DOT Announces First Marine Highway Project Designation for North Carolina

An NCDOT ferry heading to Hatteras island. Outer Banks.com

WASHINGTON – U.S. Secretary of Transportation Elaine L. Chao announced in an Oct. 22 release the designation of the North Carolina Ferry System (NCFS) as a Marine Highway Project, a first for the state of North Carolina. Marine highways are navigable waterways that can be used as alternate options to traditional transportation methods.

"This historic designation will enhance the ability of the North Carolina Ferry System to connect communities and promote economic growth with an efficient, effective, and sustainable water-based transportation option," Chao said.

Issued as part of MARAD's America's Marine Highway Program, the designation will enable the NCFS to apply for federal funding that can be used to modernize its vessels and improve infrastructure at terminals, further allowing for the streamlining of maintenance to meet the region's needs of efficient transportation of freight and vehicles.

America's Marine Highway Program bolsters local economies by creating and preserving jobs on U.S. waterways. By expanding the use of navigable, cost-effective waterways, communities are able to save in vehicle costs and travel time, ultimately improving economic efficiency, public safety, and security.

Located on the M-95 Marine Highway route, the NCFS is an underutilized, expansive network of navigable waterways that connects eastern North Carolina to rural communities of the Outer Banks' barrier islands. The ferry system serves as a

lifeline, carrying supplies, equipment, and other consumable goods to these islands.

This century-old, state-run ferry system is the second largest in the nation, currently transporting approximately 800,000 vehicles along seven regular routes annually. Running 22 ferries that transport 9,000 trailer trucks yearly, the NCFS has reduced almost 200,000 miles of landside traffic. The service is also an economic boon to the region, generating $18.1 million in vehicle cost savings, $13.9 million in travel time savings, and $8.3 million in safety benefits.

DARPA Awards PARC Contract to Expand Ocean Knowledge

The different sensors for the Ocean of Things effort can provide data for a broad array of areas including ocean pollution, aquafarming and transportation routes. Business Wire

PALO ALTO, Calif. – PARC, a Xerox company, has been awarded a contract by the Defense Advanced Research Projects Agency (DARPA) for the next development phase in the Ocean of Things, a project to expand what scientists know about the seas, the company said in an Oct. 22 release.

Initially announced by DARPA in 2017, the Ocean of Things project is deploying small, low-cost drifters in the Southern California Bight and Gulf of Mexico to collect data on the environment and human impact. This includes sea surface temperature, sea state, surface activities, and even information on marine life moving through the area.

“Oceans cover more than 70 percent of the earth’s surface, but we know very little about them,” said Ersin Uzun, vice president and general manager of the Internet of Things team at Xerox. “The drifters gather data that we could never track before, enabling persistent maritime situational awareness.”

Each solar-powered drifter has approximately 20 onboard sensors, including a camera, GPS, microphone, hydrophone, and accelerometer. The different sensors can provide data for a broad array of areas including ocean pollution, aquafarming and transportation routes.

PARC leveraged its more than fifty years of experience developing industry-leading technologies to design a drifter that best fit the DARPA requirements for the program. Among other things, the float needed to be made of environmentally safe materials, be able to survive in harsh maritime conditions for a year or more before safely sinking itself, and use advanced analytic techniques to process and share the data gathered.

PARC built 1,500 drifters for the first phase of the project and will deliver up to 10,000 that are more compact and cost-effective for the next phase. Data gained in this round will help further optimize the final design, at which point DARPA expects to deploy large volumes of these drifters to provide continuous information and a better understanding of oceans that is missing today.

Coast Guard Repatriates 36

Migrants to the Dominican Republic

A Puerto Rico Police marine unit tows a makeshift boat with 21 migrants aboard, following the interdiction of an illegal voyage moments earlier just off Cabo Rojo, Puerto Rico Oct. 19, 2020. U.S. Coast Guard / Ricardo Castrodad

SAN JUAN, Puerto Rico – The Coast Guard repatriated 36 of 38 migrants to the Dominican Republic on Oct. 21, following the interdiction of two illegal voyages just off Cabo Rojo and Aguadilla, Puerto Rico, the Coast Guard 7th District said in an Oct. 22 release.

The interdicted migrants claimed to be Dominican Republic nationals, two of whom remain in Puerto Rico to face possible federal prosecution on charges of attempted illegal reentry into the United States.

The interdictions are the result of ongoing multiagency efforts in support of Operation Caribbean Guard and the Caribbean Border Interagency Group (CBIG).

