HII Hosts Secretary of The Navy and Top Naval Leaders at Ingalls Shipbuilding

PASCAGOULA, Miss., Jan. 07, 2026 (GLOBE NEWSWIRE) — HII (NYSE: HII) hosted John Phelan, secretary of the Navy, along with Adm. Daryl Caudle, chief of naval operations, and Gen. Eric Smith, commandant of the Marine Corps, at its Ingalls Shipbuilding division Wednesday. The senior leaders toured the shipyard, gained insights into HII's workforce initiatives and discussed Ingalls' role in delivering the U.S. Navy's "Golden Fleet" of advanced surface combatants.

"Ingalls Shipbuilding represents the ingenuity and commitment required to meet the Navy's current and future needs. The shipbuilders I met today are on the front lines of American strength — men and women whose hard work protects our national security, underwrites our liberty, and sustains the way of life we are sworn to defend. There is no maritime dominance without their skill, innovation, and relentless

commitment to excellence," said John C. Phelan, 79th secretary of the Navy.

"We want to thank Secretary Phelan and Department of Navy leadership for visiting with our shipbuilders who are proud to support America's efforts to maintain maritime supremacy," said Chris Kastner, HII's president and CEO. "Across our shipyards we recognize the U.S. Navy's urgent need for ships. HII has worked diligently in partnership with our customer to expand our capacity to deliver on this increased and urgent demand, by investing in our yards, establishing partnerships, increasing our hiring retention, and increasing shipbuilder proficiency to support performance."

Ingalls Shipbuilding is actively supporting early engineering and design discussions for the Navy's next battleship, which is part of the broader "Golden Fleet" effort to modernize and leverage state-of-the-art capabilities. Concurrently, Ingalls Shipbuilding was selected to design and construct the Navy's future small surface combatant (SSC) platform, leveraging the proven design of the *Legend*-class national security cutter.

The decisive combat power our Navy needs doesn't start at sea — it starts right here, on the deck plates, with the welders, engineers, planners, and tradesmen who show up every day to build America's Navy," Caudle said. "What shipbuilders do matters and our Sailors depend on it. We're working with shipyard leaders and industry partners to bring the President's vision for our Golden Fleet to life and what it will take to make that vision real."

During the visit, Phelan, Caudle and Smith met with HII and Ingalls leadership to discuss current shipbuilding programs and observed the advanced manufacturing technologies that are being utilized in the shipyard to increase shipbuilding throughput. The leaders also spent time aboard *America*-class amphibious assault ship *Bougainville* (LHA 8), currently under

construction, and the recently delivered *Arleigh Burke*-class destroyer Ted Stevens (DDG 128).

The Navy and Marine Corps visit highlighted HII's commitment to aligning its engineering expertise, manufacturing capabilities, and workforce proficiency with the Navy's long-term operational needs.

"The work being done here is vital to our national interest," Smith said. "These workers should be proud to know they are directly contributing to America's Naval Expeditionary Force. These ships will project American power across the globe, with Marines aboard ready to respond to any crisis or conflict."

HII has invested more than $1 billion in infrastructure, facilities, and advanced toolsets at Ingalls Shipbuilding to prepare for the delivery of next-generation capabilities. These investments have enhanced every facet of production, ensuring the shipyard is ready to meet the demands of upcoming programs such as the battleship class and SSC, while continuing to deliver destroyers and amphibious assault ships.

The Enduring Power of Mark 160: Four Decades of Navy Combat Advantage

By Dorina Watermolen, NSWCDD Corporate Communications, Jan. 8, 2026

DAHLGREN, Va. – The Mark 160 gun computer system is built for quick adaptation and ongoing innovation. Owned and sustained by the government and built at Naval Surface Warfare Center Dahlgren Division, it is a 40-year product line that provides America's fleet with precision.

"Mark 160 is the fire control system for our Navy's main gun weapon systems: The Mark 34 (5-inch), Mark 48 (57mm) and Mark 38 (30mm)," said Rachel Van Buren, the program's deputy manager.

The fire control system is a key component of the Mark 34 gun weapon system used on Aegis-class destroyers and other warships, responsible for calculating ballistic solutions and firing commands based on sensor data and selected ammunition. It interfaces with shipboard sensors, receives target information and generates the precise gun train and elevation orders needed to accurately fire the gun.

Government owned from the start

Unlike many major combat systems developed by contractors, the Mark 160's software is wholly government owned.

"We control the design, upgrades and sustainment," said Van Buren. "There's no dependency on proprietary code or outside timelines."

When the fleet requires a capability or new threats emerge, NSWCDD can make informed decisions and deliver improvements quickly and efficiently.

This ownership also streamlines technical integration. While the hardware for guns and optical sensors comes from various vendors, the NSWCDD Mark 160 team develops the fire control system in-house, calculating complex solutions.

