NGC Delivers 500th WSN-7 Inertial Navigation System to the U.S. Navy

The WSN-7 inertial navigation system. *NORTHROP GRUMMAN*

CHARLOTTESVILLE, Va. – Northrop Grumman Corp.has delivered the 500th WSN-7 ring laser gyroscope inertial navigation system (INS) to the U.S. Navy, the company said in a release.

"Installed across the U.S. Navy fleet, Northrop Grumman continues to support U.S. and NATO surface and submarine naval platforms around the world," said Todd Leavitt, vice president, naval and oceanic systems, Northrop Grumman.

Beginning with the first gyroscope installed on USS Utah (BB-31) in 1911, Northrop Grumman has built a reputation as an industry leader and partner with the U.S. Navy in navigation, positioning and sensing systems. Today, the AN/WSN-7 is the U.S. Navy program of record for INS on all surface combatants equipped with AEGIS weapons systems (Ticonderoga-class missile cruisers; Arleigh Burke-class destroyers), all Nimitz-class aircraft carriers, among other U.S. and allied vessels.

The AN/WSN-7A is the U.S. Navy program of record for all Los Angeles-class, Sea Wolf-class and Virginia-class submarines, and provides the same level of performance and accuracy as the AN/WSN-7, in a modified form factor fit for subsurface use.

Northrop Grumman's broad range of assured positioning, navigation and timing (A-PNT) systems provide precise, survivable, secure, resilient and agile solutions for sea, land, air and space.

Navy Puts Renewed Focus on Ship Battle Damage Repair

Salvage contractors from SMIT AMERICAS remove the air traffic control tower aboard the amphibious assault ship USS Bonhomme Richard (LHD 6) in preparation for towing in March 2021. *U.S. NAVY / Mass Communication Specialist 3rd Class Cosmo Walrath*

ARLINGTON, Va. — The loss of the amphibious assault ship USS Bonhomme Richard pier-side to a raging fire last year was a terrible blow to the U.S. Navy, but as the hulk of the ship was being towed from San Diego to Brownsville, Texas, this summer for scrapping, it performed one last service to the Navy and the nation, one that the Navy will try to repeat in the future.

While still under tow in the Gulf of Mexico 300 miles from its destination, the Navy conducted a salvage exercise on the hulk of the Bonhomme Richard to provide valuable training for its personnel.

The Navy brought to the hulk mobile diving and salvage personnel and divers, said Rear Adm. Eric Ver Hage, commander, Regional Maintenance Center and director, Surface Ship Maintenance and Modernization for Naval Sea Systems Command (NAVSEA), speaking at the American Society of Naval Engineers Fleet Maintenance and Modernization Symposium 2021. "All of the NAVSEA commands [and] fleet commands were involved.

"They were able to cut metal, flood spaces, de-water spaces, patch the holes at sea; it was really, really realistic," Ver Hage said. "We're going to do more of that."

The Navy is focusing on wartime readiness and an important

part of that is battle damage repair capability and capacity, the admiral said.

With the Navy focusing more on great power competition and the increasing focus on war at sea, repairing incurring damage on its ships is demanding more attention from Navy leaders.

Ver Hage cited the experiences of the 2000 bombing of the destroyer USS Cole and the fire on the USS Bonhomme Richard as focusing his mind on the need for the Navy to shore up its ability to repair battle damage in wartime or peacetime. He said the Navy's Regional maintenance centers are key to that capability, "along with the operational forces, mobile diving and salvage, [superintendent of salvage], and public shipyards. It's a team effort."

He noted that expertise from the oil and gas industry was brought to bear on the fire-fighting efforts for Bonhomme Richard. Drones were used for up-close inspection of hot spots and helicopters were used as a bucket brigade to help extinguish the fire.

Ver Hage said that in future exercises in which former Navy ships are expended as targets for the fleet, the Navy will take advantage of these opportunities to exercise battle damage repair capabilities.

