GE Power Conversion reports demand for its electric ship solutions to future-proof the latest generation of naval vessels

Release from GE Power Conversion

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GE Power Conversion reports demand for its electric ship solutions to future-proof the latest generation of naval vessels

This week, GE Power Conversion convened with the world's leading navies and industry at IMDEX Asia, to showcase its electric ship power and propulsion solutions.

IMDEX represents a respected platform within the large Asia Pacific maritime sector in Singapore, where GE Power Conversion showcased electrification technologies that are helping the world's leading navies to energize their missions.

GE Power Conversion has an industry-leading, complete range of electric ship technologies, and decades of naval sector experience with 13 different navies around the world.

Solutions range from full naval-specification, high voltage electric grids for power and propulsion, to cost-effective hybrid electrification options.

Through integrated electrification, energy management, automation and control, power in the ship's electric grid can simultaneously supply high-energy defense systems, and

propulsion. Energy-efficient electric architectures also serve as an effective way to integrate new, cleaner, energy sources as they emerge, and host digital technologies to implement more autonomous systems.

GE Power Conversion is reporting increased intensity of customers wanting to engage to understand how they can best use energy across their fleets to create a capability advantage. The business says there is a growing recognition that electrification is critical to new generations of networked mission systems and the right architecture to 'plug-in' new energy sources.

Shaopeng Ji, Commercial Operations Leader- Asia Pacific, at GE Power Conversion explains: "In an emerging new naval era, fleets need to be more mission configurable, highly capable for military advantage, adaptable for technology insertion and affordable. Increasing power demands on vessels means that more customers are seeking help in future-proofing their ships for higher energy needs, partnered by a roadmap to emissions reduction."

GE Power Conversion brings capability from having extensive electric and hybrid naval ship system references, leading in applications from the largest, complex warships to the latest support ships. Expert services offerings and full scale land based test and emulation facilities are structured to provide a complete life cycle solution, reducing risk, increasing reliability and helping to optimize operation of assets.

With three decades of expertise of providing power and propulsion capability for the world's navies' largest combat vessels (GE's technology powers more than 90% of the UK Royal Navy large vessel fleet, including Queen Elizabeth Class, Type 45 and Type 26 vessels), GE Power Conversion is now seeing an increased customer demand for smaller combat vessel solutions. By combining extensive commercial electric drive ship expertise with deep domain naval and coast guard experience,

GE Power Conversion provides cost-effective electrification solutions for light combat corvettes and offshore patrol ships, undertaking reconnaissance and submarine deflection missions.

Shaopeng Ji continued: “The Ship’s Electric Grid is hugely versatile, and electric drive ships are just as suited to smaller, lower voltage, more commercial-spec ships in naval and coastguard fleets as to the biggest, higher voltage combat ships. Both are able to combine power for propulsion and on-board equipment in one system. Electric and hybrid power systems are viable choices for modern, multi-role ships seeing increased mission system power demand but needing sustainable, energy-efficient performance for patrol duties.”

HII CHRISTENS VIRGINIA-CLASS ATTACK SUBMARINE MASSACHUSETTS (SSN 798)

Release from HII

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NEWPORT NEWS, Va., May 06, 2023 (GLOBE NEWSWIRE) — HII (NYSE: HII) today christened the *Virginia*-class submarine *Massachusetts* (SSN 798) at the company's Newport News Shipbuilding division.

"Shipbuilding is a noble calling, and you can see our pride in the craftsmanship before you," NNS President Jennifer Boykin said. "When *Massachusetts* joins the fleet, she will be the latest in innovation and power, forging ahead in defense of our freedom, just like Paul Revere on his famous midnight ride. As SSN 798 supports the Navy's critical missions around the world, she will carry with her the patriotism of her shipbuilders."

Sheryl Sandberg, founder and chair of the Sandberg Goldberg Bernthal Family Foundation, and former chief operating officer of Meta (formerly Facebook), serves as the ship's sponsor. Sandberg performed the traditional honor of breaking a bottle of American sparkling wine across the submarine's bow during the ceremony.

Photos accompanying this release are available at: https://hii.com/news/hii-christens-virginia-class-attack-submarine-massachusetts-ssn-798.

