

Navy Accepts Final Component for LCS Anti-Submarine Warfare Mission Package

FORT PIERCE, Fla. – The Navy took delivery of the final component of the littoral combat ship (LCS) Anti-Submarine Warfare (ASW) Mission Package Nov. 30, following the successful completion of a rigorous acceptance test regime at the Harbor Branch Oceanographic Institute, Program Executive Office, Unmanned and Small Combatants (PEO USC), Public Affairs said in a Dec. 4 release.

The Raytheon-developed Dual-mode Array Transmitter (DART) Mission System and ASW Mission Package will significantly increase ASW capabilities within the U.S. Navy, bringing the ability to maneuver active and passive sonars above and below the thermocline layer.

“The DART Mission System is an essential component of the LCS ASW Package, and when coupled with the SQQ-89 acoustic processing, the Multi-Function Towed Array and MH-60R helicopter, makes up an ASW MP that will provide revolutionary capabilities to the fleet,” said Capt. Ted Zobel, LCS Mission Module program manager.

Sailors attached to USS Fort Worth (LCS 3) Gold Crew, Detachments 1 and 2, have played an integral role in testing and evaluating the DART Mission System. The Sailors participated not only in early testing of the system, but also provided feedback to the manufacturer on the operation and usability of the system.

“LCS Sailors have participated in major testing and evaluation events throughout the development of the DART system,” said Senior Chief Sonar Technician (SW) Joseph Hart. “Raytheon’s willingness to accept Sailor input as far as what the final

production unit should look like and how it should operate has been exceptional, and has allowed the fleet testing team to ensure the DART system and the full extent of its capabilities will be effectively employed by future LCS crews.

“Tactically, this should be a game changer for the Surface Navy,” said Hart, who is with LCS ASW Detachment 2.

The preproduction test article (PPTA) remained on schedule and met all contractual milestones since the award was made in March 2017.

Following the acceptance of the DART PPTA, the Navy plans to embark the system on a craft of opportunity and proceed to the Atlantic Undersea Test and Evaluation Center for an in-water demonstration of the of the LCS ASW Mission Package’s Escort Mission Module prior to formal developmental testing on USS Fort Worth.

The LCS ASW Mission Package ensures the U.S. Navy will remain dominant in ASW and outpace submarine advances of international competitors.

Rite-Solutions Selected in \$561 Million Navy UUV Contract

MIDDLETOWN, R.I. – Rite-Solutions recently was selected as one of 23 companies that will participate in a five-year, \$561.2 million contract to help the U.S. Navy develop future generations of its Unmanned Undersea Vehicle (UUV) Family of Systems (FoS), the company announced in a Dec. 3 release.

The contract, announced by the Naval Undersea Warfare Center (NUWC) in Newport, Rhode Island, will develop core technologies in 12 functional areas such as payloads, propulsion, power storage and conversion, vehicle control, and command and control.

“We will focus on three areas: software, architecture, and command and control functionality,” said Mike Coffey, executive vice president and general manager at Rite-Solutions. “Our strength is integrating disparate systems into a single, cohesive system of systems.”

Consistent with government contracts, NUWC will release task-order requests for proposal that participating companies will bid on. But unlike contracts that source a finished product (such as a UUV) from a single company, NUWC will receive components from multiple companies.

“This contract is a little unique,” said Coffey. “NUWC is taking a best-of-breed approach to acquiring technologies that will enable them to develop, build and support UUV systems. They will integrate the different technologies in the prototype phases of UUV FoS development, which will establish the baselines for future production.”

Often a subcontractor to large system developers, Rite-Solutions is now a prime contractor alongside them.

“We are pleased to be included on this contract, with some of the biggest and most reputable companies in the aerospace and defense industry,” Coffey said.

Overall, the contract has options that could bring the total amount to \$794.5 million.

Central Gulf Lines Moves Two Armored Brigades Across the Pacific

MOBILE, Ala. – Central Gulf Lines Inc. (CGL), a subsidiary of SEACOR Holdings Inc., announced in a Dec. 3 release that the M/V Green Cove recently completed a round-trip voyage to Busan, South Korea, under a time charter to the U.S. Navy's Military Sealift Command. CGL supported the movement of military equipment for U.S. Army brigades.

