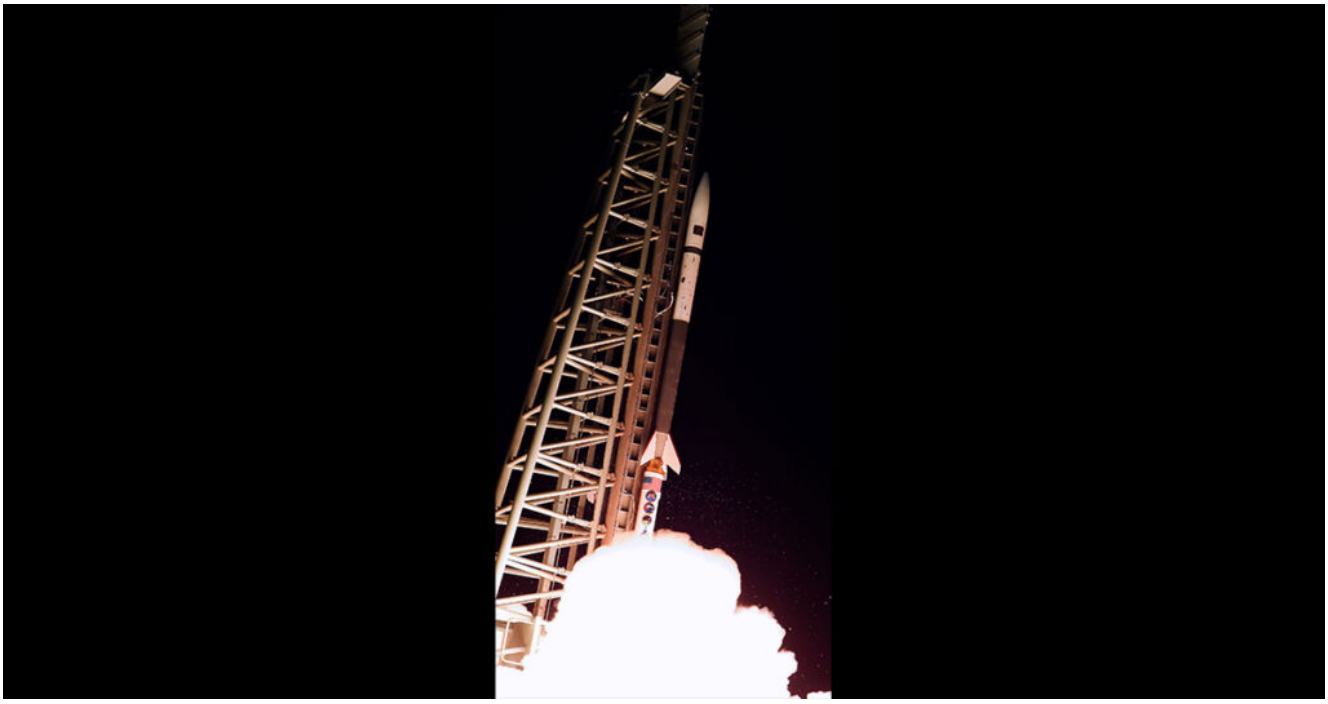
# General Atomics Demonstrates Autonomous Flight Termination Units During Navy/Army Hypersonic Rocket Test Flight



The launch of the successful test of General Atomics' Autonomous Flight Termination Units. *GENERAL ATOMICS ELECTROMAGNETIC SYSTEMS*

SAN DIEGO – General Atomics Electromagnetic Systems announced Feb. 1 that its Autonomous Flight Termination Units carried onboard two sounding rockets were successfully demonstrated and performed as expected during a High Operational Tempo for Hypersonics test flight campaign sponsored by the Navy Strategic Systems Programs and Army Hypersonic Program Office on Oct. 20, 2021, at Wallops Island, Virginia.

The AFTUs help assure missile flight safety and were part of a test campaign to demonstrate technologies to advance the development of the Navy's Conventional Prompt Strike and the

Army’s Long Range Hypersonic Weapon offensive hypersonic strike capability.

