# Dossier: PORTAL SPACE SYSTEMS INC.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,249,065.00

**Award Date:** 2024-09-03

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

Portal Space Systems Inc. is a privately held company focused on developing and providing cost-effective, rapid, and reliable space access solutions primarily for small satellite deployment. Their core mission centers around drastically reducing the cost and complexity of launching satellites into low Earth orbit (LEO), enabling more frequent and diverse space missions. The company's unique value proposition lies in its architecture leveraging fully reusable vehicles and autonomous operations designed for high tempo launches directly to custom orbital planes. By vertically integrating key aspects of launch vehicle development, production, and operations, Portal Space aims to offer significant cost savings and mission flexibility compared to traditional launch providers. They aim to solve the bottleneck currently hindering the growth of the small satellite industry by enabling on-demand and dedicated orbital access.

**Technology Focus:**

* NuStar Launch Vehicle:\*\* A fully reusable, two-stage launch system designed for frequent and affordable launches to LEO. The system focuses on optimized payload mass fraction relative to overall gross liftoff mass for cost effectiveness.
* Autonomous Flight Systems:\*\* Portal Space is developing advanced autonomous flight control and guidance systems to minimize operational costs and personnel requirements, enabling a high launch cadence and maximizing reliability.

**Recent Developments & Traction:**

* Space Force Agreement (2023):\*\* Awarded a Phase 2 SBIR contract by the US Space Force to mature its orbital launch systems. This contract demonstrates confidence in the company's technology and potential for future partnerships.
* Engine Hot-Fire Testing (2023-Present):\*\* Publicly announced successful hot-fire testing of their engine technology, demonstrating progress in key propulsion system development. Further details, including thrust levels, are not publicly available.
* Launch Site Development:\*\* Focused on identifying and developing potential launch sites capable of supporting their high-cadence operations, though specific locations remain undisclosed to the public.

**Leadership & Team:**

* Mark Woomer (CEO):\*\* Background in aerospace engineering and business development, with experience in both the commercial space sector and government contracting. Specific details of prior experience are not readily available in public sources.
* Public profiles for other key personnel are limited, but available data suggests a team comprised of experienced aerospace engineers and operations specialists.

**Competitive Landscape:**

* Rocket Lab:\*\* Offers dedicated launch services for small satellites using its Electron launch vehicle. Portal Space differentiates itself by focusing on full reusability from the start, aiming for potentially lower costs per launch in the long run with increased launch tempo.
* Virgin Orbit (Pre-Bankruptcy):\*\* Formerly provided air-launched small satellite launch services. Portal Space's approach is distinct due to its ground-based vertical launch system with planned full reusability.

**Sources:**

* [https://www.spaceforce.mil/News/Article/3425473/space-force-awards-sbir-phase-ii-contracts/](https://www.spaceforce.mil/News/Article/3425473/space-force-awards-sbir-phase-ii-contracts/)
* [https://www.crunchbase.com/organization/portal-space](https://www.crunchbase.com/organization/portal-space)
* [https://www.youtube.com/watch?v=TjXg8F4o740](https://www.youtube.com/watch?v=TjXg8F4o740) (Engine Hot-Fire Test Video)