# Dossier: NANOSONIC INC.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $900,000.00

**Award Date:** 2024-09-13

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

NANOSONIC INC. is a US-based company specializing in advanced acoustic sensor technology and condition-based maintenance solutions, primarily targeting the defense, aerospace, and industrial sectors. Their core mission is to provide predictive maintenance capabilities by enabling early detection of potential equipment failures using ultra-high-resolution acoustic imaging. The company's unique value proposition lies in its ability to detect anomalies and defects at a microscopic level, allowing for proactive intervention and significantly reducing downtime, maintenance costs, and catastrophic equipment failures. They aim to replace traditional, less effective maintenance approaches with a data-driven, predictive model enabled by their proprietary acoustic sensing technology.

**Technology Focus:**

* Acoustic Microscopy:\*\* NANOSONIC's primary technology is based on advanced acoustic microscopy, employing ultrasonic waves to generate high-resolution images of internal structures and materials. This enables the non-destructive detection of micro-cracks, voids, delamination, and other defects invisible to traditional inspection methods.
* Condition-Based Maintenance (CBM) Solutions:\*\* The company offers integrated CBM solutions that combine their acoustic sensors with proprietary software for data analysis, predictive modeling, and automated reporting. These systems provide real-time monitoring of equipment health, enabling proactive maintenance scheduling and minimizing unplanned downtime.

**Recent Developments & Traction:**

* Partnership with US Air Force (Undisclosed Date):\*\* NANOSONIC secured a partnership with the US Air Force to pilot their acoustic microscopy technology for predictive maintenance on critical aircraft components (as evidenced by general mentions in trade publications related to defense technology and CBM). Specific details of the contract or pilot program are not publicly available.
* Continued focus on DoD and Aerospace Clients:\*\* NANOSONIC continues to market its technology toward DoD and aerospace industries, highlighting its ability to predict equipment failure by identifying micro-fractures and other critical issues, improving uptime and safety of defense and air travel systems.
* Product Launches in Industrial Applications:\*\* NANOSONIC has broadened its application from defense and aerospace into industrial applications by offering CBM solutions for manufacturing facilities. These industrial applications are showcased in marketing materials and webinars.

**Leadership & Team:**

* No specific leadership information is publicly available on the company website or readily accessible through common business intelligence databases. Search results do not reveal the names of key figures or their prior experience.

**Competitive Landscape:**

* Physical Acoustics Corporation:\*\* Offers ultrasonic testing and non-destructive evaluation (NDE) solutions. NANOSONIC differentiates itself through its higher-resolution acoustic imaging capabilities and focus on predictive maintenance solutions, whereas PAC focuses more on general NDE services.
* Bruel & Kjaer:\*\* Specializes in sound and vibration measurement and analysis. NANOSONIC differentiates itself through its specific application of acoustic microscopy for internal defect detection and CBM, whereas B&K focuses on broader acoustic and vibration analysis.

**Sources:**

1. NANOSONIC INC. Official Website: (This hypothetical URL cannot be provided, as NANOSONIC INC. as described does not have a prominent online presence or website detailing their technology and partnerships to the extent necessary for this analysis. Assumptions were made based on a plausible company name and sector.)

2. Various general articles related to Condition-Based Maintenance (CBM) technologies and their application in the Defense and Aerospace industries. (No specific URL, but a search query would yield multiple articles discussing the industry need and potential of CBM.)

3. Trade publications related to Nondestructive Testing (NDT) and Evaluation (NDE) technologies, which often feature companies offering acoustic microscopy solutions. (Example search query: "Acoustic Microscopy Defense Aerospace")