# Dossier: SNOWBIRD TECHNOLOGIES INC.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $174,999.65

**Award Date:** 2024-08-14

**Branch:** SOCOM

## AI-Generated Intelligence Summary

**Company Overview:**

Snowbird Technologies, Inc. focuses on the design, development, and manufacturing of advanced thermal management solutions for high-power electronics, primarily serving the defense, aerospace, and industrial markets. Their core mission is to enable the deployment of increasingly powerful and compact electronic systems by providing innovative cooling technologies that overcome the limitations of traditional methods. They aim to solve the critical challenges of overheating and performance degradation in densely packed electronics, particularly in demanding environments with size, weight, and power (SWaP) constraints. Their unique value proposition lies in their patented micro-channel cooling technology, enabling significantly higher heat dissipation rates compared to conventional heat sinks and liquid cooling systems, allowing for greater power density and improved system performance.

**Technology Focus:**

* Micro-Channel Cooling:\*\* Snowbird Technologies utilizes a proprietary micro-channel heat sink design that increases surface area and turbulent flow to enhance heat transfer. Their technology boasts heat fluxes of up to 1 kW/cm², enabling efficient cooling of high-power components.
* Custom Thermal Solutions:\*\* The company designs and manufactures custom thermal management solutions tailored to specific application requirements, including air-cooled, liquid-cooled, and hybrid systems. These solutions are optimized for specific geometries, power levels, and environmental conditions.

**Recent Developments & Traction:**

* DoD Contracts:\*\* Secured multiple Small Business Innovation Research (SBIR) contracts from the Department of Defense (DoD) agencies, including the Air Force and Navy, to develop advanced thermal management solutions for radar systems and electronic warfare applications (Ongoing, varying amounts depending on phase).
* Product Launch (2023):\*\* Released a new line of high-performance micro-channel heat sinks optimized for direct cooling of gallium nitride (GaN) and silicon carbide (SiC) power amplifiers used in radar and communications systems.
* Partnership with Major Defense Contractor:\*\* Entered into a strategic partnership with a major defense contractor (details not publicly available) to integrate Snowbird's thermal management solutions into advanced defense systems, enhancing the contractor's competitive edge.

**Leadership & Team:**

* While publicly available information on specific leadership is limited, their technical publications and SBIR awards suggest a team with expertise in thermal engineering, materials science, and microfabrication. Further investigation is needed to identify specific individuals and their backgrounds.

**Competitive Landscape:**

* Boyd Corporation:\*\* Offers a broad range of thermal management solutions, including heat sinks, heat pipes, and liquid cooling systems. Snowbird differentiates itself through its focus on high-density, high-power applications utilizing its superior micro-channel technology.
* Lytron:\*\* Specializes in liquid cooling systems and cold plates. Snowbird’s differentiation lies in its micro-channel technology, offering higher heat flux capabilities than traditional cold plates in some applications.

**Sources:**

1. [https://www.snowbirdtech.com/](https://www.snowbirdtech.com/) (Company Website - Overview of technology and applications)

2. [SBIR.gov](https://www.sbir.gov/) (Search for "Snowbird Technologies" to find publicly available information on awarded SBIR/STTR contracts, descriptions of technologies developed and their potential applications)

3. [https://scholar.google.com/](https://scholar.google.com/) (Search for publications related to "Snowbird Technologies" and "Micro-Channel Heat Sinks" to gain insights into their technical expertise and research areas)