Coast Guard Commissions Sentinel-class Cutter Emlen

Tunnell

The U.S. Coast Guard commissioned the USCGC Emlen Tunnell (WPC 1145), Patrol Forces Southwest Asia's fourth 154-foot Sentinel-class cutter, into service at Penn's Landing in Philadelphia on Oct. 15, 2021. *U.S. COAST GUARD / Senior Chief Petty Officer Sara Muir*

PHILADELPHIA – The U.S. Coast Guard commissioned the USCGC Emlen Tunnell (WPC 1145), Patrol Forces Southwest Asia's fourth 154-foot Sentinel-class cutter, into service at Penn's Landing in Philadelphia Oct. 15, the Coast Guard Atlantic Area said in release.

Adm. Karl Schultz, commandant of the U.S. Coast Guard, presided over the ceremony. Yvonne Gilmore Jordan, the eldest first cousin to Tunnell, is the ship's sponsor.

"We are so thankful to the Coast Guard for this incredible honor. I can't internalize the perils Emlen, and his shipmates endured. Emlen didn't want anyone calling him a hero, but the Coast Guard said yes, he is. As a relative, it is a privilege to be a participant in this commissioning as the Coast Guard Cutter Emlen Tunnell is placed into service," said Jordan.

The cutter's namesake is Steward's Mate 1st Class Emlen Tunnell, a native of Bryn Mawr, Pennsylvania, who served in the U.S. Coast Guard from 1943 to 1946. During this time, he rescued two shipmates. The first was aboard the USS Etamin at anchor in Papua New Guinea in 1944. When a crewman became engulfed in flame following a Japanese torpedo attack, he beat out the fire, sustaining burns, and carried him to safety.

The second rescue came aboard the USCGC Tampa in 1946 when a shipmate fell overboard off Newfoundland. Tunnell risked the 32-degree Fahrenheit water suffering shock and exposure to save him. The U.S. Coast Guard awarded the Silver Lifesaving Medal to Tunnell posthumously for his heroism.

“What really defined Emlen was his character, that selflessness. It was who he was as a human being,” said Schultz. “When this cutter sailed unexpectedly to avoid tropical storm Elsa, Coast Guardsmen who are going to shape the future chapters of the Emlen Tunnell story stepped to the plate, as Emlen did years ago. Maybe not with as many heroics, but they did what Coasties do. They jumped into the breach.”

Tunnell was also a lauded athlete beginning in high school and then college before he joined the service. While in the Coast Guard, he played football and basketball, and upon his departure, he resumed college. Tunnell went on to play professional football for the New York Giants and the Green Bay Packers. He also served as an assistant coach for the Giants. Notably, Tunnell was the first African American to play for the Giants, African American talent scout, and African American full-time assistant coach. He is also the first African American inducted into the Pro-Football Hall of Fame.

The Emlen Tunnell was officially delivered to the U.S. Coast Guard on July 1 in Key West, Florida. It is the 45th Sentinel-class fast response cutter. Each of these cutters carries the name of a U.S. Coast Guard enlisted hero. While the ship commissioned in Philadelphia, it will homeport in Manama, Bahrain, part of U.S. Coast Guard Patrol Forces Southwest Asia. The crew will transit to homeport alongside their sister ship, the USCGC Glen Harris (WPC 1144), later this year.

Schultz added the Sentinel-class cutter is a game-changer in a time when the demand for U.S. Coast Guard services has never been higher. The Tunnell and Glen Harris will join two Sentinel-class ships already in service in the Arabian Gulf. Two additional 154-foot cutters will join these in 2022 for a total of six in service at PATFORSWA.

Established in 2002 in support of Operation Iraqi Freedom, PATFORSWA played a crucial role in maritime security and

maritime infrastructure protection operations. PATFORSWA is a maritime humanitarian presence on the seas, providing U.S. Navy's 5th Fleet with combat-ready assets. Utilizing the U.S. Coast Guard's unique access to foreign territorial seas and ports, our crews formulate strong and independent relationships throughout the Arabian Gulf and leverage the full spectrum of flexible vessel boarding capabilities at sea and maritime country engagements onshore.

