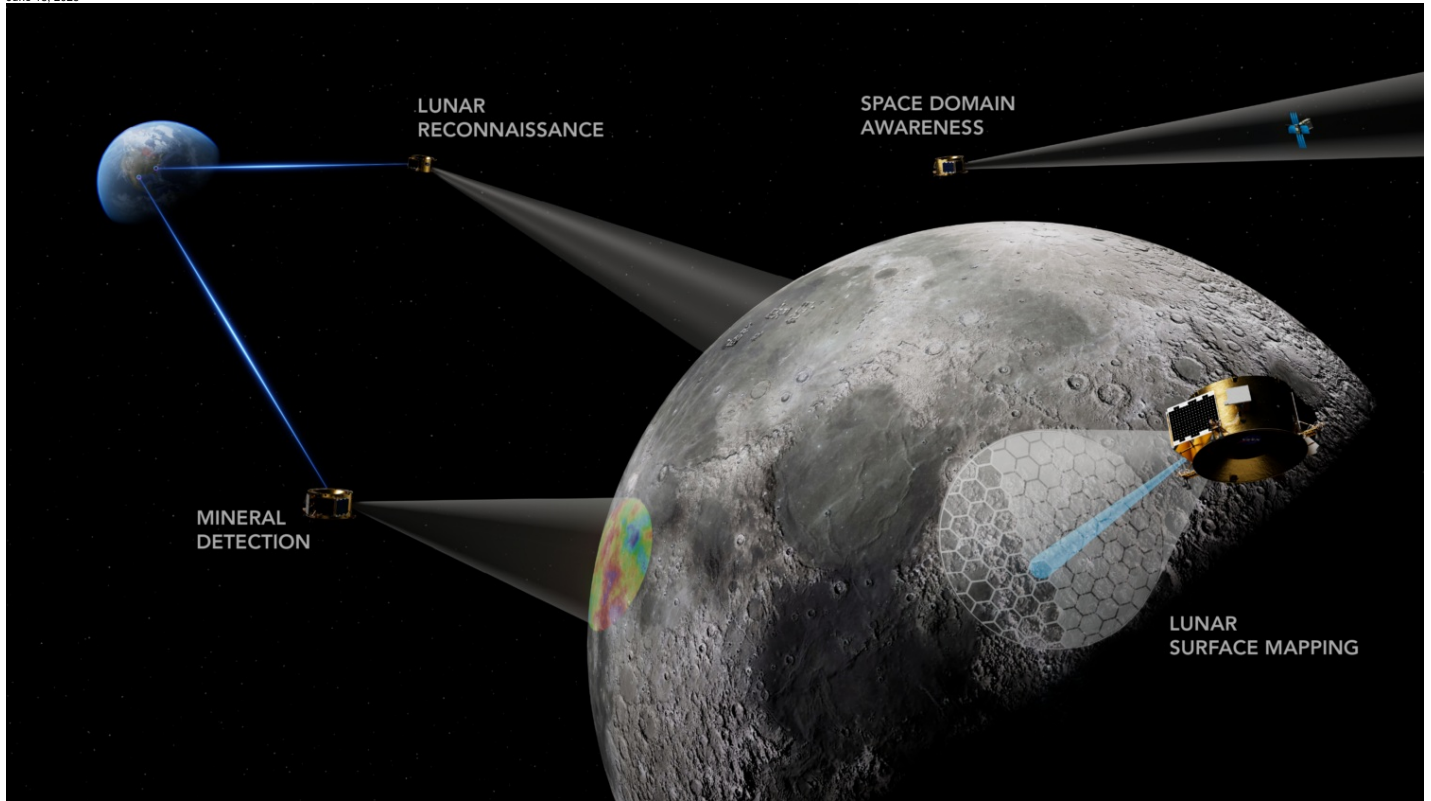




Firefly Aerospace Announces New Lunar Imaging Service on its Elytra Spacecraft

June 18, 2025



New Ocula imaging service offers high-resolution ultraviolet and visible spectrum imaging of the Moon from lunar orbit

