Northrop Grumman Announces Next Generation Jammer-Low Band Team

BALTIMORE – Northrop Grumman Corporation has teamed with Harris Corp. and Comtech PST for the U.S. Navy's Next Generation Jammer–Low Band (NJG-LB) Demonstration of Existing Technologies (DET).

Naval Air Systems Command (NAVAIR) awarded Northrop Grumman a $35 million, 20-month contract Oct. 25 to demonstrate existing jammer capability for the NJG-LB program. Northrop Grumman is the airborne electronic attack integrator for the Navy's current EA-18G Growler electronic warfare (EW) system.

Harris is providing cutting-edge electronic attack equipment developed at its North Amityville, New York, operation to Northrop Grumman for NGJ-LB DET. Comtech PST, a subsidiary of Comtech Telecommunications based in Melville, New York, is providing high-power radio frequency (RF) amplifier systems.

"The Northrop Grumman team brings extensive electronic warfare expertise and a long history of building and deploying systems that support the challenging carrier-based aviation environment. We are proud to be working with Comtech and Harris to help the Navy maintain its warfighting edge," said Paul Kalafos, vice president, surveillance and electromagnetic maneuver warfare, at Northrop Grumman.

Harris' equipment is integrated within Northrop Grumman's NGJ-LB pod system to provide a modular, scalable and reconfigurable capability that will allow the Navy to stay current with rapidly evolving threats. Harris draws on its expertise in coherent electronic attack technologies and deployed jamming techniques.

“Harris is a leader in EW solutions worldwide and has extensive experience with the EA-18G Growler. Our significant investments in open architecture systems are ready made for the U.S. Navy NGJ-LB DET,” said Ed Zoiss, president, Harris Electronic Systems. “Our work on NGJ-LB also advances the company’s strategy to extend into new EW markets through pods and unmanned systems.”

“Comtech is very pleased to be part of the Northrop Grumman team. Our long-standing relationship and position as a premier provider of high-power RF systems positions the team well to support the Next Generation Jammer program for years to come. We look forward to a very successful partnership,” said Michael Hrybenko, president, Comtech PST.

The NGJ system will augment, and ultimately replace, the EA-18G Growler aircraft’s legacy ALQ-99 tactical jammer system with advanced airborne electronic attack capabilities for defeating increasingly advanced and capable threats. Developed in three frequency-focused increments – high-, mid- and low-band – NGJ will bring a significant increase in airborne electronic attack capability to counter complex air defense and communications systems.

Coast Guard Repatriates 74 Dominican Migrants After Four At-Sea Interdictions

SAN JUAN, Puerto Rico – The Coast Guard returned 74 Dominican migrants to law enforcement authorities in Santo Domingo, Dominican Republic, Nov. 27 following the at-sea interdictions of four migrant vessels off Puerto Rico, the 7th Coast Guard

District said in a release.

The interdictions were a result of ongoing efforts in support of Operation Unified Resolve, Operation Caribbean Guard and the Caribbean Border Interagency Group.

“While smugglers will continue to sell false promises and mislead migrants into unsafe and illegal attempts to cross maritime borders, the Coast Guard and our partners will continue to diligently patrol the Florida Straits and Caribbean Sea to stop these voyages before they end in tragedy and ensure the security of the United States,” said Capt. James Passarelli, chief of staff of the 7th Coast Guard District. “When these voyages are discovered by the Coast Guard or by our partners, these migrants are rescued from their unseaworthy vessels, cared for humanely by our crews, and promptly repatriated to their country of origin or departure.”

Ramey Sector Border Patrol agents detected the first migrant vessel early Nov. 25, approximately eight nautical miles west of Punta Borinquen in Aguadilla, Puerto Rico. Coast Guard watchstanders diverted the Cutter Resolute that responded along with a Puerto Rico Police Joint Forces of Rapid Action marine unit. The crew of the police marine unit interdicted the makeshift boat that was carrying nine people onboard, seven men and two women, who claimed Dominican nationality. Resolute arrived on scene shortly thereafter, safely embarked the migrants and destroyed the migrant vessel as a hazard to navigation. The migrants were subsequently transferred from the Resolute to the Cutter Donald Horsley.