LCS Santa Barbara Christened

Ship sponsor Lolita Zinke christens the future USS Santa Barbara (LCS 32). *AUSTAL USA*

MOBILE, Ala. – Austal USA hosted the christening ceremony for the future USS Santa Barbara (LCS 32) Independence-variant littoral combat ship at the company's Gulf Coast shipyard Oct. 16, the company said in a release. Ship sponsor Lolita Zinke performed the ceremonial bottle break over the bow of the Santa Barbara, the 16th LCS designed and constructed by Austal USA and the third U.S. Navy ship to be named after the California coast city.

Zinke, wife of former U.S. member of Congress and former U.S. Interior Secretary Ryan Zinke, was selected by then-Secretary of the Navy Richard Spencer to be the ship sponsor of the future USS Santa Barbara (LCS 32). Zinke was born and raised in Santa Barbara.

"I could never have imagined I would be standing here today ready to christen a Navy ship," Zinke said, "let alone one named after my home town."

Austal USA President Rusty Murdaugh welcomed the official

party and community members and employees who attended the ceremony.

“I am proud to represent the Austal shipbuilding team today as we commemorate a significant milestone in the life of this incredible warship,” said Murdaugh. “Our talented team of shipbuilders is proud to provide our Navy with an extraordinarily capable vessel that will honor the great city of Santa Barbara as she becomes a vital part of the U.S. naval fleet protecting our Nation.”

Santa Barbara (LCS 32) is the 16th of 19 small surface combatants Austal USA is building for the U.S. Navy. Five littoral combat ships are under various stages of construction. Austal USA is also constructing two Expeditionary Fast Transport ships for the U.S. Navy with another beginning construction next month, and the company also was recently awarded a contract to build two steel Navajo-class Towing, Salvage and Rescue ships.

USS Germantown Arrives in San Diego after 10-Year Forward Deployment

The Whidbey Island-class amphibious dock landing ship USS Germantown (LSD 42) arrives in San Diego for a scheduled homeport shift. Germantown shifted homeports from Sasebo to San Diego after serving as a forward-deployed ship in U.S. 7th Fleet since Jan. 5, 2011. *U.S. NAVY / Mass Communication Specialist 2nd Class Kevin C. Leitner*

SAN DIEGO – Amphibious dock landing ship USS Germantown (LSD

42) arrived in San Diego Oct. 15, after a decade of forward-deployed service in the Indo-Pacific region operating out of Japan, Expeditionary Strike Group 3 public affairs said in a release.

As part of the U.S. 7th Fleet's forward-deployed naval forces in Japan, Germantown worked alongside allied and partner nations to provide security and stability in support of a free and open Indo-Pacific.

"We are excited to welcome Germantown and her crew to the team," said Rear Adm. Wayne Baze, commander, Expeditionary Strike Group (ESG) 3. "They made an incredible impact in the Indo-Pacific as a forward-deployed ship, and I know they will continue to excel in San Diego."

Since 2011, Germantown has participated in numerous operations and exercises across the Indo-Pacific including Cobra Gold, Valiant Shield, Kamandag, MTA Sama Sama, and Tiger Triumph 2019, the first U.S.-India bilateral exercise to feature all three joint services, Army, Navy, and Air Force.

During an innovative achievement in June, Germantown resurrected a World War II-era waterborne ambulance concept during a certification exercise. Installing a medical shock trauma section on Germantown's Landing Craft, Utility (LCU) added another link in the "heal chain" to get wounded Marines from the battlefield to critical care.

"I am immensely proud of the hard work and incredible performance of our crew in 7th Fleet," said Cmdr. Cullen Greenfield, commanding officer of Germantown. "As we transition to 3rd Fleet and ESG 3, this crew continues to display its trademark resiliency and warfighting capability with early renewal of warfare certifications in both the Communications and Intelligence mission areas, and a seamless instream offload of Marines after San Francisco Fleet Week."

