Sea-Air-Space 2021 Prequel: Sea Services Can Provide Great Opportunities, but More Work is Needed to Ensure Diversity, Speakers Say

Outgoing Defense Information Systems Agency (DISA) Central Field Command, commander, U.S. Army Col. Corey L. Brumsey, passes the command flag to director, DISA and Commander, Joint Force Headquarters – Department of Defense Information Network, U.S. Navy Vice Adm. Nancy A. Norton, during a change of command ceremony at U.S. Central Command Headquarters, June 28, 2019. *U.S. CENTRAL COMMAND PUBLIC AFFAIRS / Tom Gagnier*

Three top female service officials said the sea services and military can provide great opportunities for women and minorities, but more work needs to be done to encourage those people to join the armed forces and help them meet their goals once inside.

“I think it’s really important for us to recognize the value and significance of the leadership opportunities that we get in the military and in the Department of Defense as civilians, at a much more junior age, much younger than our civilian counterparts ever would,” said Vice Adm. Nancy Norton, who retired as vice director of the Defense Information Systems Agency and commander of the Joint Force Heaquarters Department of Defense Information Network after a 34-year career.

“What we want to do, as women, is be great leaders, just like any man or woman in the military, and look for opportunities to better enable men and women across the board in all leadership opportunities,” she said.

Norton spoke on the “Women and Warfare” session as part of the Sea-Air-Space 2021 Prequel, along with Rear Adm. Melissa Bert, judge advocate general for the U.S. Coast Guard, and Col. Kelly Frushour, deputy director of the Communications Directorate at Marine Corps headquarters.

All the women said they weren’t expecting to make a career of it when they joined the military, but once inside what kept them going were the opportunities and the people.

“I never actually made a conscious decision to stay in the Navy, I just kept doing things that I loved, and the Navy kept giving me opportunities to do new things and to see new places, to go places I would never have had the opportunity to experience,” Norton said.

Bert joined the Coast Guard at a time when it was only 10 percent female and did two tours on ships where she was the only woman on board. That helped her decide she didn’t want a

seagoing career, so the Coast Guard sent her to law school.

“Through a lot of great friends and mentors and coaches, I just stayed with it, and it’s been fun. My closest friends are in the Coast Guard and I met my husband, who is not in the Coast Guard, but I met him through the coast guard, so it’s just a second family to me, that’s why I stayed,” Bert said. “It wasn’t even the mission as much as the people.”

Frushour said she was an Air Force brat who attended a “hail and farwell” ceremony at the U.S. embassy in Norway, her father’s last posting, for a departing Marine and his replacement.

For the new arrival, “it didn’t seem like a start over for him, it seemed like he had moved into a new family, into a new group of friends. As a military brat who had grown up all over the place, that really stayed with me. What a great thing, to be able to join an organization that is doing good work, to be able to serve my country, be able to travel, and wherever you go, you’re just joining friends and family that are already there.”

Norton said the military really is a meritocracy, and “frankly, one of the reasons I’ve loved being in the military is from the time I started I’ve always felt like the military has led society in diversity and equality in many, many ways … If you work hard and are dedicated to the people and the mission, you can be successful, and I think it’s important that we in the military, and those of us who are retired and continue to influence the Department of Defense, continue to make it a leader in our social change and social justice across the board.”

However, changes still need to be made, Bert said.

“We still have model, because it was formed by men, we have a model that is for a stay at home person, whether it’s a husband or wife, who’s raising the kids, we don’t really

acknowledge that having a family is part of most people's lives," Bert said. "It should not be a choice … either six years at sea as a SWO [surface warfare officer] and then deciding, I can't have this lifestyle, or just moving all the time."

That model is "a great way to drive out really talented people, not just women. It's not a lifestyle choice [where] we're going to get the best in American society. … We need to start listening to women and underrepresented minorities and look at ways we can change."

Sea-Air-Space 2021 Prequel: Cooperation is Key for Maintaining Maritime Security, International Navy Chiefs Say

A member of Explosive Ordnance Disposal Mobile Unit (EODMU) 8, performs mine recovery training as part of BALTOPS 50. The 50th BALTOPS represents a continuous, steady commitment to reinforcing interoperability in the Alliance and providing collective maritime security in the Baltic Sea. *U.S. NAVY / Mass Communication Specialist 1st Class Christopher Hurd*

Top officials from several allied navies said cooperation and collaboration is one key way to bolster their capability in tough budget times.

