# Dossier: PIASECKI AIRCRAFT CORP

## SBIR Award Details

**Award Title:** N/A

**Amount:** $74,946.00

**Award Date:** 2024-01-08

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

Piasecki Aircraft Corporation (PiAC) is a US-based aerospace company specializing in the design, development, and production of advanced vertical lift aircraft and technologies. Their core mission is to develop and field innovative rotorcraft solutions that enhance mission effectiveness, safety, and operational efficiency for both military and commercial applications. PiAC aims to solve limitations in existing helicopter designs, such as speed, range, payload capacity, and survivability, by pioneering new approaches to rotorcraft configuration and propulsion. Their unique value proposition lies in their patented technologies, particularly the Vectored Thrust Ducted Propeller (VTDP) system, enabling significantly enhanced performance compared to conventional helicopters, approaching turboprop aircraft capabilities while maintaining VTOL capabilities. They offer the promise of transformative leaps in rotorcraft capability, rather than incremental improvements to existing designs.

**Technology Focus:**

* Vectored Thrust Ducted Propeller (VTDP):\*\* A patented technology that combines the vertical takeoff and landing (VTOL) capabilities of a helicopter with the speed and range of a fixed-wing aircraft. The VTDP system utilizes a shrouded propeller that can be vectored to provide both vertical lift and forward thrust, allowing for increased speed, range, and fuel efficiency.
* PAV (Piasecki Aircraft Vehicle):\*\* A modular, optionally-piloted aerial vehicle platform designed for various military and commercial applications, leveraging the VTDP technology. This platform allows for flexible configurations and customization to meet specific mission requirements, ranging from cargo transport to armed reconnaissance.

**Recent Developments & Traction:**

* AFWERX HSVTOL Concept Challenge:\*\* In 2022, Piasecki was selected as one of eleven companies to participate in the AFWERX High-Speed Vertical Takeoff and Landing (HSVTOL) Concept Challenge. This partnership is aimed at advancing the development and demonstration of VTDP technology for military applications.
* Army SBIR contract for advanced cooling technology:\*\* Piasecki was awarded a Phase I Small Business Innovation Research (SBIR) contract from the U.S. Army in 2023 to investigate innovative cooling methods for high-performance aircraft. This program looks to address thermal management challenges associated with advanced VTOL systems.

**Leadership & Team:**

* John Piasecki (President & CEO):\*\* Son of Frank Piasecki, the founder of Piasecki Helicopter Corporation (later Boeing Vertol), John has decades of experience in the aerospace industry.
* Kurt Robinson (Chief Technology Officer):\*\* Holds multiple patents on VTOL aircraft designs and has extensive experience in rotorcraft development and testing.

**Competitive Landscape:**

* Bell Textron:\*\* A major helicopter manufacturer with extensive experience in both military and commercial markets. Piasecki differentiates itself through its VTDP technology, which offers a different approach to VTOL and high-speed flight compared to Bell's tiltrotor technology.
* Sikorsky (Lockheed Martin):\*\* Another dominant player in the helicopter market. Piasecki's competitive advantage lies in its focus on novel VTOL configurations and the potential for significant performance improvements over traditional helicopter designs.

**Sources:**

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

2. [https://www.afwerx.com/hsvtol-concept-challenge/](https://www.afwerx.com/hsvtol-concept-challenge/)

3. [https://www.army.mil/](https://www.army.mil/) (Search for Piasecki)