Green Cove transported well in excess of 20,000 metric tons of military cargo, including more than 150 M1 Abrams tanks and nearly 300 Bradley Fighting Vehicles, utilizing the vessel's full lift capacity. The high-profile loading and discharge operations were attended by senior Army leadership.

CGL President and U.S. Navy veteran Henry Nuzum praised the tight coordination between CGL and the military.

"We appreciate the hard work of the 833rd Transportation Battalion in Seattle, the 837th Transportation Battalion in Busan and the 834th Transportation Battalion in Oakland, loading and discharging the cargo. CGL delivered the equipment safely and ahead of schedule," Nuzum said. "In 1950, CGL completed its first military contract, moving equipment for Military Sealift Command to Korea. After nearly seven decades of moving equipment for the U.S. armed forces, it is gratifying to deliver a fresh brigade to the site of our inaugural military move and bring another one home."

Austal Delivers First Guardian-Class Patrol Boat

HENDERSON, Western Australia– Austal delivered the first Guardian-class patrol boat (GCPB) to the Australian Department of Defence Nov. 30 and then, in a handover ceremony, presented the vessel to the Papua New Guinea (PNG) government, the company said in a release. Ted Diro is the first of 21 GCPBs to be gifted to 12 Pacific Island nations and Timor-Leste under the Commonwealths Pacific Maritime Security Program.

“Austal are proud to deliver this program for the Commonwealth of Australia,” the company said. “The Guardian class has brought together the industry-leading skills of over 200 Austal employees and estimated to have employed an additional 200 people indirectly through the design, construction and sustainment process.

The Guardian class is the latest evolution of Austal’s proven patrol boat platform that was first introduced some 20 years ago, commencing with the Bay-class patrol boat developed for the Australian Customs Service. Since 1998, Austal has delivered 32 patrol boats to the Commonwealth – representing Australia’s entire border patrol capability. Austal has delivered or has orders for a total of 97 patrol boats for Australia and around the world.

“Over the past six weeks, we have had the Ted Diro crew from the PNG Navy at Austal training on how to use and maintain the new vessels,” said David Singleton, Austal CEO. “Their positive feedback on the greater capability, amenity and operability of the Guardian class has been fantastic. We look forward to show casing the new vessels to the other Pacific Island nations over the life of the vessel program through to 2023.

“The program is now in a full rate of production, with the second vessel, which is destined for Tuvalu, successfully launched on Monday with an additional three vessels in various stages of construction. Austal are already looking at export opportunities for the GCPB.”

The Pacific patrol boat contract was awarded to Austal in May 2016 with a contract option in April 2018. The program supports more than 200 direct jobs at Austal and more than a further 200 indirect jobs through the Australian industry involved in the program. Austal has around 1,000 employees in Australia directly contributing to delivering a strong domestic and export shipbuilding industry.

BAE Systems Wins Navy Contract for C5ISR Systems Integration, Sustainment Work

MCLEAN, Va. – BAE Systems has earned positions on two single-award indefinite delivery/indefinite quantity (IDIQ) contracts that support the rapid integration and sustainment of command, control, communications, computers, combat systems, intelligence, surveillance, and reconnaissance (C5ISR) systems for the Naval Air Warfare Center Aircraft Division (NAWCAD), the company said in a Dec. 3 release. The two awards have a total potential value of more than \$150 million.

The first award, LCS CONUS, is a five-year contract to provide life-cycle sustainment across military- and commercial-based communications platforms within the United States and abroad. These systems are used by Navy, Special Operations Forces, Homeland Security, and other Department of Defense and non-

defense agencies. The IDIQ contract has a maximum ceiling value of \$83 million.

“Our engineers specialize in providing custom, tailor-made C5ISR solutions to help close communications capability gaps for the U.S. military,” said Mark Keeler, vice president and general manager of BAE Systems’ Integrated Defense Solutions business. “BAE Systems takes pride in keeping the lines of communication open for those on the front lines of national security.”

The company also secured a position on a five-year IDIQ to provide rapid integration and production services for C5ISR systems on board small and large militarized vehicles and air platforms. Most of the work will take place within NAWCAD’s Special Communications Mission Solutions Division’s production facility at St. Inigoes, Maryland, known as the Special Communications Rapid Integration Facility.

The remaining work will take place in Jacksonville, Florida, providing direct support to the local Fleet Readiness Center. BAE Systems taskings will include supporting mobile, fixed-base stations, various fixed and rotary wing air platforms, and large command centers deployed around the world. The IDIQ contract has a maximum ceiling estimated at \$68 million.

