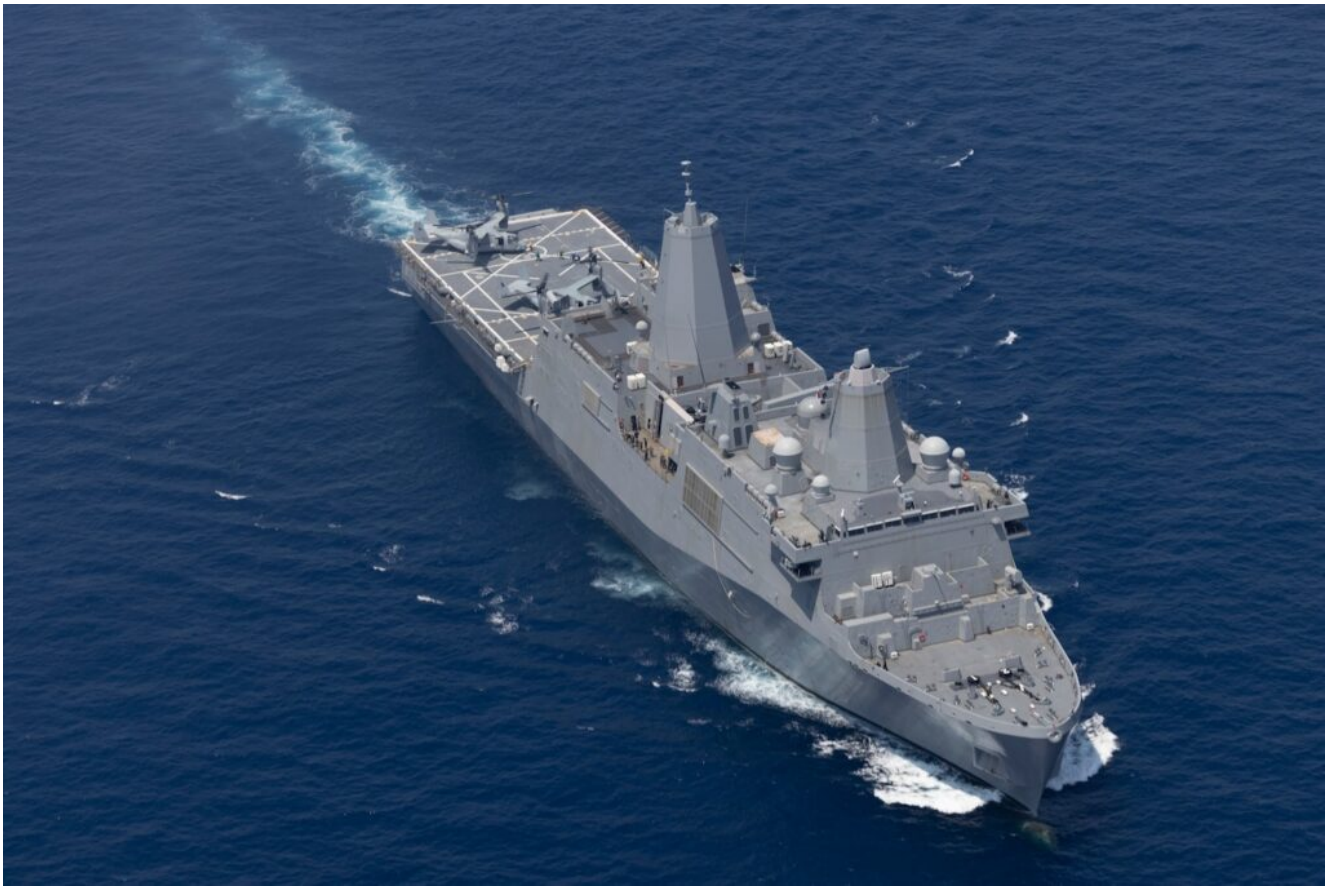
UNITAS LXIV to begin in Colombia



Release from USNAVSOUTH/4th Fleet Public Affairs

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July 11, 2023

CARTAGENA, Colombia – U.S. Navy and Marine forces are set to arrive in Cartagena in support of UNITAS LXIV, the world's longest-running multinational maritime exercise in the world, scheduled to start July 11, 2023.

The Colombian navy will host this year's UNITAS, which will feature 26 warships/vessels, three submarines, 25 aircraft (fixed wing/helicopter), and approximately 7,000 people from 20 partner nations. Forces will conduct training operations off the coast of Cartagena, Colombia, and ashore in Covenas

and Barranquilla, Colombia, through July 21. This year marks the 64th iteration of the exercise. Additionally, this year Colombia will celebrate the bicentennial of its navy, a historical milestone commemorating 200 years of the country's maritime forces.

"UNITAS is so much more than a two week exercise. All participating nations have given much time, energy and effort into the months of planning leading up to what will be one of the most complex UNITAS to date," said Rear Admiral Jim Aiken, commander U.S. Naval Forces Southern Command/U.S. 4th Fleet. "Utilizing air, surface, sub-surface, and unmanned assets, and land units, UNITAS will provide the multinational force a challenging environment in which to conduct training across the full spectrum of maritime operations. UNITAS strengthens maritime partnerships, enhances proficiency and improves interoperability of the participating forces, which is why so many partner nations are taking part this year."

As part of the U.S. Navy's future hybrid fleet, the Chief of Naval Operations has tasked U.S. 4th Fleet to scale unmanned platforms to the fleet level. An addition to this year's UNITAS will include the integrated operations of unmanned air, surface, and subsurface systems into the exercise. UNITAS' challenging training address key aspects of multinational and combined operations such as technology standardization and common operating procedures.

"This is our first opportunity to integrate unmanned systems into our operations at sea," said Rear Adm. Aiken. "UNITAS has often served as a test bed for technology, so it is appropriate that we begin our unmanned integration campaign to operationalize the hybrid fleet here in UNITAS."

In addition to the United States, UNITAS LXIV will bring together 19 nations from all over the world to train forces in joint maritime operations that enhance tactical proficiency

and increase interoperability. Participating nations include Belize, Brazil, Canada, Chile, Colombia, Dominican Republic, Ecuador, France, Germany, Honduras, Jamaica, Mexico, Panama, Peru, Paraguay, Spain, South Korea, United Kingdom, United States, and Uruguay.

Following the UNITAS LXIV Opening Ceremony on July 12, the in port phase of the exercise will feature subject matter expert exchanges, professional symposia, ship rider exchanges, and operations meetings. During this time, Marines and Sailors will conduct expeditionary training events in Covenas to include riverine operations and diving and salvage operations.

During the UNITAS LXIV Underway Phase, forces will participate in events testing all warfare operations, to include live-fire exercises such as a SINKEX and an amphibious ship-to-shore landing and force retraction.

“Marines and Sailors from across the United States will travel to Colombia to not only train alongside our partner nations’ militaries, but to hone the skills required to operate as part of a larger maritime force focused on sea control and sea denial,” said Lt. Gen. David G. Bellon, commander, U.S. Marine Corps Forces, South, and U.S. Marine Corps Forces, Reserve. “We will be exercising command and control from a forward position as Marines set up and employ Expeditionary Advanced Base Operations to enhance naval capabilities as part of UNITAS.”

U.S. forces participating in UNITAS LXIV include USS New York (LPD 21), USS Cole (DDG 67), USS Little Rock (LCS 9), USS Pasadena (SSN 752), and USNS Burlington (T-EPF 10). Other U.S. participants include Patrol Squadron Five (VP 5), Mobile Diving and Salvage Unit (MDSU) 2, Explosive Ordnance Disposal Mobile Unit (EOD) 612, Mine Countermeasures Group 3, (MCMGRU 3), Expeditionary Mine Countermeasures EOD Company 61 (EODMU

61), East-coast based Naval Special Warfare units, Helicopter Sea Combat Squadron 22 (HSC 22), Helicopter Maritime Strike Squadron 70 Detachment 2 (HSM 70 Det 2), Joint Communications Support Element (JCSE), Fleet Surgical Team (FST) Eight, and the Meteorological Environmental Team (MET). U.S. Marine forces include 3rd Battalion, 23rd Marine Regiment (3/23), 4th Amphibious Assault Battalion (4th AABn), 8th Combat Logistic Battalion (CLB 8), 4th Combat Engineer Battalion (4th CEB), Marine Medium Tiltrotor Squadron 774 (VMM 774), Marine Light Helicopter Attack Squadron 775 (HMLA 775), Marine Aerial Refueler Transport Squadron 234 (VMGR-234), Marine Aircraft Control Group – 48 (MACG-48), and Marine Fighter Attack Squadron 112 (VMFA-112). Finally, Commander, Destroyer Squadron 40, (COMDESRON 40), Commander, Amphibious Squadron Four (COMPHIBRON FOUR), U.S Marine Corps Forces South (MARFORSOUTH), Special Operations Command South (SOCSOUTH), USNAVSOUTH/FOURTHFLT, and U.S. Southern Command (USSOUTHCOM) are participating in UNITAS LXIV.

