



Aerojet Rocketdyne and Firefly Aerospace to Provide Flexible Access to Space

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LOS ANGELES, Oct. 18, 2019 (GLOBE NEWSWIRE) -- Aerojet Rocketdyne and Firefly Aerospace, Inc. (Firefly) are pleased to announce a cooperative agreement that combines the capabilities of both companies to provide flexible, sustainable and highly competitive space access solutions.



Aerojet Rocketdyne and Firefly will serve the growing government and commercial market by providing dedicated small and medium launch capabilities to low Earth orbit (LEO), geosynchronous orbit (GEO) and the Moon. This collaboration will leverage Firefly's new family of launch vehicles and in-space services with Aerojet Rocketdyne's experience in propulsion development, additive manufacturing and mission assurance for commercial, national security and exploration missions.

"Our strategic alignment with Firefly will offer very competitive solutions to address emerging launch market demands. We will take advantage of Firefly's mature launch vehicle designs, Aerojet Rocketdyne's advanced propulsion systems and the world-class technological capabilities of both companies," said Aerojet Rocketdyne CEO and President Eileen Drake. "In particular, Firefly and Aerojet Rocketdyne will provide services to meet emerging national security space requirements."

The first flight of Firefly's small-satellite rocket, Alpha, is scheduled for launch in the first quarter of 2020 from Vandenberg AFB. At a dedicated mission price of \$15 million, Alpha is currently capable of delivering one metric ton to LEO and 630 kg to sun-synchronous orbit (SSO). Aerojet Rocketdyne is contributing to the first flight of Alpha by providing additive manufacturing expertise for key Reaver first stage engine components. They will have increased influence on Alpha block two upgrades, on both the first and second stage engines, which will work toward an increased Alpha SSO payload performance to greater than 800 kg. These contributions will include expanded implementation of additively manufactured elements to reduce cost and increase reliability, as well as technical input to increase engine performance.

"We're excited to work with Aerojet Rocketdyne under this new collaborative agreement because of their extensive experience and the unique mission solutions they offer. Combined with our already mature Alpha design, our cooperation with Aerojet Rocketdyne is a significant differentiator in the small to medium launch vehicle market and will enable rapid performance increases of the Alpha vehicle," said Firefly CEO Tom Markusic.

Aerojet Rocketdyne's unique additive manufacturing, chemical and electric in-space propulsion technologies also have direct applicability to Firefly's Orbital Transfer Vehicle (OTV), which transfers small payloads between orbits. The OTV provides mission flexibility by deploying payloads into unique orbits and reaching altitudes and inclinations that are out of reach for many small launch vehicles.

Dr. Markusic added, "Firefly is committed to flying Beta, our medium class launch vehicle. Aerojet Rocketdyne's AR1 engine, which incorporates the latest advances in propulsion technology, materials science and manufacturing techniques, is incredibly well suited to power Beta given its cost-effective, high performance capabilities. By cooperating on this development, we are accelerating our time to market and providing our customers with high confidence in Beta's schedule, performance and reliability."

Citing threats to U.S. space capabilities, senior defense officials have emphasized the need to shift toward space architectures that use smaller spacecraft that can be developed and launched quickly. Offerings from Firefly supported by Aerojet Rocketdyne are ideal to meet these evolving national security requirements.

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).

About Firefly Aerospace: Firefly is developing a family of launch and in-space vehicles and services that provide industry-leading affordability,

convenience and reliability. Firefly's launch vehicles utilize common technologies, manufacturing infrastructure and launch capabilities, providing LEO launch solutions for up to four metric tons of payload at the lowest cost/kg in the small-lift class. Combined with Firefly's in-space vehicles, such as the Orbital Transfer Vehicle and Genesis Lander, Firefly provides the space industry with a one-stop shop for missions to the surface of the Moon or beyond. Headquartered in Cedar Park TX, Firefly has additional presence in Washington, D.C., Dnipro, Ukraine and Tokyo, Japan. Firefly is financed by Noosphere Ventures of Menlo Park, CA.

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