# Dossier: ADVANCED AIRCRAFT COMPANY, LLC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,249,992.00

**Award Date:** 2023-08-30

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

Advanced Aircraft Company, LLC (AAC) focuses on the design, development, and manufacturing of long-endurance, vertical takeoff and landing (VTOL) unmanned aircraft systems (UAS). Their core mission is to provide advanced aerial solutions that surpass the limitations of traditional multi-rotor and fixed-wing platforms in terms of endurance, payload capacity, and operational versatility, thereby addressing the critical need for persistent surveillance, inspection, and reconnaissance capabilities across diverse sectors, including defense, infrastructure, and agriculture. Their unique value proposition lies in their hybrid-electric propulsion system, which combines the advantages of electric power for VTOL capabilities with the energy density of internal combustion engines for extended flight times and operational range.

**Technology Focus:**

* Hybrid-Electric VTOL UAS:\*\* AAC's flagship product, the HAMR (Hybrid Advanced Multi-Rotor), is a gasoline-electric hybrid VTOL UAS designed for long-endurance missions. It boasts a reported flight time of up to 3.5 hours with a full payload.
* Proprietary Propulsion System:\*\* AAC's hybrid-electric powertrain allows for efficient power generation and distribution to the aircraft's multiple rotors. This system is designed for both reliability and scalability to different UAS sizes.

**Recent Developments & Traction:**

* FAA Type Certification Roadmap (October 2023):\*\* Advanced Aircraft Company partnered with Volatus Aerospace Corp. to develop a formal FAA type certification roadmap for the HAMR UAS.
* FAA Certification Authorization with Volatus Aerospace Corp (2024):\*\* Advanced Aircraft Company received authorization for FAA type certification activities.
* HAMR UAS Selected for Blue UAS Cleared List (2023):\*\* AAC's HAMR UAS was included on the Blue UAS Cleared List, making it approved for procurement and use by the U.S. Department of Defense.

**Leadership & Team:**

* Bill Fredericks (Founder & CEO):\*\* No readily available information concerning significant prior experience.

**Competitive Landscape:**

* Skydio:\*\* While Skydio primarily focuses on autonomous multi-rotor drones, they also cater to enterprise and defense applications. AAC differentiates itself by offering significantly longer endurance and heavier payload capacity through its hybrid-electric propulsion system.
* Insitu (Boeing):\*\* Insitu, a Boeing subsidiary, produces fixed-wing and VTOL UAS for defense and commercial applications. AAC's hybrid-electric VTOL design offers a more versatile operational profile compared to Insitu's larger fixed-wing options.

**Sources:**

1. [https://www.advancedaircraftcompany.com/](https://www.advancedaircraftcompany.com/)

2. [https://www.volatusaerospace.com/news/volatus-and-advanced-aircraft-company-to-develop-faa-type-certification-roadmap-for-hamr-uas](https://www.volatusaerospace.com/news/volatus-and-advanced-aircraft-company-to-develop-faa-type-certification-roadmap-for-hamr-uas)

3. [https://dronelife.com/2023/09/27/the-hamr-uav-on-the-blue-uas-cleared-list-more-options-for-defense-and-security-missions/](https://dronelife.com/2023/09/27/the-hamr-uav-on-the-blue-uas-cleared-list-more-options-for-defense-and-security-missions/)