# Dossier: PTERODYNAMICS INC.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,249,149.00

**Award Date:** 2023-08-23

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

PteroDynamics, Inc. specializes in the design, development, and manufacturing of transformable vertical takeoff and landing (VTOL) aircraft, primarily focused on the defense, security, and commercial logistics sectors. Their core mission is to provide versatile, high-performance, long-endurance VTOL solutions that overcome the limitations of traditional rotorcraft and fixed-wing aircraft. They aim to solve the problems of limited operational range and payload capacity associated with traditional drones, as well as the infrastructure dependencies associated with fixed-wing aircraft. Their unique value proposition lies in their patented Transwing technology, which enables their aircraft to transition seamlessly between VTOL hover mode and high-speed, efficient fixed-wing flight, maximizing operational flexibility and efficiency.

**Technology Focus:**

* Transwing Technology:\*\* Patented folding wing design that allows for vertical takeoff and landing (VTOL) with the efficiency and speed of a fixed-wing aircraft. The wings fold during VTOL and unfold for forward flight.
* Electric Propulsion Systems:\*\* Focus on electric propulsion with battery and hybrid power options, enabling reduced noise signature and environmental impact. Targeting long endurance flight times (claimed up to 8+ hours depending on payload and configuration for some models).

**Recent Developments & Traction:**

* Army SBIR Phase II Award (November 2023):\*\* Awarded a Small Business Innovation Research (SBIR) Phase II contract from the US Army to continue developing and testing their Transwing aircraft for potential military applications.
* Partnership with Naval Postgraduate School (ongoing):\*\* Collaboration on research and development related to autonomous flight control and advanced applications of their Transwing technology.
* Sea Otter Demonstration (2022):\*\* Public demonstration of their Sea Otter prototype, showcasing its VTOL capabilities and transition to fixed-wing flight.

**Leadership & Team:**

* Matthew Graczyk (CEO):\*\* Background in engineering and business development, experience in aerospace and related industries.
* Information on CTO or President roles was not readily available in a comprehensive format. Further investigation could focus on LinkedIn profiles or press releases announcing key hires.

**Competitive Landscape:**

* Vertical Aerospace:\*\* Develops eVTOL aircraft for passenger transport and cargo. PteroDynamics differentiates through its specific focus on unmanned systems and its patented folding wing technology optimized for endurance and adaptability across a range of mission profiles.
* Skydio:\*\* Designs and manufactures autonomous drones for enterprise and defense. While Skydio excels in autonomous navigation, PteroDynamics focuses on providing a VTOL platform with enhanced range and endurance capabilities, targeting a different segment of the uncrewed systems market.

**Sources:**

1. [https://pterodynamics.com/](https://pterodynamics.com/)

2. [https://www.suasnews.com/2023/11/pterodynamics-awarded-sbir-phase-ii-contract-to-further-develop-its-transwing-technology-for-military-applications/](https://www.suasnews.com/2023/11/pterodynamics-awarded-sbir-phase-ii-contract-to-further-develop-its-transwing-technology-for-military-applications/)

3. [https://www.youtube.com/watch?v=yqS26jT8H1c](https://www.youtube.com/watch?v=yqS26jT8H1c) (Sea Otter Demo Video)