# Dossier: XWING, INC.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $247,747.60

**Award Date:** 2024-02-15

**Branch:** ARMY

## AI-Generated Intelligence Summary

**Company Overview:**

XWING, INC. is a company focused on revolutionizing regional air mobility by developing and deploying autonomous flight technologies for existing cargo aircraft, specifically the Cessna 208B Grand Caravan. Their primary business is developing autonomous flight control software and retrofitting it into existing aircraft to increase efficiency, reduce pilot workload, and ultimately enable fully autonomous cargo operations. Their core mission is to unlock the potential of regional air freight by making it safer, more accessible, and more economically viable. They aim to solve the problems of pilot shortages, high operational costs, and limited route availability that currently hinder the growth of regional air cargo. XWING's unique value proposition lies in its ability to leverage existing aircraft infrastructure and regulatory frameworks to introduce autonomous flight capabilities in a phased and practical manner, rather than requiring the development of entirely new aircraft or operating models.

**Technology Focus:**

* Development of a complete autonomous flight system (Superpilot) that integrates into the Cessna 208B Grand Caravan, enabling autonomous taxi, takeoff, landing, and flight management. The system includes redundant flight control computers, sensors (including vision and radar), and communication systems to ensure safe and reliable operation.
* XWING’s Superpilot system has demonstrated remote piloted cargo operations from a remote operations center (ROC) with a single operator controlling multiple aircraft. They are working toward full autonomy, removing the requirement for a remote pilot.

**Recent Developments & Traction:**

* October 2022:\*\* Announced a $40 million Series B funding round led by Blackhorn Ventures, with participation from existing investors including Eclipse Ventures, R7 Partners, and Hartmann Capital. This brought their total funding to $55 million.
* 2022 - 2023:\*\* XWING has focused on expanding its operational capabilities, including securing FAA approval for expanded autonomous flight testing and demonstrating the capability to operate cargo flights in complex airspace. They are actively working with the FAA on certifications needed for wider commercial deployment.
* Ongoing:\*\* XWING is collaborating with multiple cargo operators to deploy its autonomous flight system in real-world operations, focusing on optimizing routes, improving efficiency, and reducing costs.

**Leadership & Team:**

* Marc Piasecki (Founder & CEO):\*\* Previously a software engineer at Google, where he worked on autonomous vehicle technology.
* Maxime Gariel (CTO):\*\* Deep experience in aerospace engineering and autonomous systems development, previously worked at Airbus on flight control systems.

**Competitive Landscape:**

* Reliable Robotics:\*\* Develops autonomous flight systems for similar cargo aircraft, posing direct competition. XWING differentiates itself through its specific focus on the Cessna 208B Grand Caravan and its approach of leveraging existing regulatory frameworks for phased deployment.
* Skydio:\*\* While primarily focused on drone technology, Skydio's autonomous navigation and obstacle avoidance capabilities represent a potential competitive threat in the broader autonomous flight space. XWING's differentiator is its focus on larger, fixed-wing aircraft and cargo operations, as well as a focus on FAA approval for operation.

**Sources:**

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

2. [https://www.blackhorn.vc/blog/xwing-series-b](https://www.blackhorn.vc/blog/xwing-series-b)

3. [https://www.flightglobal.com/airframers/xwing-raises-40m-for-autonomous-flight-retrofit-programme/150609.article](https://www.flightglobal.com/airframers/xwing-raises-40m-for-autonomous-flight-retrofit-programme/150609.article)