U.S. Navy Rear Adm. Francis D. Morley, director of the Navy International Programs Office, led a Sea-Air-Space 2021 Prequel virtual session in July with international heads of navy, including speakers from the United Kingdom, Sweden, Spain and Japan.

Vice Adm. Nick Hine, second Sea Lord of the Royal Navy, said where possible, allies should move beyond interoperability and embrace interchangeability.

That is “not about individual naval units working together operationally, indeed tactically, but a strategic conversation

about how we consider our entire approach to collaboration. This is about using our collective resource better to be more productive and deliver better security outcomes," Hine said. "We have started that journey, but to be truly interchangeable with our allies, we must align strategic visions, cohere our planning and resources, jointly plan and execute operationally and technically, not only acting together but acting as one."

That could include common doctrines, systems architecture, supply chains, data sharing as well as "common platforms and weapon systems that can be jointly developed and delivered to sovereign units," he said.

As an example, he cited the U.K.'s Carrier Strike Group 21, led by the aircraft carrier HMS Queen Elizabeth, that has U.S. Marine Corps, Royal Navy and Royal Air Force F-35 pilots "flying and fighting together," as the recently did in strikes against Daesh, the terrorist group also known as ISIS.

Another example he cited is the London Tech Bridge, an incubator which highlights American and British technology and rapidly exploits it.

"Even if we are unable to achieved interchangeability in full, the ambition and the drive towards it will strengthen interoperability between allied navies," Hine said.

Rear Adm. Ignacio Villanueva Serrano, force commander of the Spanish navy, said a medium-sized navy such as his own needs to enhance several capabilities to stay relevant, including leveraging space as an extension of the air and sea, new "connectors and vectors for seapower projection" and unmanned systems, all of which, "one way or another, will be required in the new security and defense environment."

Serrano and Hine both noted that technology is becoming more widely available across the board, to large navies and small actors alike.

The current environment is “marked by a struggle for technological superiority and easy access by all to emerging and advanced technologies, where it can be difficult to gain advantage in direct confrontation,” Serrano said. “In this context, the use of hybrid strategies will prevail and opposing actors will try to act at the limit of international legality, covered by fake news to manipulate public opinion and provoking critical doubts on the use of all military forces and capability.”

Navies such as those of Spain and Sweden need to modernize and beef up their capabilities, said Serrano and Rear Adm. Ewa Skoog Haslum, chief of navy for the Swedish Navy, the first woman to lead a branch of the country’s armed forces.

“Interoperability requires us to find both technology solutions and the continued develop of sharing recognized maritime picture with our different partners,” she said. “Together, we are not only stronger, but better.”

She cited the recent Baltic Operations (BALTOPS) exercise, which celebrated its 50th anniversary this year and included 16 NATO nations and two partner nations, including Sweden.

Sweden is embarking on a military buildup that will see mid-life updates on corvettes, including adding electronic warfare suites and air defense missiles, four new surface combatants, with two arriving by 2030, operationalizing a fifth new submarine and re-establishing a marine regiment on the country’s west coast, among other changes.

Next year will mark the 500th birthday of the Royal Swedish Navy, she noted, and a new defense resolution gives a clear growth goal for 2025 and beyond, “and we are now eager to grow.”

Spain wants to lean in to new credible landing forces and littoral strike capabilities, Serrano said, using short

takeoff and landing aircraft and small landing platforms, as well as underwater vehicles for mine detection and unmanned surface vehicles for force protection.

“In our navy, we are aiming for those systems and concepts,” he said.

In a pre-taped segment, Adm. Hiroshi Yamamura, chief of staff of the Japanese Maritime Self Defense, said the Indo-Pacific region is “vitally important for our security.” To that end, the Japanese defense ministry recently unveiled a “free and open Indo-Pacific vision” to enforce regional prosperity and security in the Indian Ocean and Pacific Ocean.

