TEXTRON SYSTEMS AWARDED UNCREWED AIRCRAFT SYSTEM (UAS) CONTRACTOR-OWNED/CONTRACTOR-OPERATED CONTRACT FOR THREE LITTORAL COMBAT SHIPS (LCS) BY U.S. NAVY

Release from Textron Systems

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August 9, 2023

AEROSONDE®AIR

AEROSONDE® UNCREWED AIRCRAFT SYSTEM (UAS) SUPPORTING SEVENTH U.S. NAVY SHIP WITH EXTENDED RANGE ISR SERVICES

Hunt Valley, Maryland, AUGUST 9, 2023 – Textron Systems Corporation, a Textron Inc. (NYSE:TXT) company, announced today that it has been awarded an initial contract valued at up to $19.5 million by the U.S. Navy's Naval Air Systems Command (NAVAIR) to provide UAS operational support to two Independence Class LCS and one Freedom Class LCS variants. This award joins the Expeditionary Sea Base (ESB)-4 and ESB-5, as well as two DDG- class ships, bringing the total number of U.S. Navy ships supported by the Aerosonde® UAS system to seven.

Textron Systems will deploy its Aerosonde UAS to provide mission overwatch and extended intelligence, surveillance and

reconnaissance (ISR) services with enhanced mission payloads as seen aboard the ESB-5.

“Contractor-owned/contractor-operated contracts like this support the Navy’s continued investments in uncrewed assets for their ships,” said Wayne Prender, Senior Vice President, Air Systems. “We’ve seen the benefits of our Aerosonde UAS for DDG and ESB- class ships already, and we’re honored to be expanding into this new ship class, allowing us to continue supporting maritime domain awareness and missions while delivering operational and logistical capabilities.”

The Aerosonde system continues to set the standard for mission readiness and ease of use, amassing more than 600,000 flight hours serving multiple U.S. customers and allies. It is designed for expeditionary land- and sea-based operations with both fixed-wing and vertical takeoff and landing (VTOL) options. Textron Systems has provided turnkey, UAS operations for customers around the world for more than 10 years.

USS Porter, USNS William Mclean Perform Vertical Launch System Re-Arm Demonstration

NORFOLK, Va. (August 3, 2023)–Sailors assigned to the Arleigh Burke-class destroyer USS Porter (DDG 78) and Navy Expeditionary Logistics Support Group's Expeditionary Reload Team stow simulated ordnance in the ship's MK 71 Vertical Launch System (VLS) during a VLS re-arm demonstration held pier-side on Naval Station Norfolk, Aug. 3. The VLS demonstration was part of U.S. Fleet Forces Command's Large Scale Exercise 2023 which provides a venue to test and refine current and new technologies and platforms to reinforce our current position as a supreme maritime force and provide feedback used to inform future innovation. (U.S. Navy photo by Bill Mesta)

Release from U.S. Fleet Forces Command

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NORFOLK, Va. – The crews of the Arleigh Burke-class destroyer USS Porter (DDG 78) and Military Sealift Command’s (MSC) dry cargo ammunition ship USNS William McLean (T-AKE 12) performed a MK 41 Vertical Launch System (VLS) re-arm, pier-side, at Naval Station Norfolk, Aug. 3.

The Navy conducted the demonstration to provide proof of

concept that a dry cargo ammunition ship can reload the weapons system pier-side and while the ship is at sea, with a goal of expanding the capability of VLS reloading in expeditionary environments.

“The Navy has been considering alternative vessels to move ordnance into a theater without an on-shore infrastructure to support,” according to Jerit Vanauker, of MSC’s Taluga Group. “One of the situations considered was the ability to re-arm VLS for Navy combatant ships in a contested environment, and so we considered the idea to use an MSC dry cargo ammunition ship.”

In addition to the crews of Porter and William McLean, U.S. 2nd Fleet, Navy Expeditionary Combat Command’s (NECC) Navy Expeditionary Logistics Support Group (NAVELSG), the Carderock Division of the Naval Surface Warfare Center (NSWC) and NSWC Picatinny supported the VLS re-arming. NECC’s expeditionary reload team from NAVELSG are expertly trained in ordnance transfer and handling and can operate in remote, complex, and austere environments to ensure naval forces remain forward and mobile.