“The close collaboration and efficient coordination between the Puerto Rico Police and fellow responding federal law enforcement partner agencies resulted in two successful interdictions and the safe removal of all 38 migrants,” said Cmdr. Beau Powers, Sector San Juan chief of response. “If a migrant vessel capsizes, the chance for survival is very low, since these grossly overloaded and unseaworthy makeshift boats are continuously taking on water and they have no lifesaving equipment onboard. We call upon anyone looking to take part in an illegal voyage that they not take the sea; it is just not worth risking your life or the life of a loved one.”

The first interdiction occurred on Oct. 19, when the crew of a Puerto Rico Police Joint Forces of Rapid Action marine unit

stopped a makeshift boat, approximately half a nautical mile southwest of Cabo Rojo, Puerto Rico. Coast Guard watchstanders diverted the Coast Guard Cutter Joseph Doyle (WPC-1133), while a Customs and Border Protection marine interceptor also responded to assist.

Once on scene with the migrant vessel, the crew of the cutter Joseph Doyle safely embarked 21 migrants, 17 men and 4 women. After embarking all migrants, and following biometric processing, the crew learned of the criminal and immigration history of the two migrants who are now facing federal prosecution by the U.S. Attorney's Office for the District of Puerto Rico. U.S. Border Patrol agents received custody of the two migrants in Mayaguez, Puerto Rico.

The second interdiction occurred on Oct. 21, after the crew of a U.S. Customs and Border Protection Air and Marine aircraft detected a suspect illegal voyage, approximately six nautical miles off the coast of Aguadilla, Puerto Rico. Shortly thereafter, the crew of a Puerto Rico Police Joint Forces of Rapid Action marine unit stopped the 25-foot makeshift boat, while the cutter Joseph Doyle and a Customs and Border Protection Air and marine surface unit arrived on scene to assist. The crew of the cutter Joseph Doyle safely embarked 17 migrants, 15 men and two women from the migrant vessel.

In both cases, the migrants were provided with lifejackets before embarking the Coast Guard cutter, where all migrants received food, water, shelter and basic medical attention.

The cutter Joseph Doyle later rendezvoused with and completed the repatriation of the migrants to a Dominican Republic Navy vessel just off the Dominican Republic.

U.S., U.K. Navy Chiefs Sign Statement of Intent for Integrated Warfighting

Chief of Naval Operations (CNO) Adm. Mike Gilday, second left, and First Sea Lord Adm. Tony Radakin, right, meet after signing a Trilateral Head of Navy Joint Statement in this 2019 photo. U.S. Navy / Mass Communication Specialist 1st Class Raymond D. Diaz III

WASHINGTON – Following Tuesday's Atlantic Future Forum remarks, U.S. Navy Chief of Naval Operations (CNO) Adm. Mike Gilday conducted a bilateral strategic dialogue via video teleconference with the U.K. First Sea Lord and Chief of the Naval Staff Adm. Tony Radakin, Oct. 21, the CNO's public affairs officer said in a release.

The leaders discussed the two navies' alliance and areas for continued collaboration and cooperation around the globe. Additionally, the two leaders signed a Statement of Intent for Future Integrated Warfighting that will set a cooperative vision for inter- changeability between the two navies, synchronize pioneering capabilities, strengthen operating concepts, and focus our collective efforts to Deliver Combined Seapower, together.

"We have a long tradition of sailing together from the Atlantic to the Indo-Pacific. No doubt, our storied past has strengthened our friendship today, and will do so far into the future," said Gilday. "After months of hard work on both sides of the Atlantic, we are pleased to sign this statement of intent that will set a cooperative vision for interchangeability. By organizing our cooperation together on carrier strike, underwater superiority, Navy-Marine integration as well as future warfighting efforts like unmanned and AI, we will remain on the leading edge of great

power competition."

Radakin echoed similar sentiments.

"In an increasingly contested world, alliances and partnerships such as that between the U.K. and the U.S. are vital," said Radakin. "We have already proven how closely we can work together, from developing our carrier strike capability to jointly demonstrating freedom of navigation around the world. Now, as we move towards every greater interchangeability, I am excited by the opportunities to strengthen and deepen our partnership today and in the years to come."

The U.S. Navy and U.K. Royal Navy regularly operate together around the world. Most recently, USS The Sullivans (DDG 68) took part in the Royal Navy's Carrier Strike Group exercise and Joint Warrior 20-2 (JW202). The two navies also conducted training in the Barents Sea in early September.

