Department of Defense Demonstrates Reusability of Hypersonic Test Vehicle

From the U.S. Department of Defense, May 5, 2025

The U.S. Department of Defense Test Resource Management Center (TRMC), in partnership with Naval Surface Warfare Center Crane Division (NSWC Crane), conducted a second successful flight of a fully recoverable uncrewed hypersonic test vehicle in March 2025, within three months of the first test in December 2024. This test campaign marks the Nation's first return to reusable hypersonic flight testing since the manned X-15 program ended in 1968.

In both tests, the Stratolaunch Talon-A hypersonic vehicle launched from the Roc carrier aircraft, flew over the Pacific Ocean and achieved speeds greater than Mach 5 before landing at Vandenberg Space Force Base. The landmark tests supported the ongoing TRMC Multi-Service Advanced Capability Hypersonics Test Bed (MACH-TB) project.

George Rumford, Director of the TRMC, stated, "Demonstrating the reuse of fully recoverable hypersonic test vehicles is an important milestone for MACH-TB. Lessons learned from this test campaign will help us reduce vehicle turnaround time from months down to weeks."

MACH-TB accelerates delivery of advanced hypersonic capabilities to the warfighter by providing DoD, other Federal agencies, industry, and academia the capability to affordably and rapidly conduct hypersonic experiments and test hypersonic system components.

NSWC Crane awarded the MACH-TB contract to Leidos through the Strategic and Spectrum Missions Advanced Resilient Trusted

Systems (S2MARTS) Other Transaction Authority (OTA) vehicle on behalf of the TRMC. As the prime contractor for MACH-TB, Leidos awarded Stratolaunch, LLC a competitive contract to provide flight test services for the program.

About TRMC

The U.S. Department of Defense Test Resource Management Center (TRMC) is a DoD Field Activity that reports directly to the Under Secretary of Defense for Research and Engineering within the Office of the Secretary of Defense. The mission of the TRMC is to ensure the readiness of DoD to experiment and test.

Maritime Program Previews Talent Pipeline Program, Future of Maritime Careers

Matt Sermon, Direct Reporting Program Manager, Maritime Industrial Base Program, participates in the 2024 Philadelphia Signing Day event in June 2024.
By Maritime Industrial Base Program, May 6, 2025

WASHINGTON – Across shipyards and classrooms, welding booths and engineering labs, a new wave of talent prepares to step into critical roles shaping America's defense future.

In May and June, the U.S. Navy's Talent Pipeline Program (TPP) will recognize the individuals, employers, and training partners driving this workforce initiative, kicking off the third year of a program now aligned under the Navy's expanded Maritime Industrial Base (MIB) Program.

The 2025 TPP Signing Day season begins this month with a series of regional celebrations hosted across seven pipelines serving key maritime hubs and national employers. These events will honor thousands of new hires entering the Defense Industrial Base and highlight the growing collaboration among local industry, academia, and Navy leadership. The season will

culminate with a national Signing Day event in late June that will bring all regions together for a shared celebration of purpose and progress.

The newest program, known as the Enterprise Plus pipeline, applies the same proven approach to companies that have a national presence and multiple facilities, which are suppliers located outside of one of the six regional pipelines. This addition ensures that TPP remains accessible to employers and workers across the country, regardless of geography.

“This isn’t just a hiring effort,” said Matt Sermon, Direct Reporting Program Manager of the MIB Program. “The young men and women preparing to join this workforce are answering a national call. Each of them plays a role in securing the American way of life.”

The TPP provides the training and tools needed to create and sustain a talent pipeline that empowers employers to recruit, hire, train and retain a skilled workforce.

A Strategic Evolution: TPP Now part of the MIB Program

The MIB Program leads the Navy’s effort to revitalize America’s shipbuilding and repair capabilities. Established in September 2024, it strengthens and expands the industrial base that builds and maintains surface ships, aircraft carriers, and submarines vital to national defense.

Originally part of the Submarine Industrial Base (SIB) Program, TPP is now a cornerstone of the MIB Program’s workforce strategy. This realignment allows the program to expand beyond submarines to include careers tied to the full range of naval shipbuilding—opening new pathways for skilled tradespeople across the country.