It would do this through defense cooperation and exchange activities and through active engagement in the region in cooperation with partner countries, Yamamura said.

Yamamura noted the many challenges in the region, from more assertive and aggressive actions by China and Russia to ongoing tensions in the Middle East to a “still unpredictable” North Korea.

As an “overreaching capability” to help counter these threats and defend Japan’s surrounding waters and territories, Yamamura said Japan will bolster its information warfare capability and its strategic communications.

“I am confident that the backbone of global security is to maintain the international maritime order of the world,” he said. “Cooperation and exchanges with neighbor partners are more effective that promoting efforts on our own.”

AeroVironment Debuts Crysalis Ground Control System

The new Crysalis ground control station, shown here in its Ultralight form. *AEROVIRONMENT*

Unmanned aircraft maker AeroVironment announced Crysalis, a new flexible, cross-platform ground control system the company says will form the command-and-control basis for all its products going forward.

Company President and CEO Wahid Nawabi and other company officials announced the product in a live video press conference on July 6, saying the goal is to make command and control much simpler for the warfighter and provide a “window”

to all the systems they control, eventually including air, ground and maritime equipment.

“With the introduction of Crysalis, we are streamlining command and control of our small UAS and empowering warfighters with actionable intelligence at the speed of war to increase their tactical decision making,” Nawabi said. “Crysalis can be integrated into our portfolio of intelligent, multi-domain robotic systems and deliver easy-to-use, yet powerful new capabilities that enable our customers to succeed in full spectrum operations.”

Crysalis, which the company calls “ground control, simplified,” is built around hardware, software and antennas and comes in four sizes: RVT, or remote video terminal, the smallest, wearable, phone-based system; Ultralight, also wearable, but which adds joysticks and physical controls and is the smallest size that allows full command and control; Tactical, which adds a battery splitter for hot-swapping batteries for longer power life; and Command, a laptop-based variant intended for a fixed or semi-fixed command post location.

It’s cross platform with Windows, Android and Linux, and is flexible in that an Android-powered Crysalis system on a phone could interact with a Windows system on a laptop.

Ease of use is key to reduce “cognitive load” on warfighters, Nawabi said, and the system is designed to put critical information front and center. Size was also a key driver for the system because, as Chief Software Engineer Mark Graybill said, “Weight is about how much ammo you can’t pack.”

Two Marines Nominated for Lieutenant General, Deputy Commandant Assignments

ARLINGTON, Va. – Secretary of Defense Lloyd J. Austin III announced today that the president has made the following nominations:

Marine Corps Maj. Gen. David J. Furness for appointment to the rank of lieutenant general, and assignment as deputy commandant for plans, policies, and operations, Headquarters, U.S. Marine Corps, Washington, D.C. Furness is currently serving as assistant deputy commandant for plans, policies, and operations, Headquarters, U.S. Marine Corps, Washington, D.C.

Marine Corps Maj. Gen. Matthew G. Glavy for appointment to the rank of lieutenant general, and assignment as deputy commandant for information, Headquarters, U.S. Marine Corps, Washington, D.C. Glavy is currently serving as commander, Marine Corps Forces Cyberspace Command, Fort George G. Meade, Maryland.

U.S. Navy Launches First Flight III DDG, the Future USS Jack H. Lucas

The future guided-missile destroyer Jack H. Lucas (DDG 125) is

launched, June 4, 2021, at Huntington Ingalls Industries, Ingalls Shipbuilding division in Pascagoula, Mississippi. *U.S. NAVY / HUNTINGTON INGALLS INDUSTRIES*

PASCAGOULA, Miss. – The first DDG 51 Arleigh Burke-class guided missile destroyer to be built in the Flight III configuration, the future Jack H. Lucas (DDG 125), was successfully launched at Huntington Ingalls Industries, Ingalls Shipbuilding division, June 4, the Navy said in a June 7 release.

The DDG 51 Flight III upgrade is centered on the AN/SPY-6(V)1 Air and Missile Defense Radar and incorporates upgrades to the electrical power and cooling capacity plus additional associated changes to provide greatly enhanced warfighting capability to the fleet. The Flight III baseline begins with DDGs 125-126 and will continue with DDG 128 and follow-on ships.

