

Decommissioning work on historic nuclear support facility, SSSB, draws to a close

Release from Naval Sea Systems Command

Nov. 8, 2023

By Program Executive Office Aircraft Carriers Public Affairs

WASHINGTON. – Along the waterfront in the Alabama Shipyard, LLC, near Mobile, Ala., decommissioning work has drawn to a close on a remarkable hull, which quietly and safely served the nuclear-powered aircraft carriers and cruisers of the U.S. Navy for more than 50 years.

The Navy's Surface Ship Support Barge (SSSB) served as the primary platform supporting the complex refueling, defueling, and associated maintenance operations for reactor components from U.S. Navy nuclear-powered surface ships at Newport News Shipbuilding, from 1964 to 2016. Dismantlement and disposal of SSSB began in 2020 and concluded this summer. On September 30th, the dismantlement site was turned back over to Alabama Shipyard, marking final completion of the project.

“This historic platform was an integral part of the Navy's nuclear-powered ship maintenance efforts for decades,” notes RDML Casey Moton, Program Executive Officer for Aircraft Carriers. “The Navy-industry team leading the dismantlement has honored that legacy, displaying the same innovative spirit that has been driving the safe modernization and revolutionary construction of the nation's aircraft carriers over the last

60 years.”

Dismantlement and Disposal

In June 2020, NAVSEA awarded a three-year, \$129 million contract for SSSB’s dismantlement and disposal to APTIM Federal Services, LLC, with work to be accomplished at Alabama Shipyard, LLC. APTIM completed the process of demolishing the final components of the platform to include the former spent fuel water pool – a 32-foot-deep compartment on the barge that comprised 2,500 tons of steel-reinforced, high-density concrete.

Ray Duff, assistant program manager for CVN Inactivation/Disposal, who leads the Government’s team on this project within NAVSEA, highlighted the major accomplishments of the project, which completed site work in June 2023, and received approval to turn over the SSSB dismantlement area back to the host shipyard on 30 September 2023. No spent fuel has been present on SSSB since its decommissioning in 2016, but the remaining 1% of the platform’s low residual radioactivity contained in the spent water pool and associated system components required careful remediation.

“Our focus throughout the project was to remove and secure the hazardous material while keeping every worker safe and protecting the public and the environment,” explained Duff, “and we succeeded.”

APTIM’s team of hazardous remediation experts logged 237,389 hours to complete the dismantlement and disposal, working within a specially fabricated structure under strict environmental monitoring, with zero OSHA lost time or recordable incidents. The team methodically surveyed, identified, and separated components, and then packaged and transported hazardous waste for disposal at Waste Control Specialists, LLC, a regulated facility in Andrews, Texas, capable of handling such materials. Approximately 8,080 tons

of waste material were safely packaged and shipped to Waste Control Specialists, and 426 tons of ferrous and non-ferrous metals were recycled.

From World War II tanker to nuclear-age platform

SSSB began its service at sea, as the mid-section of the tanker ship SS Cantigny, built in 1945 by the Sun Shipbuilding Company, in Chester, Pennsylvania. The T2-SE-A1-type tanker was named after the 1918 Battle of Cantigny, the first major American offensive of World War I, fought near the village of Cantigny, on the Somme River in France.

In 1964, Newport News Shipbuilding and Drydock Company converted Cantigny's mid-body section to a nuclear support facility, initially called the Prototype Waterborne Expended Fuel Container (PWEFC). PWEFC provided an operational capability similar to the spent fuel pool in a commercial nuclear power reactor, and during the course of its long life supported refueling operations for many nuclear-powered cruisers and aircraft carriers—including early refuelings of ex-Enterprise (CVN 65).

In the late 1980s, Newport News Shipbuilding refurbished PWEFC with significant upgrades, replacing the original hull and tank structure and installing new longitudinal bulkheads. Then a decade later, the Navy completed additional repairs and upgrades, extending the platform's service life by 50 years, and renamed her the Surface Ship Support Barge—otherwise known as the “Triple S-B.”

A Legacy of Safety and Service

In cooperation with NAVSEA, using an interagency agreement, the U. S. Nuclear Regulatory Commission (NRC) provided NAVSEA with technical expertise during planning, execution, and termination of the project, evaluating APTIM's work plan to ensure workplace safety and to mitigate any possible impacts to the environment or to the public.

