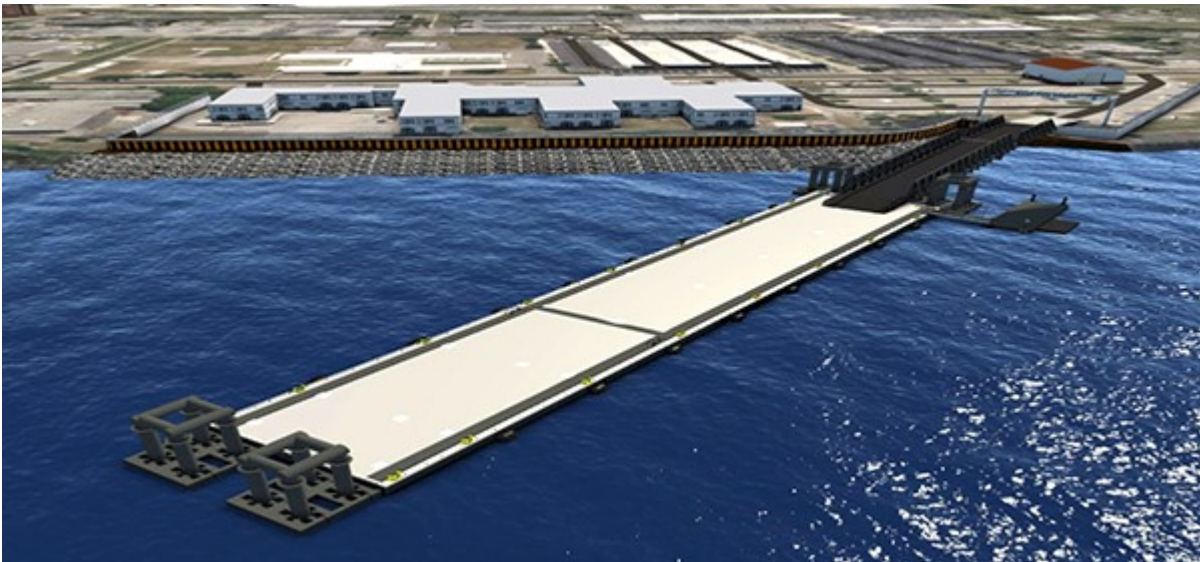


NOAA Breaks Ground on Renovations to Pier Facility in North Charleston, South Carolina, Funded by President Biden's Investing in America Agenda



Conceptual rendering of new NOAA ship pier and other improvements at the agency's pier facility in North Charleston, South Carolina. (Manson Construction Design/Build Team)

By David Hall, July 30, 2024

Today, NOAA officials were joined by regional partners to break ground on renovations at the agency's pier facility in North Charleston, South Carolina. The project is expected to be completed in 2026.

In September 2023, [NOAA awarded](#) \$59.8 million to Manson Construction Company for the renovations. This important infrastructure project is partially funded by the [Inflation Reduction Act](#), as part of President Biden's Investing in

America agenda.

“President Biden’s Investing in America agenda – and the historic Inflation Reduction Act – has made it possible for NOAA to renovate this pier facility in North Charleston and make way for more vital climate and ocean research for decades to come,” said U.S. Secretary of Commerce Gina Raimondo.

“Many of NOAA’s investments in infrastructure over the next several years are made possible because of funds from the Inflation Reduction Act,” said NOAA Administrator Rick Spinrad, Ph.D. “Investing in our shoreside infrastructure helps NOAA meet essential at-sea data collection requirements that support enhanced economic security, public safety and homeland security for many years to come.”

The renovations will include demolishing and building a new pier that includes shoreside power for ships, as well as a warehouse, sea wall, living shoreline and other supporting infrastructure. Reconstruction of the pier and other facility upgrades that support E.O. 14057, Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability. This project will enable NOAA ships Ronald H. Brown and Nancy Foster to have a designated place to dock and better accommodate NOAA research missions in the Atlantic. Both ships are homeported in Charleston.