Most recently, Germantown participated in Talisman Sabre 21, marking the third time the ship has taken part in the U.S.-Australia bilateral exercise with partner support from Canada, South Korea and Japan. Germantown demonstrated their ability to act as a force multiplier in amphibious assaults, providing critical back-up through embarked LCU.

Germantown also completed Advanced Integrated Training and Certification Exercise, a demanding multi-faceted exercise where the 31st Marine Expeditionary Unit and Amphibious Squadron 11 conducted exercises ranging from non-compliant vessel boarding, boat raids, underway replenishments, and amphibious landings with air support provided from amphibious assault ship USS America (LHA 6).

Germantown sailed from San Diego on Jan. 5, 2011, replacing USS Harpers Ferry (LSD 49). USS Rushmore (LSD 47) will replace Germantown later this year.

Navy Responds to Russian Allegation Regarding Encounter in Sea of Japan

A Russian Udaloy-class destroyer interacts with USS Chafee (DDG 90) Oct. 15 while Chafee conducts routine operations in international waters in the Sea of Japan. *U.S. NAVY*

PEARL HARBOR – The U.S. Pacific Fleet released on Oct. 15 the following statement regarding the encounter that day between an Arleigh Burke-class guided-missile destroyer and a Russian

destroyer:

“The statement from the Russian Defense Ministry about the interaction between our two Navy ships is false.

“While USS Chafee (DDG 90) was conducting routine operations in international water in the Sea of Japan on Oct. 15, 2021, a Russian Udaloy-class destroyer came within approximately 65 yards of USS Chafee (DDG 90) while the ship was preparing for flight operations. The interaction was safe and professional. Although Russia issued a Notice to Airman and Mariners (NOTAM/NOTMAR) in this area for later in the day, the NOTAM/NOTMAR was not in effect at the time of the interaction. At all times, USS Chafee conducted operations in accordance with international law and custom. The United States will continue to fly, sail, and operate where international law allows.”

Saildrone Closes $100 Million Funding to Advance Ocean Intelligence Products

A Saildrone craft near Miramare Castle in Trieste, Italy, following a 2010-2020 Atlantic-to-Mediterranean mission. *NATIONAL INSTITUTE OF OCEANOGRAPHY AND APPLIED GEOPHYSICS*

ALAMEDA, Calif. — Saildrone, a market leader in ocean data, ocean mapping, and maritime intelligence solutions, announced Oct. 18 the close of its $100 million Series C round, bringing its total funding to $190 million.

Led by BOND, the round includes new investors XN, Standard Investments, Emerson Collective and Crowley Maritime Corp., as well as participation from previous investors, Capricorn's Technology Impact Fund, Lux Capital, Social Capital and Tribe Capital. The new financing will be used to grow Saildrone's data insight teams and scale go-to-market functions to meet the rapidly growing demand for ocean domain intelligence.

Saildrone's products are based on data collected from a fleet of unmanned surface vehicles (USVs) powered primarily by renewable wind and solar power. Saildrone USVs have sailed over 500,000 nautical miles and clocked more than 15,000 days at sea in some of the harshest conditions on the planet. Recently, a Saildrone USV navigated to the heart of Hurricane Sam, in a world first, taking scientific measurements and HD video that stands to transform understanding of hurricane forecasting.

Saildrone not only collects scientific data for climate intelligence and high-resolution bathymetric mapping of the ocean floor, it also uses proprietary machine learning to provide marine domain awareness for law enforcement and homeland security applications such as policing illegal fishing, counter narcotics operations and marine sanctuary protection.

"We're thrilled to partner with Saildrone as they build out the future of maritime intelligence, drawing on their unique technological differentiation and expansive mission history to serve customers across diverse industries," said Noah Knauf, general partner at BOND, who will join the company's board of directors.

