# Dossier: VIGILANT AEROSPACE SYSTEMS, INC.

## SBIR Award Details

**Award Title:** N/A

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

**Award Date:** 2023-04-20

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

Vigilant Aerospace Systems, Inc. is a leading developer of airspace management and safety systems designed for unmanned aircraft systems (UAS), or drones, and autonomous systems. Its primary business is centered around providing detect-and-avoid (DAA) and airspace situational awareness solutions to enable safe beyond visual line-of-sight (BVLOS) flight and integration of UAS into the national airspace system (NAS). The core mission is to unlock the commercial potential of UAS by mitigating the risks associated with integrating drones into shared airspace. The company addresses the critical problem of avoiding mid-air collisions between drones and manned aircraft, and helps solve regulatory challenges related to operating BVLOS. Vigilant Aerospace offers a unique value proposition by combining advanced sensor fusion algorithms, live air traffic data, and a user-friendly interface to provide comprehensive airspace awareness and automated avoidance capabilities, ultimately de-risking UAS operations.

**Technology Focus:**

* FlightHorizon:\*\* A commercially available airspace management and DAA system providing comprehensive airspace situational awareness. It uses multiple data sources, including ADS-B, radar, and drone transponders, fused into a single display to detect, track, and predict potential conflicts with manned aircraft.
* XDR (eXtended Detection and Response):\*\* Expanding beyond DAA to incorporate cybersecurity threat detection and response capabilities within the FlightHorizon platform. This includes anomaly detection and prevention of malicious interference with drone operations.

**Recent Developments & Traction:**

* FAA Pathfinder Program Participation (Ongoing):\*\* Vigilant Aerospace has been actively involved in several FAA Pathfinder programs, supporting the development of BVLOS regulations and testing DAA technologies for commercial drone operations. This includes supporting various state DOT initiatives focusing on BVLOS flight.
* Integration with NASA's Traffic Management (UTM) System:\*\* Successfully integrated FlightHorizon with NASA’s UTM system, demonstrating interoperability and supporting collaborative airspace management efforts.
* SBIR Funding Awards (Multiple):\*\* Secured multiple Small Business Innovation Research (SBIR) grants from various government agencies, including NASA and the Department of Defense, to develop and enhance its airspace management and DAA technologies. (Dates and specific amounts vary, but multiple awards in 2021-2023)

**Leadership & Team:**

* Kraettli L. Epperson (CEO):\*\* Experienced technology entrepreneur with a background in aerospace engineering and a proven track record of commercializing advanced technology solutions.
* Rev Close (Chief Technology Officer):\*\* Experienced in sensor fusion, airspace management, and machine learning. Background includes work with NASA on air traffic control and aviation safety systems.

**Competitive Landscape:**

* uAvionix:\*\* Offers ADS-B based DAA solutions for UAS.
* Collins Aerospace:\*\* Develops advanced avionics and airspace management systems. Vigilant Aerospace differentiates itself through its focus on sensor fusion and its specific expertise in integrating multiple data sources to provide a comprehensive airspace picture specifically tailored for smaller UAS and BVLOS operations, often at a more accessible price point than larger competitors.

**Sources:**

1. vigilantaerospace.com

2. sbir.nasa.gov (search results for "Vigilant Aerospace Systems")

3. www.faa.gov (search results for "Vigilant Aerospace Systems")

4. https://www.suasnews.com/?s=Vigilant+Aerospace+Systems