Navy’s LCS Decommissioning Proposals Would Bring Major Changes for Retained Ships

The Independence-variant littoral combat ship USS Jackson (LCS 6) pierside in Guam during routine operations in 2021. Under new Navy plans, it would be operated by a single crew in 2023 and decommissioned in 2024. *U.S. NAVY / Mass Communication Specialist 3rd Class Andrew Langholf*

ARLINGTON, Va. — The U.S. Navy’s 2023 budget proposal — including the Future Years Defense Plan — would result in profound changes to the missions, organization, force structure, training and crews of the Navy’s littoral combat ships in addition to the force reduction by decommissioning of many of the ships.

The LCS remaining in service would see a second order of effects that would further show a force dramatically changed

from the original vision for the ships. The surface warfare mission and the mine countermeasures mission will be divided by coast instead of mixed on both.

The Freedom-class LCS would be most the most affected by the proposed budget. Including earlier decisions, the Navy would, because of fiscal constraints, decommission LCS 3, 5, 7, 9, 11, 13, 15, 17, and 19 across the FYDP. (LCS 1 was decommissioned in 2021.) Six Freedom-class ships (LCS 21, 23, 25, 27, 29, and 31) would be retained, having been or will be completed with the combining gear improvement installed.

The Independence-class LCS will not be unscathed. The Navy proposes to reduce LCS 6 and 8 to single crews (from dual Blue-Gold crews) in 2023, and then decommission the two ships in 2024. (LCS 2 was decommissioned in 2021, and LCS 4 is scheduled to be decommissioned in 2022.) A total of 15 Independence-class ships would be retained in the fleet.

All LCS assigned the surface warfare mission would be assigned single crews only. Such crews would see their manpower increased by approximately 25 Sailors each to help sustain readiness levels that a second off-hull provided.

Since the antisubmarine warfare mission package is being divested, all LCSs marked for the ASW mission will be shifted to the surface warfare or mine countermeasures mission. Because of the substantial reduction in the number of LCS planned, the ASW mission in small surface combatants will reside solely in the future Constellation-class guided-missile frigate (FFG 62), which the Navy says is a "foundational mission set for the FFG 62 program, which is a more suitable platform and Variable Depth Sonar [VDS] capability will be added to the fleet through the FFG 62 class."

The Navy is proposing the East Coast littoral combat ships – which are of the Freedom class – be assigned only the surface warfare mission and the West Coast LCS – planned to be only

Independence-class ships – be assigned only the mine countermeasure mission. As a result, there would be changes in the LCS command and support organization structure.

Accordingly, the LCS antisubmarine warfare divisions on both coasts would be disestablished in 2023 with the divestiture of the ASW mission. MCM Division 22 on the East Coast and SUW Division 11 on the West Coast also would be disestablished in 2023.

With the overall reduction in LCS ships and their crews, and a force of just 21 LCS planned (15 MCM ships and 6 SUW ships), the training infrastructure required for training would be reduced. The proposal calls for the disestablishment of LCS Training Facility Atlantic, consolidating all LCS training at LCS Training Facility Pacific.

All of these proposals will receive the scrutiny of the congressional armed services and appropriations committees.

If the total LCS changes were to be approved, the Navy estimates the savings to be $391.4 million for fiscal 2023, totaling $2.46 billion over the FYDP.

Navy Proposes Elimination of Snakehead LDUUV program

Cheryl Mierzwa, Naval Undersea Warfare Center Division Newport's technical program manager for the Snakehead Large Displacement Unmanned Undersea Vehicle, christens the underwater vehicle at the Narragansett Bay Test Facility in Newport, Rhode Island, on Feb. 2. *U.S. NAVY*

ARLINGTON, Va. – Even as the U.S. Navy was christening the first prototype of the Snakehead large-diameter unmanned underwater vehicle (LDUUV) in February, planning was underway to cancel the program.

The Navy is proposing in its 2023 budget to eliminate the Snakehead program, according to the Navy Department's recently released Fiscal 2023 budget highlights book.

The Snakehead is intended to be a major advance in UUVs and designed to be the largest UUV to be deployed on the interfaces of the Navy's attack submarines. It is designed to be autonomous, modular and reconfigurable, equipped with a government-owned architecture. It features innovative hull materials and certified lithium-ion batteries. It is designed to be deployed from a modernized dry-deck shelter.