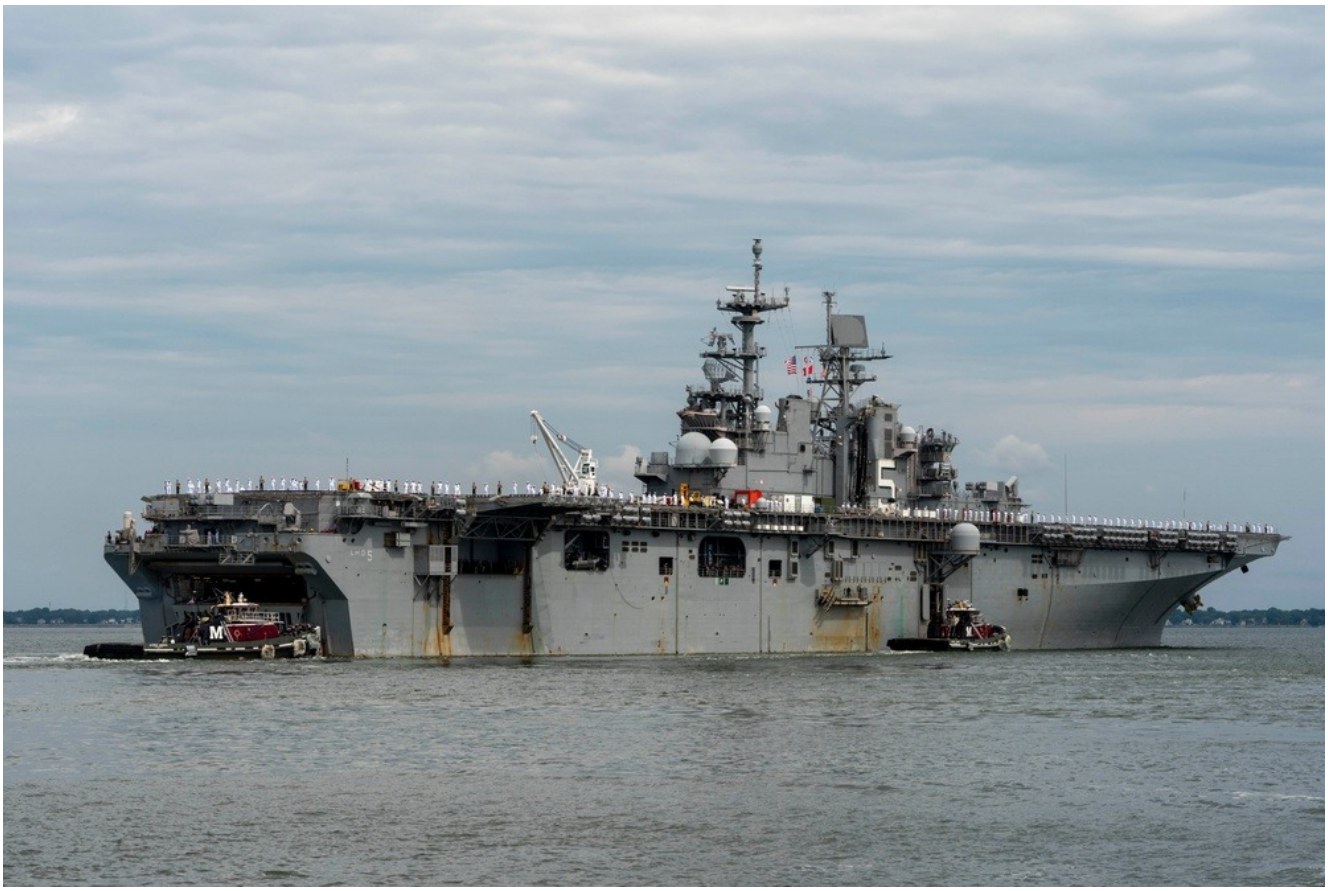
UNITAS, which is Latin for unity, united, or oneness, was conceived in 1959 during a previous era of strategic competition when representatives at the first Inter-American Naval Conference in Panama agreed to conduct an annual maritime exercise with one another. Prior to UNITAS I in 1960, U.S. Chief of Naval Operations Adm. Arleigh Burke reviewed preparations for the multinational exercise. He commended planners for their progress, especially in building compatible communication systems among navies, and predicted that UNITAS would build strong relationships among Sailors of the Western Hemisphere.

U.S. Naval Forces Southern Command/U.S. 4th Fleet supports U.S. Southern Command’s joint and combined military operations by employing maritime forces in cooperative maritime security operations to maintain access, enhance interoperability, and build enduring partnerships in order to enhance regional security and promote peace, stability and prosperity in the

Caribbean, Central and South American region.

U.S. Marine Corps Forces, South is the Marine Corps component to U.S. Southern Command, is responsible for planning exercises, operations, and overall Marine Corps support for the SOUTHCOM assigned area of responsibility.

Bataan ARG and 26th MEU(SOC) Marines, Sailors Set Sail for Deployment



Release from Commander, U.S. 2nd Fleet

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NORFOLK, VA, UNITED STATES

07.10.2023

Courtesy Story

Commander, U.S. 2nd Fleet

ATLANTIC OCEAN – U.S. Marines and Sailors of the Bataan Amphibious Ready Group (BAT ARG) / 26th Marine Expeditionary Unit (MEU) (Special Operations Capable) (SOC) departed Norfolk, Virginia, and Camp Lejeune, North Carolina, July 10, after completing a comprehensive, nine-month training program.

The deployment is part of a regular rotation of forces that foster maritime security and increased theater cooperation by providing a forward naval expeditionary presence with vast, specialized crisis response capabilities to support the geographic combatant commander, numbered fleet commander, and joint special operations task force commander.

“We are ready to complete any mission before us, and we are looking forward to the opportunities we will have to work alongside our allies and partners in the months ahead,” said Capt. Martin Robertson, commander of Amphibious Squadron 8. “Our Sailors and Marines have trained hard and are ready. We are thankful for the support of our families and loved ones during this journey.”

The BAT ARG/26th MEU(SOC)’s pre-deployment training program culminated with its final certification exercise, Composite Training Unit Exercise (COMPTUEX), a series of exercises designed to fully integrate roughly 4,000 Marines and Sailors into one cohesive contingency force while testing the units’ abilities to carry out sustained operations from the sea.

During COMPTUEX, the BAT ARG/26th MEU(SOC) operated under NATO command and control to replicate the realities of missions the Navy-Marine Corps team may encounter on deployment.

“Over the course of the last nine months, Marines and Sailors of the 26th MEU(SOC) successfully demonstrated the battle staff competencies coupled with all-domain operational capabilities and high proficiency across the MEU Marine Air-Ground Task Force (MAGTF) mission essential tasks and warfighting functions, to include MEU/SOF-integration, during an enhanced, rigorous pre-deployment training program within a scenario reflective of the EUCOM, AFRICOM, and CENTCOM regions,” said Col. Dennis “Dolf” Sampson, commanding officer of the 26th MEU(SOC). “Throughout our work-ups, the Bataan Amphibious Ready Group and the 26th MEU(SOC) executed multiple advanced at-sea training exercises and fully integrated into a cohesive naval expeditionary force capable of supporting theater campaigning requirements while remaining postured, as the Nation’s Immediate Response Force, to rapidly respond to any crisis.”

The Bataan ARG is comprised of the Wasp-class amphibious assault ship USS Bataan (LHD 50), the San Antonio-class amphibious transport dock USS Mesa Verde (LPD 19) and the Harpers Ferry-class dock landing ship USS Carter Hall (LSD 50). Embarked commands include commander, Amphibious Squadron (CPR) 8, Fleet Surgical Team 8, Tactical Air Control Squadron 21, Helicopter Sea Combat Squadron 26, Assault Craft Unit 4, Beach Master Unit 2, and the 26th MEU(SOC).

