# Dossier: ACTIVE OPTICAL SYSTEMS, LLC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $178,657.00

**Award Date:** 2024-05-30

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

Active Optical Systems, LLC (AOS) is a US-based company specializing in the design, development, and manufacturing of advanced optical and laser-based solutions for defense, aerospace, and industrial applications. Their core mission appears to be enabling high-performance imaging and beam control in challenging environments. They aim to solve problems associated with atmospheric turbulence, vibration, and other distortions that degrade the performance of optical systems. Their unique value proposition lies in their ability to provide compact, lightweight, and ruggedized adaptive optics systems for applications where traditional, larger-scale solutions are impractical or infeasible. This enables enhanced performance in areas such as directed energy weapons, satellite communications, remote sensing, and laser-based manufacturing.

**Technology Focus:**

* Adaptive Optics Systems: AOS specializes in developing compact adaptive optics systems utilizing deformable mirrors, wavefront sensors, and real-time control algorithms to correct for atmospheric turbulence and other optical aberrations.
* Laser Beam Steering and Stabilization: They offer solutions for precision laser beam steering and stabilization, critical for applications such as directed energy weapons, laser communications, and laser radar (LIDAR). Their systems can achieve sub-microradian pointing accuracy under dynamic conditions.

**Recent Developments & Traction:**

* SBIR/STTR Awards:\*\* AOS has received multiple Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) awards from the Department of Defense (DoD), indicating ongoing government interest and funding for their technologies. Specific amounts and dates vary depending on the project.
* Custom Optics Solutions:\*\* Continues to announce custom development programs for optics-related components for defense and industrial applications, showcasing ongoing customer traction.
* High-Power Laser Applications:\*\* Development and refinement of components for the high-energy laser space, especially relating to cooling and precision optics.

**Leadership & Team:**

* While specific leadership details are limited in publicly available information, their team consists of experienced engineers and scientists with expertise in optics, lasers, control systems, and software development.

**Competitive Landscape:**

* Northrop Grumman: Northrop Grumman offers a broad portfolio of adaptive optics and laser systems. AOS differentiates itself through its focus on compact, ruggedized, and cost-effective solutions, making them suitable for applications where size, weight, and power (SWaP) are critical constraints.

**Sources:**

* https://www.activeopticalsystems.com/
* https://www.sbir.gov/
* https://usaspending.gov/