Desig Of World's First Hydrogen-hybrid Research Vessel Approved

Scripps Oceanography research vessel will use liquid hydrogen fuel cells to enable zero-emissions operation

From Scripps Institution of Oceanography, June 25, 2024

The American Bureau of Shipping (ABS) approved the preliminary design of a first-of-its-kind hydrogen-hybrid research vessel that will join the fleet at UC San Diego's Scripps Institution of Oceanography when completed.

The vessel's design was developed by naval architecture and marine engineering firm Glosten. Approval of the preliminary design shows that it meets technical requirements and safety

standards, and lays the groundwork for the expanded use of zero-emission hydrogen-powered propulsion at sea.

The ship will feature an innovative hydrogen fuel cell propulsion system that will allow it to operate with no greenhouse gas or other emissions for 75% of its missions – and for all of its time operating in state waters. For longer missions farther offshore, extra power will be provided by clean-running modern diesel generators. The zero-emissions-capable vessel represents a major step toward advancing California's pledge to reduce global climate risk while transitioning to a carbon-neutral economy and making progress towards the University of California's climate action goals.

The ship, now known as the California Coastal Research Vessel (CCRV), will be dedicated to California research missions to observe and measure biological, chemical, geological and physical processes including research to better understand fisheries, harmful algal blooms, severe El Niño storms, atmospheric rivers, sea-level rise, ocean acidification, and oxygen depletion zones. The vessel's findings will help protect California's coastal environment from climate change impacts while demonstrating hydrogen's critical role in California's carbon-free future.

"Our goal is to produce a fully-capable ocean-going research vessel that meets the needs of our scientists and students, and demonstrate that this can be done in a way that absolutely minimizes its impact on our environment," said Bruce Appelgate, associate director of Scripps and head of ship operations and marine technical support. "This will be a world-class oceanographic research vessel that aligns with our institutional values for protecting the planet."

The California Coastal Research Vessel will also serve as a vital platform for hands-on learning. As a student-centered, research-focused public university, UC San Diego considers seagoing experiences a cornerstone of educational programs.

The vessel will be integral to training the next generation of scientists, leaders and policymakers.

The new 125-foot vessel will replace Research Vessel *Robert Gordon Sproul*, which has served thousands of University of California students in its 43 years of service but is nearing completion of its service life. The California Coastal Research Vessel will be equipped with the latest instruments and sensing systems, including acoustic Doppler current profilers, seafloor mapping systems, midwater fishery imaging systems, biological and geological sampling systems, and support for airborne drone operations.

As the first liquid hydrogen-powered ship in the United States, the California Coastal Research Vessel required the development of an entirely new regulatory framework, setting important precedents for the technical standards governing the construction and operation of hydrogen-powered ships.

“ABS is proud to use our industry-leading insight into hydrogen as a marine fuel to support this project,” said Gareth Burton, ABS senior vice president of global engineering. “The CCRV has the potential to make a significant contribution to the wider adoption of hydrogen, a promising alternative fuel for the maritime industry.”

During the vessel’s preliminary design, Glosten worked closely with the American Bureau of Shipping as well as the U.S. Coast Guard to inform regulations and ensure the new liquid hydrogen-powered research vessel complied with them.

“Our challenge was to harmonize the requirements of a modern research vessel with evolving regulations and novel technologies for liquid hydrogen fuel. Ensuring the hydrogen systems were safely arranged without compromising the utility of the vessel was like putting together an intricate puzzle,” said Glosten’s Robin Madsen, the lead marine engineer on the project.

In 2021, under Senate President pro Tempore Emeritus Toni Atkins' leadership, California state legislators allocated $35 million towards the development of the vessel. In March 2023, California Governor Gavin Newsom visited Scripps' Nimitz Marine Facility to learn more about the vessel's innovation. Of the CCRV, he said "California continues to lead the way in clean energy innovation, and this vessel is another step in transitioning to a carbon-neutral economy. It's great to see UC San Diego and Scripps Oceanography lead the hands-on education, training, and scientific research we need to tackle the climate crisis."

Additionally, last fall the Department of Energy (DOE) chose California as one of seven hydrogen hubs, or regions where the agency will fund coordinated networks of hydrogen fuel producers, purveyors and consumers. A University of California-backed consortium called the Alliance for Renewable Clean Hydrogen Energy Systems, or ARCHES, led the state's application to DOE, and will steer up to $1.2 billion in federal funding toward 39 hydrogen infrastructure projects up and down the state. The California Coastal Research Vessel is considered a Tier 1 marquee project for the hub, eligible to receive additional funding towards the project.