Cedar Park, Texas, June 18, 2025 – [Firefly Aerospace](#), the leader in end-to-end responsive space services, today announced a new lunar imaging service, named Ocula, offered through Firefly's Elytra orbital vehicles as early as 2026. [Ocula](#) is enabled by high-resolution telescopes from the Lawrence Livermore National Laboratory (LLNL) that operate onboard Elytra in lunar orbit and provide ultraviolet and visible spectrum imaging – a key capability to identify mineral deposits on the Moon's surface, map future landing sites with higher fidelity, and enable cislunar situational awareness.

"Firefly is known for defining new categories in the space industry, and Ocula is no exception," said Jason Kim, CEO at Firefly Aerospace. "Ocula will be one of the first, if not the first, commercial lunar imaging service on the market. Powered by a constellation of Elytra vehicles in lunar orbit, and eventually Mars orbit, Ocula will provide critical data that informs future human and robotic missions and supports national security with intelligence, surveillance, and reconnaissance. This service will fill a void for our nation with advanced lunar imaging capabilities and a sustainable commercial business model."

Firefly's Ocula service will be activated onboard Elytra Dark that is first serving as a transfer vehicle for [Blue Ghost Mission 2](#), set to launch in 2026. Elytra will then provide a long-haul communications relay and radio frequency calibration services for Blue Ghost and its payloads after the lander touches down on the far side of the Moon. Following completion of the Blue Ghost mission, Elytra will remain operational in lunar orbit for more than five years, capturing continuous imagery and autonomously transmitting the data back to Earth.

The telescope system onboard Elytra is capable of capturing up to 0.2-meter resolution of the lunar surface at an altitude of 50 kilometers, further advancing the capabilities of current U.S. orbiters. With ultraviolet and visible spectrum capabilities, the telescopes are designed to support situational awareness of other objects in cislunar space, enable fine-grained lunar surface details, and identify concentrations of ilmenite, which indicates the presence of helium-3.

"LLNL is contributing our optical telescopes to help enable this new commercial imaging service for lunar mapping and domain awareness," said Ben Bahney, program leader for space at LLNL. "There is no shortage of exploration and science this system can support, including more accurate observations of asteroid 2024 YR4 as it approaches the Moon in 2032. LLNL has a long history of supporting NASA and the DoD, including sending another optical system to lunar orbit on the Clementine mission in 1994. We are thrilled to go back to the Moon with Firefly, leveraging our proven capabilities in support of sustainable operations and national security on and around the Moon."

Firefly will license the data to government and commercial customers at a low cost by initially unlocking the Ocula service onboard Firefly's existing missions that are already funded, including Blue Ghost Mission 2 and Blue Ghost Mission 3. Set to launch in 2028, [Blue Ghost Mission 3](#) includes another Elytra Dark that will remain operational in lunar orbit for more than five years and capture additional imagery with LLNL telescopes.

As the company continues to [grow its spacecraft production](#) capabilities, Firefly will expand its constellation of Elytra vehicles in lunar orbit to further enhance the Ocula service and enable faster revisit times for situational awareness, resource detection, and mission planning. Longer term, the service can also be extended to Mars and other planetary bodies.

For more information on Ocula, visit <https://fireflyspace.com/ocula>.

About Firefly Aerospace

Firefly Aerospace is an end-to-end responsive space company with launch, lunar, and on-orbit services. Headquartered in central Texas, Firefly is a portfolio company of AE Industrial Partners ("AEI") focused on delivering rapid, reliable, and affordable space access for government and commercial customers. Firefly's small- to medium-lift launch vehicles, lunar landers, and orbital vehicles provide the space industry with a single source for missions from low Earth orbit to the surface of the Moon and beyond. For more information, visit www.fireflyspace.com.

Media Contact

press@fireflyspace.com