Six Regions, One Mission

The 2025 regional Signing Day events will take place across

six strategic locations: Virginia, two locations in Pennsylvania, Southern California, New York, and Massachusetts. Each site represents a unique collaboration among regional employers, workforce boards, academic institutions, and Navy partners, all focused on cultivating talent pipelines tailored to local industry needs.

From first-time participants to returning employers, the momentum is strong. New training partners, expanded industry participation, and rising student interest point to a banner year for TPP.

“The US Navy Talent Pipeline Program trains, coaches, encourages, and recognizes Small/Medium sized Defense Industrial Base Employers for improving the performance of their Talent Acquisition and Retention systems, running a better business and providing more industrial base capacity to support the Navy demand,” said Joe Barto, Talent Pipeline Program Manager. “The 2025 Signing Days across all the Regional Flags and culminating with the National Signing Days are all about recognizing the 452 Employer Partners for their work in recruiting, hiring, onboarding and retaining new teammates.”

A Growing Legacy of Opportunity

Now entering its third year, TPP has helped facilitate hiring more than 9550 individuals since its launch. In 2025 alone, over 4,200 new hires are expected to be recognized through the Signing Day events.

The program’s network has expanded to include more than 450 employers this year.

“To those embarking on a career in national security, what you do is vital to defending the American way of life,” Sermon said. “The only way America will keep pace with the industrial might of our competitors is with American workers, American innovation, and technical excellence.”

Looking Ahead: A National Celebration of Service and Skill

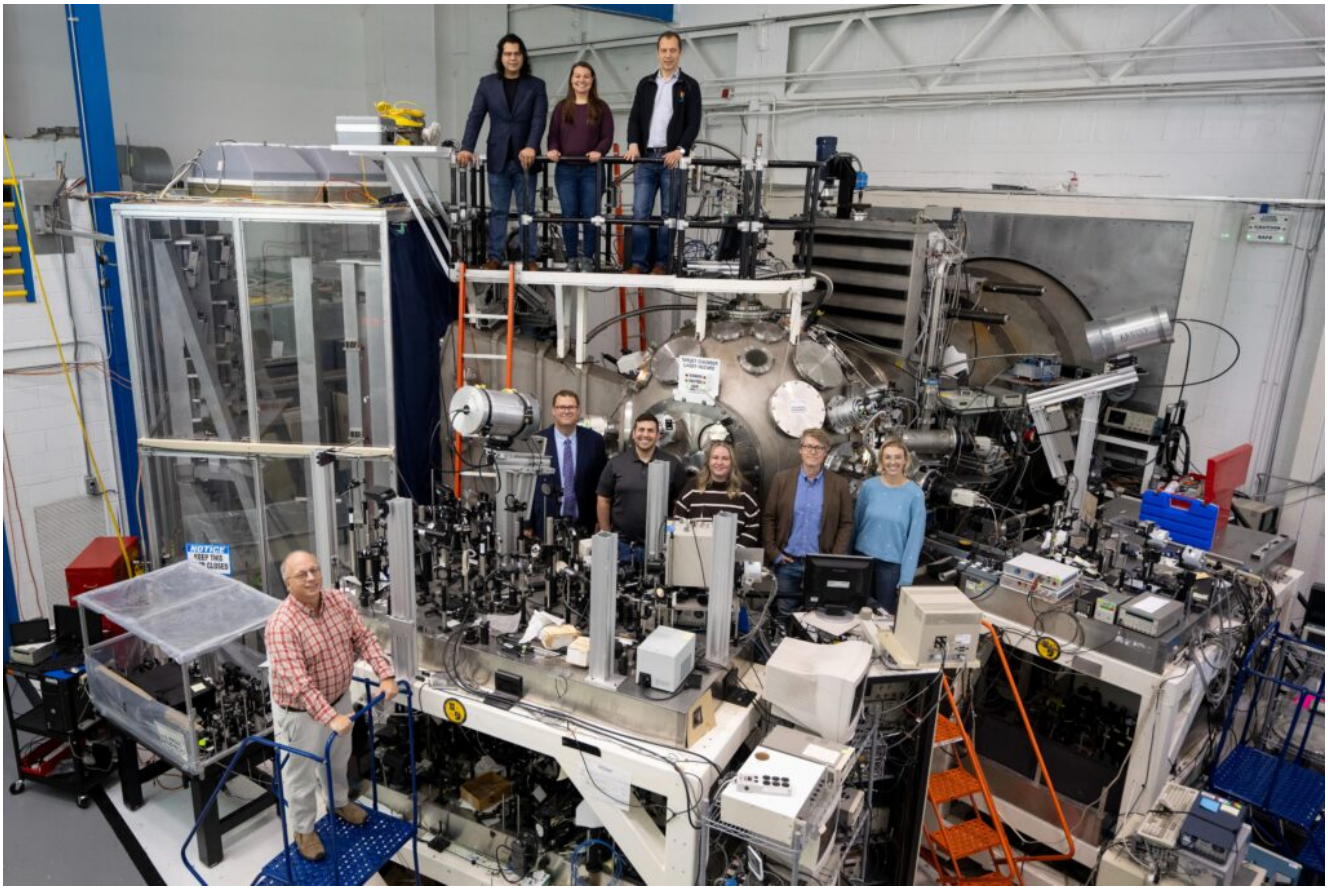
This year’s regional events will build toward a culminating national Signing Day in late June, where leaders from across the Navy, industry, and education will gather to celebrate this new generation of maritime professionals.