“This pier and facility are integral to safe and efficient research ship operations in the area,” said NOAA Corps Vice Adm. (select) Nancy Hann, director of [NOAA Marine and Aviation Operations](#) and the [NOAA Commissioned Officer Corps](#). “Our ships cannot efficiently complete their critical work without safe and reliable shoreside infrastructure.”

NOAA’s fleet of 15 research and survey ships are operated, managed and maintained by NOAA Marine and Aviation Operations. The fleet ranges from large oceanographic research vessels capable of exploring the world’s deepest ocean, to smaller

ships responsible for charting the shallow bays and inlets of the U.S. The vessels support a wide range of marine activities, including fisheries surveys, nautical charting and ocean and climate studies. NOAA ships are operated by NOAA Corps officers and civilian professional mariners.

July 30 U.S. Central Command Update

From U.S. Central Command

July 30, 2024

TAMPA, Fla.- In the past 24 hours, U.S. Central Command (USCENTCOM) forces successfully destroyed three Iranian-backed Houthi uncrewed surface vessels (USV) in the Red Sea.

It was determined these weapons presented an imminent threat to U.S., coalition forces, and merchant vessels in the region. These actions were taken to protect freedom of navigation and make international waters safer and more secure.

USCGC Forward Returns Home Following 60-Day Deployment

in the Central Caribbean Sea



Coast Guard Cutter Forward (WMEC 911) steams, July 19, 2024, while underway in the Caribbean Sea. Forward conducted a 60-day Caribbean Sea patrol to interdict illegal drugs and apprehend suspected smugglers on the high seas in support of Joint Interagency Task Force – South. (U.S. Coast Guard photo) From U.S. Coast Guard Atlantic Area, 31 July 2024

PORTSMOUTH, Va. – The crew of Coast Guard Cutter Forward (WMEC 911) returned to their home port in Portsmouth, July 27, following a 60-day patrol in the Caribbean Sea.

During the deployment, Forward patrolled within the Seventh Coast Guard District's area of responsibility in support of Joint Interagency Task Force – South. Crew members conducted detection and monitoring operations throughout the joint operating area and executed interdiction and apprehension missions, which directly contributed to the reduction in flow of illegal drugs bound for the United States. These activities also served toward degrading and dismantling transnational

criminal organizations (TCO).

Coordinating with naval forces from Canada, the Netherlands, and the U.S., along with an embarked aviation detachment from the Coast Guard Helicopter Interdiction Tactical Squadron, Forward assisted with the apprehension of five suspected smugglers and the seizure of 8,248 pounds of narcotics. Information gained from these at-sea interdictions was also used by federal agencies in multiple nations to arrest an alleged high-ranking member of a TCO.

While underway, Forward's crew rescued three migrants from a vessel taking on water. After they were provided with medical attention, the migrants were repatriated to their country of origin. The rescue exemplified Coast Guard missions to preserve the safety of life at sea and safeguard the maritime boundaries of the United States.

After departing the joint operating area, Forward's crew carried out activities aimed at strengthening partnerships and interoperability. On July 22, crew members conducted a narcotics offload in Port Everglades, Florida, which allowed for professional exchanges and training with both the Panama Express Strike Force, an organized crime drug enforcement task force, and U.S. Customs and Border Protection canine handlers. Forward also served as the platform for ship-helicopter landings with the U.S. Army 160th Special Operations Aviation Regiment.

"Forward's operational success came down to two things: the crew's superior dedication and the strength of the Joint Interagency Task Force – South network," said Cmdr. Andrew Grantham, commanding officer of Forward. "I am proud of the crew's tenacity to overcome all challenges to get the job done."

Forward is a 270-foot, Famous-class medium endurance cutter. The cutter's primary missions are counter-drug and migrant

interdiction operations, enforcement of federal fishery laws, as well as search and rescue in support of U.S. Coast Guard operations throughout the Western Hemisphere.