In 2018, Glosten, Sandia National Laboratories, and DNV completed a feasibility study funded by the U.S. Department of Transportation Maritime Administration that became the genesis of CCRV. The study evaluated the technical, regulatory, and economic feasibility of the Zero-V concept, a vessel powered by fuel cells and liquid hydrogen designed to meet performance and environmental criteria established by Scripps. The study confirmed that a hydrogen-powered research vessel was possible, and in 2022 the Office of Naval Research supported the preliminary design effort under Award N00014-22-1-2765 (any opinions, findings, and conclusions or recommendations here are those of the authors and do not necessarily reflect the views of the Office of Naval

Research).

The team at Glosten is currently progressing the California Coastal Research Vessel to the next phase of its design process and will assist Scripps as it begins its search for a contractor to complete the vessel's construction.

HII Hosts Congressional Delegation at Newport News Shipbuilding

NEWPORT NEWS, Va., June 25, 2024 (GLOBE NEWSWIRE) — HII (NYSE: HII) today hosted a congressional delegation from the House Armed Services Committee at its Newport News Shipbuilding division to meet with shipyard leadership and a tour of the

company’s facilities.

Led by Chairman Rep. Mike Rogers, R-Ala., the delegation also included committee members Rep. Joe Courtney, D-Conn.; Rep. Rob Wittman, R-Va.; and Rep. Jen Kiggans, R-Va.

“Hosting visits like this provides an opportunity to showcase the complexity of our operations, the quality of our work, and the dedication of our incredible shipbuilders who bring their best each day,” NNS President Jennifer Boykin said. “We understand the critical impact aircraft carriers and submarines have to our national security mission, and this visit further underscores our responsibility to the Navy and to our nation.”

During Tuesday’s tour, the congressional members saw construction progress on *Columbia*- and *Virginia*-class submarines, as well as on *Gerald R. Ford*-class aircraft carriers. They also witnessed how NNS is innovating with technology, including fixture-based manufacturing, to increase efficiencies across the shipyard. Briefings from shipyard leadership included updates on workforce development efforts and initiatives to enhance the work experience for shipbuilders and sailors, including a recently announced new parking garage.

Photos accompanying this release are available at: https://hii.com/news/hii-hosts-congressional-delegation-at-newport-news-shipbuilding/.

“Strengthening our naval fleet is critical for maintaining our overall military readiness,” Rogers said. “Over the past year, threats in the Red Sea and Indo-Pacific have demonstrated the need for a strong and capable naval fleet. Providing our shipbuilders with stable demand signals is critical if we want to sustain a healthy shipbuilding industrial base. On the House Armed Services Committee, we have made supporting our shipbuilding industrial base a priority as we boost our naval

capabilities.”

With a workforce of more than 25,000 shipbuilders, NNS is the largest industrial employer in Virginia. The shipyard is the nation’s sole designer, builder and refueler of nuclear-powered aircraft carriers and one of only two shipyards capable of designing and building nuclear- powered submarines for the U.S. Navy.

Bollinger Shipyards Launches Inaugural Shipfitter Boot Camp

Partnership with Mississippi Gulf Coast Community College, South Mississippi Planning & Development District and AccelerateMS will hire and train the next generation of Gulf Coast shipbuilders

PASCAGOULA, MS. – (June 20, 2024) This week, Bollinger Shipyards ("Bollinger") kicked off the inaugural Shipfitter Bootcamp, an innovative workforce development initiative alongside Mississippi Gulf Coast Community College (MGCCC), the South Mississippi Planning & Development District and AccelerateMS that will recruit, hire, and train the next generation of skilled shipbuilders, ensuring Bollinger's workforce in Mississippi remains second to none in the shipbuilding industry. The Shipfitter Bootcamp is a critical step to establishing Bollinger Shipyards as a Center of Excellence in the design and construction of heavy polar icebreakers.

The Shipfitter Bootcamp is a comprehensive workforce development program designed to equip current and future Bollinger employees with the essential skills and knowledge required to take their careers to the next level. Through a blend of classroom instruction and hands-on experience, students will learn the essential functions that are required to become a Shipfitter in a 14-week program. The first 12 weeks will be taught at MGCCC and the final 2 weeks will be taught on-site at Bollinger Mississippi Shipbuilding located in Pascagoula, Mississippi. Upon successful completion of the program each Shipfitter Trainee will be evaluated and their compensation will increase according to their skill level.