Based on NRC review and recommendation for approval of the dismantlement work plan, Naval Reactors, also referred to as the Naval Nuclear Propulsion Program, transferred custody of SSSB to APTIM for dismantlement on June 10, 2021. SSSB left Hampton Roads on May 19, 2021, and arrived at the Port of Mobile on June 1, 2021, where self-propelled modular transporters moved the 268-foot barge to a land-based facility in the Alabama Shipyard—its final port of call.

SSSB's legacy of safety and service spans 52 years in Newport News Shipbuilding, supporting defueling operations for the Navy's nuclear-powered cruisers and aircraft carriers. In addition to ex-Enterprise, SSSB was instrumental in extending the service lives of the USS Nimitz (CVN 68), USS Dwight D. Eisenhower (CVN 69), USS Carl Vinson (CVN 70), USS Theodore Roosevelt (CVN 71), and USS Abraham Lincoln (CVN 72) as part of those ships' mid-life refueling and complex overhauls (RCOH).

Capt. Mark Johnson, manager of the PEO CVN In-Service Aircraft Carrier Program Office, notes that while SSSB's decommissioning signals the end of an era, it also marks the Navy's infusion of technological advancements in executing RCOHs.

"The Navy now has the capacity to manage and package spent fuel modules into robust shipping containers as required in real time, without the need to first house the materials in an intermediate facility, such as the SSSB spent fuel water pool," said Johnson. "It's an advancement that safely streamlines refueling activities, consistent with expediting readiness across the maintenance enterprise, with the goal of delivering warships back to operators in the fleet."

HII's Newport News Shipbuilding Opens Additional Site in Norfolk



[Release from HII](#)

NORFOLK, Va., Nov. 08, 2023 (GLOBE NEWSWIRE) – HII (NYSE: HII) announced today that its Newport News Shipbuilding division has begun production at an additional campus in Norfolk to support the shipyard's continued progress toward more effective and efficient shipbuilding.

The Newport News Shipbuilding Norfolk Campus is located on land leased from Fairlead in the Lambert's Point area, at a development known as Fairwinds Landing. NNS shipbuilders have worked at the site for several months constructing steel panels that will eventually make up units of *Gerald R. Ford*-class aircraft carrier *Enterprise* (CVN 80).

“This is a prime example of how we’re innovating, thinking differently and improving efficiency when it comes to building the aircraft carriers our nation needs,” explained Les Smith, NNS vice president for *Enterprise* (CVN 80), *Doris Miller* (CVN 81) and future aircraft carrier programs. “Coupling our energized workforce with this additional capacity is already yielding positive results and we expect to see great synergy as a result of this intentional investment.”

In addition to *Enterprise* (CVN 80) panel production work, the site is freeing up critical storage space at the main shipyard in Newport News to support other programs, including nuclear-powered submarine production. The campus in Norfolk also allows for future growth opportunities.

Photos accompanying this release are available at: <https://hii.com/news/hii-newport-news-shipbuilding-opens-additional-site-norfolk-2023>.

HII investment, coupled with Navy funding, is helping to make the new campus possible. NNS leadership and shipbuilders joined with city of Norfolk leaders, Navy officials and Fairlead leadership to mark the opening Monday.

Rear Adm. Casey Moton, program executive officer for aircraft carriers, said the Norfolk campus is a prime example of what can be accomplished when the Navy-industry team comes together to drive new shipbuilding efficiencies into programs and to invest in the future of the industrial base and the workers and communities that support them.

“I think the fact that we’re able to both expand capacity but at the same time make it easier for employees that work in this area with shorter commutes, good parking, is not only good for them, but hopefully it’ll attract more people to the shipbuilding business,” Moton said.

Moton also talked about delivering much-needed capability against a backdrop of current world events. “The importance of

our aircraft carriers and what you all do here, and our Navy's ability to project power from five acres of sovereign U.S. territory, anywhere in the world has never been more clear," Moton said.