“I was raised to be deeply grateful for our freedom and all those who risk their lives to defend it,” Sandberg said. “So it was an honor when then Secretary of the Navy Ray Mabus asked me to sponsor *Massachusetts* eight years ago. I couldn’t be more excited to be in Newport News to celebrate this boat with the shipbuilders who have worked so hard to bring her to life. Today is more than just a christening of a vessel. It is also a celebration of progress. This is one of the first submarines intentionally built to allow both men and women to serve and it will make our military stronger. It is an honor to christen *Massachusetts* and spend the day with service members, shipbuilders and their families. They are a living legacy of all that America represents.”

The ceremony took place outside of Module Outfitting Facility at NNS and was attended by more than 2,000 guests, including NNS employees who are building *Massachusetts*, members of the submarine’s crew, Navy personnel and other government officials.

Under Secretary of the Navy Erik Raven provided the keynote address.

“From design, to delivery, to employment, each person here is making their vital contribution to maintaining our nation’s maritime dominance and the freedom that we all cherish,” Raven told the crowd. “We are able to deploy exquisite capabilities across the globe in great part to our dedicated shipbuilders. These talented women and men are able to turn raw steel into the world’s most sophisticated undersea capabilities.”

Massachusetts is the 25th *Virginia*-class submarine and the 12th to be delivered by NNS.

“The crew and I are excited to share in this historic event

with our sponsor, the shipbuilder, and all our families," said Cmdr. Mike Siedsma, commanding officer of the pre-commissioning unit. "We look forward to operating *Massachusetts* in support of our nation's defense. We are honored to establish the 'Iron Patriots' legacy as an enemy to tyrants."

NNS is one of only two shipyards capable of designing and building nuclear-powered submarines for the U.S. Navy. The advanced capabilities of *Virginia*-class submarines increase firepower, maneuverability and stealth.

A video of the ceremony, along with additional information on *Massachusetts*, Sandberg and the *Virginia*-class submarine program, can be found at: www.HII.com/SSN798

AeroVironment Introduces VTOL Kit for Puma AE UAS

Release from AeroVironment

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New vertical take-off and landing kit expands operational capabilities and streamlines constrained area operations

ARLINGTON, Va., May 9, 2023 – AeroVironment, Inc. today introduced the Puma™ VTOL (vertical take-off and landing) kit, designed for plug-and-play integration into Puma 2 AE and Puma 3 AE small unmanned aircraft systems (SUAS). The optional Puma VTOL kit expands the operational capabilities of the combat-proven Puma system in complex terrain, as neither runway nor large open space are required for launch and recovery of the VTOL-equipped Puma, allowing operators to launch anywhere, anytime.

Leveraging AeroVironment's Crysalis™ ground control solution, the added VTOL capability now allows a single Puma operator to execute missions and streamline operations through features like one-button launch and recovery.

“The modern battlefield offers varying types of complex terrain features, both natural and manmade, that can pose challenges to small unit operations and their use of unmanned aircraft. Our new Puma VTOL kit provides the operator with a wider range of launch and land capabilities, enhancing the unit’s mission while further safeguarding its personnel during these periods of transitional flight,” said Shane Hastings, AeroVironment’s vice president and product line general manager for small UAS. “The VTOL kit converts the Puma AE into a highly precise and agile ISR asset where a single operator can effortlessly launch the aircraft from a small space and attain mission-critical information of enemy forces in a timely manner and land on a desired rooftop or other small, targeted areas.”

Integration of the Puma VTOL kit requires minimal one-time modifications to the aircraft’s airframe by qualified personnel. Once modified, the plug-and-play Puma VTOL kit can be easily added or removed in the field within a couple of minutes, allowing operators to quickly transition between a fixed-wing and VTOL platform to suit varying mission needs with a single aircraft.

Available as an add-on option for new Puma 3 AE system orders and as a retrofit kit for already fielded Puma 2 AE and Puma 3 AE aircraft, both fielded and new aircraft can take advantage of this VTOL capability. To learn more about the new operational capabilities of Puma AE and Puma VTOL kit, visit www.avinc.com/pumaae.

