# Dossier: BLACK RIVER SYSTEMS COMPANY, INC.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $139,915.00

**Award Date:** 2024-10-29

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

Black River Systems Company, Inc. (BRS) is a technology company providing advanced signal processing solutions, primarily focused on radar, electronic warfare, and communications systems for the defense and aerospace sectors. Their core mission revolves around developing and deploying cutting-edge algorithms and hardware that enhance situational awareness, improve threat detection, and enable secure communication in contested environments. BRS aims to solve complex signal processing challenges related to interference mitigation, advanced waveform generation, and real-time data exploitation. Their unique value proposition lies in their combination of deep domain expertise in signal processing, rapid prototyping capabilities, and experience in transitioning technology from research to deployed systems, offering a faster and more agile approach compared to traditional defense contractors.

**Technology Focus:**

* Advanced Radar Signal Processing: BRS develops algorithms and software for radar systems, including adaptive beamforming, clutter mitigation, target tracking, and interference cancellation, enhancing radar performance in challenging environments. They offer a Software Defined Radar (SDR) platform capable of dynamically adapting to various radar modalities and operating conditions.
* Electronic Warfare Solutions: BRS provides electronic warfare (EW) systems for signal intelligence (SIGINT), electronic attack (EA), and electronic protection (EP). This includes development of wideband receivers, advanced signal analysis algorithms, and jamming techniques to counter adversarial threats in the electromagnetic spectrum. Their products are often employed to detect, identify, and disrupt enemy communications and radar systems.

**Recent Developments & Traction:**

* DARPA Agreement (2021):\*\* BRS was awarded a contract by DARPA as part of the Arrays of Commercial Off-The-Shelf (COTS) Electronics (ACOS) program to develop and demonstrate heterogeneous computing architectures optimized for sensor data processing.
* Army SBIR Phase III (Ongoing):\*\* Ongoing participation in Army SBIR programs, showcasing the commercialization of previously developed technologies in electronic warfare and sensor processing for deployed military systems. This indicates successful transition from research to practical applications.
* Collaboration with Defense Contractors:\*\* Publicly available information suggests partnerships with larger defense contractors to integrate BRS signal processing technologies into larger defense systems. Specific partnerships are difficult to ascertain due to confidentiality, but their presence at defense industry events points towards these collaborations.

**Leadership & Team:**

Specific leadership names are difficult to ascertain from publicly available sources without dedicated LinkedIn searches. However, the company's website showcases experienced engineers and scientists with backgrounds in signal processing, electrical engineering, and computer science. The team likely consists of individuals with prior experience in defense research labs (e.g., AFRL, NRL) and relevant experience in developing and deploying signal processing solutions for military applications.

**Competitive Landscape:**

Primary competitors include:

* Mercury Systems: Offers a broader range of embedded computing and signal processing solutions, but competes with BRS in radar and EW applications.
* SRC, Inc.: Specializes in radar, electronic warfare, and intelligence solutions, directly competing with BRS in the defense sector.

BRS's key differentiator is its agility and focus on developing advanced signal processing algorithms and transitioning them rapidly to deployed systems. This contrasts with larger competitors that may have longer development cycles and a broader product portfolio.

**Sources:**

* blackriversystems.com (Company Website)
* defense.gov (Government Contracts Database) -- (Used to verify DARPA ACOS Program)
* sbir.gov (Small Business Innovation Research Database) -- (Used to verify SBIR Phase III participation)