“These events aren’t about the numbers—they’re about the people,” Sermon added. “These men and women are the foundation of our national defense. With every submarine and surface ship we build, their impact is clear.”

With more than 250,000 skilled workers needed over the next decade to meet the Navy’s construction and maintenance goals, the stakes are high—but so is the energy behind this mission.

The TPP’s upcoming Signing Day events are more than ceremonies. They’re a signal to the nation that the workforce behind the fleet is strong, growing, and ready.

U.S. Naval Research Laboratory’s NIKE Laser-Target Facility Helps to Advance DoD Nuclear Mission



06 May 2025

From U.S. Naval Research Laboratory Corporate Communications, May 6, 2025

WASHINGTON, D.C. – The U.S. Naval Research Laboratory (NRL) has announced a new strategic direction for its NIKE laser-target facility to align its world-class capabilities with the Department of Defense's (DoD) nuclear strategic priorities.

The new strategic direction marks a shift from the facility's historical focus on Department of Energy (DoE) missions, specifically those related to the National Nuclear Security Administration (NNSA). The initiative emphasizes NRL's commitment to advancing national security through cutting-edge science and technology.

Originally constructed in 1995 with support from the NNSA, the NIKE (pronounced nai-kee) laser was designed to explore the physics of direct-drive inertial confinement fusion in support of the Nation's nuclear stockpile stewardship mission.

“NIKE is the world’s most energetic krypton-fluoride excimer laser, delivering ultrasmooth pulsed beams at a wavelength of 248 nanometers with 2-3 kilojoules of energy,” said Jason Bates, Ph.D., head of NRL’s Laser Plasma Branch. “These unique capabilities enable researchers to generate strong, stable shock waves and create exceptionally clean experimental conditions for studying extreme physical states of matter.”

For decades, the NIKE facility and its scientific team have contributed to NNSA’s flagship laser program at the National Ignition Facility (NIF), which recently achieved its landmark goal of ignition where the fusion of hydrogen nuclei produces more energy than the laser energy used to drive the reaction.

Over the years, NRL researchers have pioneered several critical innovations that have transitioned to other NNSA programs including monochromatic x-ray radiography, the Virgil gold M-band spectrometer, and the flashlamp-pumped disk amplifiers for neodymium-doped glass (Nd:glass) lasers. Nd:glass is a material used in certain high-powered laser systems.

Through the creative work of its research team, and a strategic partnership with the Air Force, NIKE’s capabilities are now being harnessed to address the central science and technology needs of the DoD nuclear deterrence mission.

