# Dossier: BENCHMARK SPACE SYSTEMS INC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $189,522.13

**Award Date:** 2024-03-26

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

Benchmark Space Systems is a leading developer and manufacturer of in-space propulsion systems for small satellites, offering scalable chemical and electric propulsion solutions. Their primary business revolves around enabling mission flexibility, maneuverability, and extended lifespan for small satellites operating in Low Earth Orbit (LEO), Medium Earth Orbit (MEO), Geostationary Orbit (GEO), and beyond. They aim to solve the limitations of traditional satellite propulsion systems, which are often too large, complex, or expensive for small satellite applications, by providing compact, reliable, and high-performance propulsion options. Their unique value proposition lies in their vertically integrated approach, encompassing design, manufacturing, and testing of propulsion systems, coupled with a focus on environmentally friendly propellants and innovative electric propulsion technologies to offer high thrust and total impulse capabilities tailored to various mission requirements.

**Technology Focus:**

* Chemical Propulsion Systems (Halcyon product line):\*\* Utilizing non-toxic propellants like High-Test Peroxide (HTP) and monopropellants, these systems offer high thrust for rapid orbit adjustments and precise attitude control. They boast a modular design enabling scalability for various spacecraft sizes and mission profiles.
* Electric Propulsion Systems (Aegis product line):\*\* Featuring scalable gridded ion thruster technology, these systems provide high specific impulse for efficient long-duration missions. They are specifically designed for small satellites requiring precise orbit maintenance and extended operational lifespans.

**Recent Developments & Traction:**

* January 2024: Selected by the US Space Force's Space Systems Command (SSC) to develop and test a new in-space mobility platform.\*\* This showcases a strong relationship with the government sector.
* October 2022: Awarded a contract by Spaceflight Inc. to provide chemical propulsion systems for their Sherpa orbital transfer vehicles.\*\* This highlights the company's position as a preferred supplier for key players in the space industry.
* 2021: Announced the successful completion of on-orbit testing of their Halcyon HTP propulsion system.\*\* This demonstrated the reliability and performance of their chemical propulsion technology in a real-world environment.

**Leadership & Team:**

* Ryan McDevitt (CEO):\*\* Previously held leadership roles at companies focused on strategic growth and commercialization. Strong background in management and operations.
* Chris Carella (Executive Vice President of Business Development):\*\* Extensive experience in the space industry, including significant contributions to business development and partnerships at previous organizations.

**Competitive Landscape:**

* ExoTerra Resource:\*\* ExoTerra focuses on electric propulsion systems for small satellites, creating direct competition in that sector. Benchmark differentiates itself through its dual offering of both chemical and electric propulsion systems, catering to a wider range of mission profiles and performance requirements.
* Phase Four:\*\* Another competitor in the electric propulsion space. Benchmark distinguishes itself through its vertically integrated manufacturing capabilities, allowing for greater control over quality and cost, and its adoption of non-toxic propellants in its chemical propulsion systems, aligning with increasing environmental consciousness.

**Sources:**

1. [https://www.benchmarkspacesystems.com/](https://www.benchmarkspacesystems.com/)

2. [https://spacenews.com/spaceflight-picks-benchmark-space-systems-for-sherpa-orbital-transfer-vehicle-propulsion/](https://spacenews.com/spaceflight-picks-benchmark-space-systems-for-sherpa-orbital-transfer-vehicle-propulsion/)

3. [https://www.benchmarkspacesystems.com/newsroom/benchmark-space-systems-announces-successful-on-orbit-testing-of-halcyon-htptm-propulsion-system](https://www.benchmarkspacesystems.com/newsroom/benchmark-space-systems-announces-successful-on-orbit-testing-of-halcyon-htptm-propulsion-system)

4. [https://www.benchmarkspacesystems.com/newsroom/us-space-force-selects-benchmark-space-systems-to-develop-in-space-mobility-platform](https://www.benchmarkspacesystems.com/newsroom/us-space-force-selects-benchmark-space-systems-to-develop-in-space-mobility-platform)