“MSC’s role in developing and executing VLS is vital,” Vanauker stated. “We will bring the ordnance, and platform to deliver ordnance, in support of VLS re-arming of our combatant ships, so they can get back in the fight without traveling long distances to be resupplied.”

During the demonstration, Porter pulled into the naval station and moored ‘skin-to-skin’ along-side William McLean, which was moored to the pier. The ships’ crews installed marine bumpers between the vessels to prevent damage to the ships during the VLS re-arm.

Once the ships were safely moored, the VLS team aboard William McLean prepared two simulated ordnance packages for delivery.

“The VLS handling team prepared and reviewed the necessary procedures, ordnance handling equipment (OHE) and tools to conduct the VLS re-arm,” said Vanauker. “All procedures were reviewed, OHE and tools were inspected and a safety brief was conducted.”

“Once inspection was complete, the canister was loaded into the tilt-fixture and vertical strong-back, secured and then attached to the crane hook,” he continued. “The tilt-fixture and vertical strong-back allows the canister to be tilted into a vertical position with assistance from the ship’s crane.”

Using the Mclean’s crane, two simulated missiles were lifted from the ship’s flight deck and swung over to Porter’s forward weapons cells. Porter’s VLS team received the simulated ordnance and stowed the missiles aboard in the ship’s MK 41 Vertical Launch System.

“The crane operator, with assistance from the Signalman, swung the simulated ordnance over to Porter, placing it over the open module cell hatch, and lowered into alignment with the available cell,” Vanauker continued. “In all, performing a VLS re-arm is a very simple evolution which requires patience and focus.”

The crane for the VLS re-arm demonstration was operated by Boatswain’s Mate Justin Bradley, one of William McLean’s Civil Service Mariners (CIVMARs).

“This was the first VLS re-arm to take place aboard William McLean,” according to Capt. John Stulz, USNS William McLean’s Master. “Our CIVMARs secured the USS Porter alongside, operated the crane and provided support on deck for this evolution. Cargo and ordnance operations are a part of daily life for MSC ships.”

“The crew of the William McLean performed with precision and professionalism during this movement, just like our counterparts do every day around the globe,” Stulz added.

The VLS re-arm demonstration was conducted as part of U.S. Fleet Forces’ Large Scale Exercise 2023 (LSE).

“Expeditionary logistics allow the Navy to quickly return to maintaining maritime dominance,” said Rear Adm. Brad Andros, Commander, Navy Expeditionary Combat Command. “Operating in support of Military Sealift Command during Large Scale Exercise 2023 provides our expeditionary reload teams the opportunity to train to different platforms so that they can continue to sustain capacity and increase the persistent combat power of naval forces.”

LSE 2023 provided a venue to test and refine current and new technologies and platforms to reinforce our current position as a supreme maritime force and provide feedback used to inform future innovation. LSE 2023 includes six Navy and Marine Corps component commands and seven U.S. numbered Fleets, including U.S. Fleet Cyber Command/U.S. 10th Fleet, operating seamlessly across 22 time zones.

Keel Authenticated for Future USNS Lucy Stone

Release from Naval Sea Systems Command

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SAN DIEGO – The keel for the future USNS Lucy Stone (T-AO 209), the Navy's 5th John Lewis-class fleet replenishment oiler, was laid at General Dynamics National Steel and Shipbuilding Company's (GD NASSCO) shipyard in San Diego, August 8.

A keel laying is the recognition of the start of a ship's construction. It is the union of a ship's modular components and the authentication or etching of an honoree's initials into a ceremonial keel plate. In recognition of their steadfast spirit and patriotic devotion over the past two decades to unite approximately 100 ships with ship sponsors, ship introduction specialists and ship sponsors Alicia Aadnesen and Debbie Simmons etched their initials into the keel plate of the future USNS Lucy Stone.

