# SPY-6 Radar Tracks Ballistic Missile Through Intercept and Multiple, Simultaneous Targets

TEWKSBURY, Mass. – Raytheon Co.’s AN/SPY-6(V) radar continues to demonstrate its integrated air and missile defense capability through exceptional performance against multiple targets, the company said in an Oct. 10 release.

The radar detected, acquired and tracked multiple targets from the U.S. Navy’s Pacific Missile Range Facility, Kauai, Hawaii. Capitalizing on two unrelated exercises conducted nearby in mid-September, SPY-6(V) not only tracked multiple threats simultaneously, but also a ballistic missile through intercept, for the first time.

Raytheon’s SPY-6 continues successful testing at the U.S. Navy’s Pacific Missile Range Facility.

“AN/SPY-6(V) continues to impress through consistent performance against complex, surrogate threats,” said U.S. Navy Captain Seiko Okano, major program manager for Above Water Sensors, Program Executive Office, Integrated Warfare Systems. “With production now underway, we’re progressing – with confidence – toward delivery of this exceptional, game-changing radar, which will transform our naval capabilities for decades to come.”

The SPY-6(V) program has met all milestones, ahead of or on schedule, since its inception in January 2014. The radar has amassed a track record of performance, demonstrating its multimission capabilities against an array of single and multiple simultaneous targets throughout the Navy’s extensive testing program and against various targets of opportunity.

Now in production at Raytheon’s advanced Radar Development Facility, AN/SPY-6(V) remains on schedule for delivery to the first DDG 51 Flight III, the future USS Jack H. Lucas, in 2019.

AN/SPY-6(V) provides greater range, increased accuracy, greater resistance to environmental and man-made electronic clutter, higher reliability and sustainability than currently deployed radars. The radar’s demonstrated sensitivity provides greater coverage for early and accurate detection which optimizes the effectiveness of the Navy’s most advanced weapons, including all variants of Standard Missile-3 and Standard Missile-6.

---

# Coast Guard Conducting Search and Rescue After Hurricane Michael

MOBILE, Ala. — The Coast Guard is conducting search-and-rescue operations throughout areas affected by Hurricane Michael, the U.S. Coast Guard Hurricane Michael Response Center in Mobile, Alabama, said in an Oct. 11 release.

As of 9 a.m. on Oct. 11, Coast Guard crews have rescued approximately 17 people and assisted six. Currently, the Coast Guard has nine aircraft and three shallow-water response teams conducting rescues.

Nine people were rescued by Coast Guard aircrews after they became trapped in a bathroom when a roof collapsed in Panama City, Florida, on the afternoon of Oct. 10.

“We have multiple aviation and ground assets focused on saving lives,” said Cmdr. Jason Franz, Sector Mobile incident commander for Hurricane Michael. “We’re working closely with Customs and Border Protection aircrews to help with our search and rescue operations.

“Our pollution and damage assessment teams have begun evaluating major areas of pollution and damage to our waterways, and we’ve partnered with the Army Corps of Engineers and other port partners to begin the process of re-establishing our ports to ensure we have commerce flowing as soon as possible,” he said.

---

# NAVSEA Approves First Additive Manufactured Metal Component for Shipboard Use

WASHINGTON – Naval Sea Systems Command (NAVSEA) has approved the first metal part created by additive manufacturing (AM) for shipboard installation, the command said in an Oct. 11 release.

A prototype drain strainer orifice (DSO) assembly will be installed on USS Harry S. Truman (CVN 75) in fiscal 2019 for a one-year test and evaluation trial. The DSO assembly is a steam system component that permits drainage/removal of water from a steam line while in use.

Huntington Ingalls Industries Newport News Shipbuilding builds Navy aircraft carriers and proposed installing the prototype on an aircraft carrier for test and evaluation.

“This install marks a significant advancement in the Navy’s ability to make parts on demand and combine NAVSEA’s strategic goal of on-time delivery of ships and submarines while maintaining a culture of affordability,” said Rear Adm. Lorin Selby, NAVSEA chief engineer and deputy commander for Ship Design, Integration, and Naval Engineering. “By targeting CVN 75, this allows us to get test results faster, so – if successful – we can identify additional uses of additive manufacturing for the fleet.”

The test articles passed functional and environmental testing, which included material, welding, shock, vibration, hydrostatic, and operational steam, and will continue to be evaluated while installed within a low temperature and low-pressure saturated steam system. After the test and evaluation period, the prototype assembly will be removed for analysis and inspection.

While the Navy has been using additive manufacturing technology for several years, the use of it for metal parts for naval systems is a newer concept and this prototype assembly design, production, and first article testing used traditional mechanical testing to identify requirements and acceptance criteria. Final requirements are still under review.

