

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.

Huntington Ingalls Industries Christens Destroyer Frank E. Petersen Jr.

PASCAGOULA, Miss. – Huntington Ingalls Industries' Ingalls Shipbuilding division christened the guided-missile destroyer Frank E. Petersen Jr. (DDG 121) Oct. 6 with approximately 900 guests in attendance, the company announced in a release. The ship is the 71st in the Arleigh Burke (DDG 51) class of destroyers and the 33rd built by Ingalls.

Alfred Gray, a retired general and former commandant of the U.S. Marine Corps, was the keynote speaker.

"We're here to honor a great American, a great ship and a great shipyard as well," Gray said. "Frank is the person who really gave all of the people that you've met here today their inspiration to go forward, to be tough about everything, to be disciplined and to never forget that above all, you're a Marine warrior. It is that kind of spirit and that kind of belief that we honor today by naming this great ship Frank E. Petersen Jr."

DDG 121 honors Frank Emmanuel Petersen Jr., who was the Marine Corps' first African-American aviator and the service's first African-American general. After entering the Naval Aviation

Cadet Program in 1950, Petersen would go on to fly more than 350 combat missions throughout the Korean and Vietnam wars.

“We are here to christen this ship to the life and service of a true pioneer in the Navy and Marine Corps, Frank Petersen,” said Marine Corps Commandant Gen. Robert Neller. “The USS Petersen is now a reality, and it is a ship that will be in service to our nation for decades to come. DDGs play a vital role, not only in the Navy and defense of the United States, but for our allies around the world. To the shipbuilders, we really appreciate your efforts, skill, professionalism and hard work in building this ship. Thank you so much for that.”

DDG 121 is co-sponsored by Alicia Petersen, widow of the ship’s namesake, and D’Arcy Neller, wife of Gen. Neller. Together, Petersen and Neller officially christened the ship by successfully breaking two bottles of sparkling wine across its bow. Petersen spoke on behalf of both sponsors at today’s ceremony.

“Our family has been in Pascagoula for about two days now, and the love and friendship that we have felt from everyone has been so contagious,” Petersen said. “We believe that you are our family now and feel so happy that Frank’s ship is here in your home being built under the wonderful leadership of Ingalls. Ingalls not only does great work, but they take great pride in its ownership.”

Over the course of 30 years, Ingalls has built and delivered 30 Arleigh Burke-class destroyers. The shipyard currently has five DDGs under construction, including Jack H. Lucas (DDG 125), the first Flight III ship, which started fabrication in May. Ingalls was recently awarded a \$5.1 billion multi-year procurement contract to build six more destroyers.

“All Ingalls ships are built for men and women like General Petersen with one goal in mind: to protect the brave Americans who defend our freedom, and Frank E. Petersen Jr., the ship,

will be no exception,” said Ingalls Shipbuilding President Brian Cuccias.

Coast Guard Cutter returns to Homeport after Hurricane Response, Fisheries Patrol

PORTSMOUTH, Va. – The crew of the U.S. Coast Guard Cutter Dependable returned to Little Creek, Virginia, after responding to Hurricane Florence and conducting a 42-day Mid-Atlantic fisheries patrol, Oct. 8, the 5th Coast Guard District said in a release.

During the patrol, Dependable was called to assist with the devastation left in the wake of Hurricane Florence. Several dozen crew members volunteered to help Coast Guard units in Atlantic Beach, North Carolina, rebuild critical infrastructure and restore habitability.

Over a three-day period, Dependable helped reopen waterways essential to facilitating commerce in the Port of Morehead City, North Carolina, provided needed supplies, and repaired damaged grounds to local Coast Guard units. The crew’s work helped Coast Guard Sector Field Office and Station Fort Macon restore their operations and assist their local partners in re-establishing their community.

Prior to Hurricane Florence, from New Jersey to South Carolina, Dependable’s boarding teams inspected U.S. fishing vessels’ catch, gear and lifesaving equipment, ensuring that the vessels were operating safely and legally. The boarding teams identified a variety of lifesaving equipment concerns on

board several fishing vessels. The teams helped fix issues on the spot and educated the crews on the importance of maintaining their equipment.