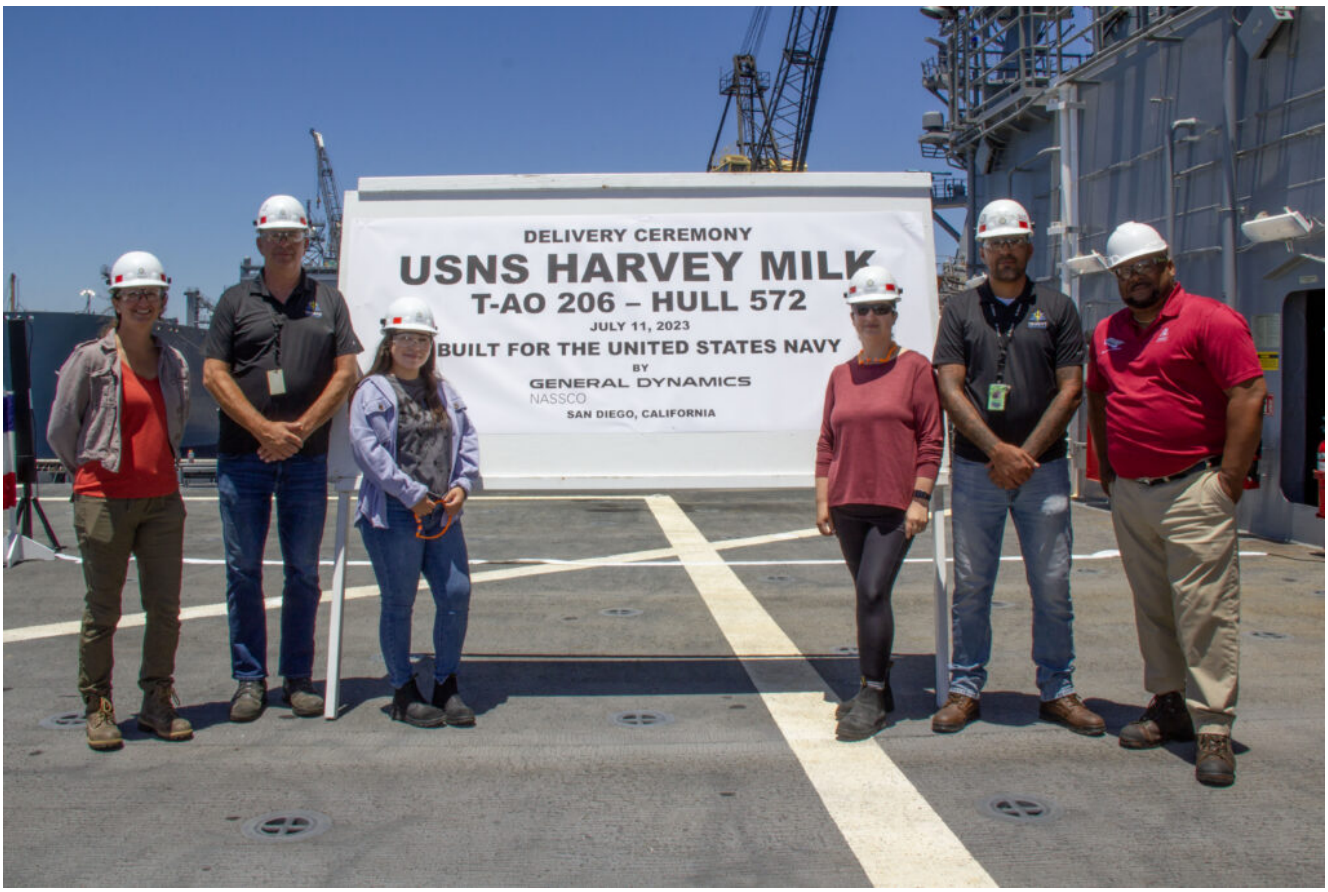
“I could not be any prouder of the Marines, Sailors, and families of the 26th MEU(SOC),” Sampson said. “They set the bar very high during our work-ups as the premiere Tri-GCC Crisis Response Force, showcasing the flexibility and all-domain operational capabilities the ARG/MEU(SOC) provides to a

Fleet or Joint Task Force Commander within the littorals and beyond.”

The 26th MEU(SOC) serves as one of the Nation’s premier crisis response forces capable of conducting amphibious operations, crisis response, and limited contingency operations, to include enabling the introduction of follow-on forces and designated special operations, in support of theater requirements of the Geographic Combatant Commander. Coupled with the BAT ARG, the 26th MEU(SOC) serves as a premier stand-in force with a full complement of all-domain capabilities to operate persistently within the littorals or weapons engagement zones of an adversary.

For more information, please contact Bataan ARG and 26th MEU(SOC) Public Affairs: Bataan Amphibious Ready Group Public Affairs, CPR8PAO@lhd5.navy.mil and 26th Marine Expeditionary Unit (Special Operations Capable) Communication Strategy & Operations, 26MEU_COMMSTRAT@bataan.usmc.mil.

Navy Accepts Delivery of USNS Harvey Milk (T-AO 206)



[Release from Naval Sea Systems Command]

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July 11, 2023

By Team Ships Public Affairs

The Navy accepted delivery of fleet replenishment oiler, USNS Harvey Milk (T-AO 206), from shipbuilder General Dynamics National Steel and Shipbuilding Company (NASSCO) on July 11.

The delivery of T-AO 206 follows the successful completion of acceptance trials with the Navy's Board of Inspection and Survey to test the readiness and capability of the ship and to validate requirements.

"We are excited to deliver the 2nd of class T-AO, USNS Harvey Milk, and expand the Navy's capacity and capability to provide a fuel pipeline at sea," said John Lighthammer, program manager, Auxiliary and Special Mission Shipbuilding Program Office. "The fleet and her Sailors will benefit from enhanced

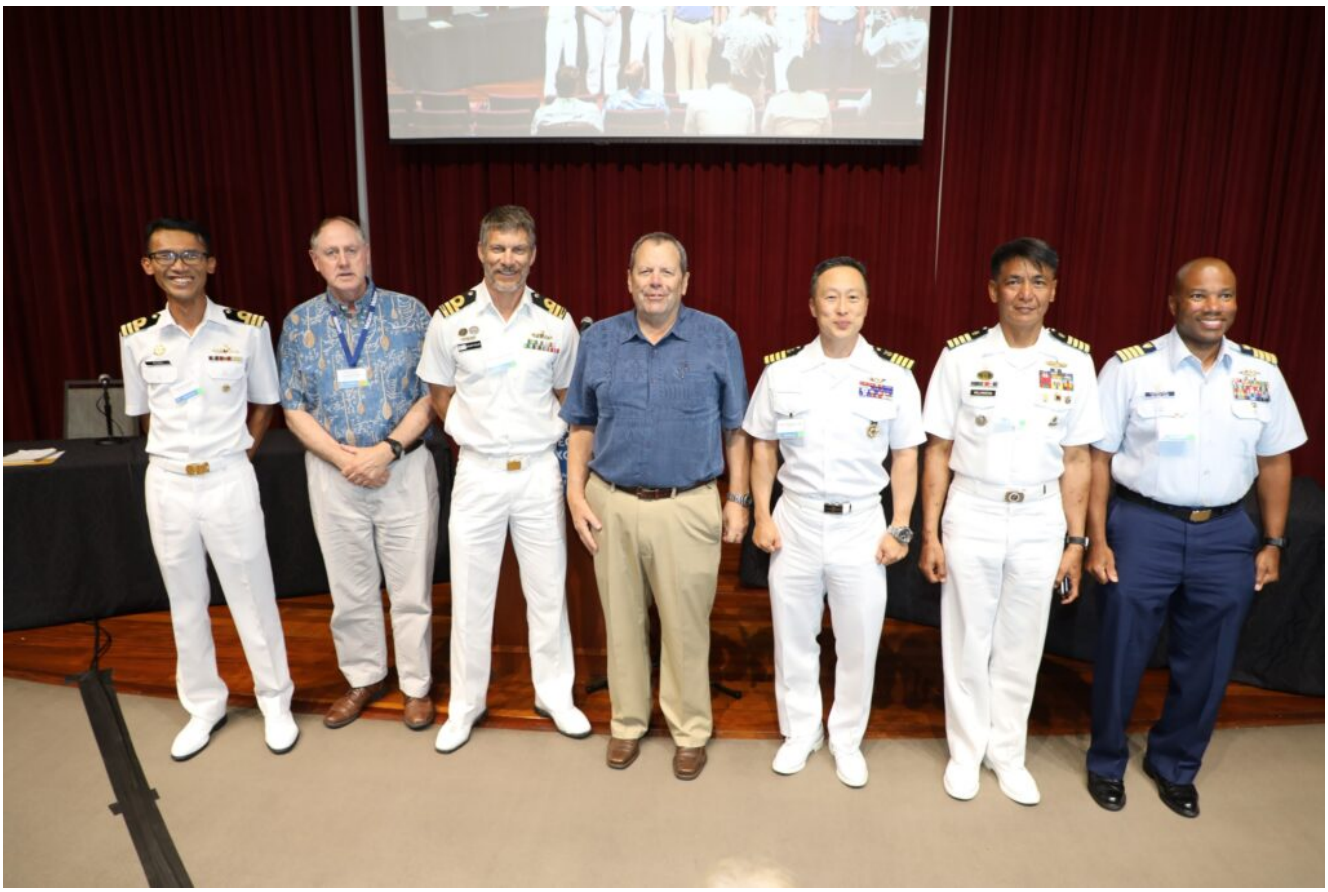
at-sea operations.”

T-AO 206, the second ship of the 20-ship class, will be operated by Military Sealift Command. The ship provides diesel fuel, lubricating oil and jet fuel; small quantities of fresh and frozen provisions and dry stores; and potable water to Navy ships at sea. T-AOs add underway replenishment capacity to the Navy’s Combat Logistics Force and will become the cornerstone of the fuel delivery system.