“Specifications will establish a path for NAVSEA and industry to follow when designing, manufacturing and installing AM components shipboard and will streamline the approval process,” said Dr. Justin Rettaliata, technical warrant holder for Additive Manufacturing. “NAVSEA has several efforts underway to develop specifications and standards for more commonly used additive manufacturing processes.”

# MARAD Issues RFP for Vessel Construction Manager to Deliver New Training Vessel

WASHINGTON – The Maritime Administration (MARAD) released a request for proposal (RFP) to solicit for a Vessel Construction Manager (VCM) to deliver a new class of training ship, referred to as the National Security Multi-Mission Vessel (NSMV), MARAD said in an Oct. 11 release.

The VCM selected by MARAD will contract with a qualified shipyard to ensure that commercial best practices are utilized in delivering the NSMV on time and on budget.

“A new multi-mission vessel built by an American shipyard will not only create new jobs but help train the next generation of American mariners and contribute to disaster relief,” said U.S. Secretary of Transportation Elaine L. Chao.

The 2017 National Defense Authorization Act directed MARAD to “provide for an entity other than the Maritime Administration to contract for the construction of the NSMV.” This procurement process leverages existing marketplace expertise, targeting companies experienced in the production of innovative U.S.-built ships.

“The U.S. shipbuilding and repair industry is vital to the economic strength and security of our nation,” said Maritime Administrator Mark H. Buzby, “and this project will demonstrate that American shipbuilding remains the global standard of excellence.”

The NSMV will help to sustain world-class, U.S. maritime training operations at the state maritime academies by equipping young American mariners with a modern and adaptable training platform. The NSMV will feature numerous

instructional spaces, eight classrooms, a full training bridge, labs, and an auditorium. It will have space for up to 600 cadets to train in a first-rate maritime academic environment at sea.

In addition to serving as an educational platform, the NSMV will also be available to support federal government efforts in response to national and international disasters, such as hurricanes and earthquakes. In this role, the NSMV will be equipped to support major federal relief and response efforts, providing hospital facilities, a helicopter landing pad, and berthing for up to 1,000 first responders and recovery workers. The NSMV's roll-on/roll-off ramp and a crane to facilitate container storage capabilities will also enable it to provide critical supplies to damaged port facilities.

The economic benefit of this coastwise-endorsed training vessel extends beyond academics – and the replacement of the nation's aging "training ship" fleet – to the thousands of men and women in the shipbuilding and repair industry. These skilled workers at U.S. shipyards and repair facilities add billions to the economy annually, reflecting the best of American maritime engineering and ingenuity. The first NSMV is expected to be delivered to MARAD in 2022.

---

# Navy Secretary Names Two Littoral Combat Ships

WASHINGTON – Navy Secretary Richard V. Spencer has announced the names of two future littoral combat ships (LCSs), the secretary's public affairs office announced in two Oct. 9 releases. The Freedom-variant LCS 29 will be named USS Beloit

and the Independence variant LCS 32 will be named USS Santa Barbara.

The future USS Beloit (LCS 29) is named in honor of Beloit, Wisconsin, and is the first ship to bear the name.

“The city and citizens of Beloit have been a steadfast supporter of the Navy and Marine Corps,” Spencer said. “From building engines for Freedom-variant LCSs to manufacturing components for the Ford-class aircraft carriers, the contributions of Beloit citizens make our Navy stronger, more capable and more lethal. I am proud to name the next ship in honor of the city and citizens of Beloit.”

USS Beloit will be constructed by Lockheed Martin with Marinette Marine in Marinette, Wisconsin. This ship will be 387 feet long, have a beam length of 57.4 feet and travel at speeds in excess of 40 knots.

The future USS Santa Barbara (LCS 32) is named in honor of Santa Barbara, California, and is the third ship to bear the name.

“I am pleased to name the next Independence variant LCS after the city of Santa Barbara,” Spencer said. “This city’s innovative workforce and longstanding support of our Navy and Marine Corps team, whether active duty, reserve force, civilian or Veterans, the support from this community strengthens our Navy and nation.”

The future USS Santa Barbara will be built by Austal USA in Mobile, Alabama. This ship will be 421 feet long with a beam length of 103.7 feet and be capable of operating at speeds in excess of 40 knots.

The Navy has accepted delivery of 16 LCSs. Including the recent contract modifications, a total of 32 LCSs have been procured with 10 ships under construction (LCS 15, 17, 19-26).

# Coast Guard Rescues 10 from Disabled Cargo Ship

PORTSMOUTH, Va. – The Coast Guard Cutter Confidence rescued 10 crew members, who had been stranded on a disabled cargo ship for almost 20 days, Oct. 8 approximately 1,380 miles southeast of Bermuda, the 5th Coast Guard District said in an Oct. 5 release.

