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## Türkiye Launches First Orbital Transfer Vehicle, Advancing Space Ambitions



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Türkiye achieved a major milestone in its national space program with the launch of its first orbital transfer vehicle (OTV) on Nov. 28 from Vandenberg Space Force Base in California. The vehicle, developed by Fergani Space, lifted off aboard the SpaceX Falcon 9 Transporter-15 mission at 1844GMT and successfully separated from the rocket 81 minutes after launch.

The mission represents a significant leap in Türkiye's satellite transportation and in-orbit maneuvering capabilities. The FGN-TUG-S01 is equipped with the world's first hybrid rocket engine designed to ignite in orbit, with its initial engine firing planned after the craft stabilizes in its mission orbit. Its low-cost and safe hybrid propulsion system will allow satellites to be transported between orbits and help extend their operational lifetimes.

Fergani Space noted that the OTV will play a central role in upcoming constellation missions, enabling satellites to be positioned at various altitudes. The vehicle will transport Fergani satellites from low Earth orbit—around 500 kilometers—to higher operational orbits exceeding 1,000 kilometers.

All core systems on the OTV, including its flight computer, avionics, power distribution units and thermal control infrastructure, were engineered domestically. With this mission, Türkiye is set to become the first nation to conduct hybrid engine tests in orbit.

Fergani Space CEO Selcuk Bayraktar highlighted that the successful deployment comes just weeks after the company placed its second satellite into service. He said the new OTV marks the beginning of Türkiye's "mobility in space" and forms the technological foundation for the country's planned domestic global positioning system, known as Ulugbey.

"This mission will underpin our Ulugbey GPS vision and open the way for future satellite

constellations,” Bayraktar said, adding that Türkiye aims to field more than 100 satellites within five years to support independent positioning and space logistics for itself and allied nations.