Mark 160 acts as the shipboard brain for gun weapon systems, translating sensor data into precise gunfire.

"It takes all the available sensor input – radar, optical tracking and more – and generates a fire control solution so that, when a threat comes in, our guns engage accurately," said Van Buren.

For each engagement, Mark 160 receives target tracks from combat systems like Aegis, then calibrates for variables such as ship movement, environmental conditions and the ballistic specifics of each type of gun and ammunition, including modern guided projectiles.

The system constantly evolves, incorporating new sensors and effectors, helping ships adapt to the fast-changing dynamics in hostile regions like the Red Sea, where the gun weapon systems have been effective against threats.

"Our recent work with hypervelocity projectile integration really shows the team's capability. It took less than six months to move from requirements to ship integration –

something that’s possible because the government owns the code and oversees priorities.”

Fast, fleet-focused evolution

The team embraces Agile software development, keeping the Mark 160 relevant.

Waterfall and Agile are two distinct software development methodologies. Waterfall follows a structured, step-by-step process in which each phase – such as planning, design and testing – is completed before moving to the next. Agile, on the other hand, is iterative and flexible. It allows for continuous testing, regular customer feedback and easy adjustments to evolving needs.

“We switched from the Waterfall system to Agile about four years ago,” said Van Buren. “Now, instead of waiting five years for new capabilities, we are doing incremental releases. We push out updates every quarter, test them with real hardware in our labs and, if they are successful, deliver them rapidly to the fleet.”

This iterative approach empowers the Mark 160 team to innovate quickly based on fleet feedback.

“If something’s not working, we adjust,” said Van Buren. “We’re constantly improving both our product and the way we work.”

One of the latest advances focuses on making the operator’s job easier amid the chaos of combat. Previously, each gun impact was shown individually on displays, which could overwhelm the operator with data.

Because shipboard radars are highly sensitive, the detonation or impact of a 5-inch projectile near a target generates radar clutter. Splash-avoidance processing is designed to minimize clutter’s effect on the target’s tracking, resulting in

more accurate 5-inch gunfire.

Supporting the fleet and partners worldwide

The Mark 160 isn't limited to U.S. Navy ships.

"We're on guided-missile destroyers and cruisers and even Coast Guard platforms, with a substantial number of foreign military sales," said the deputy program manager.

Allies like Australia, South Korea and Japan leverage the Mark 160 for their gun weapon systems and more countries are expressing interest each year.

Through ongoing integration with new weapon systems and munitions, such as guided projectiles, Mark 160 provides the combat edge necessary for modern naval warfare.

"It's our flexibility – being the avenue for new capabilities to reach the fleet, whether it's kinetic or even AI-powered optical tracking – that keeps the Navy at the forefront," said Van Buren. "The fact that we, as the government, own and control the evolution is fundamental to maintaining our strategic advantage."

With its legacy of adaptability, fleet-focused improvement and global reach, the Mark 160 is poised to anchor naval gunfire solutions for decades more – ensuring that the U.S. and its partners remain ready, adaptable and lethal where and when it matters most.

Naval Research Lab Sharpens

Navy’s Sights with a Domain-Centric Path for Smarter Sensing

The U.S. Naval Research Laboratory (NRL) launched a groundbreaking remote sensing experiment, Coastal Hyperspectral Reflectance Object Material Analysis (CHROMA), Sept. 4-19, 2025, designed to accelerate the application of artificial intelligence (AI) in hyperspectral imaging and strengthen environmental intelligence and resource management capabilities across the Department of War and the wider scientific community. CHROMA participants are seen in a thermal infrared image during the second week of the Rochester Institute of Technology’s (RIT) Open Community eXperiment (ROCX). (Photo by Nathan Stein of Matter Intelligence)

From Nicholas E. M. Pasquini, U.S. Naval Research Laboratory Corporate Communications

Jan. 7, 2026

The U.S. Naval Research Laboratory (NRL) launched a remote sensing experiment to sharpen artificial intelligence (AI) applications in hyperspectral imaging across the Department of

the Navy and broader scientific community.

The U.S. Naval Research Laboratory (NRL) launched a remote sensing experiment to sharpen artificial intelligence (AI) applications in hyperspectral imaging across the Department of the Navy and broader scientific community.

Hyperspectral imaging, often described as capturing “the color of color,” provides a unique spectral fingerprint for each pixel. Combined with AI, these fingerprints support powerful tools for detecting subtle material differences and observing environmental change.

In coastal and aquatic environments, such AI tools could help identify hazardous materials, monitor infrastructure degradation, and assess natural resources with unprecedented accuracy.

The initiative, known as the Coastal Hyperspectral Reflectance Object Material Analysis (CHROMA) experiment, ran Sept. 4–19 as part of the Rochester Institute of Technology’s (RIT) Open Community eXperiment (ROCX).