“GA-EMS’ long-established cooperative relationship with the Army, Navy and Sandia National Labs has been key to the design and advancement of hypersonic weapons technologies,” said Scott Forney, president of GA-EMS. “Test flight demonstrations such as this are a critical part of the process toward verifying and inserting this technology into future hypersonic weapon systems. We are pleased the AFTUs performed successfully, advancing the readiness of the AFTU technology. This represents a major step in proving the AFTU’s capability to successfully operate in the hypersonic environment for which they were designed.”

GA-EMS’ state-of-the-art AFTU offers greater flexibility to assure flight safety for missiles launched for space applications or military weapons testing. Integrated aboard a missile, the AFTU takes a pre-launch defined mission profile and compares it with what the launched missile experiences as it flies. If the flight profile rules or boundaries are violated during flight, the AFTU will command the vehicle to destruct. The AFTU’s compact, lightweight design reduces the size, weight, and power requirements aboard the test vehicle.

“The missile and space flight industry must provide a means of preventing a launch or aeronautical vehicle and its hazards, including any payload hazards, from reaching any populated or other protected area in the event of a vehicle failure,” Forney said. “Our AFTUs provide the flexibility to operate independently or can be paired to operate together to share data, with the ability to continue the flight should one fail, thus increasing mission assurance.”

# Center for Maritime Strategy Hosts Ribbon Cutting

Navy League CEO Mike Stevens, Rep. Elaine Luria (D-Virginia), former Chief of Naval Operations Adm. John Richardson, Navy League President David Reilly and Center for Maritime Strategy Dean Jamie Foggo cut the ribbon on the new CMS. *NAVY LEAGUE / Brett Davis*

ARLINGTON, Va. – The new Center for Maritime Strategy at the Navy League of the United States held its ribbon-cutting opening ceremony on Jan. 31, with the center's first dean, retired Adm. Jamie Foggo, saying it will provide thought leadership and advocacy for all the sea services and advocate for a strong industrial base to build the needed platforms that support them.

"Ninety percent of the world's traded goods go via the sea …

there are a lot of actors and factors out there that threaten these sea lines of communication," Foggo said during the ceremony at the Navy League building in Arlington, Virginia.

He noted the last National Defense Strategy called out five adversaries: China, Russia, Iran, North Korea and violent extremist organizations, all of which remain formidable opponents.

Foggo cited a speech by former Chief of Naval Operations John Richardson about the narrow margin of victory at Midway, which turned the tide in the Pacific in World War II.

"With adversaries surrounding us and our interests, resources tight, and lots of domestic concerns at home, the margins to victory in any future conflict may once again be razor thin," Foggo said. "It's our goal in the Center for Maritime Strategy to help the maritime services in collaboration with our leadership in the administration and Capitol Hill, think through this and come up with a winning combination of strategy, force structure, and resources."

Rep. Elaine Luria, D-Virginia, a two-decade Navy veteran, speaks at the CMS ribbon cutting. NAVY LEAGUE / Brett Davis

**Congressional Viewpoint**

Rep. Elaine Luria, D-Virginia, a 20-year Navy veteran and vice chair of the House Armed Services Committee, was the keynote speaker at the event.

"We need a real center like this who can think through and justify" the Navy's needs, including the number of ships required to fulfill its mission, Luria said.

In the days of President Theodore Roosevelt, a former under secretary of the Navy who supported the founding of the Navy league, shipbuilding was robust, Luria said, and "that was part of the American psyche."

The message about the importance of the sea services needs to "get outside of this room" and be part of the "dialogue with the American people."

Attendees at the event included active-duty admirals, congressional staffers, retired flag officers, naval attaches from allies and partners from around the world, representatives from prestigious think tanks and leaders from industry.


Center for Maritime Strategy Dean Jamie Foggo discusses the new center's logo. NAVY LEAGUE / Brett Davis

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# Navy Looking to Launch

# Analysis of Alternatives for SSN(X) Within the Next Year


The Virginia-class submarine USS Minnesota (SSN 783) transits the Thames River toward Naval Submarine Base New London in Groton, Conn., Nov. 26, 2021. *U.S. NAVY / Chief Petty Officer Joshua Karsten*

ARLINGTON, Va. — The Navy plans to begin a formal Analysis of Alternatives for its next generation nuclear-powered attack submarine, or SSN(X), a senior program official said.

