



GE AVIATION CLOSES IN ON PASSPORT CERTIFICATION

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Engine manufacturer GE Aviation is in the “final throes” of the certification effort for its new Passport engine to power the Bombardier Global 7000/8000 ultra-long-range business jets.

Brad Mottier, GE’s vice-president and general manager of business and general aviation and integrated systems, says the required tests on the 10,000-20,000lb-thrust (44-89kN) powerplant are complete.

The manufacturer will now file documentation with the US Federal Aviation Administration, says Mottier: “I am hopeful that by [mid-May] we will be able to announce we are all done. We are in the process of finishing off certification.

“The engine is running great. We meet or exceed, in some cases significantly, the requirements and the engine is running great.”

Although Bombardier's in-development Global 7000 and 8000, due to arrive 2018 and 2019, respectively, are the sole application for the Passport, GE continues to discuss its potential with other manufacturers, says Mottier.

"We are talking to other people about the engine, but we don't have anything to announce," he adds.

The Passport features innovations including a 52in (132cm)-diameter titanium fan blisk – the first application of the technology on an engine of this size – and a core scaled down from the Leap airliner engines produced by its CFM International 50/50 joint venture with Snecma.

Meanwhile, GE is continuing early development work on the first of its new Advanced Turboprop (ATP) family engines.

Announced in November following its selection by Textron Aviation to power the airframer's next-generation turboprop, Mottier says it is now six months into "full hardcore design development work" for the application.

The initial engine will be designed to deliver 1,350shp (1,010kW) and work is under way at GE facilities across Europe. The engine-maker intends to begin ground runs of the first engine to test in 2018.

Final assembly of the ATP family will take place at a new turboprop centre of excellence which will be constructed in the Czech Republic. Although GE has yet to detail the precise location, it is likely to be close to the company's Prague site.

The manufacturer intends the ATP range – which will span the power band from 850-1,650shp – to be a direct challenger to the Pratt & Whitney Canada PT6, and deliver a 10% improvement in specific fuel burn over its rival.

"We have been working on this design for quite some time," says Mottier. "The [earlier] H80 [engine development] allowed us to start engaging with customers and understanding what they need – there's no point us coming out with a clone of the PT6."

The ATP will feature an integrated propulsion control system that will regulate the engine and propeller, as well as variable stator vanes in the compressor and advanced three-dimensional design of the aerofoils and blades in the compressor. All this contributes to achieving a 16:1 overall pressure ratio for the engine.

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