"Flight III ships will provide cutting edge integrated air and missile defense capability to include significantly greater detection range and tracking capacity. Launching the first Flight III ship, the future Jack H. Lucas, is another important step to delivering Flight III to the Navy," said Capt. Seth Miller, DDG 51 Arleigh Burke-class program manager.

The DDG 51 Arleigh Burke-class guided-missile destroyer (DDG 51) is a multi-mission guided missile destroyer designed to operate offensively and defensively, independently, or as units of Carrier Strike Groups, Expeditionary Strike Groups, and Surface Action Groups in multi-threat environments that include air, surface and subsurface threats. These ships will respond to low intensity conflict and coastal and littoral offshore warfare scenarios, as well as open ocean conflict, providing or augmenting power projection, forward presence requirements and escort operations at sea. Flight III is the fourth flight upgrade in the 30-plus year history of the class, building on the legacy of Flight I, II and IIA ships

before it.

HII is currently constructing four other DDG 51 class ships, including the future Frank E. Petersen Jr. (DDG 121) and Lenah Sutcliffe Higbee (DDG 123) in the Flight IIA configuration, and the future Ted Stevens (DDG 128) and Jeremiah Denton (DDG 129) as Flight III ships. There is a total of 20 DDG 51 class ships under contract at both new construction shipyards.

GDMS to Retrofit Knifefish Surface Mine Countermeasure UUVs for Navy

A Knifefish unmanned undersea vehicle (UUV) training model undergoes crane operations aboard the Military Sealift Command expeditionary fast transport vessel USNS Spearhead (T-EPF 1) in 2019. *U.S. NAVY / Master-at-Arms 1st Class Alexander Knapp*

FAIRFAX, Va. – General Dynamics Mission Systems announced June 7 it was awarded a $72.8 million contract from the U.S. Navy to retrofit five Block 0 Knifefish surface mine countermeasure unmanned underwater vehicle (SMCM UUV) systems, which comprises 10 Knifefish SMCM vehicles. The retrofit requirements will enhance Knifefish operations at deeper depths, identify more complex target environments and provide more precise localization.

Once complete, all 10 Knifefish Block 0 UUVs will be upgraded with the new requirements integrated and redelivered in the Block 1 configuration.

Knifefish SMCM is a medium-class mine countermeasure UUV

intended for deployment from the Navy's littoral combat ship and other Navy vessels of opportunity. Knifefish SMCM will reduce risk to personnel by operating within minefields as an off-board sensor while the host ship stays outside the minefield boundaries.

"General Dynamics Mission Systems is honored to extend our support to the U.S. Navy with this increased capability on all five Knifefish SMCM systems," said Carlo Zaffanella, vice president and general manager at General Dynamics Mission Systems. "We are proud to provide the Navy with advanced, state-of-the-art unmanned underwater vehicles, and we are dedicated to delivering this technology safely and quickly to our sailors."

New AMRAAM Variant Completes Two Free Flight Test Shots

An AMRAAM launched from an F/A-18F Super Hornet. *U.S. NAVY*

EGLIN AIR FORCE BASE, Fla. — The Advanced Medium-Range Air-to-Air Missile (AMRAAM) joint program office completed the second live fire test of the new AIM-120D-3 missile variant, incorporating upgraded hardware into the guidance section on May 12, the Naval Air Systems Command said in a release.

The weapon safely launched from an F/A-18F Super Hornet and flew the expected flight path over the Point Mugu Sea Test Range in California. Preliminary analysis provided by the prime contractor, Raytheon Missiles & Defense, indicates all primary and secondary objectives of the shot were met.

"Completing the first two free flight shots of upgraded

hardware and software is a significant milestone in the integration and test phase of the new AIM-120D-3 missile," said Col. Sean Bradley, AMRAAM Senior Materiel Leader at the U.S. Air Force's Armament Directorate. "These successes are important to the overall execution of the Form, Fit, Function Refresh (F3R) program; a program implemented to address an increasing number of production challenges due to obsolescence of various electronic components within the AIM-120."