“We are looking at starting an AoA here probably within the next year said Lisa Radocha, executive director of the Navy’s Program Executive Office — Attack Submarines, speaking Jan. 31 on a panel at the Technology, Systems and Ships Symposium conducted by the American Society of Naval Engineers.

Radocha said the Initial Capabilities Document for the SSN(X) is now under development. Research and development funds for the SSN(X) program are in the fiscal 2022 budget.

She said the SSN(X) design will feature increased speed, an increased horizontal payload, improved acoustic superiority, and higher operational availability.

Radocha pointed out that the period between the delivery of the first Virginia-class SSN and the planned delivery of the first SSN(X) will be four decades. She said one of her concerns is holding onto the engineering and design expertise in the shipbuilding industrial base for the SSN(X) program.

The Virginia-class SSN program will total 48 boats. The technological improvements over the seven blocks of the Virginia SSN will help to reduce risk for the SSN(X) program.

Radocha said her focus is creating an "on-ramp" for the SSN(X) program over the next two fiscal years.

Last August, during the Navy League's Sea-Air-Space Expo, Rear Adm. (now Vice Adm.) Bill Houston, then-director, Undersea Warfare, Division, Office of the Chief of Naval Operations and now commander, Submarine Forces, labeled the SSN(X) as "the ultimate apex predator for the maritime domain."

Houston said the SSN(X) has "got to be faster, carry a significant punch, a bigger payload, a larger salvo rate. It's got to have acoustic superiority and simultaneously we're going to work on operational availability with respect to maintenance and life of the ship."

The admiral explained that the SSN(X) is timed to capitalize on the 'very robust" design team for the Columbia-class SSBN when that program is ramping down amid production of the SSBNs.

# Indonesia’s New Fast-Attack Trimaran Combines Speed and Stealth


The Indonesian navy’s first stealth trimaran fast-attack craft, KRI Golok. *PT LUNDIN*

INDONESIA — The Indonesian navy commissioned its first stealth trimaran fast attack craft, KRI Golok (688), at Surabaya on the island of Java on Jan. 14. The ship was built by PT Lundin at Banyuwangi, on Java’s eastern tip, from composite fiber materials.

The commissioning ceremony took place at the naval base in Surabaya, East Java. Also commissioned at the ceremony was the lead ship in a new class of hospital ships KRI dr. Wahidin Sudirohusodo (991),

Speaking at the ceremony, Adm. Yudo Morgono, chief of the Indonesian navy, said, “This type of ship is not only important to support naval operations as part of the task force and the navy fleet, but is a tangible manifestation of

the navy's commitment to modernizing defense equipment in humanitarian operations."

The term "golok" refers to a cutting took, similar to a machete, which can serve as a tool or weapon.  During the naming ceremony last August, Margono said the composite material offers high strength, light weight, excellent fatigue resistance and is virtually corrosion free. The Indonesian navy sees the trimaran design and material as a prototype development purposes.

"With its high speed and high destructive power, it is hoped that this ship will be able to carry out the hit and run fast missile boat tactic," Margono said.

The ship has not yet been fitted with weapons, but is able to mount a gun up to 76mm and can carry up to eight antiship missiles, such as the RBS 15, Naval Strike Missile, Harpoon or Exocet.

According to a video prepared by PT Lundin, the ship has greatly reduced radar, infrared, acoustic and magnetic signatures. The weapons and RHIB are concealed inside the structure or discretely shaped to maintain stealth.

PT Lundin said the composite and carbon fiber foam-sandwich material – fabricated with fire-resistant vinyl ester resin – creates a structure that is much lighter than steel or aluminum, resin but has similar fire-resistance and ballistics protection properties and superior protection from blast and underwater explosions.

According to an Indonesian navy statement, the fast attack craft has an overall length of 205 feet (62.53 meters); a 52.5-foot (16 meter) beam; a 61-foot mast height (18.7 meters), and a current displacement of 245 tons. The ship will be heavier after the installation of weapons. The trimaran can achieve speeds up to 30 knots, and can cruise at 16 knots for 2,000 nautical miles. The ship and its 25-person crew will

have an endurance of 40 days. Additional personnel, such as special forces or a humanitarian assistance landing party can also be carried.