Donald Horsley interdicted a second migrant vessel Nov. 25, after the crew of a patrolling Coast Guard HC-144 Ocean Sentry aircraft detected the 25-foot makeshift boat, approximately 12 nautical miles off Mona Island, Puerto Rico. The cutter crew safely embarked 16 Dominican men from the migrant boat and destroyed the vessel as a hazard to navigation.

The crew of a patrolling MH-65 Dolphin helicopter detected a third migrant vessel Nov. 26, approximately three nautical miles off the northern coast of Camuy, Puerto Rico. Responding Puerto Rico Police Joint Forces of Rapid Action marine units interdicted the 28-foot makeshift boat that was carrying 18 Dominican men onboard. Donald Horsley arrived on scene shortly thereafter and safely embarked the migrants, while Puerto Rico Police crews took custody of the migrant boat.

During a routine patrol of the Mona Passage Nov. 26, the crew of a Customs and Border Protection (CBP) Caribbean Air and Marine DHC-8 maritime patrol aircraft detected a 30-foot makeshift boat, approximately 35 nautical miles northwest of Aguadilla. Donald Horsley and a CBP marine unit arrived on scene and interdicted the migrant vessel with 31 people onboard, 27 men and four women, who claimed Dominican nationality. The Donald Horsley crew safely embarked the migrants, while the crew of the CBP marine unit took custody of the migrant vessel.

Once aboard a Coast Guard cutter, all migrants receive food, water, shelter and basic medical attention

Resolute is a 210-foot medium endurance cutter homeported in Key West, Florida, while Donald Horsley is a 154-foot fast response cutter homeported in San Juan.

BAE Systems Wins DARPA Contract to Apply Machine

Learning to the RF Spectrum

BURLINGTON, Mass. – The U.S. Defense Advanced Research Projects Agency (DARPA) has awarded BAE Systems a contract valued at $9.2 million for its Radio Frequency Machine Learning System (RFMLS) program. As part of the program, the company aims to develop new, data-driven machine learning algorithms that will help to decipher the ever-growing number of RF signals, providing commercial or military users with greater situational understanding of an operating environment.

Modern data-driven machine learning research has enabled revolutionary advances in image and speech recognition and autonomous vehicles. At a time when adversaries have built capabilities to disrupt the RF spectrum, it has become critical to explore how machine learning could be applied to traditional RF signal processing. Through the explosive growth of RF devices and the Internet of Things, the number of connected devices such as phones, sensors, and drones make it even more important to be able to identify signals intended to hack, spoof, or disrupt RF spectrum usage.

“The inability to uniquely identify signals in an environment creates operational risk due to the lack of situational awareness, inability to target threats, and vulnerability of communications to malicious attack,” said Dr. John Hogan, product line director of the Sensor Processing and Exploitation product line at BAE Systems. “Our goal for the RFMLS program is to create algorithms that will enable a whole new level of understanding of the RF spectrum, so users can identify and react to any signals that could be putting them in harm’s way.”

Under this Phase 1 contract, BAE Systems’ scientists intend to create machine learning algorithms, using cognitive approaches, that will use feature learning techniques to differentiate signals. In addition, researchers aim to create

algorithms that can learn to differentiate important versus unimportant signals in real-time scenarios through a deep learning approach.

The technology being developed for the RFMLS program is part of the machine learning and artificial intelligence research focus area within the company's autonomy technology portfolio, and adds to previous work in this area, including the DARPA Communications Under Extreme RF Spectrum Conditions and Adaptive Radar Countermeasures programs. BAE Systems has also advanced to the second round of another major DARPA effort to bring machine learning and artificial intelligence to the RF domain called the Spectrum Collaboration Challenge. Work for the RFMLS program is being done by the research and development team at BAE Systems' facilities in Burlington and in Durham, North Carolina.

Coast Guard Repatriates 27 Migrants to Cuba

MIAMI – The Coast Guard Cutter Charles David Jr. crew repatriated 27 Cuban migrants Nov. 22 to Cuba, the 7th Coast Guard District said in a release.

A Coast Guard Air Station Miami HC-144 Ocean Sentry airplane crew located a rustic vessel traveling northbound approximately 29 miles north of Cuba Nov. 17. Charles David Jr. arrived on scene and safely embarked 27 Cuban migrants who attempted to enter the United States illegally.

