



Aerojet Rocketdyne Delivers Key Space and Defense Capabilities for the Nation During 2020

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EL SEGUNDO, Calif., Dec. 16, 2020 (GLOBE NEWSWIRE) -- Major contract awards to support the nation's heavy-lift exploration rocket and next-generation strategic deterrent programs were among the 2020 highlights for Aerojet Rocketdyne.

Other contributors to another successful year in service to the nation were additional breakthroughs and contract awards in space exploration, missile defense, hypersonics and national security launch, as well as achieving a number of milestones on long-running space and defense production programs. The company produced more than 330 in-space engines and nearly 70,000 solid rocket motors this year.

Aerojet Rocketdyne employees displayed great resilience and innovation as they adapted to the challenges posed by the COVID-19 pandemic. The company implemented comprehensive safety protocols and flexible workforce practices to keep our employees safe while continuing to meet our commitments to America's defense and space exploration programs.

The following are some of Aerojet Rocketdyne's noteworthy achievements in 2020:

Hypersonics

- An advanced Aerojet Rocketdyne [air-breathing scramjet engine produced record levels of thrust](#) as part of the U.S. Air Force's Medium Scale Critical Components program.
- The Defense Advanced Research Projects Agency (DARPA) [awarded Aerojet Rocketdyne a contract to develop enabling technologies for Glide Breaker](#), an interceptor designed to counter hypersonic threats.
- Aerojet Rocketdyne also [completed a second series of propulsion tests](#) as part of DARPA's Operational Fires (OpFires) effort to develop a ground-launched hypersonic missile.

Propulsion Protecting the Nation and our Warfighters

- As a key member of Northrop Grumman's nationwide Ground Based Strategic Deterrent (GBSD) team, Aerojet Rocketdyne [will develop a large solid rocket motor and the post-boost propulsion system for America's next generation strategic deterrent](#).
- [Lockheed Martin](#) and [Boeing](#) announced they teamed with Aerojet Rocketdyne in their bids to build the Missile Defense Agency's Next Generation Interceptor.
- Aerojet Rocketdyne [announced a \\$1 billion, five-year strategic agreement with prime contractor Raytheon Technologies to supply propulsion products for the Navy's Standard Missile](#), providing more value for the Missile Defense Agency, the U.S. Navy, and the American taxpayer. Aerojet Rocketdyne has supported one or more variants of the Standard Missile program for more than three decades.
- Aerojet Rocketdyne [delivered the 600th Boost Motor and the 600th Divert and Attitude Control System](#) to prime contractor Lockheed Martin for the Missile Defense Agency's Terminal High Altitude Area Defense (THAAD) program, which shields overseas forces and infrastructure from missile attacks.
- The U.S. Navy awarded Aerojet Rocketdyne a \$63.2 million Other Transaction Authority award to [develop an advanced propulsion system](#) for the service's MK 54 MOD 2 Advanced Lightweight Torpedo, an antisubmarine weapon.
- Aerojet Rocketdyne [delivered the 5,000th solid rocket flight motor](#) for the Stinger missile system from its Solid Rocket Motor Center of Excellence in Camden, Arkansas, following the program's successful transition from Gainesville, Virginia. Over 30 years, the company has delivered more than 60,000 motor sets to support the Stinger missile system.
- Specialty metals producer Aerojet Ordnance Tennessee [delivered its 8 millionth M67 hand grenade body](#) to Day & Zimmermann for final assembly and delivery to the Army, helping to protect soldiers in close combat.

National Security Space

- Aerojet Rocketdyne will supply RL10 upper-stage engines – two per flight – to [United Launch Alliance for use on its Vulcan rocket](#), one of two vehicles selected to launch national security payloads starting in 2022 under the U.S. Space Force's Phase 2 Launch Service Procurement program.
- Aerojet Rocketdyne celebrated the [500th flight of its RL10 upper-stage engine](#) as part of the launch of the Defense Department's sixth and final Advanced Extremely High Frequency satellite aboard ULA's Atlas V rocket.
- An RL10 engine, along with Aerojet Rocketdyne-supplied pressure tanks and controlling thrusters, supported the launch of the [X-37 orbital space plane](#) aboard an Atlas V rocket in the second successful U.S. Space Force mission since the service was established in 2019.
- Aerojet Rocketdyne propulsion played a key role in the launches of two National Reconnaissance Office missions, [NROL-101](#) and [NROL-44](#), launching aboard ULA's Atlas V and Delta IV Heavy rockets, respectively.