Shipbuilder General Dynamics NASSCO is currently constructing USNS Earl Warren (T-AO 207) and the future USNS Robert F. Kennedy (T-AO 208), USNS Lucy Stone (T-AO 209) and USNS Sojourner Truth (T-AO 210). Future USNS Thurgood Marshall (T-AO 211) and USNS Ruth Bader Ginsburg (T-AO 212), and yet to be named T-AO 213 are under contract.

As one of the Defense Department’s largest acquisition organizations, PEO Ships is responsible for executing the development and procurement of all destroyers, amphibious ships, special mission and support ships, boats and craft.

Indo-Pacific Maritime Security Exchange will examine emerging capabilities and capacity



Highlight of the 2022 IMSE was the panel of commanding officers sharing their experiences in the just-completed RIMPAC 2022 exercise. Focused on interoperability and information sharing, the panel included ship commanding officers from Royal Malaysian Navy, Royal Australian Navy; Republic of Korea Navy; Philippine Navy; and US Coast Guard. (Navy League Honolulu Chapter photo)

Attend this event online

The Honolulu Council of the Navy League is once again hosting the Indo-Pacific Maritime Security Exchange (IMSE), a conference that brings voices from the Indo-Pacific together to discuss maritime security issues in the region. The event will take place August 3rd and 4th as an online symposium.

“Our agenda is designed to stimulate a conversation,” said Larry Osborn, a retired Navy captain and president of the Navy League’s Pacific Region.

In a basic sense, IMSE looks at maritime security in its four key elements: freedom of navigation, unrestricted flow of

commerce, the protection of ocean resources, and the exclusive rights of sovereign nations in their Exclusive Economic Zones (EEZs); an overarching theme is building partnerships for security, stability, and prosperity. IMSE will feature senior maritime leaders and subject matter experts from the region as speakers and panelists examining a broad range of topics to include the strengthening of multi-national maritime military capability, capacity building efforts that include security assistance and cooperation, law-enforcement on the high seas, and diplomatic efforts.

According to the IMSE website, nearly all of the thirty-six countries that comprise the Indo-Pacific region are maritime nations. The region contains nine of the ten busiest seaports in the world and more than half of global maritime trade transits the region. The national sovereignty and economic well-being of nations in the region are dependent on the maintenance of the rule of law and international norms on the high seas as described in the United Nations Convention on the Law of the Sea. Today this rule of law is being challenged by expansionist territorial claims in the South China Sea, harassment of foreign vessels in international waters, and IUU fishing. Countering these threats to maritime security in the region requires the collaborative efforts of like-minded nations in the military, diplomatic, law-enforcement, and commercial arenas.

Osborn said the IMSE team strives to have half of the speakers be representatives from the various countries in the region. “Specifically, we want to give a voice to all the nations large and small to include Pacific Islanders, as well as some of the more some of the larger nations, like Japan, or the Republic of Korea. Collectively, our peace, security and prosperity are dependent on the seas.”

The 2023 conference content will be divided into three segments. “The first segment is going to look at illegal, unreported, and unregulated (IUU) fishing and its nexus with

transnational crime. The second segment will examine the various treaties, alliances and affiliations in the region and how they interplay. In our third segment, we will focus on emerging maritime capabilities, starting with the People's Liberation Army Navy (PLAN) and the Chinese Maritime Militia. We'll also look at some of the navies in the region to include Japan, Republic of Korea, Australia, and others. And I think each of them has a story to tell about their navies and their emerging capabilities and capacity," said Osborn.

As examples, Osborn points to India's indigenous aircraft carrier; acquisition of MH 60 Romeo helicopters and P-8I Poseidon maritime patrol aircraft, which will give them enhanced anti-submarine warfare capability, as well as a future buy of "Multi-Role Carrier-Borne Fighters."

"India occupies a very strategic position on the sea lanes between Asia and the Middle East and Europe. And they are expanding their ability to keep those sea lanes open and secure," he said. "Japan has announced that they're going to develop counter strike capability and they're also enhancing their destroyer fleet with anti-ballistic missile capabilities. The Republic of Korea is building large amphibious ships to respond anywhere in the region to a crisis or humanitarian disaster. Taiwan has an indigenous frigate construction program underway to replace their mostly-hand-me-down surface combatants and is building eight submarines of its own design. There are other examples, too, in the region."

Another facet of emerging capabilities is in the arena of maritime domain awareness. "We'll be looking at the technologies involved in delivering maritime domain awareness, from aggregators and processors to collectors and sensors," Osborn said.

In the final series of panels, senior maritime leaders will examine the increased transparency of the oceans and how to

make sense of it or act upon it.

The attendees will learn about “fusion centers” such as the Information Fusion Centre (IFC) is a regional Maritime Security (MARSEC) center hosted by Singapore, and the Information Fusion Centre – Indian Ocean region, hosted by India. “We’ll discuss the foundation of the technologies that make these fusion centers work, and how operators and data are brought together.”

“Today’s operators are faced with huge amounts of data, but with the right analytical tools, including artificial intelligence, they can detect anomalies and draw an operator’s attention to where it needs to be, and determine the best course of action,” said Osborn.

According to Osborn, the content will appeal to a broad audience. “Anybody interested in maritime security or sustainable fishing, will find the conference content very compelling.”

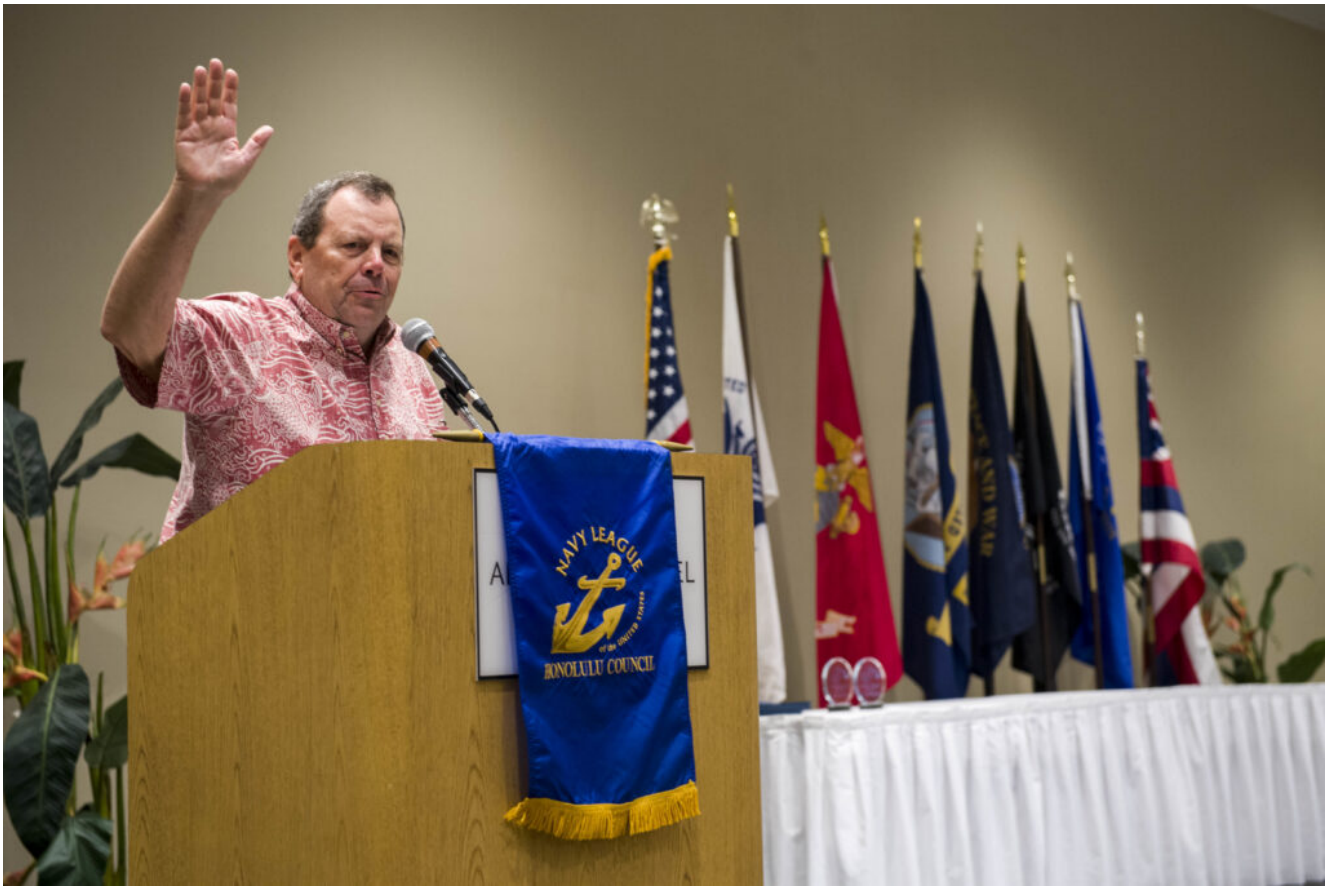
He said the on-line format makes it easy to attend, “No matter where you are in the world, you can log-in and see the most recent content or see other material that has already been posted.”