Norfolk Mayor Kenny Alexander spoke on the importance of collaboration, "As an essential corporate citizen in our region, HII and its remarkable shipbuilders serve as a vital force in protecting our national security and shaping the future of defense," Alexander said. "We thank HII for choosing to invest in Norfolk and reaffirming our commitment to workforce development by bringing dozens of highly-sought after jobs to our city."

NNS is the nation's sole designer, builder and refueler of nuclear-powered aircraft carriers and one of just two shipyards capable of building nuclear-powered submarines for the Navy. Three *Gerald R. Ford*-class aircraft carriers are currently under construction: *John F. Kennedy* (CVN 79), *Enterprise* (CVN 80) and *Doris Miller* (CVN 81).

U.S. Coast Guard formally establishes Base Guam



[Release from U.S. Coast Guard Base Guam](#)

Nov. 7, 2023

SANTA RITA, Guam – The U.S. Coast Guard is proud to announce the establishment of U.S. Coast Guard Base Guam on Nov. 8, 2023, in a ceremony presided over by Rear Adm. Carola List, commander of Operational Logistics Command.

Led by Cmdr. Dana Hiatt, Base Guam, will be pivotal toward enhancing the U.S. Coast Guard's mission support logistics in the region. This strategic move aligns with the Service's commitment to increase mission support throughout Oceania. Given Guam's vital importance to national security, this initiative takes center stage.

The establishment of Base Guam is part of the Consolidated Appropriations Act of 2023 and expands the U.S. Coast Guard's mission support in the Indo-Pacific region. The establishment will shift current facilities engineering, naval engineering,

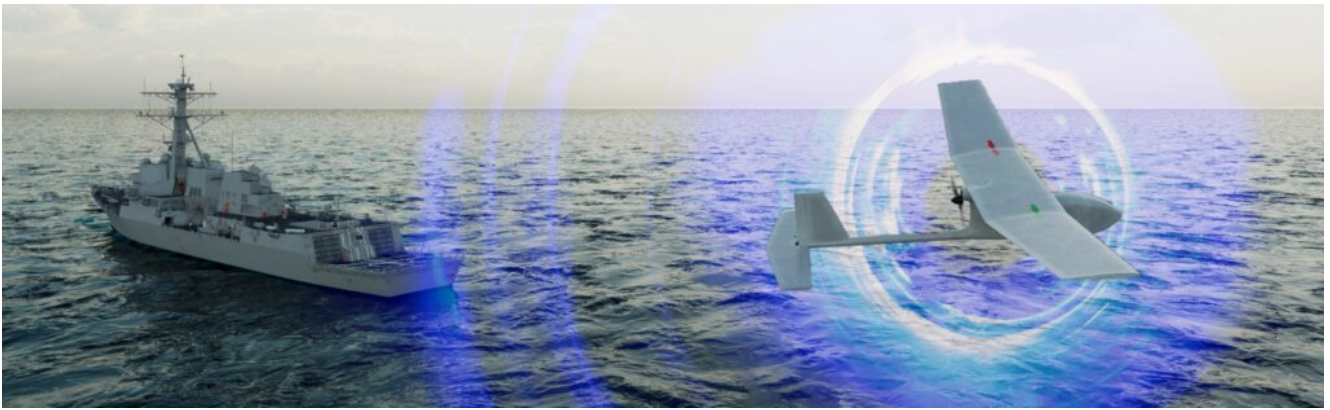
comptroller and base operations, health, safety, and work life, personnel support, information technology, and procurement billets and responsibility from the existing U.S. Coast Guard Forces Micronesia/Sector Guam to a new Base Guam command structure. The establishment of Base Guam will consist of 17 additional personnel billets and will rely on the realignment of existing elements to provide logistical efficiencies improving U.S. Coast Guard mission support on Guam.

U.S. Coast Guard Base Guam will operate under the direction of the Operational Logistics Command, responsible for mission support logistics across the entire U.S. Coast Guard enterprise while coexisting with U.S. Coast Guard Forces Micronesia/Sector Guam. The base is taking on the role of the lead logistics and support command, a strategic decision aimed at better serving the needs of the operational community and partners. Forces Micronesia/Sector Guam retains the role of operational authority for U.S. Coast Guard activity in the Western Pacific.