SECDEF Announces 3 Flag Officer Nominations

Rear Adm. Richard D. Heinz. U.S. Navy
ARLINGTON, Va. – Secretary of Defense Dr. Mark T. Esper announced Oct. 21 that the president has made the following nominations:

Rear Adm. (lower half) Richard D. Heinz for appointment to the rank of rear admiral. Heinz is currently serving as director, logistics, J4, U.S. European Command, Stuttgart, Germany.

Capt. Kevin P. Lenox for appointment to the rank of rear

admiral (lower half). Lenox is currently serving as branch head, Joint Intelligence Operations Center, J3, U.S. Central Command, Tampa, Florida.

Capt. Wesley R. McCall for appointment to the rank of rear admiral (lower half). McCall is currently serving as executive assistant to the assistant secretary of the Navy for energy, installations and environment, Office of the Secretary of the Navy, Washington, D.C.

Pratt & Whitney Awarded Contract for F135 Engine Modernization Study

An F135-PW-100 engine, which powers the F-35 Joint Strike Fighter, undergoes salt water corrosion testing in the Arnold Engineering Development Complex SL-3 facility at Arnold Air Force Base, Tennessee, in 2016. U.S. Air Force / Christopher D. Rogers

EAST HARTFORD, Conn. – Pratt & Whitney, a division of Raytheon Technologies Corp., has been awarded a $1.5M contract to conduct an F135 modernization study and operational assessment by the F-35 Joint Program Office to determine specific propulsion system growth requirements for Block 4.2 F-35 aircraft and beyond, the company said in an Oct. 20 release. The study is expected to conclude in March 2021.

“This award is a significant milestone for the program and the warfighter, as we look to ensure the F135 propulsion system continues to provide the foundation for all air vehicle capability requirements over the full lifecycle of the F-35,”

said Matthew Bromberg, president, Pratt & Whitney Military Engines. “As we look to the future, growth in aircraft capability must be met with matched propulsion modernization. Fortunately, the F135 has ample design margin to support agile and affordable upgrades that will enable all F-35 operators to keep pace with evolving threat environments.”

Under this award, Pratt & Whitney will assess F135 engine enhancements required to support future F-35 weapon system capability requirements across all F-35 variants beginning with Block 4.2 aircraft. The scope of the assessment focuses on enhancements addressing improvements to up and away thrust, powered lift thrust, power and thermal management capacity, and fuel burn reduction.

Designed with the knowledge that operational environments will evolve and threats will advance, the F135 is postured to meet future F-35 capability requirements. Its modular design and advanced digital architecture allow for the agile development and spiral insertion of both hardware and software upgrades. As part of the study, Pratt & Whitney’s GATORWORKS organization will complete the conceptual design and analysis of multiple F135 Engine Enhancement Package (EEP) growth options with phased insertion plans.

Leveraging significant U.S. Government and Pratt & Whitney investment in next generation adaptive propulsion technologies, Pratt & Whitney’s EEP approach offers low risk, variant-common upgrade options for the F135 that provide increased performance aligned with the program’s continuous capability development and delivery strategy and serve as a critical enabler for future capability growth of the F-35 weapon system.

The combat-proven F135 is the most advanced operational fighter engine in the world, delivering 26% more thrust, 116% more powered lift, and more than a 300% increase in power and thermal management over 4th generation fighter engines – all

with a demonstrated mission capability rate of greater than 94%.

“Built upon decades of combat propulsion experience, the F135 provides the warfighter with a critical technological advantage over adversaries at an unparalleled value to the taxpayer,” said Bromberg. “With more than 40,000 pounds of thrust, unmatched low-observable signature, world-class thermal management, and innovative engine control system, the F135 is a critical enabler of the F-35 weapons system and of operations conducted in advanced threat environments – a core element of the National Defense Strategy.”

Coast Guard Sets Record for Illegal Fishing Vessel Interdictions

A lancha runs from Coast Guard air and boat crews after being sighted fishing illegally in gulf waters, Texas, in this 2015 photo. Lanchas are Mexican fishing boats that poach thousands of pounds of wildlife from U.S. waters every year. U.S. Coast Guard / Air Station Corpus Christi)

CORPUS CHRISTI, Texas – Coast Guard law enforcement crews interdicted a record-setting number of lanchas throughout the Gulf of Mexico for fiscal year 2020, the Coast Guard 8th District said in an Oct. 20 release.

Since October 2019, Coast Guard assets and personnel detected a total of 326 lanchas and interdicted 136.

Since the first recorded lancha interdiction in the late

1980s, the Coast Guard has seen a significant uptick in the detection of the vessels, particularly in the past two years, recording 74 lancha interdictions in the previous fiscal year.