“This partnership between NRL and the Air Force Research Laboratory represents a vital leap forward in our ability to simulate and understand the extreme environments that nuclear assets must navigate,” Bates said. “NIKE’s unique laser and diagnostic capabilities are unmatched, enabling us to close critical gaps in assessing the survivability of our platforms.”

With adversaries such as China and Russia racing to build

similar excimer-laser technologies, maintaining and safeguarding the NIKE facility is essential. A recapitalization and reinvestment strategy is underway to secure NIKE's future and support the revitalization of the Nation's nuclear deterrence capability.

"NRL's NIKE facility is an important national asset with unique capabilities that allow it to serve a broad range of missions supporting stockpile stewardship, fusion energy research, directed energy, hypersonics, and fundamental studies of materials at extreme conditions. Its continued operation for the good of the Nation remains our goal through its new focus," said Joe Peñano, Ph.D., superintendent of NRL's Plasma Physics Division.

The Plasma Physics Division conducts broad theoretical and experimental programs of basic and applied research in plasma physics, laboratory discharge, and space plasmas, intense electron and ion beams and photon sources, atomic physics, pulsed power sources, laser physics, advanced spectral diagnostics, and nonlinear systems.

The effort of the Division is concentrated on closely coordinated theoretical and experimental programs in key areas. Considerable emphasis is placed on large-scale numerical simulations related to plasma dynamics; ionospheric, magnetospheric, and atmospheric dynamics; nuclear weapons effects; inertial confinement fusion; atomic physics; plasma processing; nonlinear dynamics and chaos; free electron lasers and other advanced radiation sources; advanced accelerator concepts; and atmospheric laser propagation.

The NRL Laser Fusion Program traces its origins to the late 1960s, when laser-produced plasmas were first used to investigate the effects of high-altitude nuclear explosions. The program was formally established in 1972 by the Atomic Energy Commission, the predecessor to today's NNSA.

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.

U.S. Navy Proves Sea-Based Hypersonic Launch Approach

From the Department of Defense, May 2, 2025

The U.S. Navy's Strategic Systems Programs is continuing on the path toward the nation's first sea-based hypersonic fielding with a successful end-to-end flight test of a conventional hypersonic missile from the Cape Canaveral Space Force Station, Florida. This test marked the first launch of the Conventional Prompt Strike (CPS) capability utilizing the Navy's cold-gas launch approach that will be used in Navy sea-based platform fielding.

"The speed, range, and survivability of hypersonic weapons are key to integrated deterrence for America," Secretary of the Navy John Phelan said. "When fielded, Conventional Prompt Strike will deliver unmatched capabilities to our warfighters."This test was the next step in the Navy's flight testing program of the common All Up Round (AUR) that is being

developed in partnership with the Army’s Rapid Capabilities and Critical Technologies Office. In 2024, the programs completed two additional end-to-end flight tests of the AUR that will be fielded to both the Navy and Army.

“The cold-gas approach allows the Navy to eject the missile from the platform and achieve a safe distance above the ship prior to first stage ignition. This technical achievement brings SSP one step closer to fulfilling our role of providing a safe and reliable hypersonic capability to our Navy,” said Vice Adm. Johnny R. Wolfe Jr, Director, Navy’s Strategic Systems Programs, which is the lead designer of the common hypersonic missile.

The CPS Program has been diligently planning and executing engineering and test efforts to prepare for the first Navy fielding aboard the USS ZUMWALT. Utilizing an In-Air Launch

test facility, the Program conducted an extensive test campaign to validate the launch approach prior to the completion of this flight test. Information gathered from this test will inform the continued development and production of the AUR and the first use of this cold-gas launch approach on a surface ship platform.

The rapid development and demonstration of conventional sea-based hypersonic strike weapon systems supports the U.S.'s ability to deter, and if necessary, defeat potential strategic competitors. The range, accuracy, lethality, and survivability of hypersonics is a significant leap-ahead in U.S. conventional strike capabilities, complementing existing capabilities and enabling the U.S. to defeat adversary high-end capabilities.