“NRL was a key partner in the success of ROCX,” said RIT Research Professor John Kerekes, Ph.D. “The variety of material deployments on water and land enriched the overall value of the experiment and the professionalism of their staff was a great example for participating students and collaborators.”

Led by Kerekes, the multi-agency effort brought together federal, academic, and industry partners to collect detailed imaging data and match it with real-world measurements taken on the ground.

“The Navy has always depended on its ability to sense, interpret, and respond to the environment,” said NRL’s Information Operations Branch Head Gautam Trivedi, Ph.D. “With CHROMA, we’re building the foundation for the next generation

of environmental intelligence, where AI and advanced sensing work hand-in-hand."

The laboratory is leveraging multi-scale data collected from airborne platforms, unmanned aerial vehicles, and satellites over engineered and natural targets at the Tait Preserve in Penfield, New York – an environment chosen for its coastal and aquatic-adjacent features.

"This experiment moves hyperspectral technology out of the lab and into a realistic operational setting," said NRL Information Technology Division Superintendent Joey Mathews. "It represents a critical step in elevating the Technology Readiness Level of AI-enhanced sensing applications, moving us toward demonstrations that directly support naval missions."

A Multi-Platform, Domain-Centric Approach The NRL team synchronized flights and different types of sensors to capture observations at nearly the same time. This approach ensures data from satellites, airplanes, drones, and ground sensors can be accurately compared, offering researchers a richer dataset to build better AI. CHROMA's design centers on generating detailed, multi-modal datasets of known material spectral responses. Researchers collected measurements from custom-fabricated metal panels with painted coatings, as well as from natural rock and mineral samples. These targets serve as known reference points – like the bullseye on a target – for improving AI algorithms that solve a longstanding remote sensing challenge called hyperspectral unmixing. Hyperspectral unmixing is the process of separating mixed spectral signatures within a single pixel. When unresolved, mixed pixels can obscure object detection and reduce identification accuracy – especially in complex, cluttered coastal environments. "We are enhancing the efficacy of AI-driven approaches in resolving sub-pixel material compositions," said NRL CHROMA Project Lead Katarina Doctor, Ph.D. "By methodically changing the targets and viewing them with different sensors, we can learn how an object's signature

changes based on its material, the weather, and the type of sensor used to view it.” Doctor emphasized the data’s direct application to naval missions, stating it will significantly improve our ability to detect and identify objects in crowded littoral zones. She

noted that this improved hyperspectral detection is key to assessing threats, monitoring critical infrastructure, and ensuring the U.S. Navy can maintain a clear operational advantage in any coastal environment.

Elevating Naval Survivability The NRL Signature Technology Office contributed coated panels for the experiment, supporting research on how artificial surfaces appear in natural maritime settings. “This project, enhanced by Doctor’s work with advanced AI, uses the collected data to develop more effective camouflage coatings that will make naval platforms harder to detect by advanced surveillance systems,” said Scott Ramsey, Head of the NRL Signature Technology Office. “This research is key to improving naval asset survivability by making them harder to spot against natural backgrounds.” The resulting AI systems will be better able to distinguish between natural environments, like ocean surface, and coated, fabricated objects, like a ship’s hull. The approach provides reference points for evaluating how AI-based unmixing performs across varying environmental and spectral conditions.

Data for the Global Research Community

Doctor said ROCX will produce comprehensive hyperspectral datasets, encompassing engineered surfaces, geological samples, and a range of environmental conditions. The dataset will be shared openly with the remote sensing community, supporting defense and civilian research in coastal resource management, environmental intelligence, and infrastructure monitoring. ROCX’s multi-platform framework ensures experiment data is broadly applicable and scientifically rigorous. The combined dataset also enables researchers to study how an

object’s spectral signature is affected by its material properties, the atmosphere, and other environmental factors. “The integration of diverse data types is what makes CHROMA unique,” Mathews said. “It’s not just about building better algorithms – it’s about understanding how they perform in the complexity of the real world.”

AI’s Domain-Centric Future

CHROMA also reflects a shift in AI development from traditional, model-centric approaches toward what researchers call Domain-Centric AI. This approach embeds expert scientific knowledge into the AI development process from the start, ensuring the final system understands the real-world context of its mission, which makes the AI more reliable.

“This paradigm addresses the ‘why’ behind the data. Real-world applicability and trustworthiness depend heavily on understanding the problem’s context and leveraging specialized human expertise,” Doctor said. “The ROCX experiment is a prime example of Domain-Centric AI. We are not just gathering raw information – we are creating a dataset informed by deep understanding of the target materials, their environment, and the sensors collecting them – which makes the resulting AI models more effective.”

