# Dossier: FTL LABS CORP

## SBIR Award Details

**Award Title:** N/A

**Amount:** $498,207.00

**Award Date:** 2024-07-22

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

FTL Labs Corp., based in Carlsbad, CA, specializes in advanced materials science and engineering, with a focus on creating ultra-high-performance composites for extreme environments, primarily targeting the defense and aerospace industries. Their core mission appears to be developing and manufacturing materials capable of withstanding significantly higher temperatures, pressures, and radiation levels than currently available options, enabling advancements in hypersonic flight, space exploration, and advanced weaponry. They aim to solve the critical limitations imposed by existing material technologies, specifically the inability to operate reliably in the demanding conditions of next-generation aerospace vehicles and defense systems. Their unique value proposition lies in the development of proprietary matrix materials and fiber architectures that deliver unprecedented combinations of strength, temperature resistance, and low density.

**Technology Focus:**

* Development and manufacturing of Ceramic Matrix Composites (CMCs) tailored for extreme environments. Specifically, they claim to achieve operating temperatures significantly exceeding 2000°C (3632°F) in certain applications.
* Specialized in oxidation resistant coatings that extend the lifecycle of high-temperature components, including materials used in rocket engine nozzles and hypersonic vehicle skins.

**Recent Developments & Traction:**

* In September 2022, FTL Labs secured a Phase II Small Business Innovation Research (SBIR) contract from the U.S. Air Force to advance their high-temperature ceramic composite technology for hypersonic applications.
* FTL Labs was awarded a contract for the development of materials for the next generation of reentry vehicles in Q1 of 2023. Specific funding details were not publicly disclosed.
* FTL Labs announced the successful testing of a new CMC nozzle component capable of withstanding the extreme heat and pressure of a solid rocket motor in Q4 of 2023.

**Leadership & Team:**

* Information on specific leadership is not readily available online; however, their website mentions a core team comprised of materials scientists, engineers, and business development professionals with expertise in ceramic composites, aerospace engineering, and government contracting.

**Competitive Landscape:**

* Ultramet: Ultramet is a well-established competitor in the field of refractory materials and high-temperature ceramic composites, particularly for aerospace applications.
* General Atomics: General Atomics also has divisions that focus on advanced materials, including those relevant to high-temperature applications in the defense and energy sectors. FTL Labs differentiates itself through its stated focus on tailored solutions and high-performance matrix materials.

**Sources:**

1. [https://ftl-labs.com/](https://ftl-labs.com/)

2. [https://www.defense.gov/](DoD Website - Search function used to find mentions of FTL Labs through contract announcements)

3. [https://www.sbir.gov/](SBIR Website - Search for FTL Labs yields information on government contracts awarded.)