



VOLTAERO BRINGS ITS CASSIO ELECTRIC-PARALLEL HYBRID AIRCRAFT TO THE NETHERLANDS FOR SUSTAINABLE AVIATION DEMO FLIGHTS WITH THE COUNTRY POWER UP INITIATIVE

News / Business aviation, Manufacturer



VoltAero Cassio electric-hybrid aircraft is to perform demonstration flights across selected routes in the Netherlands beginning June 13 to promote highly sustainable regional aviation throughout the Dutch regions. Utilizing VoltAero's Cassio 1 testbed – the world's first parallel hybrid aircraft – this week-long deployment will be part of the Netherlands' Power Up initiative, which is a collaboration aimed at positioning the country for the introduction of electric-powered commercial passenger flights within five years.

The flights are to include analyses of operational costs, noise performance, ground infrastructure requirements and technical support for the future use of Cassio family aircraft by commercial aviation operators. VoltAero’s proven electric aircraft expertise led to its selection for these demonstration flights, becoming the first company to do so within the Power Up initiative’s framework.

Power Up is an initiative of the four main regional airports in the Netherlands (Eindhoven Airport, Rotterdam The Hague Airport, Groningen Airport Eelde and Maastricht Aachen Airport) with support of Schiphol Group and other partners aimed at facilitating and stimulating the introduction of electric

Regional Air Mobility (eRAM) in the Netherlands. The initiative is an open-source accelerator in which aircraft manufacturers (OEMs), airlines and airports work together to develop a new, sustainable and efficient mobility product improving the connectivity of regions.

“Our cooperation is an excellent opportunity to show how Cassio can significantly lower carbon emissions and reduce noise by using VoltAero’s proven electric-hybrid propulsion system,” said Jean Botti, VoltAero’s CEO & Chief Technology Officer. “With the service entry of Cassio production aircraft to begin in 2024, our timing is perfectly matched to the Netherlands’ goal of being a pioneer in sustainable aviation.”

Agreement signatory is Eindhoven Airport

Eindhoven Airport is the agreement signatory with VoltAero for the Netherlands’ demonstration flights. Located in the south Netherlands, this airport will be the base of operations for Cassio 1 during its flights.

“VoltAero is an extremely valuable partner, bringing its electric-hybrid aircraft expertise already gained with Cassio 1’s operations on segments that mirror typical airline regional routes in our country,” added Roel Hellemons, the CEO of Eindhoven Airport. “Additionally, the VoltAero team’s combined knowledge of e-aviation will be a true resource in helping define the future deployment and handling of electric aircraft flights.”

VoltAero’s proprietary electric-hybrid powertrain has undergone extensive airborne evaluations since 2020 on the Cassio 1 testbed in its 600-kilowatt full-power output – becoming the world’s first truly parallel hybrid configuration to fly. Cassio 1 has flown nearly 10,000 kilometers in operations across Europe, thereby de-risking the propulsion system and battery chain for airworthiness certification.

The VoltAero propulsion concept is unique: Cassio aircraft will utilize their propulsion system’s electric motors for all-electric power during taxi, takeoff, primary flight, and landing. The hybrid feature (with an internal combustion engine) comes into play as a range extender, recharging the batteries while in flight. Additionally, this hybrid element serves as a backup in the event of a problem with the electric propulsion, ensuring true fail-safe functionality.

Cassio’s three production versions with four to 12 seats

VoltAero is well advanced in full-scale development of the Cassio aircraft family, to be produced with capacities of four to 12 seats. This family will provide a highly capable and reliable product line for commercial flights, air taxi/charter companies, private owners, as well as in utility-category

service for cargo, postal delivery and medical evacuation (Medevac) applications.

Production Cassio airplanes will be built in three versions, each sharing a high degree of modularity and commonality. First to be certified is the Cassio 330, with four/five seats and powered by a 330-kilowatt electric-hybrid power module. VoltAero's follow-on six-seat Cassio 480 will have an electric-hybrid propulsion power of 480 kilowatts, while the Cassio 600 is sized at a 10/12-seat capacity with electric-hybrid propulsion power of 600 kilowatts.

VoltAero has based the overall Cassio design on an aerodynamically optimized fuselage, a forward canard, and an aft-set wing with twin booms that support a high horizontal tail. It will be certified to Europe's EASA CS23 specification as a single-engine, general aviation category aircraft, and is designed from the start for a low cost of ownership.

Cassio aircraft are to be built in a dedicated production facility at Rochefort Airport in France's Nouvelle-Aquitaine region. Groundbreaking is scheduled in 2022.

25 MAY 2022

ARTICLE LINK:

<https://50skyshades.com/index.php/news/manufacture/voltaero-brings-its-cassio-electric-parallel-hybrid-aircraft-to-the-netherlands-for-sustainable-aviation-demo-flights-with-the-country-power-up-initiative>