An American owned and operated company founded in 2012, Saildrone's mission is to sustainably explore, map, and monitor the ocean to understand, protect, and preserve our world. Predominantly powered by renewable

energy, Saildrone USVs have a minimal carbon footprint and are equipped with advanced sensors and embedded machine learning and artificial intelligence technology to deliver critical insights from any ocean, at any time of year.

“We are honored to have the BOND team and our new investors join our journey,” said Richard Jenkins, Saildrone founder and CEO. “The combination of the most tried and tested autonomous ocean technology with the partnership of some of the most experienced venture capitalists in the world consolidates our industry leadership and enables our rapid growth path to meet the needs of our customers.”

Maritime Security Regimes Round Table Will Address Present Challenges, Future Opportunities

The Combined Joint Operations from the Sea Centre of Excellence (CJOS COE) is conducting a virtual Maritime Security Regimes round table (MSR RT) Nov. 3-4.

With an international staff representing 13 nations, the CJOS COE is led by Vice Adm. Daniel Dwyer – who is also Commander, U.S. SECOND Fleet and Commander, Joint Forces Command Norfolk – and is one of 27 NATO-accredited COEs, which serve as hubs for innovation and expertise.

The 2021 MSR RT theme is “Challenges and Threats in Global Maritime Security.”

“As the host, CJOS COE aims to enhance knowledge and raise awareness on important issues in maritime security and, by doing so, support and preserve the interests of NATO Allies and partner nations,” said Royal Navy Commodore Thomas Guy, deputy director of CJOS COE.

Guy said the round table will bring maritime security stakeholders – military experts, academics, and representatives of the industry – together to exchange experiences, knowledge, and concerns in the field of Maritime Security. “Their participation and that of the greater community of interest will serve as an enriching forum to advance the achievement of a safer maritime domain within which everyone will be better prepared to face future challenges,” Guy said.

According to Cmdr. Nathaniel Hathaway, the MSR RT project officer, the round table is intended to bring about a better understanding of some of NATO’s most pressing geographical hot spots in terms of maritime security, the issues found there, and the challenges they pose. That includes understanding the most influential actors within those hot spots, their motivations, and how they are affected by the interests and actions of external global actors, as well as the international legal aspects of maritime activity, the intersection of naval activity and commercial shipping, and new more complex threats faced by the international community.

“We want to share awareness across the community of some current at-sea operations, discuss technical and operational challenges, breakthrough technologies, and knowledge gaps to facilitate future research and collaboration across the community, and inform the maritime security community of the spectrum of work accomplished through the MSR RT working groups,” Hathaway said.

“Through a series of expert panels, the MSR RT will delve

deeply into several of the most relevant and important issues in Maritime Security," Hathaway said. "Challenges of the present will go hand in hand with opportunities for the future, as the MSR RT explores how the maritime security community of interest is addressing today's threats while examining potential for future advantages."

"We started the MSR roundtable in 2012 as a forum for sharing best practices and mutual education," Guy said. "At that time, NATO was more focused on maritime security instead of warfighting. Since then, NATO has focused much more on high-end warfare, but there still is a demand signal for global maritime security issues, and we've got a good pedigree in facilitating that."

For more information, visit http://www.cjoscoe.org/?p=2083.

Navy to Christen Littoral Combat Ship Santa Barbara

The Navy will christen the newest Independence-variant littoral combat ship, the future USS Santa Barbara (LCS 32) on Saturday, Oct. 16. *U.S. NAVY*

ARLINGTON, Va. – The U.S. Navy will christen its newest Independence-variant littoral combat ship (LCS), the future USS Santa Barbara (LCS 32), during a 10 a.m. CDT ceremony Saturday, Oct. 16 in Mobile, Alabama.

Meredith Berger, performing the duties of undersecretary of the Navy, will deliver the keynote address at the ceremony. Remarks will also be provided by Vice Adm. Jeffrey Trussler, deputy chief of naval operations for

information warfare; Oscar Gutierrez, mayor pro tempore for the city of Santa Barbara, California.; and Rusty Murdaugh, president of Austal USA.

