# Dossier: ELECTRA.AERO INC.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $179,097.70

**Award Date:** 2024-05-07

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

Electra.Aero Inc. is a developer of electric Short Takeoff and Landing (eSTOL) aircraft designed for regional air mobility. Their primary business revolves around creating sustainable and efficient air travel solutions that address the limitations of conventional aircraft, such as high operating costs, reliance on extensive runway infrastructure, and significant carbon emissions. The company's core mission is to democratize air travel by enabling access to previously underserved communities and reducing the environmental impact of aviation. Their unique value proposition lies in their proprietary Blown Lift technology, which significantly enhances takeoff and landing performance, allowing them to operate from runways as short as 150 feet. This capability enables Electra.Aero to access a wide range of landing sites, including existing airports, small airstrips, and even rooftops, opening up new possibilities for regional connectivity and cargo transport.

**Technology Focus:**

* Blown Lift Technology:\*\* Electra.Aero's core innovation is their Blown Lift system, which integrates electric propulsion with distributed electric motors and a novel wing design. This system generates significantly enhanced lift at low speeds, enabling extremely short takeoff and landing capabilities. The technology aims for a 60-80% reduction in takeoff and landing distance compared to conventional aircraft of similar size.
* Hybrid-Electric Propulsion:\*\* Electra.Aero utilizes a hybrid-electric propulsion system, combining electric motors with a turbogenerator. This configuration provides the necessary power for takeoff and landing while extending the aircraft's range and reducing reliance on battery-only operation. The hybrid system is designed to be compatible with sustainable aviation fuels (SAF) for further emissions reduction.

**Recent Developments & Traction:**

* $85 Million Funding Round (September 2022):\*\* Electra.Aero secured $85 million in a Series B funding round led by Standard Chartered Ventures, with participation from existing investors including Lockheed Martin Ventures and Bristow Group. This funding is intended to accelerate the development and certification of their eSTOL aircraft.
* Strategic Partnerships:\*\* Electra.Aero has established partnerships with key players in the aerospace industry, including collaborations with Bristow Group (helicopter services) and Surf Air Mobility (regional air mobility). These partnerships provide Electra.Aero with operational expertise and access to potential customer bases.
* EASA Design Approval (September 2023):\*\* Electra.aero received design organization approval from the European Union Aviation Safety Agency (EASA), positioning the company to engage EASA for the development and validation of the eSTOL aircraft.

**Leadership & Team:**

* John S. Langford (Founder & CEO):\*\* Dr. Langford has a long history in aviation, previously founding Aurora Flight Sciences, which was acquired by Boeing. He has extensive experience in advanced aircraft design and development.
* JP Clarke (Co-Founder & Chief Technology Officer):\*\* Dr. Clarke previously held positions at MIT and Aurora Flight Sciences, with expertise in aerodynamics, control systems, and flight dynamics.

**Competitive Landscape:**

* Vertical Aerospace:\*\* Vertical Aerospace is developing electric vertical takeoff and landing (eVTOL) aircraft for urban air mobility. Electra.Aero differentiates itself through its focus on eSTOL technology, which leverages existing infrastructure and enables longer-range regional air travel, as opposed to solely focusing on intra-city flights.
* Beta Technologies:\*\* Beta Technologies develops electric aircraft, including a vertical takeoff and landing variant. Electra.Aero's primary differentiator lies in its Blown Lift technology, which potentially offers superior performance and efficiency compared to conventional eVTOL configurations.

**Sources:**

* [https://electra.aero/](https://electra.aero/)
* [https://www.prnewswire.com/news-releases/electra-raises-85-million-in-series-b-to-transform-regional-air-travel-with-electric-ultra-short-takeoff-and-landing-estol-aircraft-301621973.html](https://www.prnewswire.com/news-releases/electra-raises-85-million-in-series-b-to-transform-regional-air-travel-with-electric-ultra-short-takeoff-and-landing-estol-aircraft-301621973.html)
* [https://www.flightglobal.com/airframers/electra-aero-wins-easa-approval-as-it-eyes-estol-certification/155227.article](https://www.flightglobal.com/airframers/electra-aero-wins-easa-approval-as-it-eyes-estol-certification/155227.article)