U.S. Navy Accepts Delivery of Future USS Nantucket (LCS 27)



By Program Executive Office Unmanned and Small Combatants (PEO USC) Public Affairs

July 30, 2024

MARINETTE – Freedom-variant Littoral Combat Ship (LCS), USS Nantucket (LCS 27), was delivered to the U.S. Navy, July 29.

Nantucket was accepted from Lockheed Martin at the Fincantieri

Marinette Marine shipyard in Marinette, Wisconsin. Delivery follows the successful completion of Acceptance Trials in December 2023. Nantucket will commission later this year, and will be homeported in Mayport, Florida.

The LCS-class comprises fast, optimally manned, mission-tailored surface combatants that can operate in both near-shore and open-ocean waters to counter 21st-century coastal threats.

“The future USS Nantucket serves as a shining example of the perseverance of the United States maritime industrial base and shows that the partnership we have with industry is built to last,” said Capt. Matthew Lehmann, program manager of the Littoral Combat Ship program office.

Nantucket is a testament to the enduring connection between the ship’s namesake city in Massachusetts and the Navy, honoring the rich heritage of the people of Nantucket and the maritime legacy that the island represents. Nantucket is the fourth Navy ship to be named in honor of the island.

“Together, the Navy and industry will continue our work to prepare her for commissioning and Fleet operations, delivering combat capability across the globe,” Lehmann added.

Following Nantucket, two more Freedom-variant ships are under construction at the Fincantieri Marinette Marine shipyard. The future USS Beloit (LCS 29) is scheduled for delivery in the summer of 2024. USS Cleveland (LCS 31), the final Freedom-variant LCS, is in its final stages of construction alongside Beloit.

The LCS-class supports forward presence, maritime security, sea control, and deterrence, and can operate independently or in high-threat environments as part of a networked battle force that includes larger, multi-mission surface combatants.

The LCS-class consists of two variants, Freedom and

Independence, designed and built by two separate industry teams. The trimaran-hulled Independence-variant team is led by Austal USA (for the even-numbered ships). The monohull Freedom variant is built by a team led by Lockheed Martin (for the odd-numbered ships).

The Navy's littoral combat ship program is a part of the Program Executive Office, Unmanned and Small Combatants portfolio, which designs, develops, builds, and delivers the Navy's unmanned maritime systems; mine warfare systems; special warfare systems; expeditionary warfare systems; and small surface combatants.

USNS City of Bismarck Arrives at the Port of Legazpi for Pacific Partnership 2024-2



LEGAZPI, Philippines – The expeditionary fast transport ship USNS City of Bismarck (T-EPF 9) arrived at the Port of Legazpi in preparation for the start of Pacific Partnership 2024-2 humanitarian mission in the Philippines, July 30, 2024.

“It’s wonderful to return to the Philippines, where we look forward to training alongside the citizens of Legazpi’s medical and disaster relief personnel,” said Capt. Daniel J. Keeler, Pacific Partnership 24-2 mission commander. “Our nations share a rich history of collaboration, and we look forward to strengthening our enhanced cooperation and interoperability in the days and years ahead.”

Pacific Partnership visited Puerto Princesa City, Palawan, in 2022, San Fernando City, La Union in 2023 and will be in Legazpi, Albay from July 30 – Aug. 14, 2024.

“Combining the expertise of professional mariners with the skill of our Pacific Partnership forces makes our multilateral forces ready and versatile to respond to any event in the Indo-Pacific Region,” said Chris Jackson, ship’s master, “The

USNS City of Bismarck is an incredibly diverse platform, with a 20,000 square foot mission bay that can be loaded to carry any cargo, making it ideal to bring Pacific Partnership back to the Philippines for the third consecutive year.”

The shallow-draft catamaran, designed for rapid and agile maneuverability for use at austere or degraded offload points, includes a flight deck to support day and night aircraft launch and

recovery operations, with airline-style seating for 312 embarked forces and fixed berthing for 104 people.