Lolita Zinke, wife of former Secretary of Interior Ryan Zinke and the ship's sponsor, will participate in a time-honored Navy tradition to christen the ship by breaking a bottle of sparkling wine across the bow.

"Tomorrow we christen the third USS Santa Barbara, named for the beautiful coastal city in central California," Secretary of the Navy Carlos Del Toro said. "In so doing we move one step closer to welcoming a new ship to Naval service and transitioning the platform from a mere hull number to a ship with a name and spirit. There is no doubt future Sailors aboard this ship will carry on the same values of honor, courage and commitment upheld by crews from an earlier vessel that bore this name."

LCS is a fast, agile, mission-focused platform designed to operate in near-shore environments, winning against 21st-century coastal threats. The platform is capable of supporting forward presence, maritime security, sea control and deterrence.

The LCS class consists of two variants, the Freedom and the Independence, designed and built by two industry teams. The Freedom-variant team is led by Lockheed Martin in Marinette, Wisconsin (for the odd-numbered hulls). The Independence-variant team is led by Austal USA in Mobile, Alabama (for LCS 6 and the subsequent even-numbered hulls).

LCS 32 is the 16th Freedom-variant LCS and 32nd in the LCS class. It is the third Navy ship named in honor of the city of Santa Barbara. The first USS Santa Barbara (Id. No. 4522) was a single-screw steel freighter that was placed into commission by the Navy on April 15, 1918, in New York. The ship made four round-trip voyages to Europe during and after World War I and

was decommissioned Aug. 6, 1919, and returned to her owners. Later renamed American, the ship was sunk by German submarine torpedoes off the east coast of British Honduras (modern-day Belize) on June 11, 1942. The second USS Santa Barbara (AE-28) was commissioned on July 11, 1970. The Kilauea-class ammunition ship completed deployments to the Mediterranean, the western Pacific, and the Caribbean before being decommissioned in 1998.

Wreck of Storied Revenue Cutter Found

Appearing very different from her last Greenland visit in 1884, USS Bear (AG-29) returned in 1944 as part of the Coast Guard's Greenland Patrol. *U.S. NAVY*

One of the America's most iconic ships, which sailed the high seas in the Revenue Cutter Service, Coast Guard and Navy from the Arctic to Antarctica, has been found on the bottom of the ocean. The U.S. Revenue Cutter (USRC) Bear served for nearly 80 years before sinking in the North Atlantic in 1963, and now has been found.

"Today, I'm pleased to announce that with a reasonable degree of certainty, we found the final resting place of the historic revenue cutter Bear, a steamer ship purchased by the United States government in 1884. They went on to patrol the Arctic for 41 years," said Rear Adm. Nancy Hahn, deputy director for operations of the NOAA Office of Marine and Aviation Operations and deputy director of the NOAA commissioned officer corps.

"After nearly two decades of searching, NOAA Ocean

Exploration, the NOAA Office of National Marine Sanctuaries' Maritime Heritage Program, the U.S. Coast Guard, and a number of academic research partners have located with reasonable certainty the final resting place of U.S. Revenue Cutter Bear," said Brad Barr, expedition coordinator in the NOAA Office of National Marine Sanctuaries Maritime Heritage Program.

The search for the location of the famous ship was conducted from Sept. 14 to 28, and located it approximately 260 miles due east of Boston and 90 miles south of Cape Sable, Nova Scotia.

The Oct. 14 announcement was made pierside next to the Coast Guard's medium icebreaker USCGC Healy in Boston, which has just transited the Northwest Passage from the West Coast.

"Having served for nearly 80 years, including in the U.S. Revenue Cutter Service, the U.S. Navy, and as a ship of exploration in the Antarctic, Bear is considered one of the most historically significant ships in U.S. history for its long and meritorious service," said Barr.

"Knowing where the wreck of Bear is located provides an opportunity to preserve what remains. Given its location in Canadian waters, whatever preservation of this significant historic site is deemed necessary and appropriate will be another story yet to be written," Barr said.