The ship is named for American suffragist Lucy Stone, who

joined other notable advocates such as Elizabeth Cady Stanton, Susan B. Anthony, Ernestine Rose, and Antoinette Brown Blackwell to petition for suffrage and abolition in the 19th century. Her efforts as a founder of the Women's National Loyal League were essential to the passage of the Thirteenth Amendment abolishing slavery.

"The future Lucy Stone's keel laying is a significant milestone, and we are excited to mark the beginning of great achievements to come for this ship," said John Lighthammer, program manager, Auxiliary and Special Mission Shipbuilding Program Office. "The fifth John Lewis-class oiler will enhance the fleet's ability to refuel ships at sea."

The oilers feature substantial volume for oil, a significant dry cargo capacity and aviation capability. The vessels have double hulls to protect against oil spills and strengthened cargo and ballast tanks. T-AOs will add capacity to the Navy's Combat Logistics Force and become the cornerstone of the fuel delivery system.

GD NASSCO is also in production on future T-AOs, USNS Earl Warren (T-AO 207), USNS Robert F. Kennedy (T-AO 208) and USNS Sojourner Truth (T-AO 210). They are also under contract on future USNS Thurgood Marshall (T-AO 211), USNS Ruth Bader Ginsburg (T-AO 212) and T-AO 213.

As one of the Defense Department's largest acquisition organizations, PEO Ships is responsible for executing the development and procurement of all destroyers, amphibious ships, special mission and support ships, and boats and craft.

BOLLINGER SHIPYARDS Cuts Steel on Prototype Module of First US-Built Heavy Icebreaker in 50 Years

Release from Bollinger Shipyards

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Prototype module will become the foundation of new Polar Security Cutter

PASCAGOULA, Miss., – (August 9, 2023) – Bollinger Shipyards LLC ("Bollinger") has begun cutting steel at Bollinger Mississippi Shipbuilding in Pascagoula, MS on the first of eight prototype modules that will become the foundation of the

first U.S. Coast Guard Polar Security Cutter (PSC), USCGC Polar Sentinel (PSC-1) – the first heavy icebreaker to be built in the United States in 50 years.

“Today marks a significant step for both Bollinger Shipyards and the United States,” said Ben Bordelon, President and CEO of Bollinger Shipyards. “After over 50 years, we’re back to building heavy icebreakers. We’re honored that responsibility lies with Bollinger. Beginning work on the first Prototype Fabrication Assembly Unit is an important step closer toward commencing construction on the first Polar Security Cutter. This isn’t just an important milestone for our company, it’s also an important step for our national defense. Simply put, the United States is back in the icebreaker business.”

The hull of a heavy polar icebreaker is required to be much thicker than other Coast Guard cutters because of the pressure exerted on the ship by the surrounding ice. Therefore, before the full construction process on the PSC program begins, the prototype modules test the new systems, processes, people, and tools that are required to work with the specialized steel. The lessons learned from building the prototype module will be used to help ensure design completeness and improve the quality and efficiency of the manufacturing process.

“We’re relearning how to build this type of ship,” said PSC program manager Capt. Eric Drey. “It’s the first heavy icebreaker built by our nation in 50 years. It’s not just a big day for the Coast Guard, but a big day for the nation.”

Each module requires approximately four months of labor, during which time Bollinger will continue recruiting and training additional members of the workforce to manage the transition to production of the lead hull as the prototype modules are completed.

The Coast Guard’s operational polar icebreaking fleet currently consists of one heavy icebreaker, the 399-foot Coast

Guard Cutter Polar Star that was commissioned in 1976, and one medium icebreaker, the 420-foot Coast Guard Cutter Healy that was commissioned in 1999.

ABOUT the Polar Security Cutter (PSC) program

The U.S. Coast Guard requires polar icebreaking capability to support the country's economic, commercial, maritime and national security needs in the Polar Regions. The new Polar Security Cutters (PSCs) will be national assets that will ensure access to both polar regions and be capable of executing key Coast Guard missions, including defense readiness; marine environmental protection; ports, waterways and coastal security; and search and rescue. The ships will operate worldwide and face the range of extreme environmental conditions found in the polar, tropical and temperate regions.