Pacific Partnership fosters multilateral cooperation and emphasizes a multinational whole-of-government approach, by planning and executing operations with U.S. and partner nation militaries, interagencies, international organizations, and non-governmental organizations. This subsequently provides a strong foundation of trust and enhances our collective ability to respond in times of crisis.

The PP24-2 mission also includes stops in Vanuatu, Vietnam and the Federated States of Micronesia. Events are synchronized with the host nation and are organized according to their requests and needs.

Born out of the devastation brought by the December 2004 tsunami that swept through parts of South and Southeast Asia, Pacific Partnership began as a military-led humanitarian response to one of the world’s most catastrophic natural disasters. Building on the success and goodwill of this operation the U.S. helped spearhead the inaugural Pacific Partnership mission in 2006. This mission leveraged partner nation militaries and Non-Governmental Organizations proficiencies to expand disaster relief capacity in Bangladesh, Indonesia, the Philippines and Timor-Leste.

Pacific Partnership, now in its 20th iteration, is the largest annual multinational humanitarian assistance and disaster

relief preparedness mission conducted in the Indo-Pacific. Each year the mission team works collectively with host and partner nations to enhance regional interoperability capabilities, increase maritime security and stability in the region, and foster new and enduring friendships in the Indo-Pacific.

First Royal Australian Navy Sailors Graduate From Basic Enlisted Submarine School



30 July 2024

From Lauren Laughlin

GROTON, Conn. – In a first for the AUKUS trilateral enhanced security partnership, a group of Royal Australian Navy (RAN)

enlisted sailors has graduated from the United States Navy's Basic Enlisted Submarine School (BESS). The sailors all graduated with distinction with one of them being named the Honor Graduate for scoring a 100% in the class. The graduation marks a significant milestone in the development of a conventionally armed, nuclear-powered attack submarine (SSN) fleet for Australia under the AUKUS Pillar 1 Optimal Pathway.

"It's another exciting step to see our Royal Australian Navy sailors graduate from this unique and challenging training. I am incredibly proud of their exceptional dedication and effort to reach this significant milestone," said Chief of the Royal Australian Navy Vice Adm. Mark Hammond. "I'd like to thank our long-standing partners and friends in the U.S. Navy for providing the training to assist the Royal Australian Navy to operate, maintain and support Australia's future nuclear-powered submarine capability."

Incorporating Royal Australian Navy enlisted personnel into the U.S. Navy's submarine training pipeline is essential to developing Australian crews ahead of Australia's acquisition of sovereign Virginia-class submarines that will be sold to Australia by 2030. Enlisted personnel make up the bulk of a Virginia-class submarine crew, which is typically comprised of 15 officers and 117 enlisted sailors. Royal Australian Navy sailors are also enrolled in the UK Royal Navy's nuclear training pipeline, with the first officers graduating from the UK Royal Navy's Officers Nuclear Operators Course earlier this month. All work by Australian personnel in the U.S. and UK will remain consistent with Australia's domestic and international legal obligations, including its non-proliferation obligations and commitments.

"For the last two months, these sailors have trained diligently alongside their American counterparts to acquire the capability to safely operate SSNs," said Naval Submarine School Commanding Officer Capt. Matthew Fanning. "They will

continue to hone their skills in rate-specific training prior to reporting to a Virginia-class submarine as part of the crew to put their training into execution alongside U.S. submariners.”

The BESS graduation comes just months after the first three Royal Australian Navy officers completed their training at the U.S. Navy’s Submarine Officer Basic Course in April 2024 and reported to Virginia-class submarines based in Pearl Harbor, Hawaii. Nearly 100 Royal Australian Navy officers and enlisted personnel will enter the submarine and U.S. Naval Nuclear Propulsion training pipelines this year.

