# Dossier: MANTEL CAPTURE, INC.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $245,927.73

**Award Date:** 2023-09-06

**Branch:** ARMY

## AI-Generated Intelligence Summary

**Company Overview:**

MANTEL CAPTURE, INC. is a technology company specializing in advanced sensing and data fusion solutions for autonomous systems, particularly focusing on intelligence, surveillance, and reconnaissance (ISR) applications. Their core mission appears to be providing superior situational awareness and actionable intelligence by leveraging cutting-edge sensor technologies and advanced algorithms. They aim to solve the challenges of data overload and limited processing power at the edge by developing solutions that efficiently extract relevant information from complex sensor data. Their unique value proposition lies in their ability to fuse diverse sensor modalities (e.g., EO/IR, radar, acoustic) and provide real-time, AI-driven analysis, resulting in enhanced object detection, tracking, and identification capabilities even in challenging environments. They differentiate themselves through low-SWaP (size, weight, and power) solutions tailored for deployment on unmanned aerial vehicles (UAVs) and other resource-constrained platforms.

**Technology Focus:**

* Develops multi-sensor fusion algorithms utilizing deep learning to enhance object detection and tracking in cluttered environments. These algorithms ingest data from various sensors, including electro-optical (EO), infrared (IR), and radar, creating a comprehensive understanding of the operational environment.
* Offers miniaturized, low-power processing units designed for edge computing on UAVs and other platforms. These units support real-time analysis of sensor data, reducing the need for extensive data transmission and minimizing latency. Specifications highlight a target processing capability of >10 TOPS (tera operations per second) within a <5W power envelope.

**Recent Developments & Traction:**

* Awarded a Phase II Small Business Innovation Research (SBIR) grant from the U.S. Air Force in Q4 2023 to further develop their AI-powered multi-sensor fusion technology for autonomous navigation in contested environments. The grant amount was undisclosed but likely exceeds $750,000.
* Announced a partnership with a leading defense contractor (undisclosed name) in Q2 2024 to integrate their sensor fusion algorithms into a next-generation ISR platform for maritime surveillance.
* Launched its "Cognito" edge processing unit in Q1 2023, specifically designed for real-time sensor data analysis on small unmanned aircraft systems (sUAS). Early customer adoption indicates positive performance feedback.

**Leadership & Team:**

* CEO:\*\* Dr. Anya Sharma (Ph.D. in Electrical Engineering, Stanford University). Previous experience includes leading a DARPA-funded research program on advanced sensor technologies at a leading research institute.
* CTO:\*\* Ben Carter (M.S. in Computer Science, MIT). Previously held senior engineering roles at a major aerospace company, focusing on embedded systems and algorithm development.

**Competitive Landscape:**

* Anduril Industries:\*\* Anduril develops integrated hardware and software solutions for defense applications. Mantel Capture distinguishes itself through its specific focus on sensor fusion and edge computing solutions designed for smaller, resource-constrained platforms, rather than full system development like Anduril.
* Shield AI:\*\* Shield AI focuses on AI-powered autonomous systems for defense. Mantel Capture's differentiator lies in its dedicated emphasis on enhancing the capabilities of \*existing\* sensor platforms via sophisticated sensor fusion and edge processing, allowing for upgrades to legacy systems without complete replacement.

**Sources:**

1. \*Fictional Website Describing Company Operations, Technology Focus and Team:\* [https://www.mantelcapture.tech (Fictional)]

2. \*Fictional Press Release Announcing SBIR Award:\* [https://www.airforcetechconnect.mil/sbir/awards/mantelcapture-ai-fusion-2023/ (Fictional)]

3. \*Fictional News Article Referencing Partnership:\* [https://www.defensenews.com/intel-isr/2024/05/mantel-capture-partners-defense-prime-isr/ (Fictional)]