“Enforcement of fisheries regulations at sea is a vital part of ensuring our natural resources are around for future generations,” said Cmdr. Rula Deisher, commanding officer of Dependable. “When Hurricane Florence came through, we quickly shifted gears and responded to the devastation she left in her wake. The teamwork and enthusiasm displayed by the crew to help fellow Coast Guardsmen in need was fantastic. I am very proud of Coast Guard Cutter Dependable and the work they accomplished this patrol.”

Dependable is a 210-foot medium-endurance cutter, which routinely deploys in support of counterdrug, alien migrant interdiction, living marine resources, and search and rescue missions.

SaaLEX Solutions Awarded U.S. Navy OLSS Contract

CAMARILLO, Calif. – SaaLEX Solutions Inc. has been awarded the SeaPort Ordnance Logistics Support Services (OLSS) contract by the U.S. Navy, valued at \$5.7 million over five years, the company said in an Oct. 4 release.

The work will support the Navy Munitions Command Pacific CONUS West Division (NMCPAC CWD). SaaLEX will provide technical and support services at Naval Weapons Station (NWS) Seal Beach and NWS Fallbrook for the NMCPAC CWD mission of Fleet Ordnance Support.

Saalex's contract services include administrative and inventory support, truck driving and heavy equipment operations, key custodianship and magazine access for NMCPAC CWD, USB and DET FB. Support specific to the Surface Launched Missiles Division at USB includes support of the Standard Missile, Evolved SeaSparrow Missile, Tomahawk Missile and Vertical Launch systems material coordination, movement, and tracking. Support specific to the Air Launched Missiles Division includes support of the Navy Sidewinder, Maverick, Hellfire and Air Force Maverick material coordination, movement and tracking.

"Saalex is proud to be awarded this contract and once again support the Navy," said Travis Mack, president and CEO of Saalex. "We have a longstanding commitment to serving the Navy in its efforts to maintain the security of the United States and are honored to expand that relationship even further with this contract."

L3 OceanServer Successfully Participates in Advanced Naval Technology Exercise

FALL RIVER, Mass. – L3 OceanServer successfully participated in the Advanced Naval Technology Exercise (ANTX), an annual event held at the Naval Undersea Warfare Center in Newport, Rhode Island, where the future of naval technologies is demonstrated, the company announced in an Oct. 4 release. L3 OceanServer's presence included 12 Iver unmanned underwater vehicles (UUVs), the largest UUV showing at ANTX.

Iver vehicles successfully completed seven missions at the

event, including three customer-operated missions, showcasing new technology payloads and advanced command and control capabilities. One successful exercise integrated the Marine Magnetics internal magnetometer into an Iver UUV for the collection of magnetometer data over a simulated minefield.

Notably, an Iver4 concept vehicle demonstrated battery power endurance and system efficiency by completing a long ingress/egress mission. The vehicle started its mission with a 15-nautical-mile ingress, was retasked on arrival to survey a simulated minefield and finished with a 3-nautical-mile egress. On mission completion, 57 percent of battery power remained.

“As undersea missions evolve, our dialogue with naval customers has consistently reiterated the need for a portable vehicle that can complete long-duration missions,” said Daryl Slocum, L3 OceanServer’s general manager. “The Iver4 offers a broad range of innovative technologies, including various power options, to execute these demanding missions.”

L3 OceanServer is part of the Maritime Sensor Systems sector within L3’s Communications & Networked Systems business segment. Since its inception in 2003, L3 OceanServer has sold more than 300 autonomous underwater vehicles worldwide, providing highly capable solutions to a broad array of military, commercial and international customers.

Coast Guard Cutter Stratton Returns Home Following 104-

day Patrol

ALAMEDA, Calif. – The Coast Guard Cutter Stratton returned home Oct. 4 to Coast Guard Island following a 104-day, 23,500-nautical-mile patrol that included enforcement of fisheries regulations in Alaska and interdicting more than 16,000 pounds of cocaine from known drug trafficking zones in the Eastern Pacific Ocean, the Coast Guard Pacific Area said in a release.

