



MAKING AVIATION MORE SUSTAINABLE - ASCENDANCE FLIGHT TECHNOLOGIES SHOWCASES INTERNATIONAL AMBITIONS & INNOVATIVE SOLUTIONS

News / Manufacturer



Ascendance Flight Technologies announces its presence at the 2023 Paris Air Show to present its innovations to enable a more sustainable air mobility. Following a Series A round of 21 million euros in March 2023 with French Tech Souverainete? operated by Bpifrance as part of the France 2030 plan, CELAD, Expansion Aerospace Ventures, SC Mahe?, Adrien Montfort via Snow Ventures and ARIS Occitanie, Ascendance Flight Technologies is accelerating the industrialization and sales of its solutions, its international growth and the increase in its workforce.

This operation strengthens the company's financial base, enabling it to achieve its major ambition: to offer unique technologies that will unlock a more sustainable aviation and become a leading player of this new industry.

Acting for a new kind of sustainable, low-carbon air mobility

Thanks to its dual positioning as both an OEM and a propulsion system supplier, the Toulouse-based start-up, founded in 2018, is using hybrid-electric technologies to support the energy transition trajectory of aviation. Ascendance's innovative solutions bring reliable, sustainable and realistic technologies to aviation with an extended range that will be applicable to multiple use-cases with an extended range.

A TEA is a vertical take-off and landing aircraft (eVTOL). With a range of 400 km, a cruising speed of over 200 km/h, noise emissions reduced by a factor of four* and up to 80% less CO₂* (*compared with a traditional helicopter). A TEA is a low-carbon, silent alternative to helicopters, enabling regional and decentralized aviation, and making previously underserved areas accessible. It is intended for regional use, with four main missions: passenger transport, medical emergencies, logistics and monitoring.

To enable a More Sustainable Aviation, the company is also developing STERNA, a hybrid-electric propulsion system that reduces the fuel consumption and the CO₂ emissions by optimizing the entire propulsion system. Thanks to an innovative electric architecture, its *Hybrid Operating System* for on-board energy management intelligence, and new aeronautic battery solutions, STERNA will be able to accommodate an optimized engine powered by Sustainable Aviation Fuel (SAF) or new hydrogen solutions, thus contributing to the aviation industry's energy transition. This patented technology is proposed to aircraft and helicopter manufacturers (OEMs) to decarbonize their next-generation aircraft.

Jean-Christophe Lambert, co-founder and CEO commented: "ATEA's design reflects our convictions, experience and know-how. The aircraft we're designing is the result of careful consideration of maintenance costs and ease of operation"

These innovations will be showcased with never-before-seen models **at the 2023 Paris Air Show**, in the brand-new **Paris Air Mobility** area dedicated to vertical take-off and landing (eVTOL) aircrafts. **(Hall 5), from June 19 to 25**. Ascendance Flight Technologies will be the only French eVTOL manufacturer present at **Paris Air Mobility** in 2023.

Ascendance's decarbonization solutions enter the industrialization phase

Ascendance Flight Technologies is now entering an intensive prototyping and pre-industrialization phase. Last March, Ascendance Flight Technologies received its industrial pilot site at the Muret-Lherm airfield.

The start-up intends to continue rolling out its roadmap with a target for first flight tests of its prototype set at the second half of 2024 and delivering the first aircraft in the course of 2027. The coming years will therefore see major milestones in its progress on its two development priorities:

? Construction of the first full-scale flying prototype of its ATEA aircraft, and pursuit of the certification process initiated with the European Aviation Safety Agency (EASA).

? The execution of its first contracts and partnerships, for the integration of its STERNA solution in existing aircraft.

Ascendance relies on strategic partners in the aeronautics industry ecosystem

Decarbonizing aviation means rethinking propulsion system architecture to deploy energy-efficient

technologies that limit CO2 emissions. In this context, it is imperative to establish solid partnerships that meet the challenges of tomorrow's hybridization.

Major partners working closely with Ascendance Flight Technologies include Air France Industries and KLM Engineering & Maintenance and Edeis.

For example, Edeis, an engineering and infrastructure management group, and Ascendance Flight Technologies have signed a partnership agreement to combine their expertise to anticipate and model the future of decentralized aviation. To prepare for future operations of these new aircraft types,

Ascendance and Air France Industries and KLM Engineering & Maintenance are also working together to define ATEA's future maintenance programs, as well as the changes needed in the training of maintenance technicians to adapt to these new technologies.

An international order book taking-off

Ascendance Flight Technologies has opened its order book and has already received 245 purchase intentions for its vertical take-off and landing aircraft Atea from international operators in the USA, Asia and Europe. These pre-orders confirm the sector's interest in the aircraft's hybrid-electric technology, range and versatility. The Letters of Intent received also reflect the suitability of the proposed solutions for the operational needs of demanding customers with varied profiles: helicopter operators, airlines, aircraft charterers or cargo specialists.

Atea's future customers include players on three continents, with a wide range of activities:

EVFLY (SINGAPORE) - FLYSHARE (USA/CALIFORNIA) - HELIFIRST (FRANCE) - JET SYSTEMS HELICOPTER SERVICES (FRANCE) - PHILJETS GROUP (PHILIPPINES) - YUGO (SINGAPORE).

At the same time, the company has established a genuine partnership with its future customers: "Atea's performance and assets have been particularly appreciated by these customers, offering a tailor-made response to their precise operational needs", explains Thibault Baldivia, co-founder and CCO of Ascendance. We are now working closely with future users, to ensure that once the device is delivered, it is perfectly adapted to their markets, customers and business model".

13 JUNE 2023

ARTICLE LINK:

<https://50skyshades.com/news/manufacturer/making-aviation-more-sustainable-ascendance-flight-technologies-showcases-international-ambitions-innovative-solutions>