“Our sailors are the backbone of our Navy. Their training success demonstrates the exceptional skillset and knowledge of our people,” said Warrant Officer of the Royal Australian Navy Andrew Bertoncin, the service’s senior non-commissioned representative. “I’m proud of what our sailors have achieved and look forward to seeing them continue to master their craft onboard a Virginia-class submarine.”

At BESS, the Royal Australian Navy sailors joined their American counterparts for a rigorous eight-week course where they developed the skills and competence needed to operate nuclear-powered attack submarines. Sailors studied the construction and operation of nuclear-powered submarines and gained hands-on experience through intensive simulations.

“We are extremely proud of what these sailors have accomplished as the first Royal Australian Navy enlisted sailors to graduate from one of the U.S. Navy’s most demanding training courses,” said Vice Adm. Jonathan Mead, Director General of the Australian Submarine Agency. “Their success in this training is another positive step forward as we work with our U.S. and UK partners to progress along the AUKUS Pillar 1 Optimal Pathway and toward our shared goal of a stable and prosperous Indo-Pacific.”

“These sailors are the foundation of Australia’s future SSN crews,” said the U.S. Navy’s AUKUS Integration and Acquisition Program Manager Rear Adm. Lincoln Reifsteck. “They are trailblazers leading the broader effort to strengthen the interoperability and capabilities of the AUKUS nations. Their graduation is a major step toward realizing the strategic goals of AUKUS as well as deepening the ties among our nations.”

AUKUS is a strategic partnership that will promote a safe, free, and open Indo-Pacific, enhance national security, and uplift the three industrial bases. AUKUS Pillar 1 will deliver a conventionally armed SSN capability to the Royal Australian Navy by the early 2030s. The Department of the Navy’s AUKUS Integration and Acquisition Program Office is the U.S. lead responsible for executing the trilateral partnership to deliver conventionally armed, nuclear-powered attack submarines to the Royal Australian Navy at the earliest possible date while setting the highest nuclear stewardship standards and continuing to maintain the highest standards of non-proliferation.