The Base crew's responsibilities encompass contingency logistics planning for joint operational plans, integration of logistics services, and support for tactical logistics needs for deployed operational assets. Additionally, the enterprise maintains a national-level logistics common operating picture and commands the Coast Guard's 22 existing bases, ensuring the execution of assigned tasking through each of the U.S. Coast Guard's Logistics and Service Centers.

The establishment of Base Guam marks a significant milestone in strengthening the U.S. Coast Guard's presence and capabilities in the region. The unit is physically located on the existing U.S. Coast Guard footprint within U.S. Naval Base Guam.

BAE Systems to develop custom microelectronics for next-generation radar, electronic warfare, and communication applications



[Release from BAE Systems](#)

FAST Labs™ research and development organization awarded a \$5 million contract from the Office of Naval Research

NASHUA, N.H. – Nov. 8, 2023 – The Office of Naval Research (ONR) has awarded BAE Systems' [FAST Labs™](#) research and development organization a \$5 million contract for the COALESCE (Common-architecture Amplifier for Low-cost, Efficient, SWaP-Constrained Environments) program.

In this effort, BAE Systems' FAST Labs, will develop advanced Gallium Nitride (GaN)-based monolithic microwave integrated circuit (MMIC) and module electronics. The program's objective

is to develop the world's highest efficiency high power amplifier module in its frequency band. The radio-frequency (RF) modules will then transition to small form factor U.S. Navy payloads, enabling longer range and greater effectiveness in active electronic warfare applications.

“The COALESCE program closes the gap between commercial electronics and customized electronics to meet the Department of Defense's space and power requirements and enable next-generation solutions,” said Ben McMahon, technology development manager at BAE Systems' FAST Labs. “Together with the Office of Naval Research, we will deliver these electronic solutions to increase survivability for our warfighters.”

BAE Systems will provide capabilities above and beyond what can be found commercially, and its solution is designed specifically for harsh DoD operating environments. The technology's high power and ultra-small form factor will enable next-generation radar, electronic warfare, and communication applications.

MMICs and modules for the program will be fabricated at BAE Systems' Microelectronics Center Foundry in Nashua, New Hampshire. The FAST Labs organization in Merrimack, New Hampshire will work to ensure the technology is relevant across multiple DoD branches, applications, and businesses.

Navy Accepts Delivery of Ship to Shore Connector, Landing

Craft, Air Cushion 108



[Release from Naval Sea Systems Command](#)

Nov. 7, 2023

By Team Ships Public Affairs

NEW ORLEANS – The Navy accepted delivery of the next-generation landing craft, Ship to Shore Connector (SSC), Landing Craft, Air Cushion (LCAC) 108, from Textron Systems, Nov. 3.

The delivery comes after successful completion of acceptance trials conducted by the Navy’s Board of Inspection and Survey, which tested the readiness and capability of the craft to effectively meet its requirements. Delivery represents the official transfer of the ship from the shipbuilder to the Navy.

“These next-generation craft provide our Navy and Marine Corps

team with essential agility and speed to complete their missions,” said Capt. Jason Grabelle, program manager for Amphibious Assault and Connectors Programs, Program Executive Office (PEO) Ships. “SSC provides the fleet with agility and speed to assist with current and future mission requirements.”

LCACs are built with configurations, dimensions, and clearances similar to the legacy LCACs they replace – ensuring that this latest air cushion vehicle is fully compatible with existing, well deck-equipped amphibious ships, the Expeditionary Sea Base and the Expeditionary Transfer Dock. LCACs are capable of carrying a 60 to 75-ton payload. They primarily transport weapon systems, equipment, cargo, and assault element personnel through a wide range of conditions, including over-the-beach.

Textron Systems is currently in serial production on LCACs 109-120.

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.

U.S. Coast Guard Cutter James returns from Eastern Pacific patrol after interdicting

12,909 kilograms of cocaine, 7,107 pounds of marijuana



[Release from U.S. Coast Guard 7th District](#)

Nov. 7, 2023

Charleston, S.C. – The crew of the U.S. Coast Guard Cutter James (WMSL 754) returned home to Charleston, Saturday, following a 113-day patrol in the Eastern Pacific Ocean.