Virginia-Class SSN Team Awarded $12 Billion Contract Modification for Two Submarines

GROTON, Conn., and NEWPORT NEWS, Va.– General Dynamics Electric Boat, a business unit of General Dynamics, announced today it has been awarded a total of $12.4 billion in contract modifications for construction of two fiscal year 2024 Virginia-class Block V attack submarines (SSNs), the 11th and 12th of the block.

Electric Boat is teamed with HII, whose Newport News Shipbuilding division is teamed to build the Virgina class.

“Additionally, the award funds investments to improve productivity at the shipyards and workforce support as detailed in the Department of Defense contract award announcement (https://www.defense.gov/News/Contracts/Contract/Article/4170827/). This contract includes options which, if exercised, would bring the cumulative value to $17.2 billion,” the April 30 General Dynamics release said.

“Over the past two years, we successfully worked with the Navy, Congress and the administration to secure funds that enable us to increase wages for the nuclear-powered vessel workforce and allow for significant additional investments in

capacity, shipyard processes and systems," said Mark Rayha, president of General Dynamics Electric Boat. "This contract modification validates the unique and important role submarines and submarine shipbuilders play in our national defense."

"We appreciate the teamwork that resulted in these critical national security assets being put under contract," said Jason Ward, NNS vice president of submarine construction, in an April 30 release from HII. "We understand the advantage *Virginia*-class submarines bring to the sailors who operate them, and our shipbuilders are working with diligence to deliver them to the fleet."

Virginia-class submarines are designed from the keel up for the full range of 21st-century mission requirements, including anti-submarine and surface ship warfare and special operations support. General Dynamics Electric Boat is the prime contractor and lead design yard for the Virginia-class submarine series and constructs them in a teaming arrangement with HII's Newport News Shipbuilding in Virginia.

NNS and GDEB have built and delivered 24 *Virginia*-class submarines to date.

Navy Awards Contract Modification for Two Additional Virginia-Class

Submarines

A Virginia-class submarine. *Photo credit: U.S. Navy*

WASHINGTON – Naval Sea Systems Command has awarded a two-ship contract modification on the existing Virginia-class submarine Block V contract to General Dynamics Electric Boat for the construction of two fiscal year 2024 Virginia-class submarines.

The award signals the Navy's commitment to maintaining its warfighting advantage in the undersea domain and continues the Virginia-class's teaming arrangement between prime contractor General Dynamics Electric Boat in Groton, Connecticut, and the major subcontractor Huntington Ingalls Shipbuilding, Newport News (HII-NNS) in Newport News, Virginia. To date, the Navy has taken delivery of 24 Virginia-class submarines, with an additional 16 now under contract.

“We recently renegotiated the planned contract to deliver this critical capability, and appropriately share risk between the Navy and industry,” said Secretary of the Navy John C. Phelan. “We will be looking at all future contracts with a similar lens to ensure the appropriate level of risk sharing and value to the American taxpayer.”

Contract modifications were also awarded to both Electric Boat and HII-NNS to increase workforce support and investment across nuclear shipbuilding programs.

“By investing in the nuclear shipbuilding workforce – which is a national strategic asset – we are working with our industry partners to deliver on this most critical future requirement,” said Dr. Brett Seidle, acting assistant secretary of the Navy for Research, Development & Acquisition.

“The contract award is the result of a highly coordinated contracting effort across the nuclear shipbuilding enterprise, to promote stability at critical suppliers as the submarine industrial base ramps up to meet a historic increase in demand for submarine production,” said Program Executive Officer, Attack Submarines, Rear Adm. Jon Rucker. “We are continuing to work closely with the shipbuilders to improve construction schedules to support the Navy’s need for a larger more lethal force.”

“We appreciate the teamwork that resulted in these critical national security assets being put under contract,” said Jason Ward, NNS vice president of submarine construction. “We understand the advantage Virginia-class submarines bring to the sailors who operate them, and our shipbuilders are working with diligence to deliver them to the fleet.”