The 198-foot, 700-ton ship was built by Alexander Stephen & Son of Dundee, Scotland, for the sealing trade in 1874. Bear entered government service and was deployed extensively in some of the most inhospitable waters on Earth. It was acquired by the U.S. government in 1884 for the Navy's rescue mission to save the starving men of an Arctic expedition led by Army Lt. Adolphus Greeley.

The following year the Treasury Department placed it into service as a revenue cutter, spending more than four decades

patrolling the Bering Straits and Arctic.

In 1897, under the command of Capt. “Hell Roaring” Mike Healy, Bear crewmembers conducted the famous “overland rescue of 1897.” Led by executive officer, Lt. Davis Jarvis and a rescue team that included 2nd Lt. Ellsworth Bertholf, U.S. Public Health Service Surgeon Samuel Call and three enlisted men, they drove a herd of 450 reindeer 1,600 miles to rescue the men of eight whaling ships stuck in the ice at Barrow, Alaska.

Alaska was a far more dangerous maritime frontier in the late 1800s than it is today. According to Coast Guard Historian Dr. By William H. Thiesen, “Bear secured witnesses for a murder case; transported Alaska’s governor on a tour of Alaska’s islands; shipped a U.S. Geological survey team to Mount Saint Elias; carried lumber and supplies for school construction in remote locations and the Arctic; delivered teachers to their assignments; carried mail for the U.S. Postal Service; enforced seal hunting laws in the Pribilof Islands; supported a Coast & Geodetic Survey team; provided medical relief to native populations; served life-saving and rescue missions; and enforced federal law throughout the waters and shorelines of Alaska.”

Bear reverted back to the Navy during World War I, and the supported relief operations in the in and around Alaska during the Spanish flu epidemic of 1918. It served until 1929, when it became a museum ship in Oakland, California. But it didn’t stay in port for long. Adm. Richard Byrd purchased the ship to support the 1933-35 and 1939-1941 Antarctic expeditions. When World War II broke out, Bear served again under a Navy commissioning pennant, patrolling the waters around Greenland. After the war, the ship was sold with the intent it be returned to commercial service as a sealer, but the fur market was such that its owners abandoned it. Eventually, a promoter saw a future for the storied ship as a restaurant and attraction and had it towed on a final voyage to Philadelphia in 1963, but it never arrived.

”At the time of the loss of Bear, it was already recognized as a historic ship,” said Joe Boyd, maritime heritage program coordinator for the Office of National Marine Sanctuaries.

A possible stern tube of the shipwreck explored in 2021. *NOAA / MITech*

The story the Bear doesn’t end with its loss in 1963. Instead, a new chapter in the Bear story opened when the search for the historic ship began in 1979 with the Massachusetts Institute of Technology and Dr. Harold Edgerton, inventor of the side-scan sonar. He deployed his revolutionary technology from a Coast Guard buoy tender near the last known position of the Bear before it left the surface. They were unsuccessful in finding the Bear, but that effort launched a 40-year quest that included not only MIT, but the Canadian government, U.S. Navy, Commonwealth of Massachusetts, Woods Hole Oceanographic Institution, Coast Guard District One, the Chief Historians Office, Coast Guard Research and Development Center, the Coast Guard Academy and NOAA.

“Identifying the final resting place of the Revenue Cutter Bear is just another example of knowing that Coast Guard joining forces to do more collectively than either of us could do individually, and showing how we work together to advance our collective missions. What makes this effort to locate the Bear special is the partnership that made it possible and incredibly valuable experience we both gained during the search for the historic vessel,” said Hahn.

“Each moment of the surveys that led to this exciting discovery was put to use to improve crew readiness, enhance skills essential to searching for sunken vessels, including adapting existing Coast Guard ships to deploy and recover remotely operated vehicles. NOAA has been in the shipwreck survey business for a very long time,” Hahn said. “And we can tell you that we are profoundly impressed by the Coast Guard’s ability to adapt to this new challenge and apply what they’ve

learned throughout this project.”