Patrolling in support of Joint Interagency Task Force-South, James worked alongside other Coast Guard cutters, Department of Defense and Department of Homeland Security units, and international partners to conduct counter-drug operations.

During the patrol, James' crew disrupted illegal narcotics smuggling, interdicting 12,909 kilograms of cocaine and 7,107

pounds of marijuana valued at over \$380 million. While in theater, James interdicted eight drug-smuggling vessels and apprehended 23 suspected traffickers, including one low-profile vessel laden with contraband. The efforts by the crew of the James directly contributed to U.S. Coast Guard objectives to combat transnational criminal organizations and enhance regional stability and security.

James' crew conducted multiple joint operations with foreign partner nations such as Ecuador and Mexico. James conducted a passing exercise with the Mexican navy's ARM Chiapas. During the exercise, James practiced close quarters tactical maneuvering and landed the Chiapas' Panther helicopter on deck. This exercise with the Mexican navy was particularly important to promote interoperability and enhance ongoing and focused partnership efforts.

While in the Eastern Pacific Ocean, James interdicted an Ecuadorian go-fast vessel laden with illicit narcotics. James executed a complex at-sea rendezvous with Isla Darwin (ECU) and transferred three suspected narcotics traffickers and 73 bales (1,742 kilograms) of cocaine. The evolution enhanced cooperation with Ecuadorian partners and supported the home-country prosecution of international crimes.

James is a 418-foot National Security Cutter. The cutter's primary missions are counter-drug operations, and defense readiness in support of U.S. Coast Guard operations. The National Security Cutters fall under the command of the U.S. Coast Guard Atlantic Area. Based in Portsmouth, Virginia, U.S. Coast Guard Atlantic Area oversees all Coast Guard operations east of the Rocky Mountains to the Arabian Gulf. In addition to surge operations, Atlantic Area also allocates ships to deploy to the Caribbean and Eastern Pacific to combat transnational organized crime and illicit maritime activity.

For information on how to join the U.S. Coast Guard, visit [GoCoastGuard.com](https://www.go CoastGuard.com) to learn about active duty, reserve,

officer, and enlisted opportunities. Information on how to apply to the U.S. Coast Guard Academy can be found [here](#).

Saildrone Issued First-ever Classification for a Commercial Autonomous, Uncrewed Vehicle from the American Bureau of Shipping



[Release from Saildrone](#)

The Saildrone Voyager, a 10-meter USV used for near-shore bathymetry and maritime security, is a proven platform and a force multiplier providing near-real-time data across the world's oceans.

(November 7, 2023 – ALAMEDA) – Saildrone, the leading company in ocean data collection using autonomous vehicles, announced today that it has received the first-ever classification for an autonomous, uncrewed surface vehicle (USV) from the American Bureau of Shipping (ABS).

The Saildrone Voyager, the mid-class vehicle in Saildrone's rapidly expanding fleet, is the first-ever commercial USV to receive classification. ABS has been setting rigorous standards for safety and excellence as one of the world's leading classification organizations and is at the forefront of marine and offshore innovation.

Classification is a major milestone for Saildrone, allowing the Voyager to operate in the ports and waters of countries that require vessels to be classed by organizations such as ABS, and demonstrates Saildrone's commitment to safety, standardization, and reliability in its technology and operations.

"Saildrone has spent three years maturing the Voyager design to be the industry leader in capability, reliability, and safety in the uncrewed vehicle sector," said Richard Jenkins, CEO and founder of Saildrone. "This classification from the American Bureau of Shipping defines the new gold standard for uncrewed systems and underscores the maturity of our technology."

The Voyager carries an impressive payload for coastal ocean mapping operations, including high-resolution MBES and Innomar SBP systems, and is the only survey USV that can deliver long-duration multibeam mapping surveys meeting the highest industry standards. Its ISR sensor suite includes a smart

camera array, digital radar, and sub-surface passive acoustics.

Saildrone USVs are equipped with a suite of sensors and instruments, enabling them to collect a wide range of ocean data above and below the sea surface. They are primarily powered by wind and solar energy, making Saildrone USVs an environmentally friendly solution for long-duration ocean data missions.