"We are thrilled to launch this exciting new program that will ensure Bollinger and the Mississippi Gulf Coast remain synonymous with best-in-class defense shipbuilding," said Ben Bordelon, CEO of Bollinger Shipyards. "Our industry relies on the expertise and dedication of skilled shipfitters, and this bootcamp will provide invaluable training and opportunities for individuals looking to start or advance their careers at Bollinger. When we invest in our Mississippi workforce, we're investing in and ensuring the future success of our industry."

Participants in Bollinger's Shipfitter Bootcamp will benefit

from state-of-the-art facilities and resources at MGCCC, as well as becoming a Bollinger employee and earning an income while they learn. This opportunity not only provides an income for themselves and their families, but it also offers full benefits, paid holidays and vacation. The bootcamp is open to anyone who is interested in learning the skills necessary to become a Shipfitter.

“For over seven decades, Bollinger has exhibited excellence and innovation in the shipbuilding industry,” said Jonathan Woodward, Ph.D., Vice President for Teaching & Learning and Community Campus at Mississippi Gulf Coast Community College. “Bollinger Mississippi has consistently delivered the highest quality ships by accentuating efficiency and effectiveness – rising above external challenges. The paramount challenge in all sectors of the current economy is human capital. The Shipfitter Bootcamp illustrates a novel, practical, and attractive approach to meet this challenge head on.”

“Shipbuilding is a critical defense industry and a major contributor to the economic growth of the Mississippi Gulf Coast,” said Dr. Courtney Taylor, Executive Director of AccelerateMS. “These students have the opportunity to achieve success through training programs that few other fields can offer. We’re proud to support initiatives like these, which equip a new generation of workers to drive the industry’s evolution in our state.”

Platform Aerospace’s Vanilla

UAS – Communications Relay at Valiant Shield 2024

HOLLYWOOD, Md., June 20, 2024 (Newswire.com) – Platform Aerospace's Ultra-Long Endurance Group 3 Unmanned Aircraft System (UAS), Vanilla, completed mission requirements during a 27-hour flight at the Valiant Shield 2024 (VS24) exercise in Guam.

From June 7th to June 18th, Platform Aerospace participated in VS24, a training exercise built on the collaborative efforts of the United States Navy, Marine Corps, Army, Air Force, Coast Guard, Space Force, and partner nations.

Upon take-off from Andersen Air Force Base (AAFB) in Guam, Vanilla completed mission requirements by demonstrating

communications relay functionality through Link 16 (BATS-D) and Silvus radio connections to other participating assets, including High Altitude Balloons (HABS) and manned and unmanned air and surface vessels. In the early hours of June 13th, Vanilla flew through substantial precipitation, including multiple events of 1,000 ft/min climbs and descents due to airmass motion, in the mission airspace. Due to ongoing extreme weather, Platform Aerospace operators returned to base early rather than risk damage to the aircraft.

On June 14, Vanilla returned to AAFB and executed a normal landing on runway 24R. Landing occurred at 11:21 local, concluding a 1-day, 3-hour, 2-minute flight with the Link 16 relay active for the entire duration. Whereas this is a relatively short flight for Vanilla, which has demonstrated >8-days of unrefueled endurance in a desert environment, this flight demonstrates advanced technology readiness for any military operational environment.

Vanilla can be configured for Intelligence, Surveillance, and Reconnaissance (ISR), Communications Relay, Decoy, Air Launched Effects (ALE), Signals Intelligence (SIGINT), Electronic Warfare (EW), or any combination of those mission requirements.

Vanilla is a Rapid Defense Experimentation Reserve (RDER) Program; VS24 was Vanilla’s graduation event and formal Technology Readiness Level (TRL) 8 assessment. Platform Aerospace participated in VS24 in partnership with OUSD(R&E) and the 3rd MDTF.

EpiSci Selected by Naval Information Warfare Center Pacific for Project Overmatch's Mission Autonomy Proving Grounds

POWAY, California (10 June 2024) – The Naval Information Warfare Center Pacific (NIWC PAC) has awarded EpiSci, a leader in trusted warfighter autonomy solutions, a follow-on contract for Project Overmatch's Mission Autonomy Proving Grounds following EpiSci's successful performance during a 12-month demonstration event. "As a hardware-agnostic software company that prioritizes input from experienced military individuals at every stage, EpiSci is uniquely positioned to be at the forefront of the next stage of battle management solutions," said Aaron Gibney, EpiSci's VP of Battle Management Command and Control (BMC2).

