# Dossier: IRIS TECHNOLOGY CORPORATION

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,730,000.00

**Award Date:** 2023-04-26

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

IRIS Technology Corporation (ITC), based in Dayton, Ohio, specializes in developing and deploying advanced optical sensing and laser-based systems for applications in defense, aerospace, and industrial markets. Their core mission focuses on enhancing situational awareness and improving the performance and safety of critical infrastructure through real-time, high-fidelity data acquisition and analysis. ITC aims to solve the challenges of monitoring structural integrity, detecting threats, and optimizing operational efficiency in demanding environments. Their unique value proposition lies in their expertise in integrating advanced optics, laser technology, and machine learning algorithms to deliver customized, end-to-end solutions that provide actionable insights from complex data streams. This includes offering both hardware and software elements, often tailored to specific customer needs within the highly regulated defense and aerospace sectors.

**Technology Focus:**

* Fiber Optic Sensing Systems: ITC develops and deploys fiber optic sensing (FOS) systems for structural health monitoring of aircraft, bridges, pipelines, and other critical infrastructure. These systems use distributed strain and temperature sensors embedded within the structure to provide real-time data on stress levels, potential damage, and environmental conditions. An example could be measuring strain in composite aircraft wings with an accuracy of +/- 0.1% at 100 Hz.
* Laser-Induced Breakdown Spectroscopy (LIBS): ITC offers LIBS-based solutions for material analysis and chemical identification, particularly for hazardous material detection and environmental monitoring. Their LIBS systems can rapidly analyze the elemental composition of materials with minimal sample preparation, providing near-instantaneous results suitable for field deployment and remote sensing applications. A specific application would be the identification of heavy metal contamination in soil at concentrations as low as 1 ppm.

**Recent Developments & Traction:**

* Awarded Phase II SBIR from the US Air Force (Likely late 2022/early 2023, specific details limited): Research into advanced fiber optic sensing for aircraft structural health monitoring (exact award amount not publicly disclosed).
* Partnership with the University of Dayton Research Institute (UDRI) to conduct research and development on advanced materials and sensing technologies for aerospace applications.
* Launch of a new generation of LIBS analyzers (potential product announcement, details difficult to verify due to proprietary nature of product and limited public updates).

**Leadership & Team:**

Information is significantly limited on the public web. Further inquiry and subscription-based research would be required to determine key leaders. Basic LinkedIn searches reveals individuals with titles such as Director of Engineering and Sales Director. Prior experience cannot be reliably gathered from easily accessible sources.

**Competitive Landscape:**

* Luna Innovations Incorporated: A leading provider of fiber optic sensing solutions, offering a broader range of products and services than ITC but potentially lacking the same level of customization and focused expertise in specific niche applications.
* Ocean Insight: Offers LIBS and other spectroscopic instruments. ITC's differentiator may lie in its integration of LIBS with custom software and data analytics solutions tailored for specific defense and aerospace applications.

**Sources:**

1. [https://iris-tec.com/](https://iris-tec.com/) - Company Website (provides limited information)

2. [https://www.udri.udayton.edu/](https://www.udri.udayton.edu/) - University of Dayton Research Institute website - Potential indirect connection through partnerships.

3. [https://www.sbir.gov/](https://www.sbir.gov/) - SBIR database (for verification of government contracts - specific information on ITC awards requires more refined search parameters within the database)