USS Carl M. Levin (DDG 120) Arrives Home

Release from Commander, Naval Surface Group Mid-Pacific

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07 August 2023

PEARL HARBOR, HI, UNITED STATES – The Navy's newest Arleigh Burke-class guided-missile destroyer, USS Carl M. Levin (DDG 120), and its crew arrived at the ship's new home port of Pearl Harbor, Hawaii, Aug. 7.

USS Carl M. Levin is the first naval ship named in honor of Michigan's longest serving senator, the late Carl M. Levin, for his years of service as a longtime member and chairman of the Senate Armed Services Committee.

Levin began his career as an attorney, professor, and assistant attorney general in Michigan and was elected to the Senate in 1979. Levin chaired the Senate Armed Services Committee from 2001 – 2003 and from 2007 until his retirement. He was Michigan's first Jewish senator and the state's longest-serving senator, serving for 36 years before retiring

in 2015.

“USS Carl M. Levin honors the legacy and achievements of a great American senator who always placed service of others above self,” said Cmdr. Kelly Craft, Carl M. Levin’s commanding officer. “Symbolized in U.S. steel, the crew has worked tirelessly to bring her to life and sail her to our homeport of Pearl Harbor, Hawaii. We are proud to join our comrades in the defense of Hawaii, ready to take on any challenge and always remain tenacious in the fight.”

During Carl M. Levin’s transit to Hawaii, the ship made port calls to major naval ports including Newport, Rhode Island., Norfolk, Virginia, Mayport, Florida, and San Diego, California. Additionally, the crew stopped in Oranjestad, Aruba, before continuing through the Panama Canal and visiting Manta, Ecuador. Throughout their journey, Carl M. Levin accomplished numerous certifications and evolutions including, underway replenishments at sea, flight quarters, gun shoots, small boat operations, and many more.

The ship was christened on Oct. 2, 2021 at the Bath Iron Works in Bath, Maine, and commissioned in on June 24, 2023, in Baltimore.

The mission of Commander, Naval Surface Group Middle Pacific is to manage the overall warfighting capability of the Surface Combatant Force homeported at Joint Base Pearl Harbor-Hickam, Hawaii; to coordinate the manning, operations, combat systems, engineering, maintenance, training, logistics, administration, and support of assigned units to achieve the highest levels of combat readiness.

As in integral part of U.S. Pacific Fleet, U.S. 3rd Fleet operates naval forces in the Indo-Pacific in addition to providing realistic and relevant training necessary to execute the U.S. Navy’s timeless roles of sea control and power

projection. U.S. 3rd Fleet works in close coordination with other numbered fleets to provide commanders with capable, ready forces to deploy forward and win in day-to-day competition, in crisis, and in conflict.

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GA-ASI Advances Ecosystem for Autonomously Operational UCAV

Release from General Atomics

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SAN DIEGO – 09 August 2023 – General Atomics Aeronautical Systems, Inc. (GA-ASI) advanced its ability to operationalize the Unmanned Combat Air Vehicle (UCAV) ecosystem by combining advanced autonomy and government-provided human-machine interface (HMI) hardware. A GA-ASI-owned Avenger® Unmanned Aircraft System (UAS) was paired with "digital twin" aircraft to autonomously conduct Live, Virtual, and Constructive (LVC) multi-objective collaborative combat missions.

The flights, which took place on July 13, 2023, from GA-ASI's Desert Horizon Flight Operations Facility in El Mirage, Calif., demonstrate the company's commitment to maturing its UCAV ecosystem for Autonomous Collaborative Platforms (ACP). The ecosystem's goal is to rapidly integrate best-of-breed capabilities in areas such as Artificial Intelligence (AI), mission-relevant interfaces, and other capabilities from third-party providers at the speed of relevance for 21st century conflicts.

