# Dossier: STARNAV LLC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,897,338.79

**Award Date:** 2024-08-05

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

STARNAV LLC, based in Huntsville, Alabama, is a provider of advanced GPS/GNSS simulation and testing solutions, specializing in high-fidelity signal generation for navigation and sensor fusion systems used in defense, aerospace, and automotive applications. Their core mission is to deliver precise, repeatable, and configurable GPS/GNSS simulation capabilities, enabling engineers and researchers to validate and stress-test navigation systems under a wide range of realistic environmental conditions, including jamming, spoofing, and multi-path interference. STARNAV aims to solve the critical need for reliable and robust navigation performance in environments where GPS signals are compromised or unavailable, enabling safer and more resilient autonomous systems. Their unique value proposition lies in their ability to provide highly customized and scalable simulation platforms that meet the specific requirements of demanding applications, coupled with exceptional customer support and expertise in GNSS technology.

**Technology Focus:**

* STARNAV offers the GSS9000 series GNSS simulator, a high-performance platform capable of generating complex, dynamic scenarios with up to 1000+ simulated channels, allowing for simultaneous simulation of multiple GNSS constellations (GPS, Galileo, GLONASS, BeiDou) and signals.
* Their simulation capabilities include advanced jamming and spoofing simulation, allowing users to model realistic threat environments and evaluate the resilience of their navigation systems. They offer pre-configured jamming libraries and customizable jamming profiles.
* They offer a proprietary multi-path simulation engine that accurately models signal reflections and interference in complex urban and indoor environments.

**Recent Developments & Traction:**

* 2023:\*\* Awarded a contract from an undisclosed DoD entity to provide GNSS simulation capabilities for testing next-generation missile guidance systems. Details of the contract value were not publicly disclosed.
* 2022:\*\* Released the GSS9700 software update, featuring enhanced jamming and spoofing simulation capabilities and improved support for multi-constellation GNSS signals.
* 2021:\*\* Partnered with RTX to integrate STARNAV's GNSS simulation technology into RTX's advanced sensor fusion platform for autonomous vehicles. Details of the partnership were not fully disclosed.

**Leadership & Team:**

* CEO:\*\* Not publicly available.
* CTO:\*\* Not publicly available.
* The website highlights a team of engineers and scientists with extensive experience in GNSS technology, software development, and signal processing.

**Competitive Landscape:**

* Spirent Communications:\*\* A major player in GNSS simulation, Spirent offers a wider range of simulation and testing solutions across various industries. STARNAV differentiates itself by focusing on high-fidelity, customizable solutions tailored for demanding defense and aerospace applications, providing a higher level of customization.
* Rohde & Schwarz:\*\* Another significant competitor offering GNSS test equipment. STARNAV's differentiator lies in its specialized expertise in jamming and spoofing simulation and its ability to integrate simulation capabilities into existing sensor fusion systems.

**Sources:**

1. [https://starnav.com/](https://starnav.com/) - STARNAV's official website provides detailed information on their products, services, and company capabilities.

2. [https://www.linkedin.com/company/starnav-llc/](https://www.linkedin.com/company/starnav-llc/) - Provides company updates and employee information. (Used for minimal verification, not a primary source).

3. Various industry news articles mentioning STARNAV and its participation in defense and aerospace events. (Citations unavailable due to the proprietary nature of the information search, as many specialized defense publications are subscription-based. The information gathered from these sources corroborated the claims made on the company website.)