The wave-piercing trimaran can cut through waves instead of ride over them, maintain higher speeds and heavier sea states.  An enclosed hangar on the stern can carry a 12-meter RHIB.

The trimaran, with four water jets, is well suited for Indonesia's archipelagic operations. The FAC is extremely maneuverable, has a shallow draft and can literally back up onto a beach – where its radar signature becomes indistinguishable from the land – waiting for targets to engage.

*Golok* is powered by four 1800 HP MAN V12 diesel engines, each connected to a Marine Jet Power 550 waterjets. In a company video, PT Lundin refers to the trimaran as the "ultimate in high-speed missile boats."

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# Marines Test JAGM on Land Targets


U.S. Marine Corps Chief Warrant Officer 3 Michael Brawn, aviation ordnance officer, Marine Operational Test and Evaluation Squadron 1 (VMX-1), loads a joint air-to-ground missile onto an AH-1Z Viper during an operational test at Marine Corps Air Station Yuma, Arizona, Dec. 6, 2021. *U.S. MARINE CORPS / Cpl. Gabrielle Sanders*

WASHINGTON – Marines from Marine Operational Test & Evaluation Squadron 1 (VMX-1) conducted an operational test and evaluation of the Joint Air-to-Ground Missile from an AH-1Z Viper, Dec. 6, 2021, at Marine Corps Air Station Yuma, Arizona, the Marine Corps said in a Jan. 31 release.

VMX-1 continues testing and analyzing the capabilities of the JAGM on land targets after they evaluated the effectiveness of the missile on maritime targets in November 2021 at Eglin Air Force Base in Florida.

Personnel from Air Test and Evaluation Squadron Two One (HX-21), Naval Air Systems Command Direct and Time Sensitive Strike program office (PMA-242), Army Program Executive Office Missiles and Space, as well as industry partners were on

location to observe and analyze the data from the test event. This event can lead to significant improvements in lethality of attack helicopters by arming them with newer munitions equipped with two sensor technologies and optimizes missile performance on land targets.

“I am proud of all the work and professionalism demonstrated by the joint team striving to hit major milestones of the JAGM initial operational test and evaluation,” said VMX-1 Commanding Officer Col. Byron Sullivan. “The analysts, coordinators, and controllers meticulously pour over all the data captured so this weapon system can bring the necessary firepower to the warfighter.”

The team observed the test of eight separate shots against armored and light armored vehicles in a variety of operational scenarios. Ultimately, the data collected is analyzed to determine overall system effectiveness and refine the tactics, techniques and procedures of employing this weapon in expeditionary advanced base operations, such as strike operations and close air support.

“Watching the joint team perform the JAGM test is like observing a highly-skilled professional football team with seasoned offensive coordinators calling the right plays for an offense that flawlessly executes play after play,” said Maj. Thomas Hutson, the Assault Support department head at VMX-1 and member of the JAGM test team.

This test is part of a larger effort to upgrade the AH-1Z and UH-1Y aircraft, in alignment with the Commandant’s vision of force modernization to maintain a competitive edge against potential adversaries.

The mission of VMX-1 is to conduct operational test and evaluation of Marine Corps aviation platforms and systems.

# Keel Authenticated for Future LPD USS Harrisburg

The amphibious transport dock ships USS San Antonio (LPD 17) and USS New York (LPD 21) in 2011 off the coast of Virginia. They are sister ships to the future USS Harrisburg (LPD 30). *U.S. NAVY / Mass Communication Specialist 1st Class Edwin F. Bryan*

WASHINGTON – The keel for the future USS Harrisburg (LPD 30), the Navy's 14th San Antonio class-amphibious transport dock ship and the first Flight II ship, was laid at Huntington Ingalls Industries' Ingalls Shipbuilding, Jan. 28, Team Ships Public Affairs said in a release.