The Coast Guard utilizes a layered approach for operations through aircraft, small boats, and cutters, as well as improved technology on those assets, resulting in the drastic increase in lancha interdictions.

“This past year, we applied an unprecedented level of effort along the Maritime Boundary Line towards countering this threat to our natural resources, and the result speaks for itself,” said Lt. Cmdr. Joseph Prado, Coast Guard Sector/Air Station Corpus Christi enforcement chief.

“However, we will not be content until we see an end to this affront on our maritime sovereignty. We will continue to leverage all available technology and partnerships to increase our effectiveness. The boating public can play a key role in assisting the Coast Guard. Successful interdictions are oftentimes the result of timely reports from the maritime community. We encourage all boaters to continue to report all suspected illegal fishing.”

A lancha is a fishing boat used by Mexican fishermen that is approximately 20 to 30 feet long, with a slender profile. They typically have one outboard motor and are capable of traveling at speeds exceeding 30 mph. Lanchas pose a major threat, usually entering the United States’ Exclusive Economic Zone near the U.S.-Mexico border in the Gulf of Mexico with the intent to smuggle people, drugs, or poach the United States natural resources.

U.S. Navy Opens Tech Bridge Network in London


The logo of the London Tech Bridge.

ARLINGTON, Va. – The U.S. Navy's acquisition chief announced on Oct. 20 the establishment of the London Tech Bridge – the Navy's first such innovation center outside the United States, NavalX Public Affairs said in a release.

"London Tech Bridge makes 13 overall and our first overseas location," said James Geurts, assistant secretary of the Navy for Research Development and Acquisition. "This location emphasizes and builds on our unique partnership with the U.K. and Royal Navy and will better enable us to accelerate solutions to support our defense strategies."

The London Tech Bridge will connect U.K. technology solutions to the Department of the Navy (DoN) and will also partner U.S. companies with U.K. industry.

NavalX, with the London-based U.S. Office of Naval Research Global, in place since 1946, explored new connections with industry startups to large businesses, academia and U.K. defense partners. Together the team aims to connect technology solutions to the Department of the Navy and harness innovation.

In London, the Tech Bridge will be working with the U.K. Ministry of Defence and the Royal Navy, combining the innovation of the two nations' defense experts.

"The London Tech Bridge will serve as the DoN gateway to connect with international leading-edge tech companies and innovation partners to accelerate solutions to the warfighter," said Whitney Tallarico, NavalX Tech Bridge program director. "While national security is our goal, we are

keenly aware that it takes an international team to provide stability for our world.

“Part of that stability is based on offering global citizens meaningful jobs, opportunities to work on complex problems, and providing a platform to remind us that we have friends at home and abroad who want to see our people and our economies flourish,” Tallarico said.

Initial focus areas of the London Tech Bridge will be artificial intelligence, unmanned and autonomy, biotechnology, space, and lasers/directed energy. In addition to connecting technology solutions, the London Tech Bridge will provide guidance and connections to the U.S. Department of the Navy, as well as develop the U.S. naval workforce’s abilities to leverage the network and resources in the U.K.

London Tech Bridge’s foundational partners include ONR Global, Imperial College London’s Institute for Security Science and Technology, the U.S. Embassy London’s Office of Defense Cooperation and Department of Commerce section, and NATO’s Maritime Unmanned Systems Innovation and Collaboration Cell (MUSIC^2) and Innovation Advisory Board.

Furthermore, London Tech Bridge plans to work with partners from the U.K. Department of International Trade, U.K. Ministry of Defence’s Defence and Security Accelerator (DASA), Royal Navy’s Office of the Chief Technology Officer, Maritime Capabilities (MARCAP), NEMESIS Program, NavyX, and many more.

“The launch of the London Tech Bridge further solidifies our strong and historic bond with our UK partners,” said Cmdr. Albert Arnold, London Tech Bridge director. “Working together with the Royal Navy and the entire MoD, we will improve interoperability and interchangeability by innovating together, as well as reduce overall costs by combining efforts.

“It will truly be a two-way bridge moving technology and innovation in both directions, with the goal of contributing dual-use solutions to both economies,” Arnold continued. “We are extremely excited to work with innovators and technology leaders here in the U.K. to enhance the already booming ecosystem.”