Combined with software upgrades, AIM-120D-3 will deliver advanced capabilities to improve missile effectiveness against advanced threats for Air Force, Navy, and Allied Partners. This missile shot from an F/A-18F Super Hornet tested the missile's safe separation autopilot and free-flight navigation capabilities.

Together, with the first shot on Dec. 9, 2020, these shots represent a critical first in a series of developmental flight tests that provides crucial data to assess the missile's ability to acquire, track and guide to targets.

AMRAAM is the world's most sophisticated, combat-proven air dominance weapon. With AIM-120D-3 production deliveries beginning in 2023, the AIM-120 missile will continue to meet warfighter requirements in all weather and beyond visual range engagements. Its capabilities have been fully demonstrated in over 4,900 test shots and more than 13 air-to-air combat victories.

Cutter Tampa Returns Home

after Interdicting More than $94M of Illicit Drugs

Two Coast Guard Cutter Tampa crewmembers pass a bale of cocaine during a drug offload at Base Miami Beach, Miami, Florida, April 20, 2021. The Tampa crew interdicted a low profile vessel off the coast of Punta Gallinas, Colombia, which resulted in 87 bales of cocaine, weighing approximately 5,500 pounds, and worth an estimated $94.6 million. *U.S. COAST GUARD / Chief Petty Officer Charly Tautfest*

PORTSMOUTH, Va. — The Coast Guard Cutter Tampa returned to its homeport in Portsmouth after completing a 56-day counter narcotics patrol in the Central Caribbean, April 25, the Coast Guard 5th District said in an April 29 release.

The crew of the Tampa began their patrol by embarking an armed helicopter aircrew from the Coast Guard's Helicopter Interdiction Tactical Squadron in Mayport, Florida, which the crew used in conjunction with their over-the-horizon-capable pursuit boat to stop suspected drug smuggling vessels.

During their patrol, a maritime patrol flight spotted a vessel on April 9, and a law enforcement team from the Tampa detained three suspects and discovered 87 bales of cocaine, totaling approximately 5,500 pounds of cocaine, worth an estimated $94.6 million.

The crew of the Tampa's efforts to combat drug smuggling in the Caribbean are part of Operation Martillo, a larger effort to increase regional stability and undermine the influence of Transnational Criminal Organizations, who routinely attempt to smuggle drugs throughout the region.

The Tampa crew prioritized readiness during the COVID-19 pandemic and incorporated a series of precautionary measures to include personal protective equipment, as well as the incorporation of vaccinations for members to ensure its crew, family members and community continue to remain safe while achieving mission excellence.

"This was our third patrol we have conducted during the COVID-19 pandemic, and the crew of the Tampa never ceases to impress me with their incredible perseverance, devotion, and adaptability that they use to tackle each patrol and achieve mission success," said Capt. Michael Cilenti, Tampa's commanding officer. "Of course, I would be remiss in not mentioning the true heroes of this patrol, and every patrol: our family and friends back at home, who constantly support us and give us the inspiration to work that much harder. Our success in interdicting the first Caribbean low profile vessel is a testament to that teamwork and focus on mission excellence that makes Tampa so special."

Bollinger Shipyards Acquires Gulf Island Fabrication's Shipyard Facilities

The Coast Guard accepts delivery of its newest Sentinel-class fast response cutter (FRC), the Coast Guard Cutter Frederick Hatch (WPC 1143), from Bollinger Shipyards in Key West, Florida, Feb. 10, 2021. Bollinger has now acquired Gulf Island Fabrication's shipyard facilities, expanding its construction and repair capacity. *U.S. COAST GUARD / Ensign Alexandra Hughes*

LOCKPORT, La. – Bollinger Shipyards, a privately-held designer and builder of steel military and commercial vessels for the past three quarters of a century, has acquired Gulf Island Fabrication Inc.'s shipyard facilities, expanding Bollinger's new construction and repair capacity and capabilities to better serve its key defense and commercial customers, the

company said in an April 19 release. Financial terms of the transaction were not disclosed.