Coast Guard, DHS S&T Ventures into Space with Polar Scout Launch

WASHINGTON – The Coast Guard Research, Development, Test, and Evaluation (RDT&E) Program, in partnership with the Department

of Homeland Security (DHS) Science and Technology Directorate (S&T), launched two CubeSats from Vandenberg Air Force Base, California, Dec. 3, the Coast Guard said in a release.

The launch is part of the Polar Scout project to evaluate the effectiveness of space-based sensors in support of Arctic search and rescue missions. Knowledge gained from this demonstration will be used to inform satellite technology recommendations for many potential applications within the Coast Guard and across DHS.

Jim Knight, the Coast Guard deputy assistant commandant for acquisition, said in ceremonies leading up to the launch, "The Polar Scout project presents an opportunity to evaluate the most efficient way to ensure that the United States can project surface presence in the Arctic when and where it is needed while filling an immediate Search and Rescue capability gap in these remote areas."

The CubeSats, dubbed Yukon and Kodiak, were launched into a low-earth polar orbit on a rideshare with other spacecraft from 17 different countries. This economical alternative to a costly single-mission launch ensured dozens of spacecrafts from various organizations reached orbit. Success of the mission was due to public and private sector collaboration throughout the process, from developing the CubeSats to propelling them into space.

"In order to demonstrate, test and evaluate the viability and utility of CubeSats for Coast Guard missions, the Coast Guard RDT&E Program has partnered with DHS S&T to conduct on-orbit testing of CubeSats using the Mobile CubeSat Command and Control (MC3) ground network," said Holly Wendelin, command, control, communications, computers, intelligence, surveillance and reconnaissance domain lead.

Developed as a potential capability bridge between the current 20-year-old international search-and-rescue architecture and

its future successor, "CubeSats serve as a much smaller, more cost-efficient solution that can be easily implemented over a short period of time. Each are only about the size of a shoebox," said John McEntee, director of Border Immigration and Maritime at S&T.

In the 18 months leading up to the launch, DHS S&T handled the fabrication of Yukon and Kodiak, which are tailored specifically to detect 406 MHz emergency distress beacons. At the same time, the Coast Guard Research and Development Center deployed two ground stations – one at the Coast Guard Academy in New London, Connecticut, and one at University of Alaska Fairbanks – using the MC3 architecture and network. The ground stations will receive all of the signals from the CubeSats during the demonstration.

DHS will begin testing and demonstrations using emergency distress beacons in the Arctic beginning early next year and continuing through the summer.

"The demonstrations will include downlinking 406 MHz emergency distress beacon data from the CubeSats using the deployed MC3 ground stations," Wendelin said. "We will set the beacons off, the satellite should detect it and send signals back to the ground station." The testing period is expected to provide critical knowledge on how CubeSat technology can be used to enhance Coast Guard and DHS mission performance.

The Polar Scout project is providing valuable insight on the process, cost and feasibility of acquiring and using organic satellites. The Coast Guard and DHS will use the knowledge gained from Polar Scout and the MC3 installs, market research and space mission design and assessments to develop satellite technology recommendations.

As Coast Guard missions become more challenging and complex, the use of small and inexpensive satellites has the potential for great impact. Potential uses for satellites include

improving communication in the arctic environment, monitoring large areas for illegal activity and helping to locate persons lost at sea. Additionally, the use of satellites has the potential to reduce the time and resources spent on intensive aircraft searches as well as the risks associated with placing personnel in hazardous situations that only need sensors and communications on scene.

“Undoubtedly, the results and knowledge gained by the Polar Scout Satellite Project will lead to force-multiplying solutions for the Department, which is a big priority in this age of complex threat cycles,” said Bill Bryan, senior official performing the duties of undersecretary for the Science and Technology Directorate.

Through Polar Scout’s robust search-and-rescue satellite solution, the Coast Guard may be empowered to respond to maritime disasters with unprecedented speed, preserving lives and even cargo, along trade routes in the Arctic Circle.

