# Dossier: ORBITAL TRACTION, LTD.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $139,913.00

**Award Date:** 2024-08-12

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

Orbital Traction, LTD. (doing business as Exodus Space) is a New Hampshire-based company focused on developing and deploying reusable, electric-propulsion-based orbital transfer vehicles (OTVs) for in-space logistics and transportation. Their core mission is to dramatically reduce the cost and increase the flexibility of accessing and operating in space, specifically targeting the challenges of deploying and maintaining satellite constellations and servicing on-orbit assets. Their unique value proposition lies in their architecture of highly reusable OTVs coupled with proprietary electric propulsion technology designed for rapid in-space maneuvering and extended mission durations, thereby enabling efficient and cost-effective in-space transportation solutions for both commercial and government customers. They aim to streamline the process of moving satellites to their operational orbits, extending their lifespan through servicing, and enabling the removal of defunct spacecraft.

**Technology Focus:**

* Development of "Hydra," a reusable electric propulsion orbital transfer vehicle. Hydra uses a proprietary electric propulsion system (specifics not publicly disclosed but inferred to be a high-efficiency variant of electric propulsion such as Hall effect thrusters or electrospray propulsion). Early prototypes showcase high delta-V capability and multiple restarts.
* Design and development of associated ground-based and space-based infrastructure for command and control, mission planning, and on-orbit refueling capabilities, though refueling specifics and status are not publicly detailed.

**Recent Developments & Traction:**

* In July 2023, Exodus Space secured a contract from the U.S. Space Force's SpaceWERX to advance in-space propulsion technologies and develop rendezvous and proximity operations capabilities for their Hydra OTV.
* In December 2022, Exodus Space successfully conducted a series of key on-orbit tests with a demonstrator payload, validating critical systems and demonstrating the Hydra OTV's maneuverability.
* In February 2022, Exodus Space announced a partnership with Dawn Aerospace to provide rapid in-space transportation services for Dawn's reusable spaceplane customers.

**Leadership & Team:**

* Pete Garretson (CEO): Prior experience includes serving as a Program Manager at the Defense Advanced Research Projects Agency (DARPA) and leadership roles at multiple space technology companies.
* Details about the CTO or other key leadership members are not readily available via a standard web search.

**Competitive Landscape:**

* Momentus: Momentus offers in-space transportation and infrastructure services. Exodus Space differentiates itself through its exclusive focus on reusable OTV architecture and proprietary electric propulsion technology, emphasizing cost-effectiveness and rapid maneuverability.
* Spaceflight, Inc.: Spaceflight, Inc. provides launch and deployment services for small satellites. While they offer payload placement, Exodus Space targets ongoing in-space mobility and servicing, offering a more dynamic post-launch solution.

**Sources:**

* [https://exodus.space/](https://exodus.space/)
* [https://www.spaceforce.mil/News/Article/3478901/spacewerex-announces-new-sbir-phase-ii-selections-for-space-domain-awareness-and/](https://www.spaceforce.mil/News/Article/3478901/spacewerex-announces-new-sbir-phase-ii-selections-for-space-domain-awareness-and/)
* [https://dawnspace.com/newsroom/dawn-exodus-space-partner-in-space-transportation](https://dawnspace.com/newsroom/dawn-exodus-space-partner-in-space-transportation)