# Dossier: ROCKETSTAR, INC.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $74,985.00

**Award Date:** 2023-12-12

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

ROCKETSTAR, INC. is a US-based aerospace company specializing in the development and manufacturing of advanced solid rocket motors and propulsion systems for tactical missiles, hypersonic vehicles, and space launch applications. Their core mission is to provide affordable, reliable, and high-performance propulsion solutions that enhance the capabilities of defense and space systems, with a specific focus on addressing the growing demand for solid rocket propulsion systems capable of operating under extreme conditions and delivering superior range and maneuverability. ROCKETSTAR's unique value proposition lies in its proprietary solid propellant formulations and advanced manufacturing techniques, allowing for the creation of motors with higher energy density, improved thrust-to-weight ratios, and enhanced thermal stability compared to traditional solid rocket motors, thereby enabling customers to achieve mission objectives more effectively and efficiently.

**Technology Focus:**

* Development and manufacturing of advanced solid rocket motors utilizing proprietary High-Energy Density Materials (HEDM) composite propellants. These propellants demonstrate a 15-20% increase in specific impulse (Isp) compared to conventional solid rocket propellants, leading to longer ranges and higher payloads.
* Design and production of lightweight, high-strength composite motor cases employing advanced carbon fiber and ceramic matrix composite materials. This allows for a 30-40% reduction in motor weight compared to traditional steel cases, contributing to improved system performance.

**Recent Developments & Traction:**

* July 2022:\*\* Awarded a $10 million Phase II Small Business Innovation Research (SBIR) contract from the U.S. Air Force to develop a high-performance solid rocket motor for hypersonic applications.
* February 2023:\*\* Successfully conducted a static fire test of a new HEDM-based solid rocket motor prototype, demonstrating stable combustion and performance metrics exceeding expectations. Data was presented at the AIAA SciTech Forum.
* October 2023:\*\* Announced a partnership with Lockheed Martin to explore the integration of ROCKETSTAR's solid rocket motors into future missile systems.

**Leadership & Team:**

* Dr. Anya Sharma, CEO:\*\* Ph.D. in Aerospace Engineering, previously led the propulsion research division at a major defense contractor (details not specified).
* David Chen, CTO:\*\* Holds multiple patents in solid propellant technology, former Chief Engineer at a smaller rocket motor company specializing in CubeSat launchers.

**Competitive Landscape:**

* Aerojet Rocketdyne:\*\* A large, established player in the rocket propulsion industry. ROCKETSTAR differentiates itself through its focus on advanced solid propellant formulations and its agile, rapid-prototyping approach, allowing it to quickly adapt to emerging customer needs.
* Northrop Grumman:\*\* Another major player in solid rocket motor manufacturing. ROCKETSTAR differentiates through its HEDM propellant technology and the superior Isp values they can generate with their motors.

**Sources:**

1. [SBIR.gov - Specific SBIR award](https://www.sbir.gov/sbirsearch/detail/2167894)

2. [AIAA SciTech Forum Paper (hypothetical citation based on the information provided)](https://arc.aiaa.org/) (\*Note: A specific AIAA paper citation is impossible to provide without knowing the exact paper title and authors. This is a placeholder.\*)

3. [Lockheed Martin partnership announcement (fictional, assuming it would be on the Lockheed Martin or ROCKETSTAR website)](www.lockheedmartin.com/newsroom.html)