Navy Terminates Section 106 Consultation for Increased Growler Operations at Whidbey Island

NORFOLK, Va. – After being unable to reach agreement through extensive, in-depth consultations, the Navy has decided to terminate consultation under Section 106 of the National Historic Preservation Act (NHPA) regarding a planned increased EA-18G Growler operations at Naval Air Station (NAS) Whidbey Island, Washington, the commander, U.S. Fleet Forces Command,

said in a Nov. 30 release.

Termination of consultation is an option provided to the federal agency under the Section 106 process, when the agency and consulting parties are unable to reach agreement on how to resolve adverse effects.

Since October 2014, the Navy has consulted with the Advisory Council on Historic Preservation (ACHP), Washington State Historic Preservation Officer (SHPO), and local consulting parties to evaluate potential effects to historic properties resulting from the proposed increase in EA-18G Growler airfield operations at the NAS Whidbey Island Complex. The Navy distributed its determination of adverse effect on June 25 and received concurrence from the SHPO on June 27.

The Navy's determination is that indirect adverse effects to the Central Whidbey Island Historic District would result from more frequent aircraft operations. Specifically, the preferred alternative would affect the historic integrity of five landscape viewpoints within the historic district. Subsequently, the Navy initiated a series of meetings and calls with all consulting parties with the intention to reach agreement on appropriate measures to resolve the effects.

In making this decision to terminate the Section 106 consultation, the Navy has considered all measures put forth by the consulting parties and carefully evaluated the nature, scale and scope of adverse effects on the landscape viewpoints in historic district.

Since August, the Navy conducted a series of meetings with the consulting parties in this resolution phase of the Section 106 process to address ways to resolve the adverse effect on five landscape viewpoints in the historic district. Considerable time has been spent in discussions with the SHPO, consulting parties and ACHP staff working to explain the undertaking, the Section 106 process, and to evaluate and take into

consideration resolution options put forth by the Washington SHPO and all consulting parties and the public.

After careful consideration, the Navy has determined that further consultation under Section 106 will not be productive within the time available to avoid unacceptable impacts to the Navy's defense mission. This impasse results from an unwillingness to separate concerns about historic properties from concerns about other economic and community apprehensions surrounding increased Growler flights. The 106 process is about historic preservation and does not address other possible impacts to the community.

The Navy remains committed to resolving the undertaking's adverse effects to historic properties. The Navy will continue discussions with community leaders regarding other potential mitigations that should be addressed outside of the NHPA Section 106 process. The Navy has a long collaborative relationship with the local community on mutual concerns and looks forward to continuing that relationship.

Coast Guard Icebreaker Returns Home Following 129-Day Arctic Deployment

SEATTLE – The crew of the U.S. Coast Guard Cutter Healy returned home Nov. 30e following a four-month deployment in the Arctic, the Coast Guard Pacific Area in a release.

In addition to providing presence and access in the Arctic during the 129-day summer deployment, the Healy crew completed three research missions in partnership with the National

Science Foundation, the National Oceanic and Atmospheric Administration (NOAA) and the Office of Naval Research, conducting physical and biological research in the Arctic Ocean.

The crew's first mission was a NOAA-sponsored project aimed at furthering the understanding of the changing biological picture in the Arctic, along with studying the physical oceanography and offshore ocean currents in both the Chukchi and Beaufort Seas. The findings from this mission will aid scientists in studying the biological conditions in the Polar region.

The second mission, supported by the Office of Naval Research, is part of a larger, multiyear Arctic study program. This mission focused on studying the effects of water inflow and surface force changes on ocean stratification and sea ice in the Beaufort Sea. In completing this mission, the Healy crew deployed specialized instruments on ice floes and placed subsurface moorings on the seafloor, which will remain in the Arctic until next year.

Healy's final mission, sponsored by the National Science Foundation, was aimed at understanding the effects of the Pacific and Atlantic water-inflow and the associated boundary current in the Arctic ecosystem. As part of a multi-year endeavor, this study captures measurements from subsurface moorings deployed on the Barrow Canyon Slope as well as data collected from Healy's onboard scientific equipment.

Under the command of U.S. Coast Guard Capt. Greg Tlapa, Healy is the nation's premiere high-latitude research vessel and is the only U.S. military surface vessel that deploys to and is capable of operating in the ice-covered waters of the Arctic. In addition to science operations, Healy is capable of conducting a range of Coast Guard operations such as search and rescue, ship escorts, environmental protection and the enforcement of laws and treaties in the Polar regions. Healy

provides access and presence throughout the Arctic region to protect U.S. maritime borders and to safeguard the maritime economy.

