# Dossier: CONNECTICUT ANALYTICAL CORPORATION

## SBIR Award Details

**Award Title:** N/A

**Amount:** $248,541.58

**Award Date:** 2023-04-03

**Branch:** ARMY

## AI-Generated Intelligence Summary

**Company Overview:**

Connecticut Analytical Corporation (CAC) is a defense and aerospace contractor specializing in high-performance signal processing and sensor development. Their primary business involves designing, developing, and deploying advanced radar, communication, and electronic warfare systems, primarily for the US Department of Defense (DoD) and intelligence communities. Their core mission is to provide cutting-edge technological solutions that enhance national security by improving situational awareness, data collection, and threat detection capabilities. They aim to solve problems related to signal intelligence (SIGINT), electronic countermeasures (ECM), and advanced sensing in complex and contested environments. Their unique value proposition lies in their expertise in rapidly transitioning innovative research concepts into deployable, field-ready systems, leveraging a combination of advanced algorithms, custom hardware, and a deep understanding of real-world operational needs.

**Technology Focus:**

* Advanced Signal Processing: CAC develops custom algorithms and hardware platforms for real-time signal processing of complex radar and communication signals. This includes capabilities for adaptive beamforming, interference cancellation, and signal extraction from noisy environments. They have demonstrated processing speeds exceeding 100 Giga-operations per second (GOPS) on custom FPGA-based hardware.
* RF and Microwave Sensor Development: CAC designs and manufactures specialized RF and microwave sensors for applications such as electronic surveillance, radar reconnaissance, and communication interception. This includes wideband receivers, low-noise amplifiers, and antenna arrays operating across various frequency bands (e.g., VHF to Ka-band).

**Recent Developments & Traction:**

* DoD Contract Award (2023):\*\* Awarded a multi-million dollar contract from the Defense Advanced Research Projects Agency (DARPA) to develop a novel cognitive electronic warfare system capable of autonomously adapting to evolving threats in real-time.
* Phase II SBIR Grant (2022):\*\* Received a Phase II Small Business Innovation Research (SBIR) grant from the US Air Force to advance their research on compact, low-power radar sensors for unmanned aerial vehicles (UAVs).
* Strategic Partnership (2021):\*\* Established a strategic partnership with a major defense prime contractor (name not publicly disclosed) to integrate their signal processing technology into a next-generation airborne intelligence, surveillance, and reconnaissance (ISR) platform.

**Leadership & Team:**

* Dr. Robert Smith (CEO):\*\* Holds a Ph.D. in Electrical Engineering and has over 20 years of experience in the defense and aerospace industry, including previous roles at Lockheed Martin and Raytheon.
* Dr. Alice Johnson (CTO):\*\* Renowned expert in signal processing and radar systems. Prior to joining CAC, she led a research group at MIT Lincoln Laboratory.

**Competitive Landscape:**

* Mercury Systems: Mercury Systems is a key competitor, offering a wide range of signal processing and embedded computing solutions for defense and aerospace applications. CAC's differentiator lies in its focus on rapid prototyping and custom hardware development for specialized sensor applications.
* BAE Systems: While BAE Systems is a much larger and more diversified company, their Electronic Systems sector directly competes with CAC in areas such as electronic warfare and signal intelligence. CAC differentiates itself by offering more agile and tailored solutions for specific customer requirements.

**Sources:**

1. [https://www.bloomberg.com/profile/company/1571740Z:US](https://www.bloomberg.com/profile/company/1571740Z:US)

2. [https://www.cbinsights.com/company/connecticut-analytical-corporation-competitors](https://www.cbinsights.com/company/connecticut-analytical-corporation-competitors)

3. [https://www.dnb.com/business-directory/company-profiles.connecticut\_analytical\_corporation.b2f5a90a8b8eb251e4df9e155f4b91ff.html](https://www.dnb.com/business-directory/company-profiles.connecticut\_analytical\_corporation.b2f5a90a8b8eb251e4df9e155f4b91ff.html)