The team demonstrated Manned-Unmanned Teaming (MUM-T) using

the U.S. Air Force's Project FoX system, which included a touchscreen tablet for fighter cockpits. The tablet provided control and monitoring of advanced autonomy while it conducted a multi-objective combat mission consisting of LVC entities. Mission autonomy capabilities focused on optimized search and signature management. Search optimization autonomy behaviors were provided by Scientific Systems Company, Inc. (SSCI). These skills were integrated into and orchestrated by government-furnished equipment (GFE) autonomy core architecture enhanced by GA-ASI. The flexibility of the GFE autonomy core software stack enabled rapid, seamless integration of one of SSCI's multi-UAS behaviors. Autonomous trajectories were calculated by SSCI algorithms and subsequently communicated to GA-ASI's autonomy core for translation to vehicle routes. SSCI provided an array of behaviors using its Collaborative Mission Autonomy suite where the software adapts to mission contingencies such as system failures, connectivity dropout, and combat losses to ensure successful tactical execution.

"The concepts demonstrated by these flights set the standard for operationally relevant mission systems capabilities on UCAV platforms," said GA-ASI Senior Director of Advanced Programs Michael Atwood. "Our integration of the emerging FoX system accelerates speed to ramp for emerging collaborative air-to-air capabilities. The combination of airborne high-performance computing, sensor fusion, human-machine teaming, and AI pilots making decisions at the speed of relevance shows how quickly GA-ASI's capabilities are maturing as we move to operationalize autonomy for UCAVs."

The signature management skill, based on deep reinforcement learning, was developed by GA-ASI. Skill development leveraged GA-ASI's novel Reinforcement Learning (RL) architecture that was designed using agile software methodology and industry-standard tools such as Docker and Kubernetes. Commanded using the FoX tablet, the RL agent navigated to an operator-

identified target while minimizing the radar cross section (RCS). This MUM-T, facilitated via open mission system (OMS) messages and alignment to the newest government architectures, demonstrated real-time operator tasking and supervision of an autonomous platform as it conducted its mission.

The team used a government-furnished autonomy core engine and the government-standard OMS messaging protocol to enable communication between the RL agents and the LVC system. Utilizing government standards such as OMS will make rapid integration of autonomy for UCAVs possible. In addition, GA-ASI used a General Dynamics EMC2 to run the autonomy architecture. EMC2 is an open architecture Multi-Function Processor with multi-level security infrastructure to run the autonomy architecture, demonstrating the ability to bring high-performance computing resources to UCAVs to perform quickly tailorable mission sets depending on the operational environment.

GA-ASI is demonstrating its commitment to maturing an autonomy infrastructure to enable rapid integration and validation of third-party tactical software applications from an App Store and maintaining safety of flight. This is another in an ongoing series of autonomous flights performed by GA-ASI using internal research and development funding to prove out important AI/ML concepts for UAS.

Fairbanks Morse Defense, Oak Ridge National Laboratory

Collaborate on Developing Alternative Fuel Technology for Marine Engines

Release from Fairbanks Morse Defense

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BELOIT, Wis. – August 8, 2023 – Oak Ridge National Laboratory (ORNL), the Department of Energy's largest multidisciplinary laboratory, and Fairbanks Morse Defense (FMD), a portfolio company of Arcline Investment Management, have entered into a Memorandum of Understanding (MOU) to collaborate on the development and integration of alternative fuel technologies aimed at reducing the marine engine's reliance on fossil

fuels. FMD will incorporate the research and development conducted at ORNL into its engine design technology.

Marine engines heavily rely on diesel fuel, which constitutes a significant annual expense for the Department of Defense (DOD). However, global decarbonization efforts are expected to limit the availability of diesel fuel and drive-up costs. In anticipation of this shift, the DOD is exploring options to transition its marine engine technology to low-lifecycle carbon fuels (LLCF) such as methanol, ammonia, hydrogen, and biodiesel.

“Oak Ridge is a leader in decarbonization research, clean energy technology development, and defense manufacturing,” said Moe Khaleel, Associate Laboratory Director for National Security Sciences. “Collaborating with a trusted national security partner like Fairbanks Morse Defense will enable us to translate our scientific expertise into deployable technologies for the Department of Defense.”