According to the budget highlights book, the major problem in the program was “Misalignment of Snakehead LDUUV design and procurement efforts with submarine hosting interfaces result[ing] in limited availability of host platforms to conduct Snakehead operations.”

The book also said that “cost and schedule delays associated with LDUUV development and Virginia Class SSN [attack submarine] integration prohibited further investment.”

The only alternative launch and recover interface for the Snakehead is the Modernized Dry Deck Shelter. The U.S. Special Operations Command in conjunction with the Navy is modernizing three Dry Deck Shelters between 2022 and 2026. They are scheduled to become available for use in 2022, 2023, and 2026, respectively.

Under Phase One of the Snakehead program, only one vehicle was built.

The Navy estimates the cancellation of Phase Two of the program and future Snakehead procurement will save the Navy $185.9 million in fiscal 2023, resulting in a total savings of $516.8 million over the Future Years Defense Plan.

The Snakehead Phase One prototype was christened on Feb. 2 at the Narragansett Bay Test Facility in Newport, Rhode Island, by a team from the Naval Undersea Warfare Center Division Newport and the Program Executive Office for Unmanned and Small Combatants.

Q&A: Vice Adm. Roy Kitchener, Commander, Naval Surface Forces, Commander, Naval Surface Force, U.S. Pacific Fleet

Vice Adm. Roy Kitchener, Commander, Naval Surface Force, U.S. Pacific Fleet, speaks with Hospitalman Shakeelah Jordan aboard the Arleigh Burke-class guided missile-destroyer USS Winston S. Churchill (DDG 81) during a ship visit. Kitchener visited Hampton Roads commands and ships in June 2021 and hosted a commander's call with waterfront leadership. *U.S. NAVY / Mass Communication Specialist 2nd Class Jacob Milham*

Vice Adm. Roy Kitchener assumed command of Naval Surface Forces and Naval Surface Force, U.S. Pacific Fleet in August 2020, and as a type commander he has guided the forces as he continues to man, train and equip the forces for duty in the

fleet and service to the U.S. combatant commands. A native of Trumbull, Connecticut, and a 1984 graduate of Unity College with a Bachelor of Arts in political science, he attended the Navy Officer Candidate School in Newport, Rhode Island, and received his commission in 1985. He also attended the Naval Post Graduate School where he specialized in Western Hemisphere studies and earned a Master of Arts in national security affairs.

As a surface warfare officer, he deployed around the world and commanded destroyers, cruisers and an expeditionary strike group. At sea he served as a division officer aboard USS Dewey (DDG 45); operations and training officer for Special Boat Unit 26, Republic of Panama; combat systems and weapons officer aboard USS San Jacinto (CG 56); executive officer aboard USS Cowpens (CG 63); and operations officer and chief of staff for Commander, Carrier Strike Group 11. He commanded USS John Paul Jones (DDG 53) and USS Higgins (DDG 76) during the Navy's Sea Swap Initiative, and also commanded USS Princeton (CG59) and Expeditionary Strike Group 2.

Ashore, Kitchener served as the Surface Warfare Directorate's Naval Surface Fire Support program officer on the staff of the Chief of Naval Operations; combat systems instructor at Surface Warfare Officers School; ballistic missile defense operations chief at the Cheyenne Mountain directorate at Commander, U.S. Northern Command; and vice commander of Naval Mine and Anti-Submarine Warfare Command. He served as the chief of staff at numerous commands, to include commander, U.S. 3rd Fleet; commander, Naval Surface Forces; commander, Naval Striking and Support Forces North Atlantic Treaty Organization (NATO); and U.S. deputy military representative to the NATO Military Committee. Most recently, he was commander, Naval Surface Force, U.S. Atlantic Fleet.

Kit*chener responded to questions about the surface Navy fleet from Senior Editor Richard R. Burgess.*

The surface Navy is better armed today than it was decades ago, when it was primarily an anti-air and antisubmarine escort force. How has that improvement affected the morale and professionalism of surface warriors?

KITCHENER: No doubt, we have seen tremendous improvements in our network and sensors that give our ever-improving weapons better speed, range and precision. However, I would propose it is our training investments that have had the most impact on the professionalism of the force. The surface force develops leaders, warriors, mariners and managers, and each of these roles requires training, education and mentoring. A well-trained Sailor is a confident Sailor. That is why we have dedicated more than $5 billion to the Surface Training Advanced Virtual Environment for Surface Force training. Approximately 200 STAVE projects are supporting training in all areas of individual and waterfront training, including navigation and seamanship, engineering, damage control and combat systems. Furthermore, nearly 66% of all afloat billets benefit from STAVE. This training and the human factor programs that we have in place directly contribute to improving our Sailors' professionalism and morale.