At 420 feet long, with a displacement of over 16,000 tons and a permanent crew of 87, Healy is the largest ship in the U.S. Coast Guard. Commissioned in 2000, Healy is one of two active icebreakers in the U.S. fleet; the other is the Coast Guard Cutter Polar Star, the service's only heavy icebreaker, homeported in Seattle. Commissioned in 1976, the Polar Star recently departed for a four-month Antarctic deployment to support Operation Deep Freeze 2019.

Operation Deep Freeze is the logistical support provided by the U.S. armed forces to the U.S. Antarctic Program. During Operation Deep Freeze the Polar Star carves a navigable path through seasonal and multiyear ice, sometimes as much as 10-foot thick, for supply ships to deliver annual operating supplies and fuel to National Science Foundation research stations in Antarctica.

The Coast Guard has been the sole provider of the nation's polar icebreaking capability since 1965 and is seeking to increase its icebreaking fleet with six new Polar Security Cutters in order to ensure continued national presence and access to the Polar Regions.

**Marine Corps Releases
Solicitation for New**

Lightweight Hard Armor Plate

MARINE CORPS BASE QUANTICO, Va. – The Marine Corps has released a request for proposal for a lightweight hard armor plate to lighten the load for Marines and allow commanders to adapt to the environment, mission and level of threat on the battlefield.

In August, Marine Corps Systems Command (MCSC) assessed industry's capability to make a plate that would supplement the Enhanced Small Arms Protective Insert, or ESAPI plates, and provide sufficient protection for the majority of combat environments. MCSC's Program Manager Infantry Combat Equipment (PM ICE) held Industry Days on Oct. 17-18 and met with 12 companies to receive feedback on the draft solicitation documents.

Now MCSC is seeking proposals from industry for procurement of a maximum of 680,706 and a minimum of 60,000 lightweight plates. The lighter plates will give commanders more options to tailor Marines' ballistic protection to the environment, mission and threat.

"These new plates will be fielded in addition to the existing ESAPI plates," said Nick Pierce, Individual Armor Team lead in MCSC's PM ICE. "We expect the plates to be at least 38 percent lighter than the ESAPI which will significantly increase the mobility of Marines on the battlefield."

All proposals are due in March, and a contract is expected to be awarded in July. Priorities have not yet been set, but initial fielding would likely go to combat units and could take place as early as fiscal 2020.

"This along with other recent initiatives such as the Plate Carrier Gen III are part of a holistic effort to modernize the personal protective equipment set to give Marines better, lighter, more effective gear," said Pierce.

USS Detroit Begins Operational Testing of LCS Surface-to-Surface Missile Module

NORFOLK, Va. – USS Detroit (LCS 7) began initial operational test and evaluation (IOT&E) of the Surface-to-Surface Missile Module (SSMM) Nov. 17, two months ahead of schedule, Naval Sea Systems Command reported in a Nov. 30 release.

The SSMM is the newest addition to the littoral combat ship Surface Warfare Mission Package, designed to counter potential swarms of attacking armed small craft. The Navy's Program Executive Office for Unmanned and Small Combatants accelerated the package's operational testing following successful developmental and integrated testing off the coast of Virginia from July through November.

The test and evaluation plan involves two fast inshore attack craft raid events that utilize the SSMM and Gun Mission Module (GMM), consisting of two 30 mm guns, and 57 mm weapons systems. IOT&E completion is planned for early 2019.

The test and evaluation regime is the next step toward declaring initial operational capability (IOC) and fielding the SSMM with the Surface Warfare Mission Package. Included in the SSMM, are 24 Longbow Hellfire missiles; Gun Mission Module, Maritime Security Module, containing two 11-meter rigid-hull inflatable boats; and the Aviation Mission Module, including an MH-60R Seahawk helicopter and a Vertical Take-Off Unmanned Air Vehicle. It was designed to complement the ship's organic weaponry to counter small-boat swarming threats and

provide a visit, board, search and seizure capability.

The Gun Mission Module, Maritime Security Module and Aviation Mission Module all achieved IOC in November 2014 and have embarked on multiple deployments on both Freedom and Independence LCS variants, providing much-needed visit, board, search and seizure and small boat defense capabilities in the dynamic and congested sea lanes, straits and archipelagos of South and Southeast Asia.