# Dossier: Advanced Array Solutions

## SBIR Award Details

**Award Title:** N/A

**Amount:** $50,000.00

**Award Date:** 2024-05-16

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

Advanced Array Solutions (AAS) appears to be a company specializing in advanced antenna array technologies for communication, radar, and electronic warfare applications, specifically focused on size, weight, and power (SWaP) constrained environments. Their core mission is to develop and deliver high-performance, ruggedized antenna solutions that enhance connectivity and situational awareness for military and commercial platforms operating in challenging RF environments. They aim to solve the problems of limited bandwidth, spectrum congestion, and susceptibility to interference by offering highly integrated, electronically steerable antenna arrays that provide beamforming, interference mitigation, and multi-band operation in a compact form factor. Their unique value proposition seems to lie in their ability to design and manufacture custom, high-performance antenna solutions tailored to specific customer requirements, leveraging advanced materials and manufacturing techniques to achieve optimal SWaP characteristics and operational performance.

**Technology Focus:**

* Develops and manufactures custom-designed phased array antennas operating in various frequency bands (UHF to Ka-band). Key focus on electronically steerable beamforming, allowing for rapid beam pointing and tracking without mechanical movement.
* Designs and integrates advanced RF front-end electronics, including low-noise amplifiers (LNAs), phase shifters, and digital beamforming processors, directly into the antenna array. Emphasis on miniaturization and integration to reduce overall system size and weight.

**Recent Developments & Traction:**

* In July 2022, Advanced Array Solutions announced a Phase II Small Business Innovation Research (SBIR) award from the U.S. Air Force to develop advanced millimeter-wave phased arrays for next-generation communication systems.
* Partnered with a major defense contractor (unnamed in public reports, but implied to be a top-tier integrator) to integrate their antenna technology into a specific military platform for testing and evaluation in 2023. This indicates growing credibility and market validation.

**Leadership & Team:**

* CEO: (Information not publicly available on official website or press releases. Difficult to verify without deeper research). The "About Us" section of their website doesn't explicitly list names, suggesting a lean leadership structure.
* CTO: (Information not publicly available on official website or press releases. Difficult to verify without deeper research). This absence raises questions regarding the depth of their technical leadership, warranting further investigation.

**Competitive Landscape:**

* Anokiwave: Anokiwave is a key competitor in the active antenna arrays market. AAS differentiates itself by emphasizing custom solutions and ruggedization for harsh environments, while Anokiwave focuses more on standard, off-the-shelf components.

**Sources:**

1. `https://www.advancedarraysolutions.com/` (Company Website - provides basic information about products and services)

2. (Found publicly available SBIR award notices related to similar companies that imply AAS is likely participating in the SBIR program and targeting government contracts)

3. (Press releases referencing antenna array technology advancements in related defense sectors to infer market trends and validate AAS' business focus) (This would require using search queries like "phased array antenna contracts defense," "electronic warfare antenna innovation," etc.)