About the U.S. Naval Research Laboratory

NRL is a scientific and engineering command dedicated to research that drives innovative advances for the U.S. Navy and Marine Corps from the seafloor to space and in the information domain. NRL, located in Washington, D.C. with major field sites in Stennis Space Center, Mississippi; Key West, Florida; Monterey, California, and employs approximately 3,000 civilian scientists, engineers and support personnel. NRL offers several mechanisms for collaborating with the broader scientific community, within and outside of the Federal government. These include Cooperative Research and Development

Agreements (CRADAs), LP-CRADAs, Educational Partnership Agreements, agreements under the authority of 10 USC 4892, licensing agreements, FAR contracts, and other applicable agreements. For more information, contact NRL Corporate Communications at NRLPAO@us.navy.mil.

USS Fitzgerald Returns to San Diego Following Seven-Month Underway

The Arleigh Burke-class guided-missile destroyer USS Fitzgerald (DDG 62) returns to its homeport of Naval Base San Diego following operations in the U.S. 3rd, 5th and 7th Fleets, Jan. 6, 2025 (U.S. Navy photo by MC2 Lordin Kelly)
From U.S. 3rd Fleet Public Affairs, Jan. 6 2026

Arleigh Burke-class guided-missile destroyer USS Fitzgerald (DDG 62) returned to its homeport of Naval Base San Diego following a seven-month underway to the U.S. 3rd, 5th, and 7th Fleet areas of operation, Jan. 6, 2026.

While underway, Fitzgerald conducted a wide range of operations, including routine presence patrols and maritime security operations.

The ship participated in several multinational exercises, enhancing interoperability and strengthening partnerships with key allies, including the Japan Maritime Self-Defense Force and the Republic of Korea Navy.

Fitzgerald executed six transits of the Strait of Hormuz, ensuring freedom of navigation in the Arabian Gulf, and participated in major multinational exercises including MALABAR 2025 and SWARMEX 2025, enhancing interoperability and strengthened partnerships with the navies of Australia, Bangladesh, Germany, India, Japan, Pakistan, the Philippines, and the United Arab Emirates, all contributing to a free and open Indo-Pacific.

As a lethal, agile force, the Sailors aboard Fitzgerald exemplified the warrior ethos and readiness required to defend the United States and its interests at a moment’s notice.

“I am truly proud of the hard work and dedication this crew has displayed daily throughout this seven month deployment,” said Cmdr. Paul F. Richardson III, commanding officer of Fitzgerald. “Their resilience and professionalism enabled us to successfully execute every mission we were tasked with in multiple areas of operation. We are all excited to be home and reunited with our families and loved ones, whose unwavering support made this possible.”

The professionalism and resilience displayed by the crew throughout their deployment directly honored the legacy of their ship’s namesake.

Fitzgerald is named in honor of Lt. William Charles Fitzgerald, a U.S. Navy officer who was posthumously awarded the Navy Cross for his extraordinary heroism in the Vietnam War. The ship's motto, "Protect Your People," is a direct tribute to his sacrifice, when he was mortally wounded while providing covering fire for his evacuating men during an attack by Viet Cong forces.

As a multi-mission surface combatant, Fitzgerald is capable of conducting Anti-Air Warfare (AAW), Anti-Submarine Warfare (ASW), and Anti-Surface Warfare (ASuW) operations.

As an integral part of the U.S. Pacific Fleet, U.S. 3rd Fleet leads naval forces in the Indo-Pacific and provides the realistic, relevant training necessary to execute the U.S. Navy's role across the full spectrum of military operations. U.S. 3rd Fleet works together with allies and partners to advance freedom of navigation and overflight, the rule of law and other principles that underpin security for the Indo-Pacific region.

Navy Reservists Support Operation Deep Freeze 2026

Jan. 6, 2026 | By Sarah Cannon, Military Sealift Command Pacific

Navy reservists from a Military Sealift Command Pacific expeditionary port unit are currently supporting cargo operations in Port Hueneme, California, in preparation for Operation Deep Freeze 2026, a resupply mission.

The team is overseeing the loadout of supplies and equipment onto the Military Sealift Command chartered heavy lift ship Plantijngracht, which will deliver the cargo to the remote Antarctica outpost of McMurdo Station.

Serving as liaisons between the ship's crew and Military Sealift Command, the reservists are overseeing the loadout of 302 pieces of cargo consisting of containers filled with construction materials, construction equipment, parts for the ongoing barge project at McMurdo Station, as well as dry goods and supplies needed for survival on Antarctica.

"This mission gives us a broader experience of what goes on [for] the logistics side of the Navy; most specifically with MSC and the way they do business," explained Navy Cmdr. Allan Phillips, expeditionary port unit commanding officer. "For us as reservists, it takes us away from the warship aspect of the Navy and focuses us on working with civilians and MSC."

In addition to cargo containers, materials for a 65-ton floating causeway system will also be loaded. The causeway will replace the ice pier at McMurdo Station.