“Uncrewed drone vehicles have huge potential to change the way we operate at sea and are a first step towards commercial autonomous vessels. ABS is a leader in this space, working with key partners all over the world to support the development and adoption of the technologies and strategies autonomous shipping will be built on. Saildrone Voyager is exciting technology and a key milestone on the road to more autonomous operations and we are proud to be able to use our experience to support it,” said Patrick Ryan, ABS Senior Vice President and Chief Technology Officer.

Earlier last summer, ABS granted [Approval in Principal](#), which helps clients evaluate the feasibility of their designs, for the Voyager and the larger 20-meter (65-foot) Surveyor platform.

With the classification for the Voyager now in place, Saildrone is expanding data delivery for scientific organizations, government agencies, and commercial partners. By harnessing the power of renewable energy and autonomous technology, Saildrone is revolutionizing the way ocean data is collected and utilized for science, commercial, and defense applications worldwide.

Two U.S. Navy carriers join Japan destroyer on Multi-Large Deck Event in Philippine Sea



[Release from Commander, U.S. 7th Fleet](#)

By Carl Vinson Carrier Strike Group and Ronald Reagan Carrier Strike Group Public Affairs

PHILIPPINE SEA – The Carl Vinson Carrier Strike Group, Ronald Reagan Carrier Strike Group and the Japan Maritime Self-Defense Force (JMSDF) conclude a Multi-Large Deck Event (MLDE) in the Philippine Sea, Nov. 4-8, 2023.

MLDE provided the two maritime forces an opportunity to engage in joint operations to include enhanced maritime communication operations, air warfare operations and cross-deck flight operations to strengthen maritime integrated-at-sea operations

and combat readiness.

The event saw the participation of U.S. Navy Carrier Strike Groups, led by their flagships USS Carl Vinson (CVN 70) of Carrier Strike Group (CSG) 1, USS Ronald Reagan (CVN 76) of Carrier Strike Group (CSG) 5, and JMSDF's Hyuga-class helicopter destroyer JS Hyuga (DDH 181).

"Our ability to rapidly aggregate maritime forces and work collectively alongside the Ronald Reagan strike group and Japan Maritime Self-Defense Force enhances our combined readiness," said Rear Adm. Carlos Sardiello, commander, CSG 1. "Multi-Large Deck Event demonstrates collective resolve by rehearsing with our Allies as an assurance of our commitment to regional security and stability. It is also a symbol of a willingness to extend a helping hand of partnership to willing and likeminded nations."

The ships and aircraft of the two naval forces, with more than 10,000 Sailors, conducted coordinated surface and air operations in a complex maritime environment to demonstrate the U.S. Indo-Pacific Command Joint Force's ability to deliver a powerful maritime force.

"Through the exercise, we improved our tactical capabilities and interoperability with the U.S. Navy," said JMSDF Rear Adm. Kazushi Yokota, commander of Escort Flotilla 3. "The Japan-U.S. Alliance is essential not only for the defense of Japan, but also for peace and prosperity of the Indo-Pacific region."

Coordinated maritime engagements and operations in the Philippine Sea are part of the U.S. Navy's routine presence in the Indo-Pacific. U.S. naval forces, with our network of partners and Alliances, are indispensable to ensuring maritime security and the flow of unimpeded lawful commerce in the region.

"It's a testament to the strong relations we maintain with

like-minded Allies across the region—and the world—that we are able to bring together a tightly coordinated and united international force like this,” said Rear Adm. Pat Hannifin, commander of Task Force 70 and CSG 5.”

The last time CSG 1 participated in a large deck event dates back to January 2022 in the South China Sea with the Abraham Lincoln Carrier Strike Group.

In June, CSG 5 joined USS Nimitz (CVN 68) and JMSDF helicopter destroyer JS Izumo (DDH 183) for multi-large deck training in the Western Pacific alongside surface ships from the French and Royal Canadian navies.

CSG 1 consists of Nimitz-class aircraft carrier USS Carl Vinson (CVN 70), Carrier Air Wing (CVW) 2, Ticonderoga class guided-missile cruiser USS Princeton (CG 59) and Destroyer Squadron (DESRON) 1, which includes Arleigh Burke-class guided-missile destroyers USS Hopper (DDG 70), USS Kidd (DDG 100), USS Sterett (DDG 104), and USS William P. Lawrence (DDG 110).

