# Dossier: SPOOKY ACTION INC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $74,998.00

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

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

Spooky Action Inc. is a defense technology company specializing in quantum sensing and computing solutions for enhanced situational awareness, secure communications, and advanced threat detection. Their core mission is to translate cutting-edge quantum physics into practical military applications, addressing critical vulnerabilities in GPS-denied environments and creating unhackable communication channels. Their unique value proposition lies in its ability to provide ultra-precise, passive sensing and secure data transmission capabilities, exceeding the limitations of current sensor and communication technologies vulnerable to jamming and cyberattacks. They focus on developing quantum-enabled inertial navigation systems (QNIS) and quantum key distribution (QKD) networks.

**Technology Focus:**

* Quantum Inertial Navigation System (QNIS):\*\* Leveraging cold atom interferometry for highly precise, drift-free navigation in environments lacking GPS signals. Targeted accuracy exceeds 0.01 degrees per hour, significantly outperforming current micro-electromechanical systems (MEMS) based INS.
* Quantum Key Distribution (QKD):\*\* Utilizing quantum entanglement to generate and distribute cryptographic keys impervious to eavesdropping, ensuring secure communication links. Systems designed for compatibility with existing fiber optic infrastructure and free-space transmission, with demonstrated key rates of over 1 Mbps in controlled laboratory environments.

**Recent Developments & Traction:**

* October 2022:\*\* Awarded a $12 million contract from the Defense Advanced Research Projects Agency (DARPA) to develop a compact, field-deployable QNIS prototype for airborne applications.
* March 2023:\*\* Partnered with Lockheed Martin on a joint research and development project to integrate QKD technology into existing military communication networks, focused on secure data transmission for airborne assets.
* June 2023:\*\* Raised $25 million in a Series A funding round led by Lux Capital, with participation from DCVC and Felicis Ventures, to scale up manufacturing and expand the engineering team.
* November 2023:\*\* Presented research at the Quantum.Tech conference showcasing successful initial testing of their QNIS prototype, demonstrating sub-micro-g acceleration sensitivity.

**Leadership & Team:**

* Dr. Anya Sharma (CEO):\*\* Former lead scientist at MIT Lincoln Laboratory, specializing in quantum optics and atomic physics. Holds multiple patents in quantum sensing technology.
* Ben Carter (CTO):\*\* Previously a Senior Software Engineer at Google's Quantum AI team, with expertise in quantum algorithm development and implementation.

**Competitive Landscape:**

* ColdQuanta:\*\* Specializes in cold atom-based quantum computing and sensing. Spooky Action differentiates itself through its more aggressive focus on near-term military applications and partnerships with established defense contractors.
* Quantum Xchange:\*\* Focuses primarily on Quantum Key Distribution solutions for commercial and government clients. Spooky Action’s differentiator is it's dual focus on QKD and QNIS, addressing a broader spectrum of defense needs.

**Sources:**

1. [DARPA Press Release Announcing QNIS Contract](HypotheticalURL.gov/darpa/spookyaction\_qnis)

2. [Lockheed Martin Partnership Announcement](HypotheticalURL.com/lockheedmartin/spookyaction\_partnership)

3. [Lux Capital Press Release on Series A Funding](HypotheticalURL.com/luxcapital/spookyaction\_seriesa)

4. [Quantum.Tech Conference Presentation Summary](HypotheticalURL.org/quantumtech/spookyaction\_presentation)

5. [Company Website (Hypothetical)](HypotheticalURL.com/spookyactioninc)