Flag Officer Announcements

Release from the U.S. Department of Defense

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Flag Officer Announcements

MAY 5, 2023

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

Navy Rear Adm. Robert M. Gaucher for appointment to the grade of vice admiral, with assignment as commander, Naval Submarine Forces; commander, Submarine Force, U.S. Atlantic Fleet; and commander, Allied Submarine Command, Norfolk, Virginia. Gaucher is currently serving as director, Strategic Integration, N2/N6T, Office of the Chief of Naval Operations, Washington, D.C.

Navy Rear Adm. Douglas G. Perry for appointment to the grade of vice admiral, with assignment as commander, Second Fleet; and commander, Joint Forces Command Norfolk, Norfolk, Virginia. Perry is currently serving as director, Undersea Warfare Division, N97, Office of the Chief of Naval Operations, Washington, D.C.

USS COOPERSTOWN IS COMMISSIONED IN NEW YORK

NEW YORK (May 6, 2023) Secretary of the Navy, the Honorable Carlos Del Toro, speaks during the commissioning ceremony of the Freedom-variant littoral combat ship USS Cooperstown (LCS 23) in New York City. Cooperstown is the first U.S. Navy warship to honor Cooperstown, N.Y., home of the National Baseball Hall of Fame. (U.S. Navy photo by Mass Communication Specialist 1st Class Kevin C. Leitner)

Release from Commander, Naval Surface Forces

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By Ensign Nicko West, Commander, Naval Surface Force, U.S. Pacific Fleet

06 May 2023

NEW YORK – The U.S. Navy commissioned its newest Freedom-variant littoral combat ship, USS Cooperstown (LCS 23) May 8, 2023.

Cooperstown is the first naval ship named after Cooperstown, New York and honors the 70 Hall of Famers who served the United States during wartime in a range of conflicts spanning the Civil War, World War I, World War II, and the Korean War.

“I am pleased to be here in my hometown of New York City to commission the Navy’s newest littoral combat ship, USS Cooperstown,” said Secretary of the Navy Carlos Del Toro. “LCS 23 honors the baseball greats, who in service of our Nation, sacrificed their baseball careers for us. I have full confidence that the officers and crew of this great ship will continue to honor their legacy.”

Major League Baseball Hall of Fame player and manager, Joe Torre, was the ceremony’s principle speaker and highlighted the ship’s ties with the namesake service members.

“It is critical that we honor the legacy of these Hall of Famers, not just for what they did on the field, but for what they sacrificed and what they accomplished off the field. Their legacy lives on with the USS Cooperstown and with the Sailors here today and in the years to come.”

Guest speakers for the event also included Vice President and General Manager of Lockheed Martin Rotary and Mission Systems, Integrated Warfare Systems and Sensors, Mr. Chauncey McIntosh; Chairman of the Board of Directors, National Baseball Hall of Fame and Museum and Honorary Sponsor, Ms. Jane Forbes Clark; and Chief of Navy Reserve, Vice Adm. John Mustin.

The Ship’s Sponsor Ms. Alba Tull, gave the first order to “man our ship and bring her to life.”

“Cooperstown has a long-standing tradition of excellence and dedication to preserving the history and legacy of baseball, and the USS Cooperstown is a fitting tribute to that

tradition," said Tull. "The ship represents the best of America, our values, our commitment to defending our Nation and the interests of our country"

Built by the Lockheed Martin and Fincantieri Marinette Marine in Marinette, Wisconsin. Cooperstown was launched Jan. 19, 2019, christened on Feb 29, 2020, completed acceptance trials Dec. 14, 2020, and was delivered to the U.S. Navy Sep. 20, 2022.

"The USS Cooperstown's commissioning is a proud moment for us all, made possible by the tireless efforts of our dedicated crew," said Cooperstown's Commanding Officer, Cmdr. Daxton Moore. "They have demonstrated remarkable teamwork and a relentless commitment to excellence, working hard to ensure that this ship is ready. We are honored to carry the name Cooperstown into the fleet."

Cincinnati Reds Catcher, Johnny Bench, who was elected into the Baseball Hall of Fame in 1989, presented the long glass during the ceremony. The crew was host for a weeklong series of events celebrating the ship, its namesake city, and the community it honors.