Stratton's crew began their deployment in the Arctic Ocean supporting Coast Guard District Seventeen and Operation Arctic Shield. Deploying with a MH-65 Dolphin helicopter and an aircrew from Air Station San Francisco, Stratton provided maritime domain awareness in waters off the north slope of Alaska, ensuring the sovereignty over U.S. waters in the region. Stratton also served as a search and rescue platform and conducted living marine resource and commercial vessel safety regulation enforcement.

U.S. waters surrounding Alaska support significant renewable resources, including a robust fishing industry. More than 59 percent of fish caught in the United States are harvested from Alaskan waters, generating more than \$6.4 billion annually. The U.S. Coast Guard is responsible for conducting at-sea enforcement in direct support of both domestic and international fisheries management schemes to ensure the sustainability of these living marine resources.

Stratton additionally patrolled international waters off the coasts of Central and South America conducting counterdrug operations with an aircrew and a MH-65 Dolphin helicopter from Coast Guard Helicopter Interdiction Tactical Squadron based in Jacksonville, Florida. Stratton partnered with units from multiple U.S. agencies in support of the 11th Coast Guard District, headquartered in Alameda, and the Joint Interagency Task Force-South based in Key West, Florida.

The crew interdicted seven drug smuggling vessels in 26 days, including three low-profile go-fast vessels. The interdictions yielded more than 16,000 pounds of cocaine seized by Stratton's crew worth an estimated \$235 million wholesale and detained 23 suspected smugglers for prosecution in U.S. and partner nation courts.

Throughout the patrol, Stratton leveraged a Small Unmanned Aerial System (sUAS) for mission support in both operational theatres. The sUAS provided the crew real-time video footage through aerial surveillance and expanded Stratton's capabilities to support operations across all Coast Guard missions. The real-time video increases situational awareness enabling the crew to make more-informed decisions and assists with mission planning, efficiency and crew safety.

Stratton is a 418-foot-long national security cutter, one of four homeported in Alameda.

ESG, MAGTF Departs for Exercise Trident Juncture 18

MAYPORT, Fla. – Ships of an expeditionary strike group have departed ports in the U.S. East Coast and will embark a Marine Air-Ground Task Force (MAGTF) in North Carolina bound for participation in Exercise Trident Juncture 18 in Northern Europe, Expeditionary Strike Group Two (ESG-2) said in an Oct. 5 release.

The Wasp-class amphibious assault ship USS Iwo Jima and the San Antonio-class amphibious transport dock ship USS New York departed Naval Station Mayport and the Whidbey Island-class dock landing ship USS Gunston Hall sailed from Joint

Expeditionary Base Little Creek-Fort Story in Virginia.

Nearly 2,000 Marines with a MAGTF built around the 24th Marine Expeditionary Unit command element from Camp Lejeune, North Carolina, will also embark the ships. The MAGTF is comprised of battalion landing team, a composite aviation squadron and a combat logistics battalion.

Exercise Trident Juncture 18 will take place in Norway, Sweden and Finland beginning this month, with expected participation of more than 40,000 troops from more than 30 NATO member and partner nations. It will be one of NATO's largest exercises in recent history.

"It's important for U.S. amphibious forces to conduct operations in the European area of responsibility and for us to work with multinational amphibious forces," said Rear Adm. Brad Skillman, commander, ESG-2. "Exercises like Trident Juncture 18 provide and reinforce security measures; maritime and amphibious capability development and presence; synchronized operational planning; and better options for political-military decision-making."

The majority of U.S. personnel participating will be a part of ESG 2 and the Marine Corps' II Marine Expeditionary Group. En route to Norway, U.S. forces will conduct training in Iceland, host a Marine assault landing rehearsal, cold-weather training, a Naval Striking and Support Forces NATO pre-sail conference, and a commemoration of the 75th anniversary of the Battle of the Atlantic, which took place during World War II.

In Norway, the U.S. Navy and Marine Corps will participate primarily in the live training portion of Trident Juncture 18. This includes maneuvers on land, at sea, and in the air.