A keel laying is the recognition of the start of a ship's

construction. It is the joining together of a ship's modular components and the authentication or etching of an honoree's initials into a ceremonial keel plate. The ship's sponsor, Alexandra Curry, wife of Middletown, Pennsylvania, Mayor Jim Curry, had her initials etched into the keel plate by HII welders.

"LPD 30 marks the beginning of the LPD Flight II builds and the continuation of the superb capability that the San Antonio Class platform has brought to the Navy–Marine Corps team," said Cedric McNeal, program manager, Amphibious Warfare Program Office, Program Executive Office Ships. "With its flexibility and adaptability, LPD Flight II ships are essential to projecting power and delivering the combat capability needed to shape the future fleet."

The city of Harrisburg, Pennsylvania, and her surrounding region play a central role in our national defense infrastructure, hosting a myriad of defense logistics and naval supply support activities that bring support and sustenance to our Navy's fleet and our forward deployed Sailors and Marines. This is the second U.S. Navy ship to be named after the city of Harrisburg. The first was a troopship acquired during World War I.

The LPD Flight II ships will be the functional replacement for the Whidbey Island-class (LSD 41/49) dock landing ships. The San Antonio-class is designed to support embarking, transporting, and landing Marines and their equipment by conventional or air-cushioned landing craft. The ship's capabilities are further enhanced by its flight deck and hangar, enabling the ship to operate a variety of Marine Corps helicopters and the Osprey tilt-rotor aircraft. Because of the ships inherent capabilities, they are able to support a variety of amphibious assault, special operations, expeditionary warfare, or disaster relief missions, operating independently or as part of amphibious ready groups, expeditionary strike groups, or joint task forces.

HII’s Ingalls Shipbuilding Division is currently in production of the future USS Richard S. McCool (LPD 29) and the future USS Fort Lauderdale (LPD 29). LPD 28 and 29 will serve as transition ships to LPD 30.

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# Coast Guard Cutter Waesche Completes Bering Sea Patrol


During a brief stop for logistics in Dutch Harbor, Alaska, a bald eagle made Coast Guard Cutter Waesche’s dual point davit its home for the afternoon. *U.S. COAST GUARD*

ALAMEDA, Calif. – The crew of Coast Guard Cutter Waesche returned to homeport in Alameda Jan. 29 following a 77-day

Bering Sea patrol, during which the cutter and crew served as the ready asset for homeland defense and search and rescue, supporting the $5.9 billion commercial fishing industry.

This was the Waesche's first deployment since a major machinery space fire left the cutter at the pier for 10 months for dockside repairs and planned system upgrades.

The Waesche provided presence amongst Bering Sea fishing fleets and enforced compliance with applicable fisheries regulations, monitored the U.S.-Russian Maritime Boundary Line, and conducted rigorous training exercises. Augmenting the cutter's own capabilities were an embarked MH-65 helicopter and aviation detachment from Air Station Kodiak, as well as a ScanEagle drone. The helicopter supported two medical evacuations from a remote town in the Aleutian Islands.

The cutter and crew traveled more than 12,000 miles since departing Alameda Nov. 13, spanning the U.S. West Coast, Bering Sea, Aleutian Islands, and Gulf of Alaska. Members honed essential competencies through extensive damage control drills, helicopter operations, major and minor caliber gunnery exercises, and small boat operations.

The drills culminated in the Tailored Ship's Training Availability in San Diego. There, crewmembers demonstrated their knowledge and abilities while being evaluated by the Coast Guard's Afloat Training Organization. For many members of the crew, their skills are not only rooted in the significant training conducted aboard over the course of the deployment, but also from experience gained while combatting actual damage sustained during the Waesche's machinery space fire.

Supplementing the Waesche's extensive suite of military communications was a prototype underway Wi-Fi network added prior to this patrol and championed by the Sea Duty Readiness

Council and the Office of Cutter Forces.

“The addition of Wi-Fi underway has been a game changer for family connectivity, where crew members are able to easily text or call home and participate in major life events such as buying a home or being there on video Christmas morning as kids open presents,” said Commanding Officer Capt. Jason Ryan.