With this award, EpiSci will continue to develop their domain and vehicle-agnostic mission autonomy applications. EpiSci's TacticalAI-enabled software will enable heterogenous, multi-domain swarms to work together and carry out missions for Unmanned Surface Vehicle's (USVs) and Unmanned Aerial Vehicle's (UAVs). The software-only capabilities reduce human workload and enhance mission success rates and survivability on operational timelines.

EpiSci's commitment to software-first methodologies offers scalable autonomy solutions that transcend traditional platform limitations. Capable of integrating on sensors or weapons, or orchestrating diverse multi-domain platforms, TacticalAI software ensures seamless collaboration and operational efficiency.

“Our teams have integrated and operated TacticalAI-enabled autonomy products on 12 uncrewed airborne and maritime platform types in only 6 months,” said Bo Ryu, CEO of EpiSci. “We are proud to be partnering with NIWC PAC and look forward to meeting their needs with trusted, scalable autonomy capabilities. This effort will broaden the application of our software into maritime environments and ensure they have access to our critical technology solutions.”

Aeronautics Introduces New Operating Concept for Latest Loitering Munition System

Addressing Evolving Operational Challenges of the modern battlefield, the Orbiter 2LM and Orbiter 2ISR systems collaboratively enable an advanced sensor-to-shooter capability for diverse missions

June 06, 2024, Aeronautics Ltd. – a world leader in design, development, and manufacturing of Unmanned Aerial Systems (UAS) for the global defense and HLS markets, introduces the Orbiter 2 LM (Loitering Munition), the latest addition to Aeronautics' portfolio of combat proven loitering munitions systems. It offers enhanced capabilities including long endurance, persistent surveillance, optimal precision with low collateral damage making it ideal for a diverse number of missions.

The Orbiter 2 LM offers an optimal solution, combining both the functionality of the loitering munition together with ISR capabilities. With an extended endurance of two hours, the

system provides high mission flexibility for success in uncertain operational scenarios, particularly those characterized by targets with short time windows.

The system is fully operational in GPS-denied areas and uses advanced communication – immune to interference and encrypted for secure data transmission. The system supports full connectivity to external C4I systems.

The Orbiter 2 STS (Sensor-to-Shooter) Mission system is based on two combat-proven, fixed-wing, electric UAVs – the Orbiter 2 ISR and the Orbiter 2 LM. Both systems share a common platform, communication data link, control station and operational software.

The Sensor-to-Shooter Mission system enables enhanced mission versatility by facilitating intelligence gathering, precise target pinpointing, and BDA (Battle Damage Assessment) via the Orbiter 2 ISR, while enabling rapid target engagement with the Orbiter 2 LM.

The STS mission system offers superior performance, fast sensor-shooter mission cycle, and operational flexibility, all within a small logistics footprint. Moreover, the system enables efficient flight training capabilities by leveraging the Orbiter 2 ISR for diverse operational scenarios. Both Orbiter 2 LM and Orbiter ISR have high resolution day and IR electro optical payloads, onboard Automatic Target Recognition (ATR) and Video Motion Detection (VMD), for increased operational capabilities.

The Orbiter 2 LM and the Orbiter ISR are electric-powered and characterized by low acoustic, optic and RCS signatures. The system’s simplicity enables operation by a team of two personnel after only a few weeks of training.

Dan Slasky, President & CEO of Aeronautics, highlights, ” Aeronautics has established a strong global reputation in the tactical UA domain, enabling to meet the increased demand for

autonomous capabilities in the modern battlefield. The integration of the Orbiter 2 LM into our Sensor-to-Shooter system, empowers field forces with accurate intelligence and attack capabilities, ensuring seamless execution of multiple tasks. Customers who already deploy the Orbiter 2 system, can now expand their capabilities by integrating a loitering munition system that easily interfaces with the current command, control, and communication systems. The Orbiter 2 LM represents a significant advancement in tactical unmanned aerial systems, meeting the evolving needs of modern warfare."