Previously, an ice pier made up of rebar and frozen seawater was used for cargo offloads. Because of the size and weight of the cargo this year, the ice pier is unusable.

Once in Antarctica, the causeway will be assembled into sections on the ship's deck and placed into the water. The sections will be attached to one another to form the final pier.

The four-person unit began operations Dec. 21, 2025, with a brief holiday break. As the "eyes on the pier," the team is providing on-site observations for the onload of cargo, including staying engaged with the ship's crew, the pier crews and serving as a reporting team to the Military Sealift Command operation team in San Diego.

While most people would think working away from home during the holidays would be a hardship, members of the team welcomed the opportunity to be part of the unique operation made up of different military branches and government organizations

working together, something outside their normal routine.

“For the enlisted members of the team, we get to see how this type of mission plays into the big picture of an operation,” said Navy Petty Officer 1st Class Marilyn Lazar, a hospital corpsman assigned to the expeditionary port unit.

Plantijngracht is scheduled to depart Port Hueneme Jan. 8. Following a stop in Christchurch, New Zealand, where the ship will load additional cargo, it will travel to McMurdo Station, traveling approximately 8,040 nautical miles over nearly a month.

Once in Antarctica, members of Navy Cargo Handling Battalion 1 will conduct the offload. Before departing McMurdo Station, the ship will be loaded with retrograde cargo for transportation off the continent. This includes trash and recyclable materials for disposal and equipment no longer required at the station.

HII Hosts Secretary of War Pete Hegseth at Newport News Shipbuilding

Release From HII

NEWPORT NEWS, Va., Jan. 05, 2026 (GLOBE NEWSWIRE) — HII (NYSE: HII) hosted Secretary of War Pete Hegseth at its Newport News Shipbuilding division today. The visit is part of Hegseth's "Arsenal of Freedom" industry tour.

During his visit to the shipyard, Hegseth met with HII and shipyard leadership and spent significant time interacting directly with shipbuilders and sailors.

"Our warfighters cannot win without you," Hegseth told shipbuilders. "We are in this fight together, shoulder to shoulder."

"There is an unbreakable line tying the wrench in your hand to the safety and survival of a 22-year-old American sailor patrolling the depths of the Pacific. The quality of your work, your unwavering commitment to excellence, your speed, your patriotism itself. You give our warrior the decisive edge."

"I want to thank Secretary Hegseth for his visit today, and for reinforcing to shipbuilders directly the critical

importance of the work they do for the Navy and the nation," HII CEO and President Chris Kastner said. "Speed matters. Over the past year, in partnership with our government customers, we've taken steps to measurably increase our hiring, grow our retention, and most importantly, improve proficiency levels within our workforce. These actions are yielding a meaningful increase in shipbuilding throughput. With more than 40 ships at Ingalls and NNS in active construction or modernization, our focus in 2026 is on building on this momentum. Every improvement in our operations, every efficiency we unlock, every day we reduce from a schedule translates directly into capability the Navy can deploy to the front line of deterrence and defense, to protect American interests."

Hegseth saw firsthand how NNS is leveraging technology and state-of-the-art facilities to execute serial-module-production for both Columbia– and Virginia-class submarines and toured these submarines in various stages of construction, from early construction to final assembly and test. He also toured construction progress and met with sailors on aircraft carrier John F. Kennedy (CVN 79), undergoing final outfitting and testing at NNS. The ship will be the world's most lethal aircraft carrier upon delivery to the U.S. Navy.

To increase shipbuilding throughput and meet the increased demand for ships, HII recently embarked on a distributed shipbuilding initiative to improve schedule adherence by partnering with 23 shipyards and fabricators beyond the company's traditional labor market. HII also forged partnerships with international manufacturers to explore meaningful ways to expand capacity including evaluation of adding an additional shipyard in the U.S. At NNS in 2025, shipbuilders also modified shifts to support a 56-hour standard work week in order to finish the year strong.

At 44,000 employees, HII is the largest industrial employer in Virginia and Mississippi. It is also the largest producer of

unmanned underwater vehicles for the U.S. Navy, and the world.

Magnet Defense Acquires Metal Shark to Accelerate Autonomous Capabilities

Release From Magnet Defense

MIAMI, Jan. 6, 2026 /PRNewswire/ – Today, Magnet Defense LLC ("Magnet Defense" or the "Company"), a developer of fully autonomous national security maritime platforms for fleet operations and missile defense missions, announces that it has officially completed its acquisition of Metal Shark, a leading designer and shipbuilder of highly-capable maritime platforms for defense and law enforcement missions. The combination of Magnet Defense and Metal Shark offers U.S. and allied militaries a leading supplier of AI-enabled unmanned surface vessels (USVs). Metal Shark's shipyards are the hubs from which Magnet Defense will deliver critical capabilities for the U.S. Golden Fleet initiative.

