

# Debrief: Space Companies See Value in Self-Funding Tech Demos

Vivienne Machi September 10, 2025



Space startups and tech companies are banding together to demonstrate their products with national security missions in mind.

Credit: Aechelon

Space startups and tech companies are banding together to demonstrate their products with national security missions in mind, as the Pentagon increasingly eyes more mature commercial systems.

These partnerships are debuting new joint capabilities across a range of mission areas, from artificial intelligence (AI)-enabled geospatial models, to space object tracking and monitoring, to potential space-based interceptor prototypes. They are not only proposing new capabilities in the hopes of receiving early-stage funding from the Department of Defense; they are using on-orbit, operating sensors and systems to showcase what is available right now.

In one such case, an industry team including space-based remote sensing providers and AI visualization specialists has unveiled a planetary-scale geospatial model that could serve as a live “digital twin” of the Earth, dubbed Project Orbion. The platform combines real-time satellite imagery, radar intelligence, video photogrammetry and AI-enabled data visualization to help potential customers monitor wildfires and floods, or track troop movements and shipping routes, the team announced Sept. 8.

To develop Project Orbion, Niantic Spatial—the company behind the global augmented reality game Pokemon GO—provided large geospatial model reconstruction and visualization services. Finnish remote sensing company Iceye provided synthetic aperture radar imagery, while space-based intelligence company BlackSky supplied high-resolution and high-cadence Earth observation imagery. Finland’s Distance Technologies supplied light field 3D displays.

Those technologies are then integrated into AI training and simulation and synthetic reality visualization systems built by technology company Aechelon. The goal is to make the derived data available “for either human users or algorithms,” Aechelon co-founder and CEO Nacho Sanz-Pastor said in a Sept. 8 press briefing. The project’s first test will be to provide 3D scanning and simulation to the U.S. Coast Guard Aviation Training Center.

The project is taking advantage of the U.S. military’s stated goals of harnessing dual-use technologies that were largely self-funded, Sanz-Pastor said. “We very strongly believe that is the way of the future, and that is what’s going to create the next generation of defense technology companies,” he said.

Other startups seem to agree. Anduril, Varda Space Systems and LeoLabs recently announced an internally funded joint demonstration in which a Varda-built W-3 hypersonic reentry capsule performed several orbital maneuvers prior to its return to Earth in May. LeoLabs’ Global Radar Network then tracked the maneuvers using cues from Varda, and that data was then integrated with Anduril’s Lattice AI-enabled software platform. The companies plan to perform additional, ostensibly self-funded, demonstrations.

The Pentagon is also reportedly exploring more commercially based options for parts of its Golden Dome for America missile defense architecture. Aviation Week reported in August that the U.S. Space Force was mulling a proposal that would require companies to self-fund early demonstrations of new space-based interceptors (SBI), which, if adopted, would require significant upfront investments.

All this comes as the Defense Department and its allies in Congress work toward significant acquisition reform efforts, and in the space domain particularly, look to lean more heavily on mature commercial offerings. The Pentagon issued a memo in April directing acquisition leaders to buy commercially available products to the “maximum extent possible.” With these self-funded demonstrations and campaigns, companies are hoping those leaders look in their direction.

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