Cubic Awarded NAVAIR Contract to Provide Secure Live Virtual and Constructive Advanced Training Environment (SLATE)

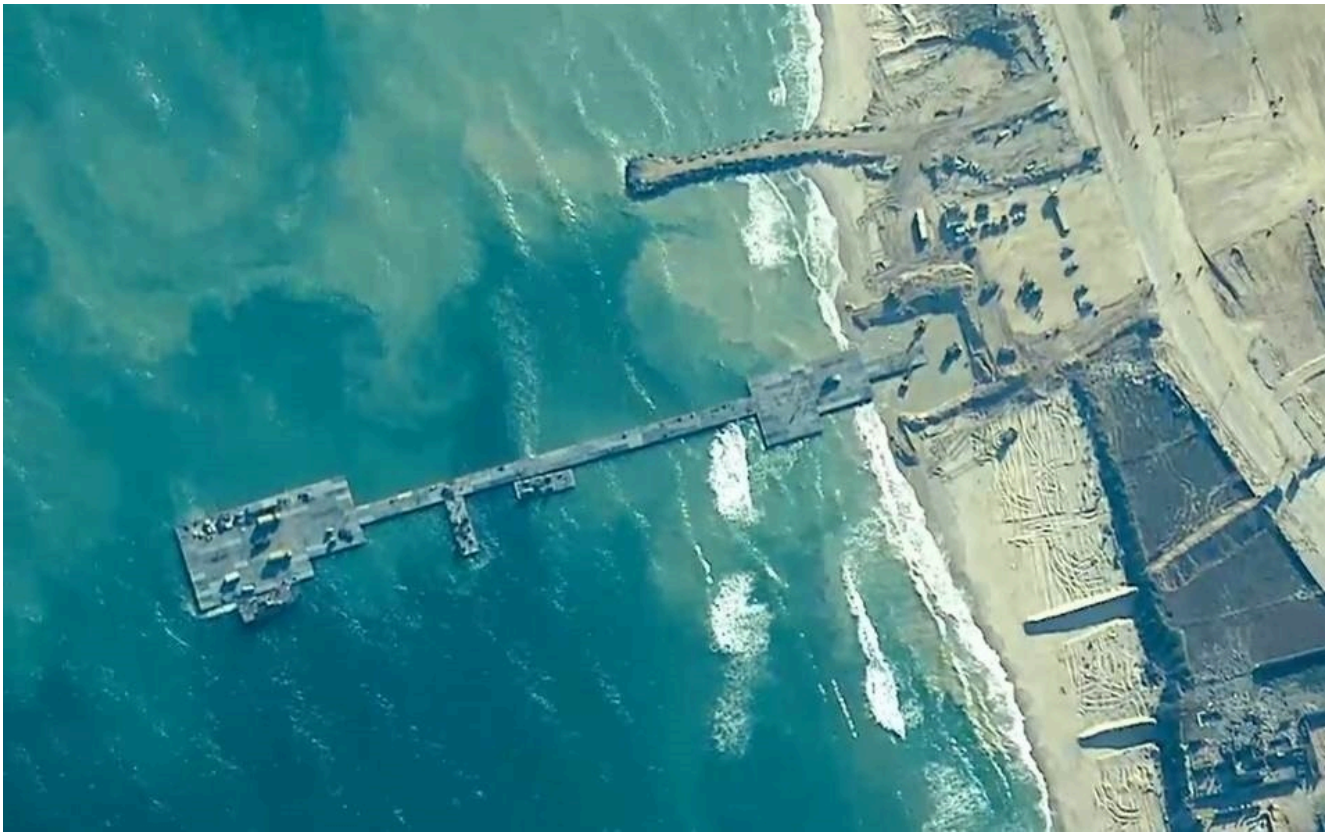
From Cubic Defense, 29 May 2024

SAN DIEGO – Cubic Defense, the world's leading provider of advanced air combat training, is awarded a contract modification with Naval Air Systems Command (NAVAIR) to provide engineering support services for a demonstration in Guam, Valiant Shield '24.

"Cubic's SLATE technology injects synthetic entities and computer-generated forces to bring the realism of the pacing multi-domain high-end threat environment to the live cockpits and operator consoles," said Paul K. Averna, VP and GM,

Advanced Training Solutions for Cubic Defense. ”Tomorrow’s fight will be different, and our Joint and Coalition operators deserve a fully vetted system that ensures combat readiness today.”

Defense Department Conducts Recover, Repair Mission for Temporary Pier After Heavy Sea States



May 28, 2024 | By Matthew Olay, DOD News

The Defense Department is working to recover three of four vessels associated with its temporary humanitarian aid pier in Gaza after rough seas caused the motorized sections to run

aground May 25, the Pentagon announced today.