The cost to register is just $15.00, but Navy League members can register for free.

The major sponsor for this year’s IMSE is the U.S. Agency for International Development (USAID), which has a large interest in protecting sustainable fishing for coastal nations.

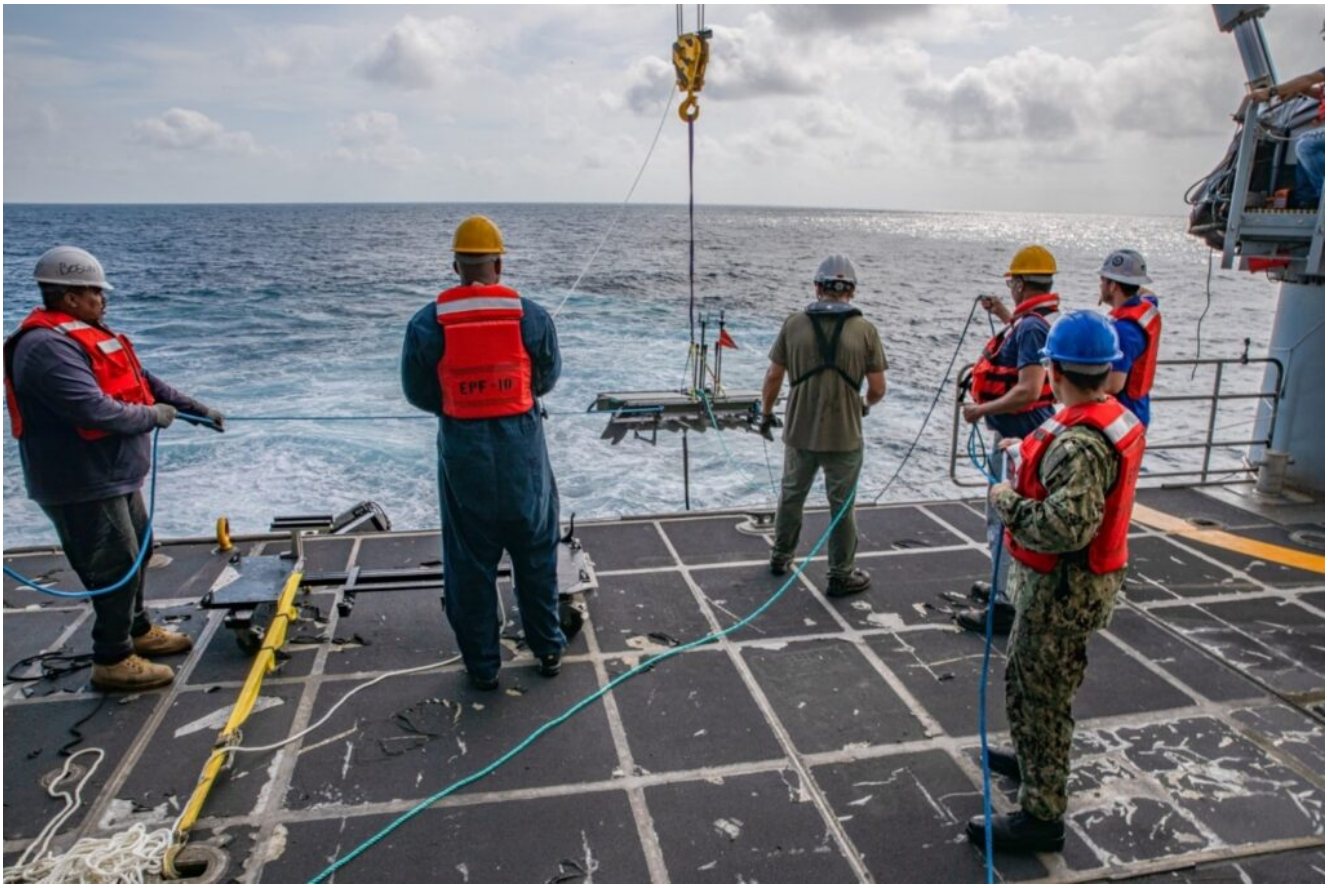
For more information: https://www.imsehawaii.org/

To register: https://www.imsehawaii.org/registration.html



181115-N-NU281-1050 HONOLULU (Nov. 15, 2018) Retired U.S. Navy Capt. Larry Osborn, Navy League President, Honolulu Council, delivers remarks at the 58th Annual Sea Services Awards ceremony. The event honors top performers in the U.S. Navy, Marine Corps and Coast Guard. (U.S. Navy photo by Mass Communication Specialist 2nd Class Justin R. Pacheco)

USNS BURLINGTON Hosts Launch Of Unmanned Surface Vehicle



Release from U.S. 4th Fleet

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By USNAVSOUTH/4TH FLEET PUBLIC AFFAIRS

CARRIBEAN SEA – U.S. Navy Sailors partnered with Military Sealift Command civilian mariners and civilian contractors in a collaborative effort to successfully launch a Wave Glider unmanned surface vehicle (USV) from expeditionary fast transport ship USNS Burlington (T-EPF 10), June 30, 2023.

The launch took place during the Burlington's transit to Cartagena, Colombia ahead of the start of UNITAS LXIV. Colombia is this year's host for UNITAS, longest-running annual multinational maritime exercise in the world, scheduled to start on July 11, 2023.

"UNITAS is so unique and full of opportunities for innovation, providing an ideal location to experiment with service concepts and conduct combined training while close to home and

in a permissive environment," said Burlington's Military Detachment officer in charge, Cmdr. Michael Fleck.

Wave Glider is one of the unmanned systems in operation during the exercise as a part of the U.S. Naval Forces Southern Command/U.S. 4th Fleet (USNAVSOUTH/FOURTHFLT) Unmanned Integration Campaign. The campaign's goal is to deploy and integrate unmanned systems and artificial intelligence tools into operations, which will bolster the Navy's Marine Domain Awareness (MDA), counter-narcotics (CN) efforts and information sharing with partner nations.

"UNITAS is an outstanding avenue to introduce emerging naval concepts for multinational exercises and operations in the region," said Burlington's Military Detachment senior enlisted leader, Senior Chief Information Systems Technician Anthony Davis.

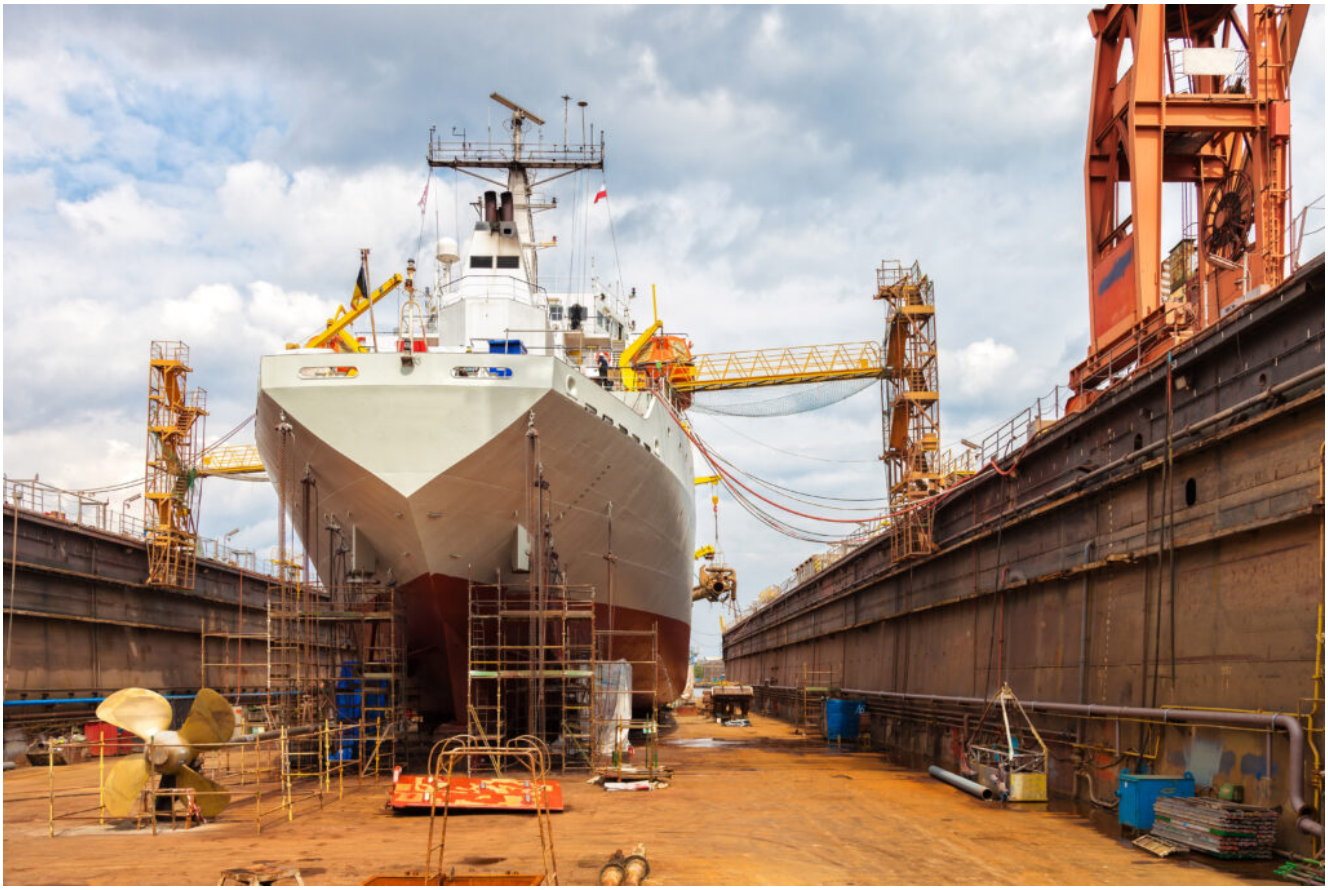
The Wave Glider USV runs on wave power, meaning the vertical wave motion is converted into forward thrusts. During UNITAS LXIV, the Wave Glider USV will provide Maritime Domain Awareness (MDA) in the exercise operations area during the underway portions of UNITAS.
The overall objective of the USNAVSOUTH/FOURTHFLT Unmanned Integration Campaign is to ultimately scale unmanned platforms to the fleet level while developing tactics, techniques, and procedures resulting in the U.S. Navy's Hybrid Fleet of the 2030s.