The surface Navy has had few combat actions at sea since World War II. How confident are you that today's surface warriors are trained and conditioned to maneuver and fight as well as execute damage control should they fight a peer competitor?

KITCHENER: We are highly confident in the training and professionalism of our surface force. As previously stated, we have dedicated a significant amount of resources to ensure our force is trained and ready to meet today's operational challenges. In addition to investing in STAVE, we are also building the physical and digital infrastructure to support this vast amount of training we are providing to our force.

Most notably, the Mayport [Florida] and Sasebo [Japan] Shiphandling Trainers opened for business in 2021, bringing

the number of learning sites to 10 overall and ensuring a site in nearly every fleet concentration area. The Mariner Skills Training Centers in San Diego and Norfolk began hosting a two-phase Officer of the Deck [OOD] course, which shifted from a JOOD [Junior OOD] course to a two-phase OOD curriculum. The change freed up the Advanced Division Officer Course to expand its focus on maritime warfare. ADOC is now providing junior officers with three weeks of maritime warfare training instead of one, allowing us to lay the warfighting foundation earlier in an officer's career.

Regarding specific warfighting training, we are installing virtual operator trainers, or VOTs, in all homeports to provide Sailors with training for the AV-15 sonar system and Aegis Baselines 9 and above. In Yokosuka, Pearl Harbor and San Diego, the sonar trainers are up and running and the Aegis VOTs in Yokosuka and Pascagoula are soon to follow.

Finally, we have worked with the numbered fleet commanders to retool and enhance the high end, at-sea training ships receive prior to deploying to ensure they are ready to defeat current day threats. Never before has our force possessed this quality of warfighting training systems in our homeports, and they are available to commanding officers to build their teams' skills.

Has the seamanship of the force been improving to meet your expectations in the five years since the McCain and Fitzgerald incidents?

KITCHENER: Yes. We have made significant investments to increase the amount and depth of training that junior surface warfare officers receive before they report to their ship.

We introduced and implemented a revised SWO training and assessment continuum that employs navigation, seamanship and ship handling assessments across all career milestones.

We also implemented NSS/go/no-go assessments with four no-go criteria established for a SWO career path, which means that

no one gets a pass simply due to experience. We assessed all officers at every level, from brand new ensign to major commander. Those who do not pass their proficiency tests do not assume command of ships at sea. Our standard: To be a professional mariner is more rigorous now than ever.

For our younger officers, the two-phased OOD course provides advanced practical instruction in navigation, seamanship, and ship handling in high-end simulators, emphasizing rules of the road, high-density shipping, in-extremis maneuvering and watch team management.

How are simulators making better surface warriors?

KITCHENER: With the number and complexity of systems and platforms planned to join the fleet in the next decade, the requirement for clear and innovative operational concepts is critical. Simulators provide our surface warriors with a controlled environment to develop and refine their mariner skills. By perfecting these skills in a teachable setting, Sailors can enter the fleet with the most advanced knowledge.

Sonar Technician (Surface) 1st Class Kendall Cochran, assigned to the Freedom-variant littoral combat ship (PCU) Minneapolis-Saint Paul (LCS 21), trains using computer-generated simulations during Surface Training Advanced Virtual Environment scenarios at Surface Combat Systems Training Command Detachment Southeast, LCS Training Facility, Nov. 9, 2021. *U.S. NAVY / Chief Mass Communication Specialist David Holmes*

What are the chief challenges to improving force readiness?

KITCHENER: The completion of depot level maintenance on time continues to be a significant challenge. We have invested in analytics to help us improve in this area.

As I said at SNA [Surface Navy Association convention] earlier this year, we have seen improvements in two key metrics that we are using to gauge our progress: days of maintenance delay and on-time completion rates. Since 2019, we have reduced our days of maintenance delay by 41%. Our on-time completion is steadily increasing, from 34% in fiscal year 2019 to a projected 59% for all 2021 avails, including those ongoing that began in fiscal year 2021. We still have more to do, but it has been satisfying to see that the process is working.