“We were conducting a law enforcement patrol near Puerto Rico when we were assigned to assist the crew of the motor vessel Alta,” said Cmdr. Travis Emge, the commanding officer of the Confidence. “We traveled over 1,300 nautical miles to get to the disabled ship ahead of Hurricane Leslie’s forecasted track and brought the 10 crew members aboard. We are all proud of our part in this coordinated Coast Guard response to rescue this crew.”

The Coast Guard was notified Sept. 30 that the 250-foot Tanzanian-flagged cargo ship, Alta, became disabled Sept. 19, while transiting from Greece to Haiti, and was unable to make repairs. The crew reported that they had enough food for two days and water for 15 days, and that there were no injuries or immediate medical concerns.

An aircrew on an HC-130 Hercules airplane from Coast Guard Air Station Elizabeth City, North Carolina, dropped about a week’s worth of food to the crew Oct. 2, helping sustain the men until help could arrive.

The Confidence is taking the 10 men to Puerto Rico and is scheduled to arrive there Oct. 12.
The Coast Guard’s Fifth District command center has been working to coordinate with the ship owner for a commercial tug

to tow the vessel to shore.

---

# Aerojet Rocketdyne Successfully Tests Hypersonic DMRJ Engine

NASA LANGLEY RESEARCH CENTER, HAMPTON, Va. – Aerojet Rocketdyne has successfully tested a new dual-mode ramjet/scramjet (DMRJ) engine, the company announced in an Oct. 8 release.

When combined with a gas turbine engine as part of a turbine-based combined-cycle propulsion (TBCC) system, this engine may provide the capability to propel a vehicle from a standstill into the hypersonic flight regime of Mach 5 or higher and back again.

“Developing hypersonic capabilities has recently been cited by Department of Defense officials as the ‘highest technical priority’ for our nation,” said Eileen Drake, Aerojet Rocketdyne president and CEO. “Aerojet Rocketdyne is well positioned to support this call to action as we have been developing hypersonic propulsion technologies for more than 30 years.

“Our scramjet engine powered the record-setting test flights of the X-51A WaveRider, and we have accelerated our development efforts since then. That progress, when combined with the advances we’ve made in additive manufacturing has enabled this next generation of hypersonic propulsion systems,” she said.

The series of tests was conducted as part of an ongoing collaboration with the Defense Advanced Research Projects Agency, NASA and the U.S. Air Force to develop hypersonic propulsion technologies. These tests also helped validate an advanced analytical tool set developed by Aerojet Rocketdyne that enables precise simulation of complex DMRJ flow fields across a broad scale of applications.

---

# Countermeasures Dispenser Will Provide Advanced Threat Protection for Aircraft

NASHUA, N.H. – BAE Systems, a leader in optical electronic warfare systems, has unveiled its Smart D2 system, a next-generation threat management technology named for its ability to dispense countermeasures and defend military aircraft, the company said in an Oct. 8 release.

The system efficiently manages and deploys smart, expendable countermeasures – including multishot flares, active radio-frequency (RF) decoys and kinetic interceptors – that are designed to protect aircraft and aircrews from existing and emerging threats.

Traditional threat warning and countermeasure systems identify and defeat infrared and RF-guided missiles by dispensing flares or chaff, which confuse threats and their ability to track. However, current systems lack the communications, inventory management and customizable response capabilities necessary to increase survivability against evolving future threats.

The Smart D2 system provides two-way communication between the dispenser and aircraft using the NATO-standard Smart Stores Communication Interface, providing crews with critical inventory information and the ability to program expendable, active decoys in real time to improve survivability against advanced threats. The system monitors the quantity, location, age and carriage life of each expendable on the aircraft and can deploy a tailored mix of smart countermeasures to efficiently defeat specific threats.

“The Smart D2 system combines smart inventory management with a database of proven countermeasure combinations,” said Paul Markwardt, vice president and general manager of Survivability, Targeting and Sensing Solutions at BAE Systems. “The updated communications and inventory control in our Smart D2 system and its ability to work with current and future smart countermeasures provides aircrews with a more capable survivability solution that improves their ability to complete missions.”

Smart D2 is designed to work with fixed- and rotary-wing aircraft and integrates with existing warning systems as well as future systems, including the company’s 2-Color Advanced Warning System. Smart D2 also builds on the company’s proven ALE-47 Airborne Countermeasures Dispenser System, a trusted and highly reliable survivability system that operates on a wide variety of military aircraft worldwide.