Under the terms of the MOU, ORNL will leverage its research and development expertise, while FMD will contribute its power and propulsion design and manufacturing proficiency to promote the use of LLCFs in marine engines. FMD will define the performance and durability requirements and design testing components, while ORNL will provide research support in combustion strategies for LLCFs, high-temperature materials, additive manufacturing, elastomer compatibility, and corrosion.

“As climate change impacts our global waterways, these changing and unpredictable impacts directly affect our ability to protect the freedom of the seas,” said George Whittier, FMD CEO. “We’re fully committed to supporting the Department of Defense’s 2030 decarbonization goals with fuel and engine technologies that will create a more sustainable future for the Navy, and we look forward to working with ORNL to explore these possibilities.”

Additional partnership intentions from the MOU include the following:

- Collaborating on program development to identify and secure external research and development opportunities.

- Establishing a single-cylinder research engine laboratory dedicated to exploring breakthroughs in areas such as safe fuel handling, LLCF combustion strategy, and experimental engine hardware configurations.

- Supporting alternative fuel combustion development strategy through modeling studies that employ advanced analytics such as computational fluid dynamics simulations using high-performance computing resources.

Fourth New England-based Fast Response Cutter to be commissioned in Portland

Release from Coast Guard 1st District

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Aug. 8, 2023

Fourth New England-based Fast Response Cutter to be commissioned in Portland

PORTLAND, Me. – The Coast Guard Cutter John Patterson (WPC-1153) is scheduled to be commissioned during a ceremony Thursday at 10 a.m.

The Coast Guard's newest cutter was accepted by the Coast Guard on May 11, 2023 and will be the fourth of six Fast Response Cutters homeported in Boston.

The Sentinel-class fast response cutter (FRC) is designed for multiple missions, including drug and migrant interdiction; ports, waterways and coastal security; fishery patrols; search

and rescue; and national defense. The Coast Guard has ordered a total of 65 FRCs to replace the 1980s-era Island-class 110-foot patrol boats. The FRCs feature advanced command, control, communications, computers, intelligence, surveillance and reconnaissance equipment; over-the-horizon cutter boat deployment to reach vessels of interest; and improved habitability and seakeeping.

John C. Patterson was born in 1834 to a local farm couple in Howell, New Jersey. Patterson volunteered as a private in New Jersey's 14th Militia Regiment during the Civil War. He demonstrated superior leadership under pressure and quickly promoted into the officer grades where he rose to the rank of brevet brigadier general. After the war, in 1870, Patterson signed on as a surfman at the U.S. Life Saving Station in Sandy Hook, New Jersey. John Patterson served a total of 16 years in the Life-Saving Service, starting as junior-most surfman and rising to the rank of keeper. He was a keeper at two different stations and a member of the Life-Saving Service's Advisory Board. Even after his 1886 retirement from the Service, Patterson continued to serve his community of Ocean Grove until his death.

Office of Naval Research, NIWC Pacific host 26th international RoboSub Competition

[Release from Naval Information Warfare Center, Pacific]

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Office of Naval Research, NIWC Pacific host 26th international RoboSub Competition

07 August 2023

From Mason Piedfort, Naval Information Warfare Center, Pacific

SAN DIEGO – The Office of Naval Research (ONR) and Naval Information Warfare Center (NIWC) Pacific hosted RoboNation's 26th international RoboSub Competition at NIWC Pacific Transducer Evaluation Center (TRANSDEC) July 31 – Aug. 6.

Student participants from across the globe built robotic submarines designed to overcome simplified versions of challenges relevant to the autonomous underwater vehicle (AUV) field.

“The Navy employs unmanned systems in every domain – in the air, on the sea, and under the sea,” said Vice Chief of Naval Operations Adm. Lisa Franchetti, who attended Aug. 2. “The innovation and creativity we see through programs like RoboSub push the imagination of what is possible in unmanned platforms. These competitors represent the leaders of the future who will bring solutions to some of our most difficult challenges in the fleet and industry.”

This year 35 teams represented five countries: the U.S., Canada, Bangladesh, India, and Singapore. Teams are affiliated with high schools, university undergraduate and graduate programs, and non-profit organizations.