The acquisition represents a critical step in Magnet Defense's strategy to pair advanced robotics and AI-enabled software-defined systems with domestic industrial-scale production. By integrating Metal Shark's established shipbuilding operations, workforce, and facilities, Magnet Defense moves from prototype development to sustained delivery of autonomous maritime platforms at speed and scale.

Global maritime security demands are increasing rapidly, while U.S. shipbuilding capacity has lagged behind its peer competitors. Magnet Defense addresses this gap by combining artificial intelligence, modular vessel design, and modern manufacturing approaches to rebuild domestic maritime capability and deliver next-generation platforms faster and more efficiently.

Metal Shark brings more than 20 years of experience designing and constructing mission-specific vessels, with over 2,000 vessels delivered to customers worldwide, including over 500 vessels for the U.S. Navy, 600 vessels for the U.S. Coast Guard, and hundreds more for allied nation military forces around the globe.

The company's two Louisiana manufacturing facilities encompass more than 125,000 square feet of manufacturing space across 40 acres and are supported by a seasoned workforce and a strong engineering organization. These assets provide Magnet Defense with immediate production depth and execution capacity.

F-35 pilots, Navy

Collaborative Combat Aircraft Hone Tactics in Joint Simulation Environment

An F-35 Lightning II is shown operating alongside Collaborative Combat Aircraft in a conceptual graphic illustrating their integration. The unmanned systems serve as wingmen, enhancing mission effectiveness by supporting manned aircraft pilots with critical tasks. (U.S. Navy graphic)

From Naval Air Warfare Center Aircraft Division, Jan. 5, 2026

NAS PATUXENT RIVER, Md.– The Naval Air Warfare Center Aircraft Division (NAWCAD) achieved a milestone in advancing F-35 Lightning II aircraft integration with the Navy's Collaborative Combat Aircraft (CCA) during a recent tactical demonstration in its Joint Simulation Environment (JSE).

The event demonstrated how advanced modeling and simulation can develop tactics and strategies for fifth-generation aircraft like the F-35 operating with uncrewed

combat systems.

“Modern warfare is demanding more from our aviators,” said NAWCAD Commander Rear Adm. Todd Evans. “This milestone shows the Joint Simulation Environment’s impact on equipping them with the advanced tactics they need to win future battles.”

During the demonstration, F-35 pilots used touch-screen tablets to control multiple CCA during simulated missions. Using advanced operational communication systems and precision-guided missiles, pilots engaged complex threats in the JSE’s highly realistic virtual environment.

The JSE is the Department of War’s state-of-the-art digital test and training range that replicates real-world combat scenarios in a virtual environment. Built by NAWCAD engineers, the JSE combines cockpit simulators, advanced software, and domed visual displays to allow pilots to train and test systems in a safe, controlled setting. The JSE enables pilots to fly more sorties in one week than they can on open-air ranges in a year, sharpening their skills and improving readiness.