Overcoming this challenge is even more important as we deliver modernization upgrades to the fleet, capability that is essential to maintaining our warfighting advantage. The SPY-6 radar and AN/SLQ-32(V)7 electronic warfare suite are a couple of examples of the extensive modernization programs that we will introduce to the fleet. The effective and timely execution of our maintenance and modernization packages during depot avails will be even more important to force readiness as we install this vital capability.

You have spoken about reimagining fleet introduction. What do you mean by that?

KITCHENER: Historically, NAVSEA's [Naval Sea Systems Command's] fleet introduction team provided oversight on the

acquisition process and integrated the various program offices in the delivery of a new ship. Independently, the type commander's fleet introduction team would be responsible for actually integrating the ship into the fleet. We feel that a good look at this process will provide us a better process. Reimagining means thinking differently about this process so that the type commander is more engaged in the acquisition process overall, and that the program offices can deliver new ships and capabilities that integrate with the fleet more effectively and efficiently. We anticipate that this review should have significant positive impact and therefore I've asked Rear Adm. Brendan McLane at CNSP [commander, Naval Surface Force, U.S. Pacific Fleet] to take on this task.

We are introducing at least 10 new or modernized platforms to the force in the next decade, and believe that effective fleet introduction is critical to maintaining a competitive advantage.

What is the role of Task Force LCS that stood up last spring?

KITCHENER: We stood up Task Force LCS to consolidate efforts and drive actions across the LCS [littoral combat ship] program. Experts across the Navy are working together to analyze, develop and rapidly implement improvements to LCS platform reliability, sustainability, lethality and operational employment. The task force, led by Rear Adm. Robert Nowakowski, continues to provide databased recommendations and solutions to improve the reliability and sustainability of the LCS program.

What will be the role of the unmanned surface vessel division standing up this summer? How has Surface Development Squadron One been pushing the envelope in unmanned systems?

KITCHENER: This summer, USV Division One will stand up and grow to 103 Sailors in 2022 to provide dedicated support to USV operations. The command will be led by an O5 SWO commander

and will report to SURFDEVRON [Surface Development Squadron] One and operate out of Port Hueneme, California. USVDIV 1 will be focused exclusively on USV experimentation and fleet advocacy with our program offices. The division will be a cornerstone in building the foundational knowledge required for Sailors to operate and maintain the USV fleet and spearhead the development of the processes required for USV operations and sustainment.

With the Zumwalt class to be armed for hypersonic weapons, do you expect them to deploy before their conversion? When do you expect the first conversion to start and what is the planned IOC year for them with conventional prompt strike?

KITCHENER: The Navy's Conventional Prompt Strike Program is developing a non-nuclear hypersonic weapons system that will enable precise and timely strike capability in contested environments. Fielding hypersonic weapons is a top technical research and engineering priority and the Navy continues to accelerate the development of hypersonic capabilities. The Navy is on track to field the CPS on Zumwalt-class destroyers in fiscal 2025.

In support of the Zumwalt class, being the first platform to deliver CPS capability, the Navy commenced engineering design planning that will allow for integration of CPS during a planned fiscal 2024 dry-docking selected restricted availability. The ship's relatively large volume and timing of her already scheduled dry docking availability are key enablers to rapidly field CPS capability in USS Zumwalt.

Looking on the success of the DDG 51 class, what capabilities do you want to see in DDG(X)?

KITCHENER: The DDG(X) class will capitalize on the success of the DDG 51 class by improving an already exceptional craft. DDG(X) will utilize a variant of the DDG-51 FLT III combat system integrated into a new hull form with flexibility for

upgrades, an efficient integrated power system and greater endurance, reducing the fleet logistics burden.

State Dept. Approves Possible Sale of AH-1Z Helicopters to Nigeria

Airman Kory Vogel signals an AH-1Z Viper on the flight deck of amphibious assault ship USS Makin Island (LHD 8), April 13. *U.S. NAVY / Mass Communication Specialist 3rd Class Nadia Lund*

WASHINGTON – The U.S. State Department has approved a possible Foreign Military Sale to Nigeria of 12 Bell AH-1Z attack helicopters and related equipment for an estimated cost of

$997 million, the Defense Security Cooperation Agency said in an April 14 release.

The sale would make Nigeria the third foreign nation to order the AH-1Z, the others being Bahrain and the Czech Republic. The main operator of the AH-1Z is the U.S. Marine Corps.

