

# WORLD-, EUROPEAN-, GERMAN, AND AERO- PREMIERS IN LARGE NUMBERS

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**AERO 2025 just started in Friedrichshafen. Attendees can expect a large number of premieres at the show. New aircraft types, projects, and services can be seen for the first time. Tobias Bretzel from the organizer, fairnamic GmbH commented: "With 756 exhibitors from 38 countries, we have achieved a record level of participation, showcasing an unparalleled variety of aircraft. We are especially pleased to welcome established industry leaders and many new players. Over the coming days, our audience can look forward to a wealth of innovations, including trend-setting products that are expected to shape the future of general aviation."**

The Smartflyer SFX1 from Grenchen in Switzerland can be seen for the first time at an air show. It is one of the few aircraft newly designed for electric propulsion. The hybrid-electric powered aircraft celebrated its roll-out on November 6, 2024. According to the designer's calculations, the four-seater made of carbon fiber composite materials emits 50 percent less CO2 than conventional aircraft in this class, is 60 percent quieter and has a range of 431 nautical miles (800 kilometers). The electric drive is more efficient and easier to maintain, so operating costs will be 50 percent lower than for aircraft powered purely by piston engines.



Dovetail Electric Aviation, based in Australia and Spain, presents its Dovepower drive system and Dovepack energy storage system for the first time in Europe. Dovetail is pioneering the future of emission-free regional flights by retrofitting existing aircraft with electric and hydrogen-electric propulsion systems. Designed to meet the requirements of CS-23 aircraft, Dovepower is the perfect engine to convert aircraft in this category to eCTOL by replacing conventional turboprop engines with a highly efficient, low-noise electric motor.



Dovetail Electric Aviation is currently integrating Dovepower into a Cessna Caravan and is seeking STC (Supplemental Type Certificate) to install the system in the Caravan. This will transform the world's best-selling single-engine turboprop aircraft into a true zero-emission electric platform with up to 40 percent lower operating costs. The company currently has 70 pre-orders for the conversions.

Another world premiere at the AERO: The PC-12 PRO is here – the most advanced single-engine turboprop aircraft of all time, according to the Swiss manufacturer Pilatus Aircraft. A completely new cockpit, innovative safety features such as “Autoland”, “Smart Glide” and “Electronic Stability” as well as new interior and color scheme designs. These enhancements make the all-new PC-12 PRO the most technologically advanced, capable and reliable aircraft.



At the heart of the new PC-12 PRO is the Pilatus Advanced Cockpit Environment ACE, based on the Garmin G3000 Prime. Three immensely large, high-resolution 14-inch primary flight displays and two 7-inch secondary displays - all touchscreens - and the Pilatus-developed cursor control device give the pilot complete control over every phase of the flight and ensure an unparalleled user experience.

MT-Propeller, based at the Straubing-Wallmühle airfield in Bavaria, Germany, was founded with the idea and passion to create a more efficient and quieter way of traveling.

At AERO 2025, MT-Propeller will highlight the first-time conversion of a Piper Meridian single-engine aircraft to a PT6A-135 engine and a five-blade propeller. The conversion reduces maintenance costs, and the engine change is also clearly noticeable in operating costs.

The new engine's propeller speed is 1900 instead of the original 2000, making the aircraft quieter. The certified external noise has been reduced from the original 74.9 db(A) to 66.9 db(A) at 1,999 kg.

Turbotech is a French company that offers high-performance propulsion systems for the aviation industry. Turbotech is the first company in the world to introduce regenerative turbines for aviation applications. It is supported by a close partnership with the French manufacturer Le Guellec, which developed the key technology of microtube heat exchangers.



Its optimized heat exchanger technology reduces the environmental impact of the turbine and makes the regenerative turbine the best solution for the future of aircraft propulsion. The TP-R90 turboprop engine is the perfect solution for powering light aircraft, helicopters and drones. Compact, reliable and vibration-free, this turboprop combines all the advantages of a gas turbine with very low fuel consumption. Thanks to its poly-fuel capacity, long-haul flights are no longer an issue.

Turbotech, Elixir Aircraft, Safran, Air Liquide and Daher joined forces in June 2022 for a joint research project called BeautHyFuel. The aim of this project was to define a hydrogen propulsion chain in a performance range suitable for light aviation and then to test it on the ground and develop a methodology for certifying the integration of this propulsion chain. In September 2024, the project participants completed test bench runs of a hydrogen-powered turboprop engine that uses a high-performance regenerative cycle and is fed from a liquid hydrogen tank.



Dream, build, fly – that is the motto of the Oskar Ursinus Vereinigung (OUV), a decentralized association in Germany with more than 1,200 members. The OUV helps all those who want to turn their dream of building their own airplane, helicopter or ultralight into reality. The OUV's exhibits this year, which represent the passion for self-built aircraft, include the ultralight flying wing "Schneewittchen", the UL kit plane Weller Rebell, an aerobatic two-seater Van's Aircraft RV-7A, a Cherry BX2, a CAP 232 aerobatic aircraft and a CriCri, the smallest twin-engine aircraft in the world. The OUV will also be exhibiting a first-generation Skywalker ultralight aircraft for the OUV youth project "Students build an airplane".

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