# Dossier: BLACK SWIFT TECHNOLOGIES LLC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,249,725.00

**Award Date:** 2023-10-11

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

Black Swift Technologies (BST) LLC specializes in the design, development, and deployment of advanced, small Unmanned Aircraft Systems (UAS) tailored for scientific and extreme environment applications. Their core mission is to provide highly adaptable and reliable UAS solutions capable of operating in conditions that are too dangerous or impractical for traditional manned aircraft or other UAS platforms. BST aims to solve the problem of data acquisition and research in challenging environments such as severe weather, volcanic plumes, wildfires, and high-altitude locations. Their unique value proposition lies in the robust design and customizability of their UAS platforms, coupled with their proprietary autopilot and flight management system, which allows for autonomous operation and precise navigation in complex and dynamic atmospheric conditions.

**Technology Focus:**

* Scientific UAS Platforms:\*\* Designs and manufactures custom-engineered UAS platforms optimized for specific scientific payloads and environmental conditions. These platforms are typically small (wingspan under 10 feet), lightweight, and capable of extended flight durations (typically 1-2 hours) in demanding atmospheric conditions.
* SwiftCore Flight Management System:\*\* BST’s proprietary flight management system (FMS) provides advanced autonomous navigation, precise altitude control, and real-time data collection and processing. SwiftCore is designed for robustness and resilience in turbulent and rapidly changing environments.

**Recent Developments & Traction:**

* NOAA Cooperative Research and Development Agreement (CRADA):\*\* In March 2023, Black Swift Technologies announced a CRADA with NOAA's National Severe Storms Laboratory to advance the development and operational capabilities of small UAS for atmospheric research and weather forecasting.
* NSF SBIR Grant for Wildfire Research:\*\* Black Swift Technologies was awarded a Phase II SBIR grant from the National Science Foundation (NSF) in 2022 to further develop and commercialize their UAS technology for improved wildfire monitoring and suppression efforts. This grant is focused on enhancing their UAS's ability to operate in and around wildfire plumes, providing critical real-time data to firefighters.

**Leadership & Team:**

* Jack Elston (CEO):\*\* Dr. Elston has extensive experience in aerospace engineering and UAS development. He holds a Ph.D. in Aerospace Engineering Sciences and has a proven track record of leading the development of innovative UAS technologies.

**Competitive Landscape:**

* PrecisionHawk:\*\* While PrecisionHawk's focus is broader, encompassing data analytics and various industry applications, they also offer drone solutions. BST differentiates itself through its specific focus on extreme environment applications and its proprietary SwiftCore autopilot system tailored for robust, autonomous flight in challenging conditions.

**Sources:**

1. [https://www.blackswifttech.com/](https://www.blackswifttech.com/)

2. [https://www.nsf.gov/awardsearch/showAward?AWD\_ID=2043527](https://www.nsf.gov/awardsearch/showAward?AWD\_ID=2043527)

3. [https://www.weather.gov/oun/news\_bst\_uav](https://www.weather.gov/oun/news\_bst\_uav)