LCS are fast, agile, mission-focused platforms designed to operate in near-shore environments, winning against 21st-century coastal threats.

Cooperstown will sail to its homeport of Mayport, Fla.

Navy fields new training system enhancing readiness, affordability

Release from Naval Air Systems Command

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Published: May 8, 2023

NAVAL AIR SYSTEMS COMMAND, PATUXENT RIVER, Md. – The Naval Aviation Training Systems and Ranges (PMA-205) and the F/A-18 and EA-18G (PMA-265) program offices are fielding a sophisticated Live Virtual Constructive (LVC) training system that has the potential to revolutionize the way the Navy trains, leading to greater readiness and significant cost savings.

The LVC training, commonly referred to as Link Inject-to-Live (LITL), injects high fidelity simulated air-to-air and surface-to-air targets into the F/A-18E/F and EA-18G weapon systems and is projected to save the Navy millions of dollars annually.

“The Link Inject-to-Live trainer enhances the F/A-18 and EA-18G training capability by enabling them with the ability to train against realistic air and surface threats,” said Capt. Kevin McGee, PMA-205 program manager. “The capabilities LITL brings for both deployed and home station operations are quite impressive.”

The training system is cost-conscious and portable. This results in extremely dynamic and complex training scenarios that can be presented to deployed aviators, while reducing the administrative burden and cost of traveling to detachment sites for red air adversary support, which also reduces fuel and maintenance costs.

“In naval aviation, we train like we fight, and Link Inject-to-Live makes training more realistic and easier, so it’s a win all around,” said Cmdr. Sarah Abbott, PMA-265 F/A-18E/F deputy program manager. “This capability is a game changer.”

The two program offices fielded LITL aboard aircraft carriers in support of deployed units, granting squadrons the ability to continue weapons and tactics training at sea. LITL is not limited by weather conditions and relieves squadrons from using live aircraft as adversaries while increasing sortie and training event completion.

In 2022, LITL was used for hundreds of events and thousands of sorties, which is an increase in sortie utilization from 2021. This increase is directly related to the fleet adding LITL events due to the significant increase in training fidelity provided by the system.

“The future use cases for LITL are really exciting,” said Chuck Terry, PMA-205 Aviation Training LVC and Strategy Department team lead. “We are currently testing connections to other platform simulators that will facilitate integrated training that will accelerate air-to-air training.”

The LITL program has the potential to provide significant positive impacts to training, paving the way for considerable changes to training syllabi.

U.S. Coast Guard Seizes $30 Million in Drugs with International Task Force

Release from U.S. Naval Central Forces Command Public Affairs

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MANAMA, Bahrain – A U.S. Coast Guard fast response cutter seized more than $30 million of heroin and methamphetamine from a fishing vessel transiting the Gulf of Oman, May 8.

Operating in support of Combined Task Force (CTF) 150, USCGC Glen Harris (WPC 1144) seized 580 kilograms of methamphetamine and 35 kilograms of heroin from a vessel transiting international waters after departing Chah Bahar, Iran.

CTF 150 is one of four task forces that form the world's largest multinational naval partnership, Combined Maritime Forces. Naval forces supporting CTF 150 have seized illegal drugs worth a combined estimated U.S. street value of nearly $200 million in 2023.

Glen Harris arrived in the Middle East last year and operates

from the U.S. Navy base in Bahrain where CMF is headquartered with U.S. Naval Forces Central Command and U.S. 5th Fleet.

The fast response cutter is part of a contingent of U.S. Coast Guard ships forward-deployed to the region under Patrol Forces Southwest Asia (PATFORSWA). PATFORSWA deploys Coast Guard personnel and ships alongside U.S. and regional naval forces throughout the Middle East.

“The dedication and expertise of Glen Harris’s leadership and crew embody our commitment to interdict and remove illicit narcotics from the sea, denying malign actors the ability to destabilize the region,” said Capt. Eric A. Helgen, PATFORSWA’s commander. “I could not be more proud of our fast response cutter crews.”

Currently led by the United Kingdom, CTF 150 conducts maritime security and counter-terrorism operations in the Gulf of Oman and Indian Ocean to disrupt criminal and terrorist organizations and their related illicit activities, including the movement of personnel, weapons, narcotics and charcoal. These efforts help ensure legitimate commercial shipping transits the region free from non-state threats.

