MTU Teams with DLR To Advance Hydrogen Fuel Cells

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MTU Aero Engines and DLR intend to flight test a hydrogen-powered version of the Dornier Do228 aircraft. (Photo: MTU)

MTU Aero Engines has joined forces with the DLR German Aerospace Center to jointly develop and validate a new hydrogen fuel cell propulsion system that they believe could eventually power aircraft as large as the ubiquitous Airbus A320 and Boeing 737

narrowbody airliners. On August 5, the partners signed a memorandum of understanding that will lead to them developing an initial system to be tested on a Dornier Do228 turboprop twin.

Their combined engineering team will equip an existing Do228 with a hydrogen fuel cell and a 500-kW electric propeller engine on one side of its wing, while the other will carry the aircraft's original Honeywell TPE331 turboprop engine. The partners said they are aiming to achieve first flight of this new technology demonstrator in 2026.

DLR—the government-backed Deutsches Zentrum fur Luft- und Raumfahrt—will manage the flight-test program and is also responsible for the integration and certification of the new propulsion system. The agency already has secured some financial support for the program from Bavarian state authorities.

MTU Aero Engines is Germany's leading aircraft engine manufacturer. The Munich-based company has a long track record in developing low-pressure turbines, high-pressure compressors, and turbine centre frames for a variety of turboprop, turbofan, and turboshaft powerplants.