## **VOLVO AERO**

## **Press Information**

## Volvo Aero to Partner with Pratt & Whitney on Geared Turbofan<sup>TM</sup> Engine

Volvo Aero has entered into an agreement with aircraft engine manufacturer Pratt & Whitney to join P&W's Geared Turbofan™ engine program. Under this arrangement, Volvo Aero will be responsible for three major components for both the Mitsubishi Regional Jet (MRJ) and the Bombardier CSeries aircraft engines.

The Geared Turbofan engine will be a product unique in the aircraft industry, bringing double-digit reductions in fuel burn, environmental emissions, engine noise and operating costs. For Volvo Aero, the agreement is expected to result in sales of SEK 50 billion during 40 years, the largest involvement in a commercial engine program ever.

Two years ago, Volvo Aero and Pratt & Whitney signed an agreement to demonstrate new technology for the new Geared Turbofan engine. Since then, Volvo Aero has worked to develop advanced light weight technologies for the new engine concept. Volvo Aero brings expertise in turbine exhaust case technology to development of the Geared Turbofan engine.

According to the agreement, Volvo Aero will participate as a partner in design, development, production and aftermarket in this engine project, with overall responsibility for the Intermediate Case and Turbine Exhaust Case as well as Low Pressure Turbine Shaft production responsibility.

"We are delighted to have reached this agreement with Pratt & Whitney, not least because we know that this engine will contribute to improving the environment by reducing fuel consumption, emissions and noise," says Olof Persson, President of Volvo Aero.

"Participating in an engine concept that has excellent prospects for enhancing our current program portfolio in this thrust region of the engine market is also an important sign of success for Volvo Aero. Last but not least, we are gratified that the agreement further strengthens our relations with Pratt & Whitney," he adds.

The Geared Turbofan engine is expected to set new standards in environmental performance and operating value for the next generation of commercial aircraft. In a Geared Turbofan engine, a state-of-the-art gear system allows the engine's fan to operate at a different speed than the low-pressure compressor and turbine, resulting in greater fuel efficiency and a slower

fan speed for reduced noise. The Geared Turbofan engine targets more than 12% reductions in fuel burn and CO2 emissions, a 50% reduction in engine noise and double-digit