# Dossier: AIRTONOMY INC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $74,463.00

**Award Date:** 2023-05-01

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

Airtonomy Inc. is a Bismarck, North Dakota-based company specializing in automated asset inspection software solutions for critical infrastructure industries, including energy, utilities, and defense. Their core mission is to significantly reduce the time, cost, and risk associated with manual inspections by leveraging autonomous drones and artificial intelligence. The company aims to solve the problems of inefficient, dangerous, and inconsistent inspection processes that plague industries managing large, geographically dispersed assets like power lines, wind turbines, cell towers, and critical infrastructure. Their unique value proposition lies in providing a fully integrated platform that combines autonomous drone flight, data capture, AI-powered image processing, and automated reporting, enabling streamlined inspection workflows and actionable insights, ultimately leading to improved safety, optimized maintenance, and reduced operational expenses.

**Technology Focus:**

* Airtonomy provides an AI-powered, automated drone inspection software platform. The platform uses computer vision and machine learning algorithms to analyze aerial imagery collected by drones, automatically identifying defects, anomalies, and potential maintenance issues.
* The software platform supports a wide range of drone hardware and sensors, offering flexibility and compatibility for different inspection requirements. The platform enables automated mission planning and execution with integrated safety features. It can process up to several thousand images per inspection, significantly accelerating the inspection process compared to manual methods.

**Recent Developments & Traction:**

* Partnership with the U.S. Air Force (2022/2023):\*\* Airtonomy has secured contracts with the U.S. Air Force to develop and deploy its autonomous inspection technology for base infrastructure assessments, enhancing security and operational efficiency. This includes applications such as fence line intrusion detection and runway safety assessments.
* Development of an AI-powered security fence anomaly detection module:\*\* Leveraging lessons learned from collaborations with the US Air Force, Airtonomy has launched products focused on improved perimeter security and intrusion detection capabilities.
* Expansion into diverse infrastructure inspection areas:\*\* Beyond its initial focus on energy and utilities, Airtonomy has expanded into supporting rail road and telecommunications infrastructure inspection services

**Leadership & Team:**

* Josh Riedy (CEO):\*\* Founder of Airtonomy, possesses extensive experience in technology and business development. Prior background includes leadership roles at technology and research organizations.
* Dr. Michael J. Lee (Director of Research):\*\* Significant academic credentials and research experience in robotics, computer vision, and AI, particularly applied to autonomous systems.

**Competitive Landscape:**

* PrecisionHawk:\*\* Another drone-based inspection company that provides data services for various industries. Airtonomy differentiates itself through its focus on complete end-to-end automation, integrating autonomous flight, AI-driven analysis, and automated reporting into a single platform.
* SkySpecs:\*\* Specializes in wind turbine blade inspections using drones. Airtonomy distinguishes itself by its broader application across diverse asset types beyond wind turbines, and its emphasis on adaptable software platform design.

**Sources:**

* [https://airtonomy.com/](https://airtonomy.com/)
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* [https://www.defenseadvancement.com/news/airtonomy-completes-development-of-ai-powered-security-fence-anomaly-detection-module](https://www.defenseadvancement.com/news/airtonomy-completes-development-of-ai-powered-security-fence-anomaly-detection-module)