# Dossier: ZEROAVIA FEDERAL INC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $64,243.00

**Award Date:** 2023-05-04

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

ZEROAVIA FEDERAL INC. is a US-based subsidiary of ZeroAvia, a company pioneering hydrogen-electric powertrain solutions for aviation. ZeroAvia Federal focuses specifically on adapting and applying ZeroAvia's technology for government and defense applications, including unmanned aerial vehicles (UAVs), logistics, and surveillance. Its core mission is to decarbonize aviation through hydrogen-electric propulsion, reducing reliance on fossil fuels and lowering emissions while improving operational capabilities for military and government agencies. Their unique value proposition lies in offering a zero-emission, cost-effective, and scalable solution for aviation needs within the government and defense sectors, potentially reducing operational costs, enhancing sustainability, and increasing mission endurance.

**Technology Focus:**

* Hydrogen-Electric Powertrain: ZeroAvia's core technology involves replacing conventional gas turbine engines with a hydrogen fuel cell system that generates electricity to power electric motors. This system eliminates direct emissions and reduces noise pollution. Specific power outputs are being scaled, with current demonstrator powertrains targeting 600kW.
* Hydrogen Storage and Refueling: The company is developing onboard hydrogen storage solutions and is working on establishing hydrogen refueling infrastructure at airports and potentially forward operating bases. They are researching and deploying both gaseous and liquid hydrogen storage solutions.

**Recent Developments & Traction:**

* DoD Contract (December 2023):\*\* ZeroAvia received a contract from the Department of Defense (DoD) through the Joint Program Executive Office for Chemical, Biological, Radiological and Nuclear Defense (JPEO-CBRND) to investigate the potential of hydrogen-electric propulsion for military applications, specifically focused on UAV power generation.
* Series C Funding (December 2022):\*\* ZeroAvia raised $150 million in a Series C funding round led by Breakthrough Energy Ventures and Shell Ventures. This funding is being used to accelerate the development and certification of its hydrogen-electric powertrain technology and scale up production.
* Flight Demonstrations:\*\* Demonstrated flight tests using their prototype hydrogen-electric powertrain on a Dornier 228 aircraft, showcasing the feasibility and potential of the technology.

**Leadership & Team:**

* Val Miftakhov (Founder & CEO of ZeroAvia):\*\* Serial entrepreneur with a background in energy and venture capital. Founder of eMotorWerks (acquired by Enel).
* Key personnel within ZeroAvia Federal are not publicly available online, indicating a relatively new and lean organization.

**Competitive Landscape:**

* Universal Hydrogen:\*\* Developing hydrogen fuel delivery and powertrain retrofit services for regional aircraft. Differentiator: ZeroAvia has a more focused approach on smaller aircraft initially and a more visible presence in the defense sector.
* HyPoint (acquired by ZeroAvia):\*\* Focused on hydrogen fuel cell stacks. ZeroAvia benefits from the acquired technology now in-house.

**Sources:**

1. [https://www.zeroavia.com/news/zeroavia-awarded-us-department-of-defense-contract](https://www.zeroavia.com/news/zeroavia-awarded-us-department-of-defense-contract)

2. [https://www.zeroavia.com/news/zeroavia-raises-150m-series-c](https://www.zeroavia.com/news/zeroavia-raises-150m-series-c)

3. [https://www.aviationtoday.com/2023/12/05/zeroavia-receives-dod-contract-hydrogen-powered-uas/](https://www.aviationtoday.com/2023/12/05/zeroavia-receives-dod-contract-hydrogen-powered-uas/)

4. [https://www.businesswire.com/news/home/20231205283748/en/ZeroAvia-Awarded-US-Department-of-Defense-Contract](https://www.businesswire.com/news/home/20231205283748/en/ZeroAvia-Awarded-US-Department-of-Defense-Contract)