



PurePower™

PW1000G Engine News

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This Changes Everything.™

Pratt & Whitney successfully completes all planned testing on the PurePower™ PW1000G Engine Demonstrator!

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Airbus and Pratt & Whitney have completed joint flight testing of the PurePower PW1000G engine demonstrator, marking the completion of the ground and flight testing program. The final phase of testing was conducted on an A340-600 test aircraft and included 27 flights and more than 75 hours in the air.

"It is truly unprecedented to complete this amount of testing on a technology demonstrator engine," said Bob Saia, vice president, Next Generation Product Family. "We were able to complete all flight test objectives with flawless engine operation. The Airbus A340 flight test program included engine test evaluations normally conducted for a production engine certification. The PurePower PW1000G demonstrator engine successfully demonstrated the performance and operational benefits of the engine's unique gear system."

In total, the engine demonstrator completed 406 hours of testing across four phases of the Ground and Flight Test Program. Phase 1 and 2 ground tests were performed at Pratt & Whitney's West Palm Beach, Florida facility. These tests were to quantify basic engine performance and noise characteristics and then to perform pre-flight testing to guarantee engine readiness for the flight portions of the program. Phase 3 of the test program was performed on Pratt & Whitney's B747 Flying Test Bed and included twelve flights and 43 hours of flight time. The engine performed very well and quantified altitude performance, in flight starting, wind-milling characteristics, acceleration and deceleration times and overall engine altitude performance.

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Engine Demonstrator Completes Testing (continued)

Flight Test completed in Toulouse France on Airbus A340-600 Flying Test Bed

In October 2008, the demonstrator engine entered Phase 4 of testing at the Airbus facility in Toulouse, France where it completed 27 flights totaling 76 hours of flight time. During the first part of Phase 4 testing, the airplane quantified altitude performance, in-flight starting, Thermal Management Systems (TMS) efficiency and performed multiple full rated takeoffs. Modifications to the engine and airplane configurations were then completed to enable noise measurement for Fly Over Far Field Noise testing at Airbus' flight-test facility in Moron, Spain. The flight test program successfully concluded on December 19, 2008.

Having validated the Fan Drive Gear System (FDGS) and other key technologies, the PurePower PW1000G demonstrator engine will now be "retired" as the Pratt & Whitney team focuses on detailed engine design for the Mitsubishi Regional Jet (MRJ) and Bombardier CSeries applications.



PurePower Engine Wins Technology Breakthrough Award in China

Pratt & Whitney's PurePower engine family has been recognized with the 2008 Technology Breakthrough Award from the China Aviation Association and AVIC Science and Technology Department. The award, presented at China's largest air show in Zhuhai, recognizes innovation in commercial aviation and aerospace.

"We are honored to be recognized with this prestigious award, which recognizes the game-changing technology in our PurePower family of engines," said Todd Kallman, president, Pratt & Whitney Commercial Engines & Global Services. "The PurePower engine will deliver double-digit improvements in fuel burn, environmental emissions, engine noise and operating costs. This is a truly comprehensive solution to the economic and environmental challenges facing our industry and we are proud to bring this product to the market."

"The world aviation industry faces tremendous pressure for profitable operations and these challenges call for a next-generation engine powering a next-generation aircraft," said Zhang Ju En, secretary general, China Aviation Association, at the ceremony. "We are glad to see that Pratt & Whitney is taking the lead to be the pioneer with the successful development of this game-changing product. The PurePower engine will bring significant environmental and economical benefits to the aviation industry."



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