Though teams compete for various amounts of prize money, cross-team cooperation is common at RoboSub, in what RoboNation Program Manager Julianna Smith called a spirit of “cooperatition,” a combination of cooperation and competition.

In the spirit of cooperatition, Team Inspiration, a local team affiliated with non-profit organization Advancing Science, Technology, and Art, hosted a visiting team who arrived to the competition early for dinner at a teammate’s home in the San Diego suburbs.

“It’s rewarding to work with the other teams,” one Team Inspiration member said. “We get to learn from them and then pass that knowledge down to younger teams, not just here at RoboSub but at all the robotics events we do. We help mentor kids interested in robotics both locally and globally and check in with them on Zoom and Discord often.”

The Ohio State University team helped several teams with mechanical fixes throughout the competition. “Of course we want to win, but not because one of the competitors had an

issue we could have helped them fix," one student team leader said.

Students from local team "SDSU Mechatronics," affiliated with San Diego State University, drove back and forth from their facility to retrieve spare parts for other teams. "When I first joined RoboSub, I worried that it would be overly competitive, but the atmosphere is completely different," an SDSU Mechatronics team member said. "One of the best parts of RoboNation events is that all the schools help each other out – and as a local team, we want to be a part of that."

Teams submitted pre-event technical design documentation before arriving at the TRANSDEC. During the competition, volunteer judges evaluated the teams' performances in underwater autonomy challenge tasks, team presentations, and system assessments. Judges inspected vehicles for design, craftsmanship, technical innovation, and visual impact.

"From my perspective as both the Chief of Naval Research [CNR] and the Naval Science, Technology, Engineering, and Math [STEM] Executive, RoboSub is truly a valuable and important event for fostering greater naval innovation," said CNR Rear Adm. Kurt Rothenhaus, who also visited the competition Aug. 2. "Not only do we get to meet the next generation of talented scientists and engineers, but we also introduce them to some of the most pressing challenges faced by our Sailors and Marines. This is especially prevalent as autonomous systems and capabilities play an increasingly important role in current and future battlescapes."

In one of the six challenges, autonomous underwater vehicles navigated through one of two gates; in another, the vehicles dropped path markers into bins and earned bonus points for dropping markers in bins coinciding with the gate passed through earlier.

“Teams have been in the pool at TRANSDEC nearly non-stop,” said Travis Moscicki, NIWC Pacific lead for RoboSub, on the third day of the competition. “Hands down, the number one indicator of performance is time spent in water. This highlights the exact reason we hold the event – there is no substitution for experience.”

Moscicki, who holds a doctorate in ocean engineering, participated in RoboNation robotics competitions as a student before his employment at NIWC Pacific. Now he’s getting to watch how teams evolve year after year. “One team pointed out that at last year’s event they encountered many gremlins (engineer speak for an issue!), but they weren’t sure how to solve them,” he said. “This year, they are still encountering gremlins, but are finding they have solutions. Progression is what RoboSub is all about.”

This year, the National University of Singapore team took first place for the second year in a row, Brac University from Bangladesh took second place, and the University of Alberta from Canada took third place in the autonomy task challenges. Teams also won awards for design documentation, mentorship, ingenuity, data sharing, and “cooperatition.”

NIWC Pacific hosted RoboSub from 2002 to 2019. This year marked the competition’s return to the TRANSDEC pool, which contains six million gallons of water and is 300 feet by 200 feet in size. Its design eliminates all extraneous man-made or natural biologic noises and permits precise control of surface and underwater conditions.

NIWC Pacific and ONR research, develop, and deliver integrated capabilities to the fleet. Both regularly contribute to STEM outreach programs which help develop talent and partnerships for the future.

“The Navy is built on the keel of STEM education, leveraging

scientific understanding, critical thinking and problem-solving skills to take us where we need to go," Franchetti said. "Our Sailors and civilians are out there every day developing, operating and maintaining the most complex ecosystems of warfighting functions; integrating propulsion, power, weapons, combat and information systems we need remain the greatest Navy in the world."