UNITAS, Latin for Unity, is the longest-running multinational maritime exercise in the world. A U.S.-sponsored joint exercise, UNITAS was conceived in 1959, with the first UNITAS (UNITAS I) taking place in 1960. UNITAS has occurred every year since then.

U.S. Naval Forces Southern Command/U.S. 4th Fleet supports U.S. Southern Command's joint and combined military operations

by employing maritime forces in cooperative maritime security operations to maintain access, enhance interoperability, and build enduring partnerships in order to enhance regional security and promote peace, stability and prosperity in the Caribbean, Central and South American region.

Clean Technology Lasers: The Maritime Industry's New Tool to Remove Corrosion and Scale



Shipbuilding professionals understand the value of pretreating metal surfaces of parts to remove corrosion.
Release from Laser Photonics

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Laser systems quickly remove corrosion and scale from metal surfaces with less preparation and mess than traditional techniques

In the maritime industry, corrosion, and scale (where rust penetrates a metal surface) can quickly become an issue in an outdoor, salt sea spray laden environment. When sea spray evaporates, it leaves salt behind, leading to saltwater staining and accelerated corrosion.

So, most shipbuilders as well as those responsible for maintenance and repair understand the value of treating metal surfaces to remove corrosion, scale, and saltwater staining, which is vital to maintain essential interior and exterior components such as engines, generators, fuel pumps, winches, anchoring chains, latches, door hinges and locks. This is necessary to preserve not only function but also prevent further corrosion and deterioration including possible premature failure.

Unfortunately, traditional techniques used for this purpose such as sandblasting and chemical stripping are messy and require expensive consumables as well as substantial time for preparation and cleanup. Additionally, sandblasting and chemical stripping may not be feasible to clean, maintain, or recondition many of the ship’s interior and exterior spaces. These methods are also drawing scrutiny from regulators like the EPA and OSHA since they can pose risks to applicators and the environment.

Although manual methods of cleaning and removal are available, such as chipping and using wire brushes and grinders, these are very labor intensive and time consuming.

Today, a more effective alternative is utilizing industrial-grade, precision laser-based systems that can remove corrosion and scale with a high-energy laser beam that leaves the substrate unaffected. The technology can also be used for

selective cleaning and even de-painting on access points and service latches when required. Preparation and cleanup time are minimal, and the low-maintenance equipment can last decades.

According to Vincent Galiardi, owner of Galiardi Laser Clean, a surface cleaning operator based in St. Charles County, Missouri, many people are surprised to learn that clean technology lasers are the most cost-effective, efficient, and safest method of metal surface preparation.

“Many people are unfamiliar with the use of lasers to pretreat metal surfaces,” says Galiardi. “When I do a demonstration, at first the people in attendance are skeptical. But after I use the laser to treat a small area, everyone starts talking and getting excited. By the end, when I let them try the equipment, everyone is having a good time and saying how great the laser works.”

Given its effectiveness treating metal surfaces, industrial laser systems are increasingly being used at shipyards, shipbuilding berths, and even aboard ships. Technicians can use mobile handheld units, or if needed the systems can be integrated into automated inline processing lines. With significant advantages in safety and efficiency, laser cleaning is poised to disrupt the surface treatment market across more sectors.

Resolving Conventional Cleaning Limitations

To treat metal surfaces, sandblasting or chemical stripping are traditionally used as industrial cleaning processes.

Sand Blasting

Abrasive sandblasting involves forcefully projecting a stream of abrasive particles onto a surface, usually with compressed air or steam. The silica sand used in abrasive blasting typically fractures into fine particles and becomes airborne,

which can cause serious or fatal respiratory disease.

When workers inhale crystalline silica, the lung tissue reacts by developing fibrotic nodules and scarring around the trapped silica particles, causing a fibrotic lung condition called silicosis. Estimates indicate that more than 1 million U.S. workers are at risk of developing silicosis and that more than 100,000 of these workers are employed as sandblasters.

In addition, particles are generated during abrasive blasting that further contribute to respiratory problems and other harmful health effects.

“When sand or any other media is used to knock off particles from a substrate, there is always a byproduct that has the potential to become airborne and inhaled,” says Galiardi.

“Industry has needed a cleaner, safer surface pre-treatment solution for a very long time,” adds Galiardi. “Sandblasting is inherently unsafe for operators. The silica glass used in sandblasting is toxic. An operator must wear a full HEPA suit when sandblasting to avoid breathing in particulates.”

Sandblasting also is time-consuming to clean up since the sand essentially scatters everywhere, even though it is usually considered a “fast” cleaning method.

Chemical Stripping

With chemical stripping, harsh, even toxic chemicals are used to strip metal-based objects of rust, paint, and contaminants to bare metal. However, for operators, exposure to corrosive acids and noxious chemical fumes is inherently dangerous. The process can also be time-consuming to prepare the proper chemical bath, achieve the required level of cleaning, and dispose of the waste. In addition, disposing of toxic chemicals is costly and closely regulated by agencies like OSHA and the EPA.

Safe, Effective Laser Cleaning

Laser-based systems have significant advantages over these traditional methods, including ease of use in which an operator simply points and clicks a high-energy laser beam at the surface. The substrate is not affected by the laser, and the systems do not create any mess or byproducts. The approach is eco-friendly, energy-efficient, and completes the job in half the time of traditional methods when preparation and cleanup are considered.

“In our experience, laser cleaning is as fast at removing rust or old coatings as other methods, but without the same amount of cleanup,” said Galiardi. “When we treat a surface with lasers, any fumes or dislodged particulate is extracted into a HEPA filter and the job is done. There is no media [sand, chemicals] to replenish or clean up.”

Galiardi Laser Clean uses laser systems made by Orlando, Florida-based Laser Photonics, a leading provider of patented industrial grade CleanTech® laser systems for cleaning and surface conditioning. The American-made systems function either as mobile standalone units or can be integrated into production lines.

The laser systems are available in portable and stationary models ranging from 50 to 3,000-watts (a 4,000-watt version is in development) with chamber sizes from 3’ x 3’ in size to 6’ x 12’. The systems can also be installed in manufacturing lines in cabinets or operated by a robotic arm.

In the shipbuilding industry, operators are utilizing the industrial grade laser systems to maintain a wide range of vital interior and exterior equipment. Operators are using CleanTech systems to smooth surfaces and remove rust and scale from engines, generators, fuel pumps, water separators, winches, anchoring chains, gear shifting and throttle components without disassembly. This improves safety,

function, lifespan, and reduces the risk of premature failure, which could be very dangerous during an emergency such as a storm on the high seas.

The laser systems similarly maintain door hinges and locks as well as remove saltwater stains from metal surfaces. In addition, the technology is used for selective de-painting and cleaning of access points, service latches, and other maritime applications.