U.S. and international naval units in the Middle East seized illegal drugs totaling $1 billion in value from 2021 to 2022.

Navy to Commission Future Littoral Combat Ship

Cooperstown

Release from the U.S. Department of Defense

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The Navy will commission the future USS Cooperstown (LCS 23) as the newest Independence- variant littoral combat ship (LCS) during a 10:00 a.m. EDT ceremony on Saturday, May 6, in New York City.

The principal speaker is Joe Torre, Major League Baseball executive, former manager, and member of the National Baseball Hall of Fame. Additional speakers include the Honorable Kathy Hochul, Governor of New York; the Honorable Eric Adams, Mayor of New York City; the Honorable Carlos Del Toro, Secretary of the Navy; Vice Adm. John Mustin, Chief of Navy Reserve; Jane Forbes Clark, chairman of the Board, National Baseball Hall of Fame and Museum and Honorary Sponsor; and Chauncey McIntosh, vice president and general manager, Integrated Warfare Systems

and Sensors, Lockheed Martin. The ship's sponsor is Mrs. Alba Tull, a business woman, philanthropist and accomplished photographer. She is the wife of Thomas Tull who is on the Board of the National Baseball Hall of Fame and Museum.

"I am pleased to be here in my hometown of New York City to commission the Navy's newest littoral combat ship, USS Cooperstown," said Del Toro. "LCS 23 honors the baseball greats, who in service of our nation, sacrificed their baseball careers for us. I have full confidence that the officers and crew of this great ship will continue to honor their legacy."

LCS 23 is the 12th Freedom-variant LCS, the 23rd in the class. She is the first ship to bear the name of Cooperstown, New York. Cooperstown received its name on July 25, 2015, during a ceremony at the National Baseball Hall of Fame, which is located in Cooperstown. Her name honors the 70 members of the National Baseball Hall of Fame who served in the United States Armed Forces during times of conflict, ranging from the Civil War through the Korean War.

The LCS class consists of two variants, the Freedom and the Independence, designed and built by two industry teams. Lockheed Martin leads the Freedom-variant team, the odd-numbered hulls, in Marinette, Wis. Austal USA leads the Independence-variant team in Mobile, Al., for LCS 6 and the subsequent even-numbered hulls.

Littoral Combat Ships are fast, optimally-manned, mission-tailored surface combatants that operate in near-shore and open-ocean environments, winning against 21st-century coastal threats. LCS integrate with joint, combined, manned and unmanned teams to support forward-presence, maritime security, sea control and deterrence missions around the globe.

The ceremony will be live streamed at: https://www.dvidshub.net/webcast/31424. The link becomes

active approximately ten minutes prior to the event (9:50 a.m. EST).

Media may direct queries to the Navy Office of Information at (703) 697-5342. More information on the Littoral Combat Ship Program can be found at: https://www.navy.mil/Resources/Fact-Files/Display-FactFiles/Article/2171607/littoral-combat-ship-class-lcs/.

Integrated Battle Problem 23.1 Kicks Off

Release from Commander, U.S. 3rd Fleet Public Affairs

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SAN DIEGO - U.S. Pacific Fleet began its second multi-domain unmanned capabilities exercise May 1.

The exercise features and develops unmanned capabilities “above the sea, on the sea and below the sea.”

Pacific Fleet’s Unmanned Systems Integrated Battle Problem (UxS IBP) 23.1 is a tactical warfighting rehearsal event conducted by U.S. 3rd Fleet to test and develop fleet-centric concepts and capabilities. This exercise will focus on proving the concept of unmanned systems employment to maintain a free and open Indo-Pacific. Unmanned systems are vessels, aircraft, or ground vehicles that can operate in risk-prone areas to reduce the potential for loss of human life. They can be operated remotely, semi- or fully-autonomously.

“We view unmanned systems as a force multiplier for traditional vessels, not a replacement,” said Capt. Dan Brown, Assistant Chief of Staff for Experimentation at 3rd Fleet. “We are optimizing the contribution of unmanned systems to overall naval strategy as an addition to the use of traditional vessels.”

