Viridian Space awarded $225,000 NASA contract to advance satellite maneuverability in very low Earth orbit

NASA STTR Phase I project will explore aerodynamic control surfaces designed to help satellites maneuver and operate longer in the challenging VLEO environment

EL SEGUNDO, CA, UNITED STATES, September 30, 2026 / EINPresswire.com/ -- Viridian Space Corporation, a developer of advanced technologies for sustained satellite operations in very low Earth orbit (VLEO), announced it was awarded a $225,000 NASA Small Business Technology Transfer (STTR) Phase I contract, with the University of Washington to serve as the project research partner. The project scope is to advance the simulation and design of satellite control surfaces for maneuvering in VLEO.

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> *Rostislav (Slava) Spektor, CEO of Viridian Space Corporation*

Very low Earth orbit provides advantages for satellite missions, including higher resolution Earth observation, stronger communications signals, and lower latency. However, spacecraft in VLEO encounter substantially greater atmospheric drag than satellites operating at conventional low Earth orbit altitudes. Viridian Space Corporation is developing patented technologies to support sustained, maneuverable operations in this environment. The University of Washington brings complementary expertise in aerodynamics, spacecraft dynamics, and VLEO control, including research on the use of aerodynamic forces for satellite maneuvering and attitude control.

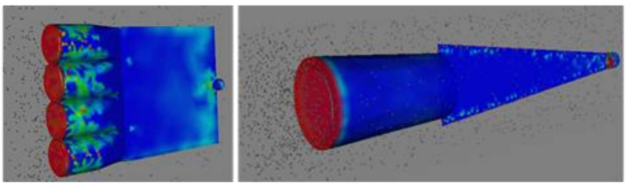
"VLEO opens the door to an entirely different class of satellite capabilities, and operating there requires us to rethink how spacecraft are designed and maneuvered," said Rostislav (Slava) Spektor, chief executive officer of Viridian Space Corporation (Viridian Space). "This NASA project will explore another piece of the VLEO architecture, specifically, how a spacecraft can take

advantage of the atmosphere around it, rather than simply treating atmospheric drag as an obstacle. We believe the combination of advanced spacecraft design, aerodynamics, and propulsion can make much lower orbits practical for missions of longer duration."

"In very low Earth orbit, the atmosphere is not simply a source of drag, but it can become a part of the spacecraft's control system," said Justin Little, Ph.D., principal investigator at the University of Washington. "Our collaborative research will explore how aerodynamic control surfaces can improve maneuverability and enable a new class of VLEO missions."



The Viridian Space Lab in El Segundo, CA (Pictured left to right: Sean Clark, Electro-mechanical Engineer; Matthew Feldman, CTO; Rostislav Spektor, CEO)



Drag simulations of various VLEO bus configurations. Left: Flagpole design, right: Tadpole design (patent pending).

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About Viridian Space Corporation

Viridian Space Corporation, based in El Segundo, California, is developing technologies designed to enable a new generation of agile, long-duration spacecraft operating in very low Earth orbit. Its patented Air-Scooping Electric Thruster technology is designed to collect gases from the upper atmosphere and use them as propellant, reducing spacecraft dependence on finite stores of onboard propellant. Viridian Space is developing VLEO technologies for applications including Earth observation, communications, in-space servicing and other commercial and government missions. For more information, visit ViridianSpace.com.

About the University of Washington SPACE Lab

The Space Propulsion and Advanced Concepts Engineering Laboratory (called the SPACE Lab) at the University of Washington, Seattle, was founded in 2018, as part of the William E. Boeing Department of Aeronautics and Astronautics. Its research focuses on theoretical modeling and innovative experiment design to explore the plasma physics of electric thrusters and cutting-edge space technologies. Learn more at UWSPACELab.com.

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