CSG 5 consist of Nimitz aircraft carrier USS Ronald Reagan (CVN 76); Carrier Air Wing (CVW) 5; cruisers USS Antietam (CG 54) and USS Robert Smalls (CG 62), as well as destroyer USS Shoup (DDG 86) and elements of Destroyer Squadron (DESRON) 15 staff.

The Ronald Reagan Carrier Strike Group is forward-deployed to Yokosuka, Japan, and operates in the U.S. 7th Fleet area of operations. U.S. 7th Fleet is the U.S. Navy’s largest forward-deployed numbered fleet, and routinely interacts and operates with Allies and partners in preserving a free and open Indo-Pacific region.

For more news from CSG 1, visit <http://www.dvidshub.net/unit/CSG1>

For more news from CSG 5,

visit <https://www.dvidshub.net/unit/TF70CSF-5>

Tri-lateral alliance set to address critical AUKUS workforce and skilling opportunities

Release from HII

SYDNEY, Australia, Nov. 06, 2023 (GLOBE NEWSWIRE) – Defense companies HII (NYSE: HII) and Babcock Australasia (Babcock) have joined forces with the University of Adelaide, Curtin University, and the University of NSW to form the AUKUS Workforce Alliance (AWA) – a dedicated partnership committed to preparing a skilled workforce in support of all steps of Australia’s optimal pathway to sovereign nuclear-powered submarines under AUKUS Pillar 1.

The AWA will work together in a tri-lateral alliance, combining proven and trusted knowledge, skills and unrivalled experience from across Australia, the United Kingdom and United States.

The AWA seeks to address the current and future workforce needs that are required to accelerate sovereign capability, capacity and resilience for Australia’s defense sector.

Working together, the AWA will educate the thousands of qualified Australian engineering, maritime and nuclear trade

and professional workers required to support the nation's nuclear-powered submarine enterprise from infrastructure, sustainment, supply chain through to disposal.

The AUKUS Workforce Alliance will:

Establish a proactive, innovative and internationally recognised platform for skill enhancement and leadership to support development of a sovereign, nuclear-powered submarine workforce in Australia.

Lead the development and execution of critical upskilling programs, focusing on harnessing the full potential of Australia's industrial base.

Foster cutting-edge research and practical experience for the future workforce.

Quotes attributable to:

HII President Nuclear and Environment Services Group Michael Lempke

"HII is proud to work with Australia's education institutions and to bring more than 60 years of nuclear shipbuilding expertise to the training of a workforce capable of supporting, and ultimately executing, nuclear shipbuilding. The AWA is an investment in the security, and economic and technological progress of Australia. This comprehensive and rigorous training approach is also a commitment to the safety and protection of people and the environment and fostering public trust."

Babcock Australasia Managing Director AUKUS and International Sir Nick Hine KCB

"Babcock is proud to be partnering with HII and some of Australia's top universities in a true, tri-lateral alliance to form the AUKUS Workforce Alliance.

Collectively, we will equip the workforce with the knowledge and the skills required to deliver the most complex and largest defence agenda in Australia's history.

Given our extensive global experience in sustainment, nuclear safety and stewardship, Babcock stands ready to assist Australia in delivering this very significant opportunity, including growing the required workforce to support the delivery of the nation's first nuclear-powered submarines."

**University of Adelaide Vice-Chancellor and President,
Professor Peter Høj AC**

"The University of Adelaide is pleased to be joining the AUKUS Workforce Alliance (AWA). This alliance will strengthen and broaden the university's partnering with industry in developing the workforce for the nation's naval shipbuilding enterprise.

The University of Adelaide has an outstanding global reputation for teaching and research as well as a strong track record of working closely with industry, government and our global partners.

This partnership marks another step in the journey towards Australia realising the goals of the AUKUS partnership."

Curtin University Vice-Chancellor, Professor Harlene Hayne

"Curtin is proud to be a foundation partner with global defence industry leaders HII and Babcock, and the University of NSW and University of Adelaide, in developing a highly skilled workforce to support the nuclear-powered submarine program in Australia and Western Australia.