The vessels, which are part of U.S. Central Command's Joint Logistics, Over-the-Shore capability – and which are used to stabilize the trident pier – broke free from their anchors and beached ashore after suffering a loss of power, Deputy Pentagon Press Secretary Sabrina Singh told reporters.

"As of today, one of the Army vessels that was beached on the coast of Israel near Ashkelon has been recovered. The second vessel that was also beached near Ashkelon will be recovered in the next 24 hours, and the remaining two vessels that were beached near the Trident pier are expected to be recovered in the next 48 hours," Singh said, adding that the Israeli Navy is assisting in the recovery efforts.

The U.S is not authorizing any American boots on the ground in Gaza, and that is not hindering efforts to recover the three vessels, Singh said.

In addition to the JLOTS vessels running aground, high sea states and a North African weather system caused a portion of the trident pier to detach from the pier that is currently anchored into the Gaza coastline earlier today, resulting in damage to the trident pier and necessitating a need to rebuild and repair it, Singh said.

Over the next 48 hours, U.S. forces will remove the pier from its anchored position on the coast and tow it back to the Israeli coastal city of Ashdod to begin repairs.

"The pier proved highly valuable in delivering aid to the people of Gaza. Thus, upon completion of the pier repair and reassembly, the intention is to re-anchor the temporary pier to the coast of Gaza and resume humanitarian aid to the people who need it most," Singh told reporters, noting that, to date, over 1,000 metric tons of aid has been delivered to the pier for humanitarian organizations to distribute to Palestinians.

Meanwhile, Singh said, U.S. forces are currently loading humanitarian aid into vessels in Cyprus for transport to Gaza so that it can roll out immediately once the repaired pier is reattached to the shoreline in the coming days.

First announced March 8 of this year after President Joe Biden called on the military to lead the temporary humanitarian aid operation, the JLOTS pier became operational May 17.

When questioned as to whether the pier is durable enough to complete its mission, Singh said DOD is optimistic.

“I think, unfortunately, we had a perfect storm of high sea states and … this North African weather system also came in at the same time, creating not an optimal environment to operate the JLOTS,” Singh said.

“But we believe that – given the time of year – we will be able to re-anchor this pier; and it will be able to be operational; and, hopefully, weather conditions won’t hinder it anymore.”

When further pressed as to whether the pier, which is budgeted at roughly $300 million, is worth the cost, Singh reiterated how much aid the pier was able to get into Gaza in just a short period of time.

“… t’s pretty important for the people that are suffering right now – that are in a dire humanitarian situation – to get whatever aid they can, by whatever means,” Singh said.

“We want to do everything possible to help; and it is our forces – our men and women – who are running toward the problem and doing everything they can to find a solution.”

Centcom anticipates repairs to the pier to take approximately one week.

Combined Maritime Forces' Combined Task Force 154 Marks Productive First Year

MANAMA, Bahrain (May 21, 2024) Royal Jordanian Naval Force Capt. Ayman Salem Alnaimat, commander of Combined Task Force (CTF) 154, bottom right, and service members from CTF 154 pose for a photo outside of U.S. Naval Forces Central Command headquarters in Manama, Bahrain, May 21. CTF 154 conducts multinational maritime training at locations across the Middle East, enabling more CMF partner-nations to participate in training opportunities without ships or aircraft, particularly during courses that are facilitated ashore. **(Photo by Courtesy Photo)**

By Combined Maritime Forces Public Affairs | May 22, 2024

MANAMA, BAHRAIN – Combined Maritime Forces' Combined Task Force (CTF) 154 marked one year as the partnership's multinational maritime training task force, May 22.

CTF 154 provides multinational maritime training across the Middle East, centered on five core areas: maritime awareness, law of the sea, maritime interdiction, maritime rescue and assistance, and leadership development. CTF 154 customizes training to meet partner needs, enabling more nations to participate in training evolutions, even without ships or aircraft.

Since standing up last year, CTF 154 has completed nearly 30 training exercises across five operations: Compass Rose I and II in Bahrain; Southern Readiness in the Seychelles, and Northern Readiness I and II in Jordan. These events connected more than 135 subject matter experts with over 400 participants from 23 countries.

"Working and training collectively allows us to operate more effectively," said Vice Adm. George Wikoff, CMF commander. "With CTF 154 we're boosting regional maritime security by providing the 'go-to' training that partners and members need to keep the advantage in a dynamic environment."