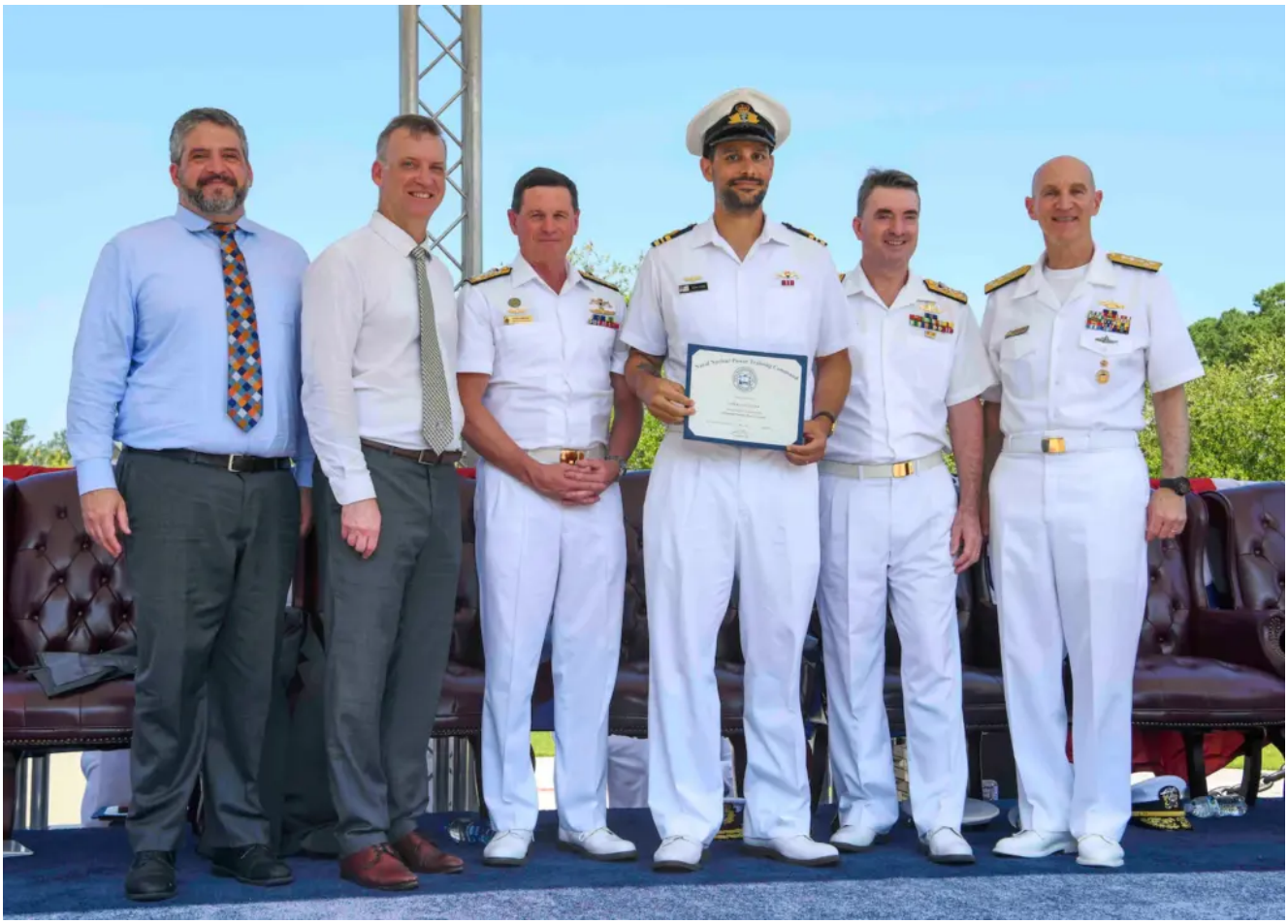
With clean laser technology, there is now an environmentally friendly alternative to abrasive blasting and chemical stripping for surface pretreatment. The approach is safer for operators and highly adaptable to a wide range of maritime applications.

“As people become more aware of laser-based systems and compare them to traditional methods, they need to factor in prep and cleanup time, which can significantly impact project cost. When the improved operator safety, equipment longevity, and lower maintenance of laser systems are also considered, the clean laser technology has a much higher ROI,” says Galiardi.

The longevity of low-maintenance laser systems further adds to their value, increasing ROI, and making replacement unnecessary for decades.

“CleanTech laser systems can last for 50,000 to 100,000 hours. That’s many decades working eight-hour days. After purchase, there’s virtually no maintenance necessary,” concludes Galiardi.

Nuclear Propulsion School First – Three Royal Australian Navy Officers Graduate the Program



Release from Naval Sea Systems Command

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July 7, 2023

Goose Creek, SC –Three Royal Australian Navy (RAN) officers graduated from the United States Navy's Nuclear Power School (NPS) today, marking a significant step in Australia's goal to operate conventionally armed, nuclear-powered attack submarines (SSNs).

Lt. Cmdr. James Heydon, Lt. Cmdr. Adam Klyne, and Lt. William Hall started NPS in November 2022, becoming the first cadre of RAN personnel to go through one of the Department of Defense's most rigorous and demanding training programs.

"I knew coming in that this was going to be a challenge, and I was not disappointed," said Heydon. "That said, being one of the first Australians to graduate from NPS means a lot to me personally and for Australia as we work to build the stewardship needed to safely operate a nuclear reactor. With that as our motivation, my colleagues and I put our heads down and cracked on."

NPS trains officers and enlisted personnel in the science and engineering principles that are fundamental to the design, operation, and maintenance of naval nuclear propulsion plants.

"What these graduates learn at NPS prepares them for the next step in becoming a nuclear-qualified officer," said Adm. James Caldwell Jr., Director, Naval Nuclear Propulsion Program. "From here, they will continue their academic and practical studies so that when they go to their aircraft carrier or, in the case of our RAN officers, submarines, they are ready to safely and competently operate the power plant."

The three RAN officers will next report to Nuclear Prototype Training Unit (NPTU) Charleston to complete Engineering Officer of the Watch training, which will conclude in late 2023 or early 2024. Following NPTU, the officers will go through Submarine Officer Basic Course for approximately 2.5 months in Groton, Connecticut and then be assigned to a Virginia-class SSN to continue their training and qualifications.

"These officers will form the nucleus of the RAN's nuclear-qualified submariners and, through them, Australia will develop its ability to operate, maintain, and build their own

conventionally armed nuclear powered submarines when it receives its first Virginia-class submarine from in the U.S. in the early 2030s," shared Capt. Lincoln Reifsteck the AUKUS Integration and Acquisition Program Manager.

"Today marks a significant step forward in the Royal Australian Navy's ability to build its sovereign SSN capability," said Vice Adm. Jonathan Mead, the Australia Submarine Agency's Director General. "I could not be more proud of these three officers. Today, we have sharpened the tip of our undersea warfighting spear, and we are closer to having a safer and more secure Indo-Pacific region."

There are six RAN officers enrolled in NPS with more planned to join in the near future. "NPS has the capacity to train RAN officers and enlisted personnel. In doing so, we are able to impart the stewardship and knowledge that has allowed the United States to safely operate nuclear-powered ships for nearly 70 years and steam more than 171 million miles," said Caldwell.

Initially announced in September 2021, the AUKUS trilateral agreement between Australia, the United Kingdom, and the United States is a strategic endeavor aimed at strengthening the security and defense capabilities of the three nations that also promotes stability and security in the Indo-Pacific region. Australia will acquire conventionally armed SSNs for the Royal Australian Navy under Pillar I of AUKUS via the Optimal Pathway announced by the heads of the three partner nations on March 13, 2023.

The Optimal Pathway for Australia's acquisition of nuclear powered submarines begins this year with an increase in the number of U.S. SSNs visiting HMAS Stirling in Western Australia. As early as 2027, U.S. and U.K. SSNs will begin extended rotations to Australia to accelerate the development of Australia's workforce, infrastructure, and regulatory system as part of the Submarine Rotational Force – West (SRF-

W). With congressional approval, the United States intends to sell three Virginia-class SSNs to Australia starting in the early 2030s with the potential to sell up to two additional hulls if needed. These efforts will maintain Australia's submarine capacity as it builds its fleet of SSN-AUKUS, a trilaterally developed nuclear powered submarines based on the U.K.'s next generation design. The Royal Australian Navy intends to take delivery of the first SSN AUKUS in the late 2030s followed by the first Australian-built SSN AUKUS in the early 2040s.

Contract for 2 NOAA research ships awarded to Thoma-Sea Marine Constructors, LLC.

NOAA Ship *Fairweather* is one of the current charting and

mapping vessels in the NOAA fleet. Credit: NOAA

Release from NOAA

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Investments from the Inflation Reduction Act support Biden-Harris Administration's Investing in America Agenda

Contact

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NOAA will add two new ships to its fleet of groundbreaking research vessels. The agency selected Thoma-Sea Marine Constructors, LLC. for a $624.6 million contract to initially design and build two cutting-edge research vessels, with an option to purchase two more. The first two ships will be built in Houma, Louisiana, with an expected delivery date of 2027 and 2028.

The new ships will focus primarily on ocean mapping and nautical charting as part of NOAA's mission to deliver tools and information to help mariners safely navigate the nation's ports and harbors. Ships from around the world move $1.5 trillion worth of products in and out of U.S. ports every year and rely on navigation charts to do so safely. The new vessels will have additional capabilities to help assess and manage living marine resources and collect data for oceanographic monitoring, research and modeling activities.

