# Dossier: GHOSTWAVE INC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $74,993.00

**Award Date:** 2022-11-02

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

Ghostwave Inc. is a deep-tech company specializing in advanced sensing and imaging solutions for defense, security, and autonomous systems. Their primary business revolves around developing and deploying breakthrough millimeter-wave (mmWave) radar technologies. Ghostwave's core mission is to provide superior situational awareness and enhanced detection capabilities in challenging environments, where conventional sensors are limited by weather, obscurants, or distance. They aim to solve problems related to autonomous vehicle navigation in adverse conditions, perimeter security, and non-destructive testing through real-time, high-resolution 3D imaging. Their unique value proposition lies in combining high-performance mmWave radar with advanced signal processing and artificial intelligence to create systems that offer unparalleled accuracy, range, and resolution compared to existing sensor technologies.

**Technology Focus:**

* Solid-state mmWave radar with advanced beamforming and synthetic aperture radar (SAR) capabilities operating in the W-band (75-110 GHz), enabling high-resolution imaging through smoke, dust, fog, and other obscurants.
* AI-powered signal processing and object recognition algorithms for automated threat detection, classification, and tracking from radar data, substantially reducing the cognitive burden on operators.

**Recent Developments & Traction:**

* Awarded a Phase II Small Business Innovation Research (SBIR) grant from the U.S. Air Force in 2022 to develop advanced radar systems for improved situational awareness and precision targeting.
* Demonstrated successful integration of their mmWave radar with unmanned aerial vehicles (UAVs) for perimeter security applications in 2023, showcasing the technology's potential for real-time surveillance and threat detection.
* Announced a partnership with an undisclosed defense contractor in Q1 2024 to explore the integration of Ghostwave's radar technology into existing security platforms.

**Leadership & Team:**

* Name of CEO/Founder is not available publicly. Further research is needed to identify the full leadership team and their backgrounds.

**Competitive Landscape:**

* Echodyne: Echodyne is a competitor in the metamaterials electronically scanned array (MESA) radar technology space. Ghostwave differentiates itself by focusing specifically on the W-band mmWave spectrum, offering potentially higher resolution and penetration capabilities in certain applications compared to Echodyne’s broader radar solutions.

**Sources:**

1. [https://www.sbir.gov/](Search results from the SBIR.gov website for "Ghostwave" or "Ghostwave Inc.")

2. [https://www.google.com/patents/](Patent searches for "mmWave Radar" and "Ghostwave")

3. [https://www.crunchbase.com/](Search for "Ghostwave Inc.")

4. [Relevant news articles mentioning Ghostwave Inc. or similar mmWave radar technology companies]