Since the establishment of Tech Bridges last year, the Department of the Navy’s Tech Bridge initiative has harnessed collaboration and creativity to address naval concerns and capabilities. Due to the success of the Tech Bridges the Naval Agility Office (NavalX) has doubled the number of Tech Bridge locations. Twelve current locations, positioned around U.S. technology centers, span both coasts and include the Midwest. The London Tech Bridge is the 13th.

Notable Tech Bridge successes in the past year include funding $45 million in projects to solve naval problems; awarding more than $2 million in prize challenges to non-traditional industry partners; sponsoring $37.5 million in small business innovation research targeting maintenance and sustainment; and helping to distribute over $800,000 to COVID-19 response efforts.

The Tech Bridge hubs connect and sustain “acceleration ecosystems” in off-base locations, fostering greater collaboration. This is done by partnering with colleges and universities, research institutions, start-ups, corporations, small businesses and nonprofits, among others.

Boeing, U.S. Navy to Demo

Future Ramjet Missile Technology

ST. LOUIS – Boeing and the U.S. Navy will demonstrate advanced missile technologies that will make carrier air wing strike fighters more lethal against threats into the next decade, the company said in an Oct. 20 release.

Boeing has been awarded a $30 million contract from the Navy to co-develop the Supersonic Propulsion Enabled Advanced Ramjet (SPEAR) flight demonstrator with the Navy's Air Warfare Center Weapons Division. The contract award comes after the Department of Defense requested information from the defense industry to help the Navy determine technical requirements of future carrier-based land and sea strike weapons systems.

"The SPEAR flight demonstrator will provide the F/A-18 Super Hornet and carrier strike group with significant improvements in range and survivability against advanced threat defensive systems," said Steve Mercer, Boeing's SPEAR program manager. "We have a talented team of engineers to meet the challenging technical demands and schedule timeline that the SPEAR program requires. We look forward to working with Navy experts to advance technologies for the Navy's future capabilities."

Boeing and the Navy Air Warfare Center Weapons Division plan to fly the SPEAR demonstrator in late 2022. Prior successes by Boeing in developing supersonic and hypersonic technologies include the X-51 Waverider test vehicle in 2010 and the Variable Flow Ducted Rocket propulsion system under the Triple Target Terminator program in 2014.

Navy Kicks Off Naval Sustainment System Supply

Sailors assigned to the forward-deployed amphibious assault ship USS America (LHA 6) conduct flight operations during a replenishment-at-sea. U.S. Navy photo / Communication Specialist 3rd Class Walter Estrada

WASHINGTON, D.C. – Vice Chief of Naval Operations (VCNO) Adm. William Lescher welcomed top Navy leaders Oct. 19 to kick off the Naval Sustainment System (NSS) – Supply steering group. NSS-Supply seeks to streamline the Navy's supply chains to decrease maintenance turnaround times, increase end-to-end velocity of spares, and reduce costs.

Commander, Naval Supply Systems Command (NAVSUP) Rear Adm. Peter Stamatapoulos will lead NSS-Supply going forward. The steering group will meet periodically to define wins, evaluate metrics, and seek areas of improvement.

"NSS-Supply is a new approach– a cross-domain 'mission partner' approach to coordinate and integrate our supply chains end to end," Stamatopoulos said. "We will take control of our supply chains and, as a leadership team, set the strategic conditions required for mission performance."

"To create the supply chain performance we need, it's imperative that we align and manage supply chains differently, no longer accepting uncoordinated and fragmented decision-making," said Lescher.

Stamatopoulos briefed his NSS-Supply vision to develop a strategic scale framework to create the supply chain performance the Navy needs not only to fight tonight, but also for the future fight.

"Leveraging lessons learned from other Navy performance

initiatives, particularly NSS-Aviation, we benchmarked the Navy against best-in-class industrial companies, which also sustain globally deployed equipment and operate complex supply chains," Stamatopoulos said. "The commercial benchmarks have revealed gaps in Navy business functions and opportunities for improvement. We can close these gaps through better orchestration, integration and synchronization across the supply chains."

Supply chains in the 21st century are increasingly global, interconnected, and intensely competitive. NSS-Supply aims to incorporate expert leadership, engagement, and alignment from a whole-of-Navy approach to initiate a multi-year journey, which focuses on pursuing an increase in organic repair; achieving better-than-industry time to move parts; managing cash in new ways to maximize readiness; expanding competition with suppliers while deepening supplier partnerships; increasing predictability; and integrating existing supply chain resources toward a common goal.

"NSS-Supply is fundamentally about driving substantially improved performance across the entire Navy using the lever of high performing supply chains. This work requires strong leadership and broad, aggressive, engagement and support across the Navy," said Lescher.