Deep Space Exploration

- Aerojet Rocketdyne [won a \\$1.79 billion NASA contract](#) modification to deliver 18 newly manufactured RS-25 large liquid rocket engines to power the Space Launch System (SLS) heavy-lift exploration rocket, bringing the total number of new RS-25s on order to 24.
- Aerojet Rocketdyne announced that it [delivered four RL10 upper-stage engines](#) to NASA's Stennis Space Center in Mississippi for use on the SLS rocket, including three that will power the Exploration Upper Stage, which will significantly increase the rocket's lifting power to support future exploration missions.
- Four space shuttle-derived RS-25 engines [are prepared to fire in unison at Stennis Space Center](#) for the first time during the SLS core stage Green Run hot fire test, bringing the rocket closer to its first launch.
- Aerojet Rocketdyne [completed all of its propulsion hardware for Artemis II](#), the first crewed mission of NASA's SLS rocket and Orion crew exploration vehicle.
- NASA's Perseverance Mars Rover began its journey to the red planet with [support from numerous Aerojet Rocketdyne propulsion systems](#) and tanks on the Atlas V launch vehicle, the spacecraft and its landing system. While operating on the Martian surface, Perseverance will be powered by an Aerojet Rocketdyne-supplied Multi-Mission Radioisotope Thermoelectric Generator.
- Aerojet Rocketdyne completed and [delivered its chemical and electric propulsion systems for NASA's Double Asteroid Redirection Test](#), which will launch in 2021 on a mission to impact the near-earth asteroid Didymos in an attempt to change its motion in space.
- Using [28 onboard thrusters provided by Aerojet Rocketdyne](#), NASA's OSIRIS-REx spacecraft made brief contact with the asteroid Bennu in a touch-and-go maneuver to collect a regolith sample that will be brought back to Earth for analysis in 2023.

International Space Station

- Astronauts completed replacement of the nickel hydrogen batteries aboard the International Space Station with higher efficiency lithium-ion batteries. As part of a Boeing team, [Aerojet Rocketdyne designed, built, tested and assembled the battery cores](#).

Satellite Servicing

- Aided by [Aerojet Rocketdyne propulsion systems, including four XR-5 Hall-effect thrusters](#), Northrop Grumman's first Mission Extension Vehicle successfully docked with the Intelsat 901 satellite in geostationary orbit to provide life-extension services.

Innovating and Investing for the Future

- Aerojet Rocketdyne [successfully test fired the Missile Components Advanced Technologies Demonstration Motor](#) (MCAT Demo) for the U.S. Air Force Research Laboratory. The MCAT Demo design featured low-cost, high-performance components and materials, including an advanced nozzle, graphite composite case and a high energy, long-life solid propellant, enabling future ICBMs to deliver higher performance while reducing cost.

- Aerojet Rocketdyne [officially opened its state-of-the-art Engineering, Manufacturing and Development \(EMD\) facility for large solid rocket motors](#) at its Camden, Arkansas site. The 17,000-square-foot EMD positions the company to deliver on some of the nation's most important next generation national security programs, including strategic deterrence, hypersonics and missile defense.
- Aerojet Rocketdyne made significant progress developing its RL10C-X next generation upper-stage rocket engine. The program is focused on incorporating Aerojet Rocketdyne's industry-leading 3D printing technology into the RL10 program in order to reduce cost while maintaining the engine's unmatched performance.

Serving the Nation

- The Association of the U.S. Army [awarded Aerojet Rocketdyne CEO and President Eileen P. Drake its prestigious John W. Dixon Award](#) for 2020, which recognizes distinguished service resulting in outstanding contributions to national defense by a member of the industrial community. Drake dedicated the award to the men and women of Aerojet Rocketdyne.
- Vice President Mike Pence announced the appointment of [Aerojet Rocketdyne CEO and President Eileen P. Drake to serve on the National Space Council's Users Advisory Group](#), a panel of stakeholders that advises the council on space policy and approaches to strengthening U.S. leadership in space.

Community Impact

- In 2020, Aerojet Rocketdyne, the Aerojet Rocketdyne Foundation and our employees together donated \$1.7 million to organizations that are funding important efforts that include STEM scholarships, disaster recovery and COVID-19 relief.
- In a year that brought major changes to education programs, Aerojet Rocketdyne remained committed to encouraging the next STEM generation. In 2020 we participated in 12 virtual national STEM events and supported 17 local site events, joined virtual mentorships with local universities and created an [enrichment resource page](#) with free, up-to-date online curricula and activities for employees and the general public.

For more details on how Aerojet Rocketdyne is enabling our nation's defense and space exploration programs, please visit www.Rocket.com.

About Aerojet Rocketdyne: Aerojet Rocketdyne, a subsidiary of Aerojet Rocketdyne Holdings, Inc. (NYSE:AJRD), is a world-recognized aerospace and defense leader that provides propulsion systems and energetics to the space, missile defense and strategic systems, and tactical systems areas, in support of domestic and international customers. For more information, visit www.Rocket.com and www.AerojetRocketdyne.com. Follow Aerojet Rocketdyne and CEO Eileen Drake on Twitter at [@AerojetRdyne](https://twitter.com/AerojetRdyne) and [@DrakeEileen](https://twitter.com/DrakeEileen).

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