NDIA, Navy TPP Team to Grow Next-Gen Shipyard Talent

From the National Defense Industrial Association, April 29, 2025

ARLINGTON, Va. – The National Defense Industrial Association (NDIA) is expanding its partnership with the U.S. Navy's Talent Pipeline Program (TPP) to enhance talent acquisition, training, and retention across the U.S. Navy defense industrial base (DIB). According to NDIA's *Vital Signs 2025* report, critical components of the U.S. DIB, particularly skilled trade positions, have significantly declined over recent decades. The TPP is actively reversing this trend by training, coaching, encouraging, and recognizing small and medium-sized companies to improve their Talent Acquisition and Retention systems of recruiting, training, and retaining productive and engaged workers crucial to maintaining naval supremacy.

Following a successful pilot collaboration with NDIA's Delaware Valley Chapter, NDIA and TPP aim to broaden their engagement with Chapters across the country. The Chapters will play a critical role in expanding the reach and impact of the program.

"This partnership is vital to rebuilding our defense industrial base," said NDIA President and CEO David Norquist. "By connecting our member companies with the Navy's Talent Pipeline Program, we're helping secure the skilled workforce needed for shipbuilding and strengthening both our industry and national security."

Inspired by the shared mission, Joe Barto, program leader of the U.S. Navy Talent Pipeline Program, said he's honored to have NDIA on the TPP team, adding: "Partnerships with national

facilitators like NDIA are vital to the Talent Pipeline Program's national rollout. Their support validates the Navy's investment in small and medium-sized manufacturers—the backbone of American industry and the majority of NDIA's membership. By joining the movement alongside more than 450 employers, NDIA is helping ensure companies have the talent they need to build high-performing teams."

The Talent Pipeline Program directly addresses the U.S. Navy's growing manufacturing production requirements by ensuring a steady pipeline of skilled talent to deliver and sustain Columbia and Virginia-class submarines, aircraft carriers, surface combatants, and vessels currently in service. This expanded initiative will reinforce U.S. naval capabilities and fortify national security in an increasingly complex global environment.

Learn more about the Talent Pipeline Program at https://dibtalentpipeline.com/ and take the TPP Realistic Program Preview at https://youtu.be/qH6Cuffyo2o

Read NDIA's "Vital Signs 2025" here: https://www.ndia.org/policy/publications/vital-signs

---

Acting CNO Strengthens Relations With Industrial Base at Manufacturing Summit

Acting Chief of Naval Operations Adm. James Kilby tours training centers during the Accelerated Training in Defense Manufacturing (ATDM) Summit at the Institute for Advanced Learning and Research (IALR), Danville, Virginia, April 29, 2025. (U.S. Navy photo by MC1 Vanessa White)

From the Navy Office of Information, April 30, 2025

Acting Chief of Naval Operations Adm. Jim Kilby attended the Accelerated Training in Defense Manufacturing (ATDM) Summit at the Institute for Advanced Learning and Research (IALR) in Danville, Virginia, April 29.

The visit demonstrates the Navy's commitment to strengthen integration with the industrial base to maintain and modernize shipbuilding and develop and field new capabilities.

Kilby delivered the keynote address at the summit and stressed the importance of partnering with industry and harnessing innovation in the maritime industrial base to deliver and support a lethal naval force.

"I can assure you that ATDM is contributing to a national

movement that is making America stronger, safer, and more secure," said Kilby. "The work you're doing matters to our military, our economy, and the future of this country."

Kilby discussed key shipbuilding and maintenance initiatives, including fielding new capabilities such as additive manufacturing.

"In our shipyards, in our manufacturing plants, and in our support organizations, we are reducing maintenance delays, and we are moving faster," said Kilby. "Every time we 3D-print a part that would otherwise take 40 weeks to procure, we are putting more capability back into the field. That is real, measurable readiness."

While at the institute, Kilby also met with industry leaders from Austal USA and toured the National Training Center and the Center for Manufacturing Advancement to review initiatives that include industrial automation, robotics, artificial intelligence and digital technologies.

