction in part of the syllabus for Navy student aviators.

"Due to a shortage of T-45C engines, Chief of Naval Air Training temporarily waived a portion of the advanced strike syllabus for Navy T-45C students, and the carrier qualification syllabus for U.S. Marine Corps T-45C students who will fly the F/A-18C Hornet, F-35B Lightning II, and AV-8B Harrier, which do not deploy on aircraft carriers," said Lt. Michelle Tucker, a spokeswoman for the Chief of Naval Air Training at Naval Air Station Corpus Christi, Texas.

"These temporary waivers account for about 10% of the original

syllabus," Tucker said. "Each service branch chose which parts of the syllabus to waive based on how their respective fleet aircraft are employed. The U.S. Marine Corps chose to retain the tactical skillsets over carrier qualifications while the Navy retained carrier qualifications during this period. The Navy and Marine Corps will re-evaluate this decision once production has returned to normal levels."

Because Marine F/A-18Cs no longer are scheduled to deploy on aircraft carriers – the last squadron to do so is currently deployed – the only Marine aviators needing carrier qualification in the foreseeable future are F-35C pilots.

During the Vietnam War, because of the high demand for pilots, some Marine aviators bound for tactical jet squadrons were trained by the Air Force and joined their first squadrons – land-based – without carrier qualification.

Training Wing 1 at NAS Meridian, Mississippi, and Training Air Wing 2 at NAS Kingsville, Texas, conduct all of the Navy's strike training and carrier qualification for student naval aviators in the T-45C.

Admiral Cool to Notion of Separate Arctic Fleet

The guided-missile destroyer USS Oscar Austin in the Arctic Circle. U.S. NAVY / Mass Communication Specialist 2nd Class Ryan U. Kledzik

ARLINGTON, Va. – The commander of the U.S. 2nd Fleet, whose ships have operated four times in the Arctic since the fleet was re-established two years ago, says that, on

initial examination, there is no need for a numbered fleet in the region, but an Arctic naval component command might be worth consideration.

Vice Adm. Andrew Lewis was responding to a question about a July 17 article posted on *Seapower's* website concerning an idea proposed by an Arctic expert at the Naval War College.

Lewis was speaking at a press teleconference about the start of the upcoming Operation Nanook-Tuugaalik, a Canadian Arctic operation in which units of the 2nd Fleet also will be participating along with a cutter of the U.S. Coast Guard Atlantic Area and ships of the French and Danish navies.

Dr. Walter Berbrick, associate professor at the Naval War College and director of its Arctic Studies Group, speaking July 16 during a CNA webinar, Arctic East vs West: US Strategy in the Atlantic and Pacific Arctic, noted that the 2nd, 3rd and 6th Fleets all have responsibilities in the region, with the Navy "facing a time/space/force problem in the Arctic," with too many other challenges around the world.

"Perhaps we should think outside the box and create a new fleet, an Arctic fleet," Berbrick said, saying that a total Navy battle fleet sized more toward 400 ships rather than 355 would be needed, which would allow for a fleet "permanently spread out across the Arctic region."

"It an interesting viewpoint," Lewis said of Berbrick's proposal. "I don't know that I would consider creating a numbered fleet for an Arctic fleet. In the U.S. system, it's another maneuver arm for the naval component. I don't really own battlespace per se, as I own mission. If I'm given a mission, in the Arctic, or the North Atlantic or Western Atlantic or Southern Atlantic, I address that mission.

"The naval component commander is fully responsible for that northern area – that might be something we need to look at,

and that would be at the naval component command level. That's kind of my initial thoughts. I actually pondered that [*Seapower*] article for quite some time a couple of weeks back."

Also speaking at the Operation Nanook-Tuugaalik teleconference was Vice Adm. Steven Poulin, commander of the Coast Guard Atlantic Area.

"The question really goes to the heart of how can we ensure maneuverability in the Arctic," Poulin said. "I think it goes directly to the Coast Guard's desire and plan to recapitalize the icebreaking fleet. We're very pleased with the support from the administration and Congress that we're moving forward smartly to build icebreaking capability to ensure that maneuverability and that presence."