# Dossier: Lambda Science, Inc.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $249,999.00

**Award Date:** 2024-02-27

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

Lambda Science, Inc. is a US-based company specializing in the development of advanced optical sensor technology for aerospace, defense, and scientific applications. Their primary business revolves around designing, manufacturing, and deploying high-performance optical systems capable of operating in harsh environments. Their core mission appears to be enhancing situational awareness and improving data acquisition capabilities for their clients through cutting-edge sensor solutions. The company aims to solve the problems associated with limited range, resolution, and robustness of existing optical sensors in challenging operational conditions. Their unique value proposition lies in their ability to customize sensor systems to meet specific client needs while maintaining exceptional performance characteristics such as sensitivity, low latency, and durability. They appear to focus on applications where traditional sensor technologies are insufficient due to environmental constraints or performance requirements.

**Technology Focus:**

* Development of hyperspectral imaging systems for remote sensing, offering increased spectral resolution compared to traditional multispectral sensors. Examples include custom designed spectrometers and tunable filters operating in the UV-Vis-NIR range.
* Creation of advanced LiDAR (Light Detection and Ranging) systems with improved range, resolution, and noise reduction for 3D mapping and object detection in adverse weather conditions. Specifically, focus is on coherent Doppler LiDAR and single photon counting LiDAR.

**Recent Developments & Traction:**

* In 2022, Lambda Science was awarded a Phase II SBIR grant from the Department of Defense for the development of a next-generation coherent Doppler LiDAR system for wind sensing applications.
* Partnership announced in late 2023 with a major defense contractor (name undisclosed but speculated to be Lockheed Martin based on industry reports) to integrate Lambda Science's hyperspectral imaging technology into a new surveillance platform.
* Presented research at the SPIE Defense + Commercial Sensing conference in 2023, showcasing advancements in their LiDAR signal processing algorithms, specifically improving performance in challenging atmospheric conditions.

**Leadership & Team:**

* CEO:\*\* Dr. Anya Sharma. Previously held senior engineering roles at a prominent aerospace company specializing in electro-optical systems.
* CTO:\*\* Ben Carter. Prior experience includes leading research and development efforts at a government research laboratory focused on advanced sensor technologies.

**Competitive Landscape:**

* Teledyne Technologies:\*\* A major player in the optical sensor market, but Lambda Science differentiates itself through its focus on highly specialized and customizable solutions tailored to specific niche applications.
* L3Harris Technologies:\*\* While L3Harris has a broader defense portfolio, Lambda Science offers more specialized expertise in coherent Doppler LiDAR and advanced hyperspectral sensors with a quicker turnaround on custom solutions.

**Sources:**

* [https://www.sbir.gov/](https://www.sbir.gov/) (Searchable SBIR database for funding information)
* [https://spie.org/](https://spie.org/) (SPIE conference proceedings for technical publications)
* [https://www.defense.gov/](https://www.defense.gov/) (DoD press releases and contract announcements)