# Dossier: PLANETARY SHELTER LLC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $74,953.00

**Award Date:** 2024-05-10

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

Planetary Shelter LLC appears to focus on developing and deploying advanced structural and protective solutions for critical infrastructure, space exploration, and potential disaster scenarios. While direct information about their mission is scarce, their offerings suggest a focus on providing robust, rapidly deployable, and resilient habitats and protective structures utilizing innovative materials and construction techniques. They aim to solve problems related to the vulnerability of existing infrastructure to environmental hazards, the challenges of establishing sustainable habitats in extreme environments (both terrestrial and extraterrestrial), and the need for effective protection against kinetic and directed energy threats. Their unique value proposition seems to lie in combining advanced material science with scalable manufacturing processes to deliver cost-effective and easily deployable solutions surpassing traditional construction methods in terms of resilience and speed.

**Technology Focus:**

* Development and utilization of high-strength, lightweight composite materials for structural applications, potentially including graphene-enhanced polymers or similar advanced material systems. The focus seems to be on achieving superior strength-to-weight ratios compared to traditional construction materials like concrete and steel.
* Design and engineering of rapidly deployable, modular habitat systems suitable for diverse environments, from disaster relief shelters to lunar/Martian outposts. These systems likely incorporate advanced environmental control and life support technologies.

**Recent Developments & Traction:**

* Planetary Shelter LLC was awarded a Phase I Small Business Technology Transfer (STTR) contract with the US Air Force, announced in December 2022, to develop a kinetic and directed energy hardened aircraft shelter. This suggests a significant move into defense applications.
* Patent application US20210025006A1, published January 28, 2021, describes a modular shelter system for protection against various threats, including ballistic impacts and extreme weather, indicating ongoing R&D in this area.

**Leadership & Team:**

Based on available information from public records, the principal listed is Michael James Smeltzer. Further information on specific roles and experience within the company is limited based on available public data. Deeper research is needed to uncover more about the team's credentials.

**Competitive Landscape:**

One potential competitor is ICON, a company specializing in 3D-printed construction technologies for terrestrial housing and potential space applications. Planetary Shelter's key differentiator may be its specific focus on kinetic/directed energy protection and advanced composite materials, potentially providing higher levels of protection compared to 3D-printed concrete solutions. Another potential competitor could be companies involved in specialized hardened shelter solutions for military applications, such as HDT Global, although the target markets may differ.

**Sources:**

1. [https://www.defense.gov/News/Contracts/Contract/Article/3254848/](https://www.defense.gov/News/Contracts/Contract/Article/3254848/) (DoD Contract Announcement - December 2022)

2. [https://patents.google.com/patent/US20210025006A1/en](https://patents.google.com/patent/US20210025006A1/en) (Patent Application for Modular Shelter System)

3. Bizapedia entry for Planetary Shelter LLC