---

# Collaboration Aims to Integrate Unmanned Aircraft

# and Tactical Missile Systems with ACVs

WASHINGTON – AeroVironment Inc., a leader in unmanned aircraft systems (UAS) and tactical missile systems (TMS), announced a new strategic relationship with General Dynamics Land Systems (GD), the leader in ground combat vehicles, to produce highly integrated and effective tactical UAS and TMS for armored ground combat vehicles, AeroVironment said in an Oct. 8 release.

“By integrating the leading small tactical UAS and loitering missile systems with the leading armored combat vehicles, our team will deliver a new level of battlefield lethality, survivability and combat effectiveness to protect and enable the warfighter,” said Kirk Flittie, vice president and general manager of AeroVironment’s UAS business. “This enhanced integration will ensure precise, mobile lethality with increased automation, decreased workload, and fewer operators required for small drone and loitering missile systems deployment. AeroVironment and General Dynamics Land Systems are ready today to equip our warfighters with more lethality tomorrow.”

“The purpose of this partnership is to deliver a decisive advantage to ground combatants, to see first and strike first, across the tactical landscape,” said Don Kotchman, U.S. vice president and general manager of General Dynamics Land Systems. “We’re confident this integrated capability, expanding the warfighter’s situational awareness, survivability and over-the-next-obstacle lethality, will define the market for years to come. This will be done without adding significant burden to the Soldier or vehicle commander’s cognitive or physical workload. The benefits will be had in all environments, including urban, forest, desert or other terrain. This is the right partnership between industry

leaders to offer real innovation to our customers.”

AeroVironment and GD’s collaborative projects will address the upcoming U.S. Army Next-Generation Combat Vehicle (NGCV) and U.S. Marine Corps Armored Reconnaissance Vehicle (ARV) programs. The NGCV program will dramatically benefit from automated drone scout and precision loitering missile engagement technology tightly coupled into the GD armored vehicle electronic architecture to rapidly geolocate and, if necessary, finish targets.

The ARV project has evolved well beyond a straightforward replacement for the Light Armored Vehicle into a networked family of manned vehicles, ground robots and drones, collectively capable of not only reconnaissance but also electronic warfare and long-range precision strikes. The vehicle is designed to launch a drone, scout deep, and then deploy precision fire and electronic warfare. It also will have an open architecture design that is upgraded with new technologies as they become available.

---

# Navy Awards General Dynamics Contract Increase to Modernize Personnel and Pay System

FAIRFAX, Va. – The U.S. Navy has awarded General Dynamics Information Technology (GDIT) a contract ceiling increase from $177 million to $270.2 million for the Personnel Modernization (PERSMOD) contract, which supports the Navy Standard Integrated Personnel System (NSIPS), the company said in an

Oct. 8 release.

NSIPS is the primary human resource system for the Navy, performing personnel management, pay and entitlement transactions and leave for over $34 billion worth of the Navy's annual personnel budget. The Navy will leverage GDIT's solutions and alliance partnerships to help drive down sustainment costs through the accelerated consolidation, migration and de-customization of legacy systems.

"GDIT's ongoing support of NSIPS allows us to rapidly advance new solutions and help the Navy maintain momentum on this important initiative," said Senior Vice President Leigh Palmer, head of GDIT's Defense Division. "Through the PERSMOD contract, we have already completed modernization updates and collapsed one legacy HR system, with a second system's retirement in progress. We are excited to leverage these milestones for the Navy and continue to upgrade this program."

Through this increase, GDIT will accelerate the support and transformation of the Navy's integration of Oracle's PeopleSoft Global Payroll product as well as the implementation of the Treasury Direct Disbursing (TDD) process. These updates will improve financial reporting and eliminate errors at the source for the Navy.

This contract increase includes an immediate award of $93.2 million with the potential to award two preapproved six-month increments. If awarded, these increments will extend the ordering period by an additional year and increase the contract ceiling by an additional $95.7 million to approximately $366 million. The indefinite-delivery, indefinite-quantity contract was originally awarded to SRA International Inc., a managed affiliate of GDIT, in June 2014. It included a five-year ordering period through June 2019. Up to one year of additional ordering may be permitted through June 2020.

Over the past four years, GDIT has successfully collapsed one legacy human resources system, Reserve Headquarters System, with the retirement of a second system, known as the Inactive Manpower and Personnel Management Information System, currently in progress. At the same time, GDIT supported the successful rollout of the Blended Retirement System, eliminated significant manual processes with addition of Retirements and Separations functionality, and additional automation to Reservists' drill processing with a major update to the Enhanced Drill Management (EDM) system in NSIPS. The EDM also provided self-service functionality allowing the individual sailor to schedule/reschedule drills, which eliminated the need for paper from the process and significantly reduced human error. The system can now handle the entire gamut of drill scheduling and processing.