ATDM was established under the direction of the Navy's Maritime Industrial Base Program to train the future workforce and operationalize an innovation hub for advanced manufacturing.

Hanwha Philly Shipyard CEO Praises Introduction of SHIPS for America Act

From Hanwha Philly Shipyard

WASHINGTON, April 30, 2025 – Today, U.S. Sens. Mark Kelly (D-

Arizona) and Todd Young (R-Indiana) alongside U.S. Reps. Trent Kelly (R-Mississippi) and John Garamendi (D-California) reintroduced the SHIPS for America Act, bipartisan legislation aimed at strengthening the U.S. maritime industry in response to urgent shipbuilding needs.

As part of today's announcement, Hanwha Philly Shipyard Chief Executive Officer David Kim issued the following statement:

"Hanwha recognizes and commends U.S. Senators Mark Kelly and Todd Young and Congressmen Trent Kelly and John Garamendi for their maritime policy leadership in reintroducing the bipartisan SHIPS for America Act. This bill offers tangible incentives to the domestic maritime industry with the goal of expanding the U.S.-flagged ocean-going fleet. It supports a major recapitalization of the shipbuilding infrastructure in the U.S., provides substantial incentives for the purchase of U.S.-built commercial vessels, and supports the national security and naval shipbuilding goals of the U.S. Hanwha sees tremendous value in this legislation and believes it would have a long-term positive impact on Hanwha Philly Shipyard, other shipbuilders in the U.S. and Hanwha's investments in America's shipping industry and maritime industrial base."

HII Launching "Build It: In America, For America" Ads Celebrating U.S.-Based

Manufacturing Work

From HII

NEWPORT NEWS, Va., April 30, 2025 (GLOBE NEWSWIRE) – HII (NYSE: HII), America's largest military shipbuilder, is launching a series of 15-second television advertisements as part of its nationwide "Build It" campaign.

The video advertisements, along with the broader "Build It" campaign, celebrate the crucial manufacturing work performed in the U.S. to build and deliver platforms and technologies in support of the national defense. These include American-built U.S. Navy ships and submarines, as well as uncrewed underwater vehicles, technologies, and networks built and integrated by HII to connect and enable today's all-domain joint force.

"'Build It' is a call to action to support the important work of building, in support of our national security," HII President and CEO Chris Kastner said. "It's hard work and deserves respect. Ultimately it helps to protect us and our families. This campaign recognizes the ongoing value and contributions of those who build careers out of building our

national defense."

The ads feature actual shipbuilders, engineers and technologists who've worked for HII and who provide commentary in their own words. HII is the largest industrial employer in the commonwealth of Virginia, and in the state of Mississippi.

The "Build It" campaign supports revitalizing American manufacturing and strengthening the defense industrial base to meet the urgent, increased demand for ships and technologies by the U.S. Navy and the nation.

A playlist of the video advertisements can be found at: http://hii.com/news/hii-launching-new-build-it-in-america-for-america-ads-celebrating-u-s-based-manufacturing-work-and-workforce/.

In addition to recruiting motived talent to shipbuilding, HII is actively developing the next generation of skilled professionals through its apprenticeship programs offered in each of its three divisions. These programs offer a rigorous multi-year curriculum that combines hands-on training, academic coursework and real-world experience.

The HII apprentice schools give students a direct path to skilled careers and long-term growth in the shipbuilding industry. By blending tradition with advanced technology, HII is not just filling jobs – it's developing leaders and investing in the future of the American workforce.

This "Build It" campaign can be found across HII digital outreach and social media and through educational partnerships to bring the message directly to the next generation of American builders.

HII is hiring at all experience levels, offering paid training, competitive wages, long-term careers, and a strong sense of purpose. Jobs are available across three divisions:

- **Newport News Shipbuilding** in Virginia, builder of nuclear-powered aircraft carriers and submarines for the U.S. Navy.

- **Ingalls Shipbuilding** in Mississippi, builder of amphibious ships and destroyers for the U.S. Navy.

- **Mission Technologies** in Virginia, provider of digital defense and national security solutions, and the largest producer of unmanned underwater vehicles (UUVs).