The task force conducted their inaugural event, Compass Rose, in Bahrain May 22-25, 2023. The training included more than 50 participants from Bahrain, Kuwait, Oman, Pakistan, Saudi Arabia, the United Kingdom and United States and focused on first aid and vessel boarding procedures. The second Compass Rose exercise also occurred in Bahrain that December, with training on visit, board, search and seizure procedures, vessel security, and watch officer fundamentals.

In July, CTF 154 traveled to the Seychelles for Exercise Southern Readiness. The exercise involved vessel boarding, search-and-rescue operation techniques, maritime law and navigation. This was undertaken by field experts from Canada,

Australia, France, United Kingdom, India, Italy and the United States of America, including experts from Seychelles Coast Guard and the locally based office of the United Nations on Drugs and Crimes.

CTF 154 conducted operation Northern Readiness at the Royal Jordanian Naval Base in Aqaba, Jordan, in October. More than 30 CMF facilitators from eight nations led training courses on maritime awareness, law of the sea, VBSS, search and rescue, medical evacuations, seamanship development, public affairs, and leadership development.

In February, the Task Force held its largest scale event to date, Operation Northern Readiness II. Approximately 150 participants, facilitators, and observers took part, including representatives from CMF, European Union Naval Force Operation, and the United Nations Institute for Training and Research.

“Being the commander of Combined Task Force 154 is an honor for the Royal Jordanian Navy and for myself,” said Capt. Ayman Salem Alnaimat, who became CTF 154’s second commander in November. “As we celebrate a year of impressive accomplishments, I believe the task force has more to achieve. All CMF members and our regional maritime partners support our efforts, which promote interoperability, capacity, capability and cooperation.”

CMF is the largest multinational naval partnership in the world, with 43 nations committed to upholding the international rules-based order at sea, which promotes security, stability, and prosperity across approximately 3.2 million square miles of international waters, encompassing some of the world’s most important shipping lanes.

CMF’s other task forces include CTF 150 that focuses on maritime security in the Gulf of Oman and Indian Ocean; CTF 151, which leads regional counter-piracy efforts; CTF 152,

dedicated to maritime security in the Arabian Gulf; and CTF 153 in the Red Sea.

High School Seniors Sign for Careers at HII’s Newport News Shipbuilding

NEWPORT NEWS, Va., May 10, 2024 (GLOBE NEWSWIRE) — HII’s (NYSE: HII) Newport News Shipbuilding division is welcoming more than three dozen graduating high school seniors to careers in shipbuilding. The shipyard held a signing day at The Newport News Shipbuilding Apprentice School Wednesday and participated in the New Horizons Regional Education Centers (NHREC) Good Life Solution Program’s Career Selection Day on Thursday.

A total of 38 students accepted employment offers from NNS: 15 who will begin full-time trade positions within the shipyard and 23 who will attend The Apprentice School. Funded by HII to train and develop the next generation of shipbuilders, The Apprentice School offers four- to eight-year, tuition-free apprenticeships in 19 trades and eight optional advanced programs, to include accredited undergraduate degrees in engineering.

Wednesday's event, in partnership with the Department of Labor in celebration of National Youth Apprenticeship Week (YAW), recognized students who have completed one of several workforce development programs at The Apprentice School: the Pre-Apprenticeship Program, Youth Builders, Good Life Solutions, and Apprentice Accelerated (APX).

The Thursday event recognized additional students in The Good Life Solution Program, which is a collection of partnerships between NHREC and local employers looking to improve the way they recruit, hire, train and retain entry-level new hires out of high school. The program has a one-year retention rate of 80%.

Photos accompanying this release are available at: https://hii.com/news/hii-signing-day-newport-news-shipbuilding-2024/.

"It is an exciting time to embark on a career in shipbuilding," said Xavier Beale, NNS vice president of human resources. "These students will not only build the highest-quality aircraft carriers and submarines for the U.S. Navy, they are also building a meaningful career. We are thrilled to have them join our ranks in a calling to serve our nation as only shipbuilders can."

NNS plans to hire approximately 3,000 skilled trade positions this year to meet the shipbuilding needs of the U.S. Navy. The shipyard anticipates hiring nearly 19,000 trades people within

the next decade.

To learn more about the Good Life Solution Program, visit nhrec.org/gls.

For more information about careers at Newport News Shipbuilding visit, hii.com/careers.