"The Coast Guard diligently patrols the Florida Straits and Caribbean Sea to ensure the safety of life at sea and the security of the United States. United States policy is to

promote safe, orderly and legal travel and migration," said Rear Adm. Peter Brown, commander of the 7th District and director of Homeland Security Task Force Southeast. "When unsafe, disorderly and illegal maritime migration attempts are discovered by the Coast Guard or our partners, migrants are rescued from distress, humanely treated and promptly repatriated to their country of origin or departure."

Once aboard Coast Guard cutters, all migrants receive food, water, shelter and medical attention.

Approximately 296 Cuban migrants have attempted to illegally enter the U.S. via the maritime environment since Oct. 1 in fiscal 2018 compared to 2,098 Cuban migrants in fiscal 2017. These numbers represent the total number of at-sea interdictions, landings and disruptions in the Florida Straits, the Caribbean and Atlantic.

Charles David Jr. is a 154-foot Sentinel-class cutter homeported in Key West, Florida.

EdgeTech 2205 AUV-based Sonar Aids in Discovery of Missing Argentine Submarine

WEST WAREHAM, Mass. – EdgeTech, the leader in high-resolution sonar imaging systems and underwater technology, is honored to learn that its industry-leading side scan sonar technology was used to help find the missing Argentine submarine, ARA San Juan, the company said in a Nov. 19 release.

The deep-water search was performed by Ocean Infinity and its

advanced fleet of 6,000-meter-rated autonomous underwater vehicles (AUV) equipped with EdgeTech 2205 side scan sonars. EdgeTech's unique tri-frequency side scan sonar frequency combination of 75/230/410 kHz enables the host AUV to perform long-range searches in deep water, with the middle and higher frequency providing added resolution for better target identification.

The ARA San Juan was imaged by the EdgeTech sonar operating at a frequency of 230 kHz and a 400-meter range scale. The submarine, which had been missing for one year, was discovered in more than 900 meters of water.

EdgeTech side-scan sonar systems provide operators the ability to image large areas of the sea floor during important deep-water searches when the whereabouts of sunken objects are largely unknown. EdgeTech takes great pride in knowing its high quality reliable underwater acoustic imaging systems continue to assist in these demanding endeavors.

State Department Approves Standard Missile-3 for Japan

WASHINGTON – The State Department has made a determination approving a possible Foreign Military Sale to Japan of eight Standard Missile-3 (SM-3) Block 1B Missiles and 13 SM-3 Block 2A Missiles for an estimated cost of $561 million, the Defense Security Cooperation Agency (DSCA) said in a Nov. 19 release.

\The DSCA delivered the required certification notifying Congress of this possible sale on Nov. 16.

Also included in the proposed sale are SM-3 1B and 2A missile

canisters, U.S. government and contractor provided technical assistance, engineering and logistical support services, and other related elements of logistical and program support.

The proposed sale will provide Japan with an increased ballistic missile defense capability to assist in defending the Japanese homeland and U.S. personnel stationed there. Japan will have no difficulty absorbing these additional munitions and support into the Japan Maritime Self Defense Force, the release said.

The principal contractor for the SM-3 Block 1B and 2A all-up rounds will be Raytheon Missile Systems, Tucson, Arizona. The prime contractor for the Mk-21 and Mk-29 canisters and packing, handling, shipping and transportation kits will be BAE Systems, Minneapolis.

Mercury Systems Receives Integrated Subsystems Order for Naval EW Application

ANDOVER, Mass. – Mercury Systems Inc. has received a $6.7 million follow-on order from a leading defense prime contractor for custom-engineered, high-performance subsystems with integrated radio frequency (RF) and digital microelectronics for a naval electronic warfare (EW) application, the company announced in a Nov. 20 release. The order was booked in the company's fiscal 2019 first quarter and is expected to be shipped over the next several quarters.

Mercury Systems is a leader in the development and commercialization of EW solutions optimized for ground, sea,

and airborne applications. Engineered to reliably operate in the harshest of environmental conditions, Mercury's EW solutions densely integrate both analog and digital technologies using open architecture standards to reduce the risk of schedule of cost overruns while providing an affordable path for upgradeability in the future.