July 29 U.S. Central Command Update

From U.S. Central Command

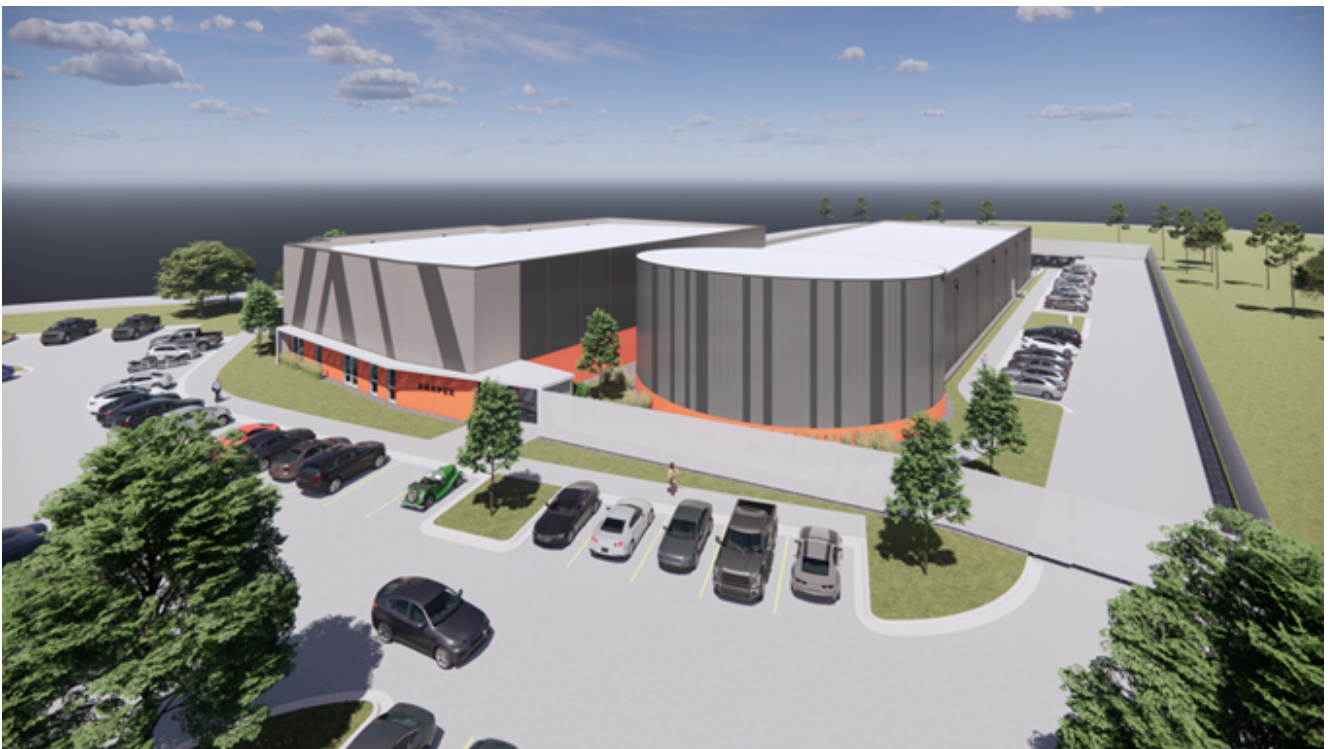
July 29, 2024

TAMPA, Fla.- In the past 24 hours, U.S. Central Command (USCENTCOM) forces successfully destroyed one Iranian-backed

Houthi uncrewed aerial vehicle (UAV) in a Houthi-controlled area of Yemen.

It was determined this weapon presented an imminent threat to U.S., coalition forces, and merchant vessels in the region. This action was taken to protect freedom of navigation and make international waters safer and more secure.

Draper Team Completes Critical Design Review Phase of Strategic Enhanced Ground Test Facility



CAMBRIDGE, Mass.—July 30, 2024—Draper announced today that it has completed the critical design review phase of its Strategic Enhanced Ground Test Facility (SEGTF) located in

Titusville, Fla. The SEGTF is the future home to dynamic and environmental equipment for supporting development of U.S. strategic systems.

The review culminates a 12-month design phase and resulted in an approved detailed design of a test facility that meets the requirements for supporting the U. S. Navy's strategic guidance programs and similar efforts at the Department of the Air Force and for various missile defense systems. Site work is expected to commence in July 2024 and be fully operational in 2028.

Draper's Strategic Enhanced Ground Test Facility will house a world-class centrifuge and associated dynamic and environmental test capabilities needed to design and validate critical guidance, navigation and control technologies. As the U.S. Navy's strategic guidance prime contractor, Draper has designed and supported the guidance system for every fleet ballistic missile deployed since the program began in 1955.

"The SEGTF will provide critical infrastructure to our strategic systems, missile defense and space customers that would otherwise not exist and complements other modernization efforts on the Space Coast," said Dr. Jerry M. Wohletz, president and CEO at Draper. "Successful completion of the CDR phase is testimony to our teams' drive to deliver this essential capability on schedule and on budget for our customer."

The Draper facility will provide core capabilities in simulation, hardware-in-the-loop and system test to enhance Draper's existing 'test-as-you-fly' approach for exquisite guidance components that require high accuracy, reliability and survivability in the harshest of environments.

"The SEGTF team has worked extremely hard for the past year to present a complete design," said Marjorie Quant, chief operating officer at Draper. "Draper is excited to make this

state-of-the-art investment to enhance our ability to support critical national security technologies in a facility that's like no other in the nation."

Approximately 50 Draper employees will be initially located in the SEGTF. The long-term vision expands Draper's footprint and includes future expansion to support over 150 employees.