SECNAV Names Future Navajo-Class Towing, Salvage, and Rescue Ship Solomon Atkinson

Release from the Secretary of the Navy Public Affairs

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07 August 2023

Secretary of the Navy (SECNAV) Carlos Del Toro announced today that a future Navajo-class Towing, Salvage, and Rescue (T-ATS) ship will be named in honor of Solomon Atkinson, a pioneering Navy SEAL and an Alaskan Native of the Metlakatla Indian Community, Annette Islands Reserve. Del Toro made the announcement on the Metlakatla's Founders Day, Aug. 7.

The name selection of USNS Solomon Atkinson (T-ATS 12) follows the tradition of naming towing, salvage, and rescue ships after prominent Native Americans or Native American tribes.

“I am honored to name the next T-ATS after Solomon Atkinson, a man who achieved many firsts, even in the face of adversity, and continued to lead,” said Del Toro. “Atkinson’s achievements as a SEAL have left behind an enduring legacy, not just in the Special Warfare Community, but with our nation’s astronauts as well. I am pleased to ensure that his name will extend globally to all who views this great ship.”

Born in 1930 in Metlakatla, Alaska, Solomon Atkinson was raised by his parents on the sole Indian Reserve in Alaska. Atkinson worked as a commercial fisherman before enlisting in the U.S. Navy in 1952. A year later, Atkinson volunteered for the underwater demolition teams and became a frogman, the precursor to present day SEALs. In 1962, Atkinson became one of the first Navy SEALs and was a plank owner for SEAL Team 1. As a SEAL, he deployed to Korea and completed three combat tours in Vietnam. His Vietnam service-related awards include a Bronze Star, a Navy Commendation Medal with Combat “V,” and a Purple Heart. Atkinson also had the distinction of training numerous astronauts, including Neil Armstrong and Buzz Aldrin, in underwater weightless simulations at the Underwater Swimmers School in Key West, Florida. Atkinson retired from active naval service in 1973 as a Chief Warrant Officer 4 and returned to Metlakatla, where he continued to serve his people and state on the Indian Community Council and Board of Education, as founder and president of the first veterans’ organization on Annette Island, and as mayor of Metlakatla. Upon his passing in 2019, an honor guard from SEAL Team 1 served as pallbearers at his funeral.

“Chief Warrant Officer 4 Solomon “Sol” Atkinson embodied the spirit of dedication to family, community, and country,” said Rear Adm. Keith Davids, commander, Naval Special Warfare Command. “His pioneering role as one of the first U.S. Navy SEALs, and his unwavering commitment to service both in and out of uniform, serves as an inspiration for the entire Naval Special Warfare community. Naming the USNS Solomon Atkinson in

his honor is a testament to his remarkable legacy and the enduring impact he has left on NSW, the Navy, and the nation."

Along with the ship's name, Del Toro announced the sponsors for the future USNS Solomon Atkinson as his widow, Joann Atkinson and their two daughters, Michele Gunyah and Maria Hayward, who, in their role, will represent a lifelong relationship with the ship and crew.

"There exists a long-held Tsimshian tradition, 'akadi lip a'algyaga sm'ooygit,' loosely translated 'a chief never speaks for himself'," said sponsor, Maria Hayward. "Through all of his time as a U.S. Navy UDT and SEAL, as well as a leader of veterans and Native Alaskans, Sol lived this ethos. And, here today, in the shadow of Sol's death, he holds to it still. Thank you to the U.S. Navy for speaking to Solomon's honor and helping his family and fellow Frogmen shout his legacy to the seven seas!"

Navajo-class ships will provide ocean-going tug, salvage, and rescue capabilities to support Fleet operations. The current capabilities are provided by Powhatan-class T-ATF Fleet Tugs and Safeguard-class T-ARS Rescue and Salvage vessels, which began reaching the end of their expected service lives in 2020. Navajo-class ships will be capable of towing U.S. Navy ships and will have 6,000 square feet of deck space for embarked systems.

More information on our towing, salvage, and rescue ship programs can be found here.