Drawing on our significant expertise in building strong, sustainable communities of practice and in resilience and defence capabilities, Curtin will generate WA's talent pipelines in collaboration with our key strategic partners

within state and federal governments, industry, and the broader education sector, noting initial workforce deployment will be centred around WA.”

University of NSW Professor Attila Brungs, Vice-Chancellor and President of UNSW

“UNSW is pleased to be contributing our unique expertise and capabilities to the ground-breaking AUKUS Workforce Alliance. We look forward to supporting the Australian Submarine Agency’s “whole of nation” skilling objectives through collaboration with our partner universities in Adelaide and Perth, as well as with two global defence industry primes, in Babcock and HII, boasting a deep shared submarine capability sustainment heritage.

Our postgraduate and short courses across many faculties are geared to skill-building in advanced capabilities. Coupled with UNSW’s nation-leading faculty of engineering, the only nuclear engineering program in Australia with cutting-edge work on nuclear safety, UNSW is already pivoting towards generating the workforce needed across the entire nuclear ecosystem, from social licence to manufacturing facilities to regulatory authorities.”

AI-Powered Drones: A Revolutionary Solution to Navy Corrosion Challenges



Unmanned aerial vehicles have played an important role in combat since the late 1960s, particularly in reconnaissance missions. Today, with the help of AI, small, autonomous drones such as Skydio's sUAS platforms can leverage this reconnaissance capability to combat one of the most stubborn challenges to fleet readiness: corrosion. These smart drones can simplify the detection of this [\\$7 billion dollar](#) annual problem for the U.S. Navy, and also reduce the cost of controlling it.

A Smarter Approach to Predictive Maintenance

Corrosion can be mitigated to some extent, but it can never be eliminated. Furthermore, the rate of corrosion on any given ship on any given mission cannot be accurately predicted. This means that scheduled preventive maintenance often takes place

either too early, which wastes money, or too late, which can put the structural integrity of a ship's hull at risk, while giving ships an appearance not reflective of the United States as a world naval power.

In contrast, condition-based maintenance aligned to the most current condition of a hull ensures optimal timing for maintenance. This is where autonomous drones come into play. Visual data gives commanders and naval engineering teams a corrosion assessment in near-real time, so they can accurately determine the timing and the level of maintenance required for optimized maintenance operations.

The Value of Visual Data

Today, hull inspections are still often conducted by sailors on painter boards. This antiquated approach has three problems. First, it takes crew members away from their primary tasks at a time when many ships are already undermanned. Second, the results of personal observations are conveyed verbally or in written form, and words are limited. The level of detail and the potential urgency could be subject to misinterpretation, depending on the individuals providing and receiving the reports. Third, personal observation is a slow and tedious process.

The visual data drones provide is more precise than words, and is available in near-real time. This speed, convenient for inspections, is crucial during or after kinetic or dynamic events. The AI-powered platform can obtain immediate damage assessments. Detailed visual data can be forwarded to shipyards prior to the ship's arrival, allowing for optimal planning, so resources are properly allocated, aligned and timed; reducing maintenance backlogs and getting ships back to sea faster.

AI-Powered Obstacle Avoidance

Manually flown small drones have a well-earned reputation for

being difficult to fly. Skydio's sUAS platforms use AI to deliver new consistency to flight operations, enabling safe, secure, repeatable and reproducible results in anyone's hands. Software-defined obstacle avoidance simplifies and automates pilot operations while reducing training time for the operators to be proficient to fly their missions. More personnel can be trained faster, complex flying missions can be executed and critical infrastructure can be inspected safely and routinely. Other AI-powered features include automated workflows that produce textured models on the drone in just minutes, with no additional computers or systems needed – and no special training burdens. Machines should aid human team-mates, rather than adding unaccounted for burdens, and the right autonomous drones can do exactly that for ship commanders, sailors, and maintainers, ultimately changing the landscape of naval maintenance.

About Skydio

Founded in 2014, [Skydio](#) is the leading US manufacturer of autonomous drones utilizing breakthrough AI. Skydio designs, assembles, and supports its products in the US from its San Mateo, CA headquarters, offering the highest standards of supply chain and manufacturing security.