Nigeria has requested to buy 12 AH-1Z Viper attack helicopters as well as associated avionics, sensor systems, and spare engines and parts. The deal also includes 2,000 Advanced Precision Kill Weapon System (APKWS) guidance sections for 2.75-inch rockets.

The announcement said the possible sale also would include "tools and test equipment; technical data and publications; personnel training and training equipment; mission planning system; U.S. government and contractor engineering; technical, and logistics support services; U.S. government and contractor assistance and oversight of facilities construction to include the provisioning of plans, drawings and specifications."

"The proposed sale will better equip Nigeria to contribute to shared security objectives, promote regional stability and build interoperability with the U.S. and other Western partners," the announcement said. "This sale will be a major contribution to U.S. and Nigerian security goals. Nigeria will have no difficulty absorbing the equipment and services into its armed forces."

The principal contractors will be Bell Helicopter, Textron, of Fort Worth, Texas, and General Electric Co., of Lynn, Massachusetts.

New Task Force 153 to Patrol Red Sea, Bab al-Mandeb Strait, Gulf of Aden

Vice Adm. Brad Cooper, commander of U.S. Naval Forces Central Command, U.S. 5th Fleet and Combined Maritime Forces, speaks to Maj. Gen. Abdullah Hassan Al-Sulaiti, commander of the Qatari Emiri Naval Forces, at the Doha International Maritime Defence Exhibition and Conference in Doha, Qatar, March 21. *U.S. NAVY / Mass Communication Specialist 1st Class Mark Thomas Mahmod*

ARLINGTON, Va. — Combined Maritime Forces, or CMF, the U.S.-led multi-national coalition of forces enforcing maritime security in the U.S. Central Command are of responsibility, is establishing a fourth task force to enhance the security of the region.

CMF is establishing Commander Task Force 153 (CTF-153) on April 17, with ceremonies to be held at U.S. 5th Fleet

headquarters in Manama, Bahrain, said Vice Adm. Brad Cooper, commander of the CMF, whose duties also include commander, U.S. 5th Fleet, and commander, Naval Forces, U.S. Central Command. Cooper briefed reporters on the new task force in an April 13 press teleconference.

CTF-153 will patrol the waters of the Red Sea, the Bab al-Mandeb Strait and the Gulf of Aden in an effort to expand capacity to cover those regions to counter activities such as human trafficking and smuggling of weapons and illegal drugs.

The region also has seen combat action from Iran-supported Houthi rebels in Yemen firing missiles at shipping in the areas and using explosives-loaded attack boats.

Cooper said the new task force will “definitely increase our deterrence posture” in the region.

As the CMF’s fourth task force, CTF-153 joins CTF 150, responsible for maritime security outside the Persian Gulf in the Gulf of Oman and North Arabian Sea; CTF-151, the counter-piracy task force; and CTF-152, responsible for maritime security inside the Persian Gulf.

With 34 member nations, the CMF is the largest standing naval partnership in the world. The member nations rotate command of the task forces. Cooper said he had “sufficient forces” to meet the CMF’s commitments.

Cooper said the maritime security efforts have “always been our best when we’re teamed with international partners,” and that the United States is “teaming with a lot of navies who are very capable.”

He singled out mention of the Egyptian navy, which joined the CMF a year ago and will strengthen the efforts to patrol the Red Sea and protect the Suez Canal.