The successful completion of the CDR phase represents a system of systems design of infrastructure and subsystems that together form an enduring strategic enhanced ground testing capability. The CDR is the culmination of a collaboration between [Draper](#), [North American Properties](#), [Rush Construction](#), [JRC Integrated Systems](#), [Burns and McDonnell](#) and [Ideal Aerosmith](#) across multiple disciplines and seven design reviews to produce the holistic SEGT CDR.

CNO Visits Indo-Pacific for Second Time, Strengthens Regional Ties



Chief of Naval Operations Adm. Lisa Franchetti, Chief of the Royal Australian Navy Vice Adm. Mark Hammond and Royal Navy Adm. Sir Ben Key, First Sea Lord and Chief of Naval Staff speak on a panel at the Indian Ocean Defense and Security (IODS) Conference, July 24, 2024. During Franchetti's visit to Australia she met with consulate leadership, held a first-ever trilateral Chief of Navy engagement on AUKUS with Chief of the Royal Australian Navy Vice Adm. Mark Hammond and Royal Navy Adm. Sir Ben Key, First Sea Lord and Chief of Naval Staff, and spoke at the Indian Ocean Defense and Security Conference. (U.S. Navy photo by MC1 William Spears)

From CNO Public Affairs, 26 July 2024

MANILA – Chief of Naval Operations (CNO) Adm. Lisa Franchetti visited Pohnpei, Federated States of Micronesia (FSM); Perth, Australia; and Manila, Philippines, to meet with partner navies, government and military leaders, and attend the 2024 Indian Ocean Defense & Security (IODS) Conference, July 21-26.

The international trip began in Pohnpei, FSM where CNO held an all hands call with Sailors assigned to Naval Mobile

Construction Battalion 5 and Marines assigned to Combat Logistics Battalion 13, and thanked them for their hard work and commitment to the region.

“Thank you for serving on the Navy-Marine Corps team in a very strategic location and so far from home. The work that you’re doing here is vitally important to our Nation,” said Franchetti. “We’re never going to do anything alone. We are always going to operate with Allies and partners, and each of you are ambassadors and diplomats for the United States. Your presence and your efforts send a message of deterrence to our adversaries and a message of reassurance to our Allies and partners.”

While in Pohnpei CNO visited the Nan Madol cultural heritage site, held meetings with Amb. Jennifer Johnson, U.S. Ambassador to FSM and Rear Adm. Greg Huffman, commander, Joint Task Force-Micronesia, as well as with FSM Vice President Aren Palik and FSM Secretary of the Department of Foreign Affairs Lorin Robert.

Franchetti then flew with Johnson and Palik to Chuuk, FSM and met with Hon. Mekioshy William, Lt. Gov. of Chuuk. During [these engagements](#), Franchetti emphasized how the U.S. and FSM’s shared commitment to their longstanding defense and security ties, underpinned by the Compact of Free Association, support freedom, stability, and prosperity in the Indo-Pacific.

“It’s an honor to be here at such a historic time in the relationship between the United States and the Federated States of Micronesia,” said Franchetti. “We have a longstanding partnership, and the renewal of the Compact of Free Association provides many opportunities for economic prosperity and security for both our countries. It will help advance our shared vision of a free and open Indo-Pacific.”

Franchetti then traveled to Perth, Australia to visit HMAS

Stirling, which will play a role in Australia's future fleet of conventionally-armed, nuclear-powered submarines as home to Submarine Rotational Force – West, and hold the [first-ever trilateral meeting of the AUKUS Chiefs of Navy](#). Chief of the Royal Australian Navy Vice Adm. Mark Hammond, Royal Navy First Sea Lord and Chief of Naval Staff Adm. Sir Ben Key, and Franchetti communicated their shared commitment to the historic agreement.

“AUKUS is a once-in-a-generation opportunity to bring together the exceptional capabilities of Australia, the United Kingdom and the United States. We will continue to build on our relationship, strengths, and interoperability, while at the same time uplifting the industrial bases of our three countries,” said Franchetti. “We will bring to bear the innovative spirit of our three nations while significantly bolstering our posture in the Indo-Pacific, contributing to security and stability, and maintaining the rules-based international order in this critical region and around the globe.”

The three Heads of Navy also spoke on two panels at the IODS conference where they discussed [AUKUS and Security in the Indian Ocean](#) and [Naval Cooperation and Security in the Indo-Pacific](#).

“The Indian Ocean is a critical waterway for the free flow of resources, trade, and commerce all around the globe,” Franchetti said. “It’s important that we work together as Allies and partners to promote the rules-based international order that has supported freedom of navigation – in all oceans – and our collective prosperity for the last three quarters of a century.”

While at the conference, CNO conducted bi-lateral engagements with her counterpart in the [Japan Maritime Self-Defense Force](#), Adm. Akira Saito, as well as her counterpart in the [Republic of Singapore Navy](#), Rear Adm. Sean Wat.

Following her engagements in Australia, CNO traveled to Manila, Philippines, where she met with Amb. MaryKay Carlson and her U.S. Embassy Manila country team as well as Philippine Secretary of National Defense Gilberto Teodoro, Chief of Staff of the Armed Forces of the Philippines Gen. Romeo S. Brawner Jr., and Philippine Navy Flag Officer-in-Command Vice Adm. Toribio Adaci Jr. While there Franchetti [expressed steadfast U.S. support for the Philippines](#).

“The U.S. commitment to the Philippines is ironclad and our Maritime Cooperative Activities are a testament to the strength and importance of our relationship,” said Franchetti. “I look forward to building on the success of exercises Balikatan and Sama Sama to increase our interoperability and accelerate our capability to support our shared interests in this critical region.”

This was Franchetti’s first trip to FSM, Australia, and the Philippines as Chief of Naval Operations and her second trip to the Indo-Pacific to communicate the strategic importance of this region to the globe.

RTX’s Raytheon awarded Mentor Protégé agreements to develop operational AI

The collaboration will leverage commercial and defense technologies to enhance decision making

MCKINNEY, Texas (July 29, 2024) – Raytheon, an RTX (NYSE: RTX) business, was awarded two strategic Mentor-Protégé Agreement initiatives from the Department of the Navy Office of Small

Business Programs to support the development of operational Artificial Intelligence for Department of Defense platforms and programs.

Through joint sponsorship from NAVAIR and the Office of Naval Research, Raytheon will mentor Anacapa Micro Products, Inc. and Nara Logics, Inc. Under two individual three-year contracts, Raytheon will provide mentorship for operational AI on system design, software architecture, systems integration, IT security constraints and authority-to-operate requirements in a collaborative environment.

“The Mentor Protégé Program is an essential element of our overall supplier diversity small business strategy,” said Colin Whelan, president of Advanced Technology at Raytheon. “Through this partnership, we’ll leverage commercial innovations that can make meaningful contributions to our defense capabilities and ultimately, the success of our servicemen and women.”

This collaboration is part of the DoD’s Mentor-Protégé Program, which was established in 1990 and is the oldest continuously operating federal mentor-protégé program in existence. Raytheon has been an active participant in the program since 1991.

Together, the team of Raytheon, Anacapa, and Nara Logics will work to accelerate the development of next-generation autonomous capabilities to enhance the decision-making effectiveness of our servicemen and women.

“We are privileged to participate in this Mentor Protégé relationship that will enhance our joint technical abilities to deliver critical mission support functionality on emerging defense and intelligence platforms,” said Jana Eggers, CEO of Nara Logics.

“Our organization is very proud to be a partner with Raytheon under this Mentor Protégé Agreement and we’re looking forward

to supporting the development, production and testing of next-generation AI to better serve the warfighter,” said Ken Marks, CEO of Anacapa Micro Products.

Upon completion, Raytheon will possess an extremely robust technology roadmap aligned with emerging commercial technologies of industry leading small business capabilities.