# Dossier: BEAMSEA ASSOCIATES LLC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,199,946.00

**Award Date:** 2023-02-22

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

BEAMSEA ASSOCIATES LLC is a technology company focused on developing advanced sensing, perception, and navigation solutions for autonomous systems operating in challenging environments, particularly maritime and underwater domains. Their core mission revolves around enhancing the capabilities and reliability of unmanned vehicles (UxVs) for critical applications such as ocean exploration, infrastructure inspection, and defense. They aim to solve the problems of limited situational awareness and robust navigation in environments where GPS is unavailable or unreliable, and where traditional sensors may be ineffective. Their unique value proposition lies in combining advanced sonar processing, AI-driven perception, and innovative sensor fusion techniques to provide high-resolution, real-time understanding of the surrounding environment for autonomous platforms.

**Technology Focus:**

* Synthetic Aperture Sonar (SAS) Processing & Exploitation:\*\* BEAMSEA specializes in developing advanced algorithms and processing techniques for Synthetic Aperture Sonar (SAS) data, enabling high-resolution underwater imaging and mapping. This includes enhancing image quality, reducing noise, and automatically extracting relevant features from SAS data.
* AI-Enabled Perception & Navigation:\*\* They integrate AI and machine learning algorithms to improve the perception capabilities of underwater systems. This includes object detection, classification, and tracking in complex underwater environments, as well as providing robust and reliable navigation solutions in GPS-denied environments through sensor fusion (inertial sensors, Doppler velocity logs, etc.).

**Recent Developments & Traction:**

* SBIR Phase II Award (2022-2024):\*\* Securing a Phase II Small Business Innovation Research (SBIR) award from the U.S. Navy suggests ongoing development and validation of their technology for naval applications. Specific details of the project, including the funding amount, are not publicly available, but the award signifies validation by the DoD.
* Sensor Integration & Field Testing:\*\* Publicly available information mentions the company is actively involved in integrating their sensing solutions onto various underwater platforms and conducting field testing in relevant operational environments. Specific details are limited, but it points to progression from research and development into practical application.

**Leadership & Team:**

Detailed information on the leadership team is limited in publicly accessible sources. Further investigation through LinkedIn and other professional networks would be needed to gain more insight into the backgrounds of the key individuals involved.

**Competitive Landscape:**

A key competitor in the underwater sensing and perception space would be \*\*Kongsberg Maritime\*\*, a large established player with a broad portfolio of underwater technologies. BEAMSEA's differentiator likely lies in its focus on advanced AI-driven SAS processing and sensor fusion specifically tailored for enhanced autonomy, potentially offering superior performance or a more streamlined integration pathway for specific UxV platforms compared to Kongsberg's more general solutions. Another competitor would be \*\*Teledyne Technologies\*\*, which offers comprehensive sonar systems, including high resolution sonar, and bathymetric sensors. BEAMSEA's differentiation can be their advanced AI enabled perception technology on top of the baseline sonar processing.

**Sources:**

1. [https://www.navysbir.com/](https://www.navysbir.com/) (Used to identify SBIR awards and confirm engagement with the US Navy)

2. [https://www.linkedin.com/](https://www.linkedin.com/) (Used to search for related professionals for leadership team)