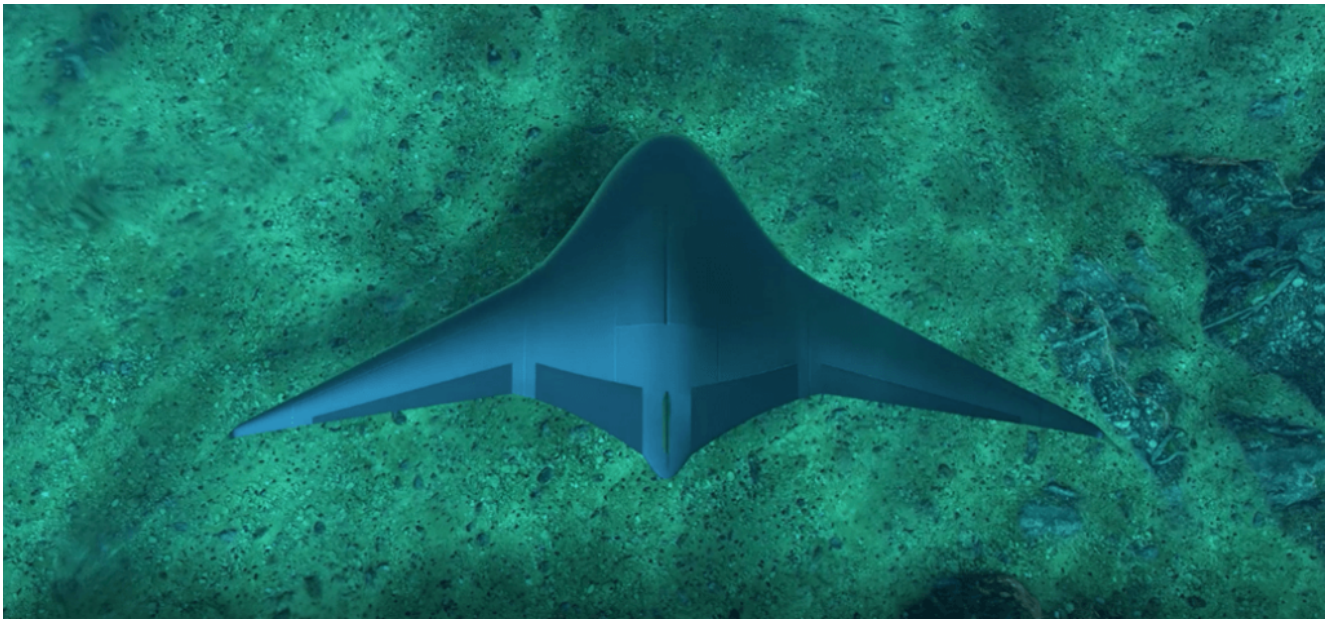
CTF-153 will first be commanded by U.S. Navy Capt. Robert

Francis, who with his staff soon will embark on the command ship USS Mount Whitney (LCC 20), which normally serves as the flagship of the U.S. 6th Fleet in the Mediterranean Sea. An officer from a partner nation will assume command of CTF-153 later this year, Cooper said.

Cooper said that CTF-153 will typically include two to eight ships, plus maritime patrol aircraft as needed. The staff itself will be comprised of approximately 15 personnel.

He said that with the additional task force the CMF will "be able to connect in ways we simply haven't been able to do in the past."

Martin Defense to Develop Amphibious Autonomous Vehicle for Expeditionary Fuel Delivery



An artist’s conception of Martin Defense Group’s Manta Ray autonomous underwater vehicle. *DARPA*

ARLINGTON, Va. — A defense company in Hawaii has been tapped by the Office of Naval Research to develop an autonomous vehicle to deploy a fuel delivery system to support amphibious systems.

Martin Defense Group LLC of Honolulu has been awarded a $15 million cost-plus-fixed-fee contract for the development of an Amphibious Vehicle for Unmanned Surface Mobility, the Defense Department said April 6.

“The AVUSM system provides the capability of autonomously delivering a lay-flat fuel line hose from a floating embarkment platform, through the surf-zone, to above a high-water mark line for fuel delivery in support of expeditionary advanced base operations,” the announcement said. “This is also known as a reach-to-the-beach capability. This contract provides for technology development and maturation with the objective of transitioning the technology/capability to Navy and/or Marine Corps acquisition programs.”

Martin Defense also is the developer of the Manta Ray autonomous underwater vehicle for the Defense Advanced Research Projects Agency. Work expected to be completed by April 5, 2025.

L3Harris Forms Agile Development Group to Address

Near-Peer Threats

NATIONAL HARBOR, Md. — L3Harris Technologies has established a new entity, the Agile Development Group, or ADG, to foster rapid technology development to counter near-peer security threats through innovation and cooperation.

Speaking to *Seapower* at Sea-Air-Space 2022, Sean Stackley, president of Integrated Mission Systems at L3Harris, introduced Dave Duggan, president of the new L3Harris Agile Development Group. The group is dedicated to overcoming inertia and rapidly developing the technology to address future threats with new ideas and acquisition of or partnering with enterprises and allies with high-potential technology.

“Our mission is to deliver innovative, vital solutions within a fraction of the time and cost of industry norms,” Duggan said in a release announcing the group. “We’re listening to our customers and taking calculated risks to rapidly develop new capabilities that will urgently address emerging threats.”