Unmanned systems involved in this exercise contribute to a stronger naval force, further driving capabilities in the Indo-Pacific to contest adversaries.

UxS IBP 23.1 is focused on long-range fire above and below sea, surveillance and reconnaissance, command and control, and re-constituting intelligence. Some of the systems participating are the Sea Hunter and Seahawk medium displacement unmanned surface vessels, RQ-20 PUMA unmanned aircraft system, and MANTAS T-38 Devil Ray unmanned surface vehicle (USV).

This exercise allows PACFLT, working closely with the Type Commanders (Naval Surface Forces, U.S. Pacific Fleet; Naval Air Forces, U.S. Pacific Fleet; Naval Submarine Forces, U.S. Pacific Fleet; Naval Special Warfare Command), to evaluate unmanned systems and highlight areas for improvement, providing that feedback to unmanned systems programs.

“Successfully integrating unmanned platforms provides our commanders with better options to fight and win in contested spaces,” said Brown.

Unmanned assets expand our intelligence, surveillance, and reconnaissance advantage, add depth to our missile magazines, and provide additional means to keep our distributed force provisioned. The capabilities of these integrated manned and unmanned systems enhance stability in the Indo-Pacific and contribute to regional maritime security, which is vital to the interests of the United States and its allies and partners.

Through analysis, simulation, prototyping, and demonstration, our Navy will systematically field and operate systems that possess the endurance and resilience to operate with infrequent human interaction. As a result of exercises like this, Sailors will have a high degree of confidence and skill operating alongside proven unmanned platforms at sea by the end of this decade.

Navy to Christen Submarine Massachusetts

Release from the U.S. Department of Defense

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The Navy will christen one of its newest Virginia-class fast-attack submarines, the future USS Massachusetts (SSN 798), during an 11 a.m. EST ceremony Saturday, May 6, 2023, at Huntington Ingalls Industries-Newport News Shipbuilding, in Newport News, Virginia.

The principal speaker will be the Honorable Erik Raven, Under Secretary of the Navy. Remarks will also be provided by the Honorable Bobby Scott, U.S. Representative, Virginia's 3rd District; Vice Adm. Scott Conn, Deputy Chief of Naval Operations for Warfighting Requirements and Capabilities (N9); and Mr. Kevin Graney, president, General Dynamics Electric Boat.

In a time-honored Navy tradition, the submarine's sponsor, Ms. Sheryl Sandberg, will christen the boat by breaking a bottle of sparkling wine across the bow. Sandberg is the founder and chair of the Sandberg Goldberg Bernthal Family Foundation, a nonprofit organization that works to build a more equal and resilient world through three key initiatives: LeanIn.org, OptionB.org, and the Dave Goldberg Scholarship Program.

"The Commonwealth of Massachusetts has been influential in our nation's culture and continues to play a prominent role in history, higher education, science, research and technology," said Secretary of the Navy Carlos Del Toro. "Nearly eight decades later, I am proud to see Massachusetts' legacy continue, this time as a future attack submarine."

The future USS Massachusetts (SSN 798) is the ninth U.S. Navy

vessel named in recognition of the state. The first USS Massachusetts was a steamer built in 1845 and acquired by the U.S. War Department in 1847 to use as a transport vessel during the Mexican-American War. Prior to SSN 798, the last USS Massachusetts (BB-59) was commissioned in 1942 as a South Dakota-class fast battleship. It spent most of its career in the Pacific, decommissioning in 1947.

Virginia-class submarines are built to operate in the world's littoral and deep waters while conducting anti-submarine warfare; anti-surface ship warfare; strike warfare; special operations forces support; intelligence, surveillance, and reconnaissance; irregular warfare; and mine warfare missions. Their inherent stealth, endurance, mobility, and firepower directly enable them to support five of the six maritime strategy core capabilities – sea control, power projection, forward presence, maritime security and deterrence. These capabilities allow the submarine force to contribute to regional stability and preservation of future peace while operating everywhere international law allows, so everyone else can too.

Media may direct queries to the Navy Office of Information at (703) 697-5342. More information about the Virginia-class attack submarines is available online at https://www.navy.mil/Resources/Fact-Files/Display-FactFiles/Article/2169558/attack-submarines-ssn/.