# Dossier: PARAGON SPACE DEVELOPMENT CORPORATION

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,699,532.92

**Award Date:** 2024-09-11

**Branch:** ARMY

## AI-Generated Intelligence Summary

**Company Overview:**

Paragon Space Development Corporation is a leading engineering and design firm specializing in extreme environment life support systems and thermal control solutions. Their primary business revolves around creating, testing, and operating systems for manned and unmanned space exploration, defense, and commercial applications. Paragon’s core mission is to enable sustainable and safe human presence in extreme environments, whether it's in space, underwater, or in hazardous terrestrial locations. They aim to solve the critical challenges of providing breathable air, temperature regulation, water purification, and waste management in situations where these resources are scarce or non-existent. Their unique value proposition lies in their vertically integrated capabilities, offering end-to-end solutions from initial design and prototyping to testing, manufacturing, and operational support, combined with their deep expertise in closed-loop environmental control systems.

**Technology Focus:**

* Environmental Control and Life Support Systems (ECLSS):\*\* Development of advanced ECLSS technologies, including atmospheric revitalization, water recovery, and waste management systems for spacecraft, habitats, and specialized defense applications. This includes regenerative systems that minimize resupply needs.
* Thermal Control Systems:\*\* Design and manufacture of advanced thermal control systems for maintaining optimal operating temperatures for equipment and crew in extreme temperature environments. Examples include passive and active cooling systems for satellites, high-altitude platforms, and hypersonic vehicles.

**Recent Developments & Traction:**

* NASA Commercial Lunar Landers Program:\*\* Paragon is providing ECLSS support for multiple NASA Commercial Lunar Payload Services (CLPS) landers, including those of Astrobotic and Intuitive Machines, supporting their lunar missions targeting improved thermal and contaminant control.
* Space Perspective Partnership:\*\* Paragon is a key partner with Space Perspective, providing the life support system for their Spaceship Neptune stratospheric balloon flights.
* Development and Testing of next-generation ECLSS components:\*\* Paragon has continued to showcase and advance its innovative solutions in ECLSS, contributing to advancements in critical technology for space exploration and safety in closed environments.

**Leadership & Team:**

* Grant Anderson (President, CEO, and Co-founder):\*\* Over 30 years of experience in spacecraft environmental control and life support systems, with extensive involvement in NASA programs.
* Taber MacCallum (Chief Technology Officer (CTO) and Co-founder):\*\* Deep expertise in life support systems and human spaceflight, involved in pioneering research and development in closed-loop environmental control.

**Competitive Landscape:**

* Collins Aerospace:\*\* Competes in ECLSS, but Paragon differentiates itself through its agility and focus on specialized applications and custom solutions, particularly for emerging space companies and defense projects.
* Sierra Space:\*\* Competes in habitat and spaceflight systems, with Paragon offering deeper expertise in specialized life support solutions.

**Sources:**

1. [https://paragonsdc.com/](https://paragonsdc.com/)

2. [https://www.spaceperspective.com/press-room/](https://www.spaceperspective.com/press-room/)

3. [https://www.nasa.gov/](https://www.nasa.gov/) (Search Paragon within NASA website for related program information)

4. [https://spacenews.com/](https://spacenews.com/) (Search Paragon within Spacenews website for related articles)