Duggan told *Seapower* that the group is comprised of “highly empowered development teams working with the latest digital

tools with an agile development process that backs it up to enable us to respond to our customers need for doing business differently and developing new capabilities in a much faster timeline than historical norms."

Duggan said the building of the ADG began four to five years ago and has grown to about 2,500 employees, which the company described as "dedicated engineers, program managers, technicians and operations professionals focused on advanced, front-end and rapid capability development."

The ADG entity expects to add additional personnel as it grows.

Initial projects of the ADG included broadband RF, advanced optics, and advanced unmanned systems and weapons, Duggan said.

The ADG has facilities in Florida, Texas, Ohio, California and Virginia.

"The ADG will have a designated internal investment fund to mature and burn down risk of critical enabling technologies. The ADG's lean, empowered development teams and digital engineering development approach will deliver solutions at the expeditious pace the [Department of Defense], allies and other domestic and international customers demand," the release said.

L3Harris, headquartered in Melbourne, Florida, said the fiscal 2023 budget proposes a 10% increase in research and development funds which, if enacted, will provide opportunities for the ADG to demonstrate its value.

Textron Offers King Air 260 for Navy's Multi-Engine Training Aircraft

Marine 1st Lt. Matthew Reith performs a preflight inspection of a Navy T-44C Pegasus training aircraft on the flightline at Naval Air Station Corpus Christi, Texas. *U.S. MARINE CORPS / 1st Lt. Pawel Puczko*

NATIONAL HARBOR, Md. – Textron Aviation is offering a version of its King Air 260 business twin turboprop aircraft to the U.S Navy as a replacement for the service's Beech T-44C training aircraft, a company official said.

Brett Pierson, Textron Aviation Defense's vice president for sales and strategy, told *Seapower* April 6 that the King Air 260 could be modified to meet the requirement for the Multi-Engine Training System (METS), including an aircraft with a high angle-of-attack capability.

Pilots being trained for the E-2 aircraft require such a requirement for training for carrier landings.

The Navy’s 2023 budget proposes the procurement of 10 METS, with a total of 58 in a three-year run.

According to a draft request for information posted May 26, 2020, the Navy is looking at existing twin-engine aircraft to replace the service’s fleet of 54 T-44Cs used to train Navy, Marine Corps, and Coast Guard pilots to fly aircraft such as the V-22 Osprey, E-2C/D Hawkeye, P-8 Poseidon, P-3 and EP-3 Orion, C-130/KC-130/HC-130 Hercules, E-6 Mercury, C-40 Clipper, HC-27 Spartan and HC-144 Ocean Sentry.

The T-44A, a variant of the Beech King Air 90 business aircraft, first entered service in 1980. The existing T-44As all have been modified to the T-44C configuration.

The Navy said the METS should have an FAA type certification for single- and dual-pilot operations under day and night visual flight rules and under instrument flight rules. It shall cruise at speeds greater or equal to 195 knots and shall be able to operate at a minimum of 20,000 feet above sea level. The aircraft also should have an endurance of 3.5 or more flight hours.

The pressurized aircraft cockpit will have side-by-side seating, as well as a jump seat for an instructor. The cockpit will be equipped with multifunction displays with digital moving map; redundant VHF and UHF radios; an integrated GPS/inertial navigation system; Automatic Dependent Surveillance-Broadcast; flight management system; weather radar, radar altimeter, and a cockpit data recorder.

The METS aircraft also shall have tricycle landing gear and a reconfigurable cargo bay in the cabin.

Pierson said the basic King Air is very close to what the requirements are.

Textron also builds the UC-12W operational support aircraft, a variant of the King Air 350, for the Marine Corps. The company

also built the Navy’s T-6A/B Texan II single-engine training aircraft. Beech and Cessna are now brand names for some of Textron Aviation’s products.

Northrop Grumman Laser Weapon System Completes Deployment on USS Portland

Amphibious transport dock USS Portland (LPD 27) transits the Gulf of Aden, Dec. 13, with a Solid State Laser – Technology Maturation Laser Weapons System Demonstrator Mark 2 MOD 0 on board. The Office of Naval Research selected Portland to host the laser weapon technology in 2018. *U.S. MARINE CORPS / Lance Cpl. Patrick Katz*

NATIONAL HARBOR, Md. – The Laser Weapon System Demonstrator

deployed on the U.S. Navy's amphibious platform dock ship USS Portland (LPD 27) has competed its first deployment as the Portland returned to its homeport of San Diego in March.