"Receiving this order from our valued customer exemplifies Mercury's market-leading position in the design and manufacturing of affordable microelectronics solutions spanning the RF and digital domains," said Neal Austin, vice president and general manager of Mercury's Embedded Sensor Processing group. "We are fully committed to supporting the U.S. warfighter with commercial innovations delivering critical electronic warfare information required to make timely and accurate operational decisions."

Rite-Solutions Awarded NUWC Division Newport IT Services Contract

MIDDLETOWN, R.I. – Rite-Solutions recently was awarded a $49.6 million contract to support the Naval Undersea Warfare Center's (NUWC's) Activity Chief Information Officer (ACIO)/Information Technology (IT) division, which is responsible for strategic planning, operations, maintenance, and compliance of the center's IT systems and infrastructure, the company said in a Nov. 19 release.

"We are thrilled that NUWC chose to renew the contract with us," says Rocky Reeves, Rite-Solutions vice president and director of IT services.

The company will provide IT services in several areas including software engineering, client support services/help desk, Navy Marine Corps Intranet support, IT governance and application portfolio management support, and more.

“Cybersecurity touches every one of these areas,” Reeves said. Over one-half of the personnel supporting this contract must meet the Navy’s strict Cyber Information Technology/Cybersecurity Workforce requirements.

“This was a major reason Rite-Solutions won the contract. Many of our employees have degrees in cybersecurity or computer science as well as security and operating system certifications,” added Reeves.

Rite-Solutions will support NUWC headquarters in Newport, Rhode Island, as well as NUWC locations in Connecticut, Virginia, Florida, and the Bahamas.

Teledyne Microwave Solutions Awarded Contract from NAVSUP

RANCHO CORDOVA, Calif. – Teledyne Microwave Solutions (TMS), a business unit of the Teledyne Defense Electronics Group and its parent company, Teledyne Technologies, has been awarded a $7.5 million sole-source contract from the Naval Supply Systems Command (NAVSUP) Weapon Systems Support in Philadelphia, the company said in a Nov. 15 release.

The contract is for the repair of Traveling Wave Tubes (TWTs) used on the ALQ-99 system in support of the EA-18G Growler aircraft. Teledyne, a long-time world leader in the design and production of advanced TWTs, has supported the ALQ-99 system

and its associated aircraft since the 1970’s. Teledyne’s engineering innovations in TWT technology continue to be deployed today to meet the stringent requirements of the U.S. Navy and other military purposes.

Execution of this firm-fixed-price contract award will be performed at Teledyne’s 160,000-square-foot production facility in Rancho Cordova, California. TMS is expected to complete the contract work by November 2021.

TMS manufactures a broad range of TWT technologies and applications for use in diverse markets. Teledyne TWTs are found on nearly all major electronic warfare, radar, and communication platforms of the U.S. and its allies throughout the world. Our various product lines also include TWTs used for instrumentation, satellite communications, and other mission critical applications.

General Dynamics Tapped to Accelerate Navy Cloud Adoption

FAIRFAX, Va. – General Dynamics Information Technology (GDIT) will deliver commercial cloud services for the U.S. Navy to accelerate cloud adoption. The Navy’s Program Executive Office for Enterprise Information Systems (PEO EIS) awarded CSRA LLC, a managed affiliate of GDIT, a $22.4 million blanket purchase agreement (BPA), the company said in a Nov. 19 release.

The award includes a one-year base period with four one-year options that, if exercised, would bring the estimated cumulative value to $96 million.

“GDIT will continue supporting PEO EIS as it executes the Navy’s ‘Cloud First’ strategy of increasing data reliability and cost-effectiveness, while maintaining a robust security profile,” said Leigh Palmer, senior vice president and head of GDIT’s Defense Division. “Through this award, the Navy will gain access to premium commercial cloud services through GDIT’s strategic relationships with Microsoft and Amazon. Our secure, scalable and containerized environment will enable the Navy to store its data securely, reap significant savings and gain impressive resources to accomplish their mission.”

GDIT will deliver commercial cloud services to the Navy through the General Services Administration’s Schedule 70, which includes Amazon Web Services and Microsoft Azure. Both companies are Strategic Alliance Partners with GDIT.