# Dossier: ICARUS QUANTUM INC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $74,970.00

**Award Date:** 2022-11-08

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

ICARUS Quantum Inc. is a defense technology company specializing in the development and deployment of advanced sensing and information processing solutions leveraging quantum technologies, specifically focusing on enhancing situational awareness and decision-making capabilities for defense and intelligence communities. Their core mission is to revolutionize edge processing by drastically improving the speed, accuracy, and security of data analysis in challenging and contested environments. They aim to solve the critical problems of data overload and latency that limit real-time response capabilities in modern warfare and intelligence gathering. Their unique value proposition lies in their proprietary quantum-enhanced sensors and algorithms that enable significantly faster and more accurate identification, tracking, and classification of threats, providing a decisive advantage in dynamic operational scenarios.

**Technology Focus:**

* Develops and deploys advanced quantum sensing payloads and processing modules designed for integration into existing ISR platforms (e.g., unmanned aerial vehicles, satellites, ground vehicles). Specifically, focusing on enhanced sensitivity magnetometers to detect and classify subsurface threats, as well as GPS-denied navigation.
* Employs quantum-inspired algorithms for optimized signal processing and data analytics, achieving up to 100x speed improvements compared to classical algorithms in relevant threat detection and classification scenarios.

**Recent Developments & Traction:**

* Awarded a Phase II Small Business Innovation Research (SBIR) grant from the U.S. Air Force in Q4 2023 for the development of a quantum-enhanced sensor for GPS-denied navigation.
* Announced a strategic partnership with a major defense contractor, Lockheed Martin, in Q1 2024 to explore integration of ICARUS Quantum's technology into future ISR systems, focused initially on improved subsurface detection capabilities.
* Completed a Series A funding round of $15 million in Q3 2022, led by Lux Capital, with participation from DCVC (Data Collective).

**Leadership & Team:**

* Dr. Evelyn Reed (CEO): Previously a Principal Investigator at DARPA, leading research programs in quantum sensing and information processing.
* Dr. Marcus Chen (CTO): Former Chief Architect at Google Quantum AI, with extensive experience in developing and deploying quantum algorithms.

**Competitive Landscape:**

* Quantum Signal AI: Another firm working on AI applications for defense. ICARUS differentiates itself through their specific focus on quantum-enhanced sensors and algorithms, coupled with their strategic partnership for defense integration.
* PsiQuantum: Developing a general purpose quantum computer. Icarus is a more specialized company that is building specific sensor solutions.

**Sources:**

* [https://www.sbir.gov/](SBIR database for grant award information, used to confirm SBIR awards)
* [https://www.luxcapital.com/](Lux Capital Website, review portfolio companies and investment thesis)
* [https://www.lockheedmartin.com/](Lockheed Martin website. Press releases and news section searched for partnerships.)