Donna Howland, Northrop Grumman's acting business development director for Directed Energy and program manager Laser Weapon System – Demonstrator, told *Seapower* April 6 the Navy said it was "able to exercise the high-energy laser in the 5th Fleet in December 2021."

The single LWSD was installed on Portland in October 2019 and was first lit-off in December 2019. The Portland deployed for the Indo-Pacific and Central Command areas of responsibility in August 2021.

The 150-kilowatt LWSD is mounted on the superstructure of the Portland and is integrated with the ship's combat information center, where a control console is installed. Northrop Grumman made the Tactical Laser Core Module of the system, while the U.S. government made the system's energy and thermal storage modules.

Northrop Grumman continues to provide test and sustainment support for the LWSD, for which it is under contract through fiscal 2022, Howland said, who noted that the company is working on a follow-on sustainment contract.

During the deployment on the Portland, the LWSD was operated and maintained completely by Sailors. No company employees were on board to support the system. The company provided training on the system before the deployment and developed a three-volume operation and maintenance manual for Sailors to use on the ship, she said.

Howland said the company is looking forward to working with the Office of Naval Research to provide next-generation directed energy systems.

"We are excited about the MOSA [Modular Open System

Architecture] that the Navy is looking at," she said. "We really are a proponent of this as we believe it will improve the health of the supply chain and base to support directed energy as we move these systems from science fiction to science fact."

HII Official: Company is Confronting Challenges of Inflation and Workforce

Shipyard workers watch as the upper bow unit of the future aircraft carrier USS John F. Kennedy (CVN 79) is fitted to the primary structure of the ship, July 10, 2019, at HII Newport News Shipbuilding. *HII / Matt Hildreth*

NATIONAL HARBOR, Md. – A senior HII official said he is optimistic for the company's future, despite the increasing price inflation of materials and the difficulties of attracting skilled labor.

HII will "make the ships we deliver more effective and more protected" said the official, speaking on background to reporters at the Navy League's Sea-Air-Space expo at National Harbor, Maryland, as he addressed the challenges and concerns that also affect much of the shipbuilding industry.

The official said price inflation is affecting long-lead materials, not so much for ships nearing completion but for newer-construction ships recently started or those for which long-lead materials have been ordered. He said locking in a price is essential to avoid delays. In some cases, the sequence of building a ship has to be changed to avoid

slowdowns in the build cycle.

The two-carrier procurement by the Navy for CVN 80 and CVN 81 allowed HII to lock in prices for materials for CVN 80; for CVN 81, the carrier is “not as exposed as it might have been” to price inflation. HII expects to lay the keel of CVN 80 this year and begin construction on CVN 81 as well.

The official said the Navy’s fiscal 2023 budget made good steps in funding to support the supplier base and developing skilled workers.

“Once they’re gone, they’re gone forever,” he said of suppliers who go out of business.

The workforce may even be a tougher issue because of the effects of the COVID-19 pandemic. HII never shut down during the pandemic, but some employees left the workforce and the number of applicants dropped significantly.

The official said that HII needs to get “labor back in the yard.”

The company is investing in developing talent and runs what it says is the premier apprentice school in the nation and perhaps the world. HII also is building shop facilities for high schools to attract students to skilled artisan programs.

HII has found that many potential workers who “walk in” for jobs don’t last because they did not realize how hard shipbuilding is. The company found that for workers who have been in the yard for 18-20 months, if they stay another two years, their earnings go up significantly and they settle into a long career.

Language also is less of a barrier for a prospective worker than might be presumed. HII instructs in both English and Spanish. The official said the company would love to hire more

Mexicans with green cards and would welcome Ukrainian refugees to apply.

CEO Appearance

“HII is well set up for the future,” said Christopher D. Kastner, who became president and CEO of Newport News-based HII March 1. He met briefly with reporters April 5 at Sea-Air-Space 2022.

HII, the nation’s builder of aircraft carriers and co-builder of submarines, has a very deliberate strategy for the next five to eight years, with $40 billion worth of orders on the books and recent acquisition of Hydroid and Alion, with which the company has expended into unmanned systems, autonomy, artificial intelligence, machine learning and sensors and anticipates growth of 7% to 9%.

With the recent acquisition, HII is now the lead developer of the Minotaur mission system that will be fielded on more systems, and will expand more into intelligence, surveillance and reconnaissance “on the edge” and counter-ISR as well.