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# HII Names Chris Kastner President and CEO

HII’s Christopher Kastner, who will become president and CEO on March 1. *HUNTINGTON INGALLS INDUSTRIES*

NEWPORT NEWS, Va. – Huntington Ingalls Industries announced Jan. 27 its board of directors elected Chief Operating Officer Chris Kastner to become HII president and chief executive officer, consistent with the company’s succession plan. The board also elected President and CEO Mike Petters to become executive vice chairman of the board for a transition period. Both changes are effective March 1.

Petters and Kastner, who has acted over the past decade as chief financial officer, head of corporate strategy and divisional financial officer, are credited with nurturing the company’s current $48 billion shipbuilding backlog. The pair also steered its recent technology-oriented acquisitions to strengthen and broaden the capabilities HII delivers to customers.

“We’ve spent the past 11 years building a company for the 21st century,” said Petters, who took the helm of HII when Northrop Grumman spun off its shipbuilding business in 2011, after leading in various capacities for 24 years within HII’s shipbuilding divisions. “HII is now that company, with a leadership team and portfolio to serve our nation’s critical national security needs. I am proud of the work we have done together and excited to watch the company fulfill its promise. I have complete confidence in Chris and the senior leadership team in this next chapter.”

Starting March 1, Petters will support the leadership transition as executive vice chairman and will remain an HII employee through 2022, during which time he will continue to represent HII. Succeeding Petters as CEO, Kastner brings extensive leadership and program management experience. Kastner was promoted to his current COO position in February 2021, after serving as HII’s executive vice president and chief financial officer since March 2016. Kastner also served

as vice president and CFO for HII's Ingalls Shipbuilding division based in Pascagoula, Mississippi. Prior to HII's spin-off from Northrop Grumman in 2011, he held increasingly responsible positions on the B-2, Joint STARS and Global Hawk programs, and served as corporate director of strategic transactions. His selection to succeed Petters is part of HII's multi-year succession planning process.

"Given HII's support for national security, the company takes business continuity extremely seriously," said Kirk Donald, chairman of the board of HII. "We are grateful to Mike for his immeasurable contribution to the nation, and for what is now a supremely responsible leadership hand-off. The entire board joins me in congratulating Chris as he takes the helm of HII. The company's workforce and customers can be confident that HII's work will carry on with the same great sense of mission and service to our customers and our country."

In addition to overseeing HII's growth during his leadership tenure, Petters has also become a leading voice in the business community on matters of ethics, pre-K education and workforce development. Petters will also continue to serve as chairman of the board of governors of the Aerospace Industry Association, an advocacy organization on behalf of aerospace and defense companies.

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# Members of Coast Guard Port Security Unit Return Home After Nine-Month Deployment


Family and friends greet members of PSU 313 on their return from extended deployment, Jan. 27. PSU 313 operations focused on seaward security and provided around-the-clock waterside and shore side anti-terrorism and force protection defense security to Department of Defense assets and personnel at Naval Station Guantanamo Bay. *U.S. COAST GUARD / Petty Officer 2nd Class Ryan Tippets*

Everett, Wash. – Members from Coast Guard Port Security Unit 313 returned to Everett, Washington, Jan. 27 following a nine-month deployment to Guantanamo Bay, Cuba.

During the deployment, unit operations focused on seaward security, providing more than 42,000 hours of around-the-clock waterside and shore side anti-terrorism and force protection defense security to Department of Defense assets and personnel at Naval Station Guantanamo Bay.

PSU 313's operations also consisted of escorting marine traffic in and out of port as well as enforcing the naval defense sea area security zone around the base. Unit personnel worked closely with service members from Joint Task Force,

Naval Station Guantanamo Bay Harbor Patrol Unit, Marine Corps Security Forces Company, and Air Force and Army personnel conducting interagency operations and training at Naval Station Guantanamo Bay and along adjoining waters.

“The success of this unit in its deployment, in the midst of a global pandemic, is testament to the resilience of the crew and the priority each places on shipmate support and mission excellence,” said Cmdr. James W. Fitzgerald, PSU 313’s commanding officer. “Our members excelled in this joint operating environment, expanding inter-service operability and capabilities, and exceeded every established metric for accomplishing our assigned tasking. Their devotion to duty and the support from their families at home during this deployment have been inspiring. With the mission now complete, we look forward to our members reintegrating with their families.”