This acquisition creates expanded opportunities for Bollinger to better serve and deepen its relationships with key defense and commercial customers with an increased capacity for new projects and footprint, access to a larger workforce skilled in steel construction, improved efficiencies and enhanced economies of scale. Current customers for Bollinger include the U.S. Coast Guard, U.S. Navy, General Dynamics-Electric Boat, and non-defense and commercial customers servicing energy production to dredging. Gulf Island had been building the Towing, Salvage and Rescue Ships for the U.S. Navy and Regional Class Research Vessels for the National Science Foundation and Oregon State University. These projects conveyed with the transaction.

“The addition of the new Houma shipyard further strengthens our position within the U.S. defense industrial base as a leading shipbuilder and vessel repair company,” said Ben Bordelon, CEO and president of Bollinger Shipyards. “For 75 years, we’ve developed a deep expertise in and proven track record of building reliable, high endurance steel vessels for the Coast Guard, Navy and our commercial customers. As the needs of these customers change and grow, we are constantly looking for ways to invest in and expand our capabilities and innovative solutions so that we can continue to provide them with the highest levels of quality, support and service in our industry.”

Bordelon continued, “For three quarters of a century, Bollinger’s greatest strength has and continues to be our people and their American ingenuity and quality craftsmanship. I am excited to welcome the Gulf Island Shipyard employees into the Bollinger family. Together, we will ensure that the ‘Bollinger standard’ will be the high bar we measure ourselves against for superior quality and safety as we work to deliver

the next generation of American made high-performance vessels for our government and commercial customers.”

The new Bollinger Houma facility encompasses 437 acres on the west bank of the Houma Navigation Canal, of which 283 acres is unimproved land that is available for expansion. The facility includes 18,000 square feet of administrative and operations facilities, 160,000 square feet of covered fabrication facilities and 20,000 square feet of warehouse facilities. It also has 6,750 linear feet of water frontage, including 2,350 feet of steel bulkheads. Located just 30 miles from the Gulf of Mexico, the strategic location provides short and unrestricted access to the newly acquired Houma facility from open waters.

The acquisition also includes a 15,000-short ton drydock, a 4,000-short ton drydock, a 3,000-short ton drydock and a 1,500-short ton drydock.

Bollinger’s acquisition increases the shipyard’s growing new construction and repair portfolio. In December of last year, Congress appropriated funds for Bollinger to build four additional Sentinel-class Fast Response Cutters (FRCs) for the U.S. Coast Guard. In addition to construction of the FRC, Bollinger is under contract to construct an Ocean Transport Barge and Floating Dry Dock for General Dynamics Electric Boat Division. In addition, Bollinger is participating in industry studies for five government programs, including the U.S. Coast Guard’s Offshore Patrol Cutter and the U.S. Navy’s Common Hull Auxiliary Multi-Mission Platform, Auxiliary General Ocean Surveillance, Large Unmanned Surface Vehicle and Light Amphibious Warship programs.

Elbit Awarded $41M Order as Part of the Night Vision Goggles IDIQ Contract for U.S. Marine Corps

A view of a Marine through the Squad Binocular Night Vision Goggle at night. In January 2020, a group of Marines with The Basic School assessed the Squad Binocular Night Vision Goggle night vision system comprising an image-intensifier binocular and enhanced clip-on thermal imager. *U.S. MARINE CORPS / Sgt. Kirstin Spanu*

HAIFA, Israel – Elbit Systems Ltd.'s U.S. subsidiary, Elbit Systems of America LLC, has been awarded a delivery order valued at approximately $41 million for the supply of night vision systems and various spare components to the U.S. Marine Corps, the company said in an April 20 release. The order will be executed in Roanoke, Virginia, and will be supplied through

March 2022.

This order is part of a $249 million five-year Squad Binocular Night Vision Goggles indefinite delivery indefinite quantity (IDIQ) contract from Sept. 6, 2019, under which the U.S. Marine Corps are supplied with Squad Binocular Night Vision Goggle (SBNVG) systems consisting of high-performance, white phosphor image intensifier binoculars, modular uncooled thermal imaging sensors and common external power supplies – providing Marines improved mobility and situational awareness during night operations.

“Marines need to quickly understand their surroundings and act to engage their targets – no matter the light conditions – and Elbit Systems of America’s SBNVG provides this power in a lightweight, adjustable system that is an ideal upgrade,” said Raanan Horowitz, president and CEO of Elbit Systems of America.