"These state-of-the-art ships will ensure that we can continue to meet NOAA's mission to support safe navigation, coastal resource management and the nation's blue economy," said NOAA Administrator Rick Spinrad, Ph.D. "I'm also proud that these new vessels will harness modern engines and design that will move NOAA forward in reducing its own emissions with an eye towards achieving a net-zero fleet."

The ships will be designed to coordinate, acquire and process large data sets like those gathered from mapping the seafloor and characterizing marine habitats. They will also have the ability to deploy crewed survey work boats, scientific equipment and uncrewed systems, which enhance the work the ship does.

“This is another milestone in NOAA’s effort to recapitalize our aging fleet of ships,” said NOAA Corps Rear Adm. Nancy Hann, director of NOAA Marine and Aviation Operations and the NOAA Commissioned Officer Corps. “These ships are vital for mapping the United States Exclusive Economic Zone, enabling maritime commerce and responding to natural disasters, and will allow us to meet critical at-sea data collection requirements for the economic security, public safety and national security for many years to come.”

This contract was awarded following a request for proposals that was open June–October 2022.

The design and construction of these new ships is funded in part by the Inflation Reduction Act – a historic $3.3 billion investment to help communities, including tribes and vulnerable populations, prepare, adapt and build resilience to weather and climate events in pursuit of a climate-ready nation. The act also supports improvements to weather and climate data and services, and strengthens NOAA’s fleet of research airplanes and ships.

The research and survey ships operated, managed and maintained by NOAA Marine and Aviation Operations comprise the largest fleet of federal research ships in the nation. Ranging from large oceanographic research vessels capable of exploring the world’s deepest ocean, to smaller ships responsible for charting the shallow bays and inlets of the U.S. The fleet supports a wide range of marine activities, including fisheries surveys, nautical charting and ocean and climate studies. NOAA ships are operated by NOAA Corps officers and

civilian professional mariners.

Climate, weather, and water affect all life on our ocean planet. NOAA's mission is to understand and predict our changing environment, from the deep sea to outer space, and to manage and conserve America's coastal and marine resources. See how NOAA science, services, and stewardship benefit your community: Visit noaa.gov for our latest news and features, and join us on social media.

BAE Systems awarded Next Generation Launcher design contract

BAE Systems was selected to design and deliver a new prototype deck launching system to the U.S. Navy.

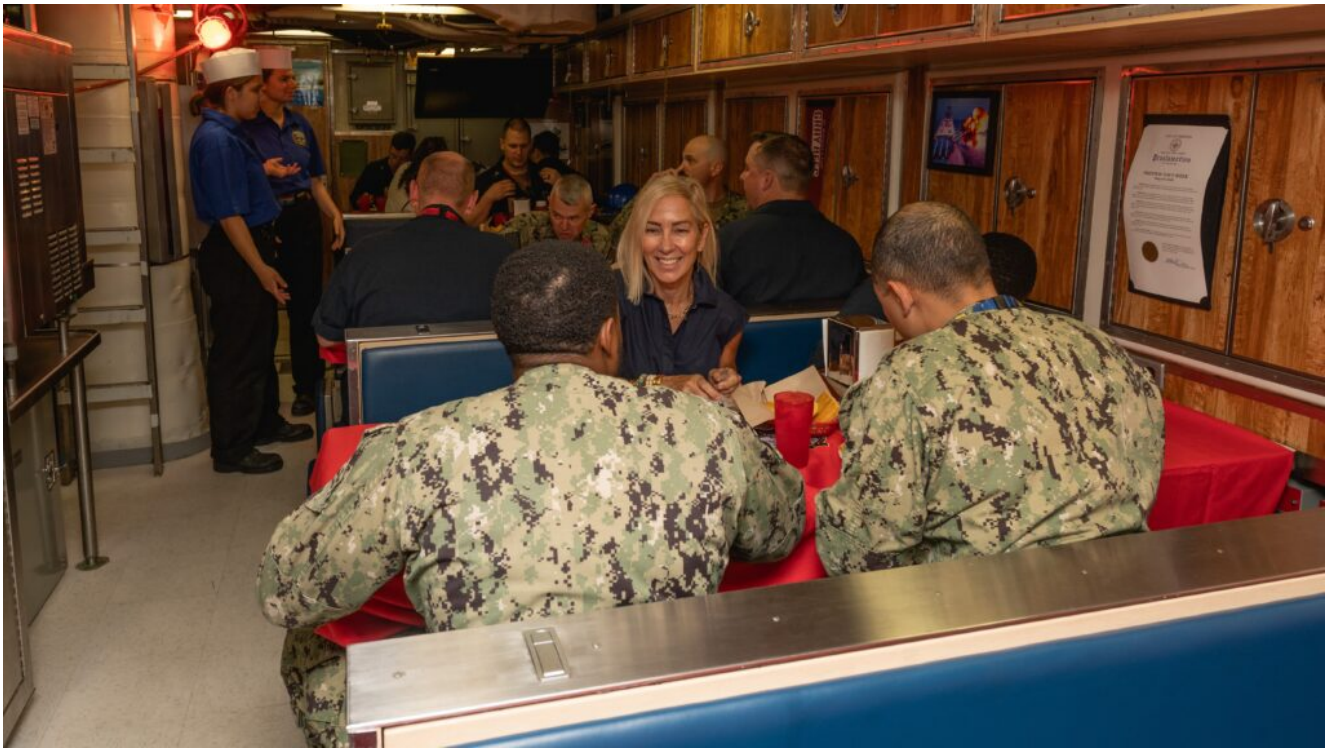
Release from BAE Systems

BAE Systems was awarded a $37 million U.S. Department of Defense Ordnance Technology Consortium (DOTC) contract to design the Next Generation Evolved SeaSparrow Missile Launch System (NGELS). The company will support the NATO SeaSparrow Program Office (NSPO) to design and deliver prototype deck launching systems to support the U.S. Navy and allied countries with the Evolved SeaSparrow Missile (ESSM) ship self-defense system.

NGELS is a deck-mounted, fixed-angle launcher that leverages BAE Systems' Adaptable Deck Launcher (ADL) concept to store and launch ESSMs from Mk 25 missile canisters, which are also produced by BAE Systems. Easily integrated into large deck platforms, NGELS will support the fielding of the latest and most highly-capable ESSM missile, the Block 2 variant, a multi-role surface-to-air and surface-to-surface missile capable of protecting aircraft carriers and other flat-decked ships against advanced air and surface threats. NGELS will use proven Mk 41 Vertical Launching System subsystems to deliver surface-to-air and surface-to-surface defense capabilities to aircraft carriers and amphibious ships in order to defeat missile threats.

"We have a long history of providing missile integration, launching systems, and canister design to the U.S. Navy," said Brent Butcher, vice president of the weapon systems product line at BAE Systems. "NGELS leverages the expertise of our workforce to provide a ready-to-deploy system that enhances mission effectiveness and enables reliable ship defense for the U.S. Navy. We look forward to working with our customers to bring this enhanced capability to the fleet and introducing it to international users."

HII Celebrates First Meal Aboard Virginia-Class Submarine New Jersey (SSN 796)



Release from HII

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NEWPORT NEWS, Va., July 05, 2023 (GLOBE NEWSWIRE) – HII's (NYSE: HII) Newport News Shipbuilding division moved another step closer toward delivery of *Virginia*-class submarine *New Jersey* (SSN 796) to the U.S. Navy when the first meal was recently served aboard the nuclear-powered fast attack submarine.

New Jersey is currently pierside at NNS and is in the final

stages of construction and testing.

To celebrate the first meal, the crew welcomed the ship's sponsor, Susan DiMarco, who is a New Jersey resident, retired dentist and the wife of former Secretary of Homeland Security Jeh Johnson, to dine with them. The menu included some of the crew's voted favorites, such as barbeque brisket, baked catfish, cornbread, accompanying side dishes and coveted "hard pack" ice cream.

"The first meal is a meaningful milestone in the submarine's construction as it represents the start of what will be thousands of meals served aboard *New Jersey* as the crew prepares to bring her into the fleet," said Jason Ward, NNS vice president of *Virginia*-class submarine construction. "We understand the important mission ahead for *New Jersey* and we look forward to delivering this critical asset in service of the nation."

Photos accompanying this release are available at: https://hii.com/news/hii-first-meal-virginia-class-submarine-new-jersey-ssn-796.

"It's refreshing to see the crew transition to working and eating onboard as we achieve the first step in bringing the ship to life," said Cmdr. Steve Halle, commanding officer of the pre-commissioning unit. "We are excited to share this milestone with our sponsor, Susan, her son, and some commissioning members as we grow our relationship with the state of New Jersey."

New Jersey was christened in November 2021 at NNS. It is the first submarine designed with modifications for gender integration. Following successful sea trials later this year, *New Jersey* will be the 11th *Virginia*-class submarine delivered by NNS.

NNS is one of only two shipyards capable of designing and

building nuclear-powered submarines for the U.S. Navy.