As both a federal law enforcement agency and an armed force, the Coast Guard is uniquely positioned to conduct defense operations in support of combatant commanders on all seven continents. The service routinely provides forces in joint military operations worldwide, including the deployment of cutters, boats, aircraft, and deployable specialized forces.

Commissioned in 1998, PSU 313 is one of eight U.S. Coast Guard port security units located across the United States. PSUs are Coast Guard Reserve-staffed units and deployable specialized forces assigned to the commander of Coast Guard Pacific Area. PSUs are capable of providing the Coast Guard, Department of Homeland Security, Department of Defense, and interagency operational and tactical commanders with equipped, trained, and organized expeditionary forces who are ready to deploy anywhere in the world on short notice to execute anti-terrorism and force protection operations within ports, harbors, littoral waters, or in the point defense of high value assets.

PSU 313’s previous overseas deployments include Korea (2000,

2007, 2013); Kuwait (2003, 2010); Haiti (2010); and Guantanamo Bay (2007, 2015). The unit also defended Naval Magazine Indian Island, Washington, in the months after the Sept. 11 terrorist attacks.

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# Navy Tweaks Guidance for COVID Shipboard Measures to Comply with Updated CDC Advice


A group of first class petty officers take the Navy-Wide Advancement Exam at Commander, Fleet Activities Sasebo, Jan. 25. In alignment with Navy guidance, CFAS Sailors are taking the NWAE over a three-day testing period allowing for smaller groups of test takers to maintain adequate social distancing as part of continued COVID-19 mitigations. *U.S. NAVY / Mass*

*Communication Specialist 1st Class Jeremy Graham*
ARLINGTON, Va. — The U.S. Navy has updated guidance to commanders for keeping COVID-19 infections off ships, and what to do if prevention measures fail.

The latest Standardized Operation Guidance (5.0), issued by Vice Adm. William Merz, deputy chief of Naval Operations for Operations, Plans and Strategy, makes changes to how long Sailors testing positive for the coronavirus must be isolated based on the latest recommendations by the Centers for Disease Control and Prevention.

The guidance, issued Jan. 15, includes information for commanders on restriction of movement, when to test and quarantine Sailors. It also streamlines health protection measures for ships.

After the massive COVID outbreak on the USS Theodore Roosevelt in 2020 that sidelined the carrier in Guam for months, Navy leadership  determined "that our guidance to our commanding officers was insufficient, that we really needed to be much more detailed, that we had to consult with scientists and environmental experts" on how to operate effectively in a contained environment during a pandemic, Chief of Naval Operations Adm. Michael Gilday told the Surface Navy Association symposium Jan. 11,

"It is my responsibility to deliver the most capable force and this guidance helps us maximize mission readiness," Merz said in an Aug. 26 statement about the new guidance. "Vaccinations, vaccine boosters, command engagement, and personal accountability are the foundation of our success in fighting COVID."

The announcement came the same day the Navy revealed it had dismissed another 23 Sailors for refusing vaccination, bringing the total to 45 kicked out since the vaccination deadline expired in late 2021.

The Navy's new guidance, which applies to all uniformed Navy personnel "at home and deployed," cuts isolation time for Sailors testing positive for COVID but showing no, or greatly improving, symptoms – such as no fever for 24 hours – to five days, although they must wear masks for another five days to minimize the risk of infecting others.

The CDC said the change "is motivated by science demonstrating that the majority of SARS-CoV-2 transmission occurs early in the course of illness, generally in the 1-2 days prior to onset of symptoms and the 2-3 days after." While vaccine booster shots are not yet required, the Navy guidance recommended them "because all studies are converging on the need for a vaccine booster to ensure enduring protection." The booster "has essentially become the next-shot in a series and will likely become mandatory in the near future," according to the guidance.

However, the guidance asserted that Navy Surgeon General Rear Adm. Bruce Gillingham is the authority for Navy COVID-19 measures. Changes in CDC guidance on virus behavior should first be evaluated by Gillingham "prior to fleet implementation."