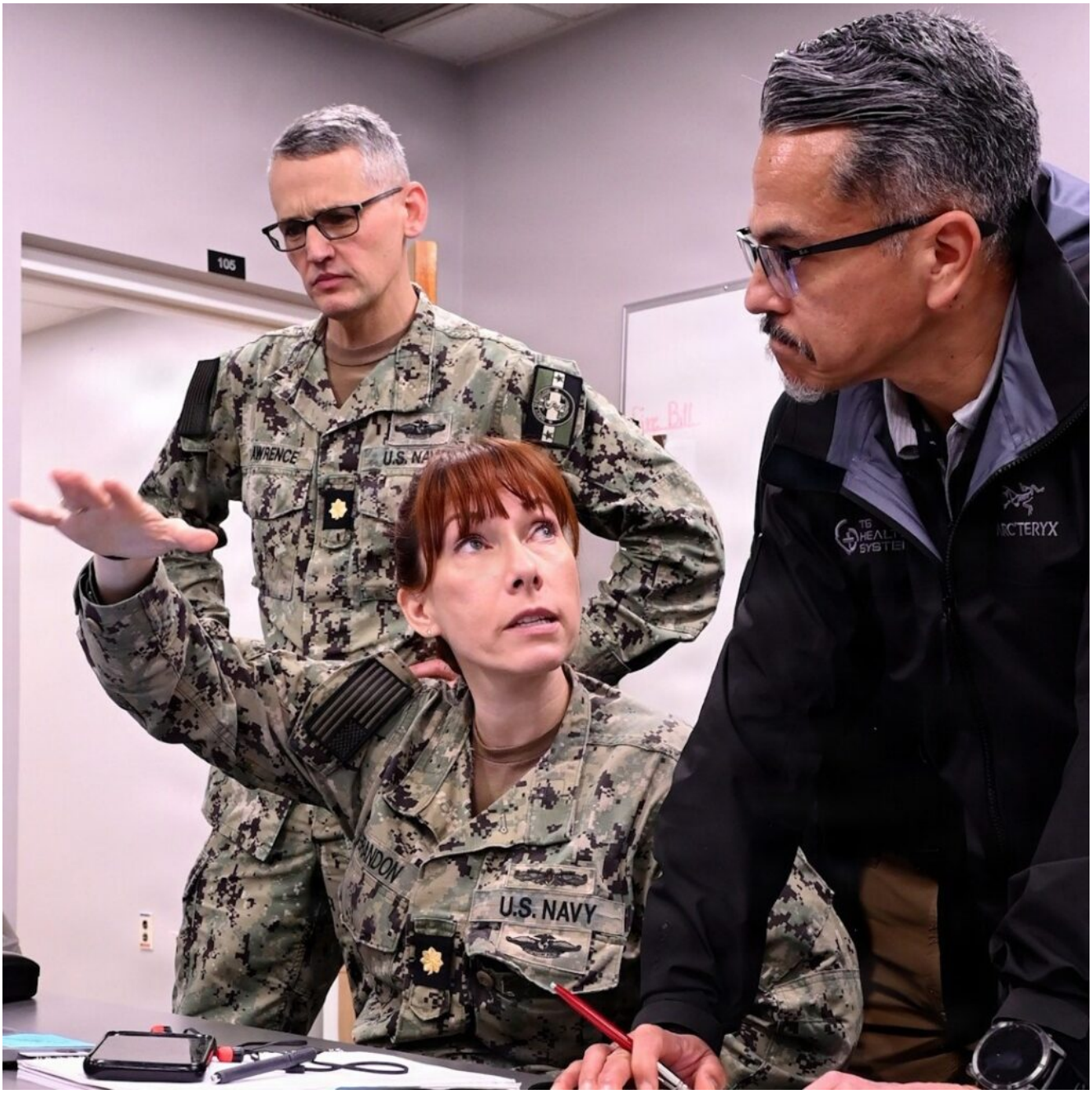
The Navy’s CCA are multi-role uncrewed combat vehicles that will operate with crewed fighters enhancing the mission effectiveness of crewed platforms in highly contested environments. They are central to the Department’s future strategy, enabling pilots to focus on high-level decision-making while expanding operational capabilities. The JSE is playing a key role in developing tactics and operational concepts for integrating these systems with fifth-generation platforms like the F-35.

NAWCAD’S JSE continues to integrate additional platforms and enhance the fidelity of its simulated environment with planned additions of the E-2D Advanced Hawkeye, F/A-18E/F Super Hornet, and EA-18G Growler to enable integrated test and training in fiscal year 2026.

NAWCAD hosts dozens of squadrons and hundreds of pilots annually, fostering joint and international collaboration in advanced air combat training. The JSE is expanding with additional Navy and Air Force facilities under development at Naval Air Station Fallon, Nellis Air Force Base, and Edwards Air Force Base, to train tactical pilots.

NAWCAD employs military, civilian, and contract personnel. It operates test ranges, laboratories, and aircraft in support of test, evaluation, research, development, and sustainment for all Navy and Marine Corps aviation platforms. Based in Patuxent River, Maryland, NAWCAD also has major sites in St. Inigoes, Maryland; Lakehurst, New Jersey; and Orlando, Florida.

Navy Tests New Digital Health System to Modernize At-Sea Care



MAYPORT, Fla. U.S. Navy Lt. Cmdr. Erik Lawrence, left, U.S. Navy chief nursing informatics officer for Joint Operational Medicine Information System (JOMIS) assigned to U.S. Navy Bureau of Medicine and Surgery, Lt. Cmdr. Elise Brandon, assigned to Naval Medical Forces Atlantic, and Joe Espinosa from the JOMIS Program Office, discuss the data seeding process in the JOMIS Operational Medicine Care Delivery Platform (OpMed CDP), during a pilot onboard USS Carney (DDG 64) in Mayport, Dec. 9. (U.S. Navy photo by MC2 Sasha Ambrose)

From Petty Officer 2nd Class Sasha Ambrose – U.S. Navy Bureau of Medicine and Surgery

Navy Medicine conducted its first pilot test of the

Operational Medicine Care Delivery Platform (OpMed CDP) aboard the Arleigh Burke-class destroyer USS Carney (DDG 64) to bring modern, seamless patient care to service members aboard ships, Dec. 1-12.

The Joint Operational Medicine Information System (JOMIS), under the Program Executive Office for Defense Healthcare Management Systems, developed OpMed CDP as part of modernized health IT software suite. This pilot program was established through a partnership with the U.S. Navy Bureau of Medicine and Surgery (BUMED), U.S. Fleet Forces Command (USFFC), Commander, Naval Surface Force Atlantic (CNSL), Commander, Naval Medical Forces Atlantic (NMFL), and JOMIS to gain fleet approval of the software's functionality.

"The JOMIS ecosystem will transform the way our clinicians, physicians, and corpsmen provide care to warfighters in operational settings to maintain patient data flow through the continuum of care," stated Lt. Cmdr. Erik Lawrence, U.S. Navy chief nursing informatics officer for JOMIS assigned to BUMED.

During the 12-day test, the ship's crew received comprehensive, user-centered training on the system. The goal was to make documenting and accessing a patient's electronic health record simple and accurate – from pharmacy and lab work to general check-ups – and to ensure connectivity with the Military Health System's MHS GENESIS platform.

"We're still learning how it [OpMed CDP] works, but the team has been really helpful with answering questions and listening to feedback, so I'm really excited to keep moving," described Hospital Corpsman 3rd Class Johnny Percadoni, assigned to Carney, during a hands-on, scenario-based session. "It's a different day and a new system, but I think it's going to become a lot more prevalent and useful for us." This phased, structured training install approach – also called fielding – is critical to implementing OpMed CDP across the Navy. The

JOMIS Fielding Plan is designed to ensure a disciplined rollout that allows for agile development, continuous user feedback, and alignment with operational readiness cycles.

“We’ve been developing this agile software for the past three and a half years to provide better decision support at the point of care for medical providers,” explained Cmdr. John de Geus, the U.S. Navy’s chief health informatics officer. “But also to provide data to operational commanders in dynamic, real-time environments.”

Based on the initial trial, CNSL has decided to move into the next phase: an extended pilot to ensure that the final product will be resilient, effective, and ready for the demands of the fleet.

“A successful fielding isn’t just about delivering software; it’s about delivering the right capability,” concluded de Geus. “The initial pilot provided crucial insights, which is why we are moving to an extended pilot. This decision reinforces our commitment to a truly feedback-driven process, prioritizing the needs of our Sailors above all else.”

Once all phases are complete, Carney will be the first ship to use OpMed CDP for daily medical operations. This will modernize Navy Medicine’s readiness and ensure seamless data sharing, ultimately help to prepare warfighters for their missions at sea.

For 250 years, Navy Medicine – represented by more than 44,000 highly-trained military and civilian healthcare professionals – has delivered quality healthcare and enduring expeditionary medical support to the warfighter on, below, and above the sea, and ashore.

HII Delivers Destroyer Ted Stevens to U.S. Navy

Release From HII

PASCAGOULA, Miss., Dec. 29, 2025 (GLOBE NEWSWIRE) — HII's (NYSE: HII) Ingalls Shipbuilding division has delivered Arleigh Burke-class guided missile destroyer Ted Stevens (DDG 128) to the U.S. Navy. This marks the second Flight III Arleigh Burke-class destroyer to be delivered by Ingalls shipbuilders.

"The delivery of Ted Stevens reflects the strong momentum of our destroyer program as we accelerate Flight III production and bring enhanced capabilities to the fleet," said Brian Blanchette, Ingalls Shipbuilding president. "We are honored to deliver DDG 128 to the Navy knowing that it will stand as a powerful asset in strengthening U.S. maritime security for decades to come."

The future USS Ted Stevens represents the next generation of surface combatants for the U.S. Navy, featuring the second-in-

class Flight III AN/SPY-6 (V)1 radar system and the Aegis Baseline 10 combat system, designed to counter threats well into the 21st century.

At Ingalls Shipbuilding there are four more Flight III destroyers under fabrication and another seven moving through early pre-planning stages of construction. To increase the throughput and meet the increased demand for ships by the U.S. Navy, Ingalls recently embarked on a distributed shipbuilding initiative to improve schedule adherence for all ships built at Ingalls by partnering with shipyards and fabricators beyond the company's traditional labor market.

To date, Ingalls Shipbuilding has delivered 36 Arleigh Burke-class destroyers to the U.S. Navy, including the first Flight III, USS Jack H. Lucas (DDG 125) and Ted Stevens (DDG 128). The four Flight III destroyers under construction include: Jeremiah Denton (DDG 129), George M. Neal (DDG 131), Sam Nunn (DDG 133), and Thad Cochran (DDG 135). Additionally, Ingalls is in early pre-planning and material procurement phases for John F. Lehman (DDG 137), Telesforo Trinidad (DDG 139), Ernest E. Evans (DDG 141), Charles French (DDG 142), Richard J. Danzig (DDG 143), Intrepid (DDG 145) and Robert Kerrey (DDG 146).

To learn more about the DDG 51 Arleigh Burke-class destroyer program at Ingalls visit: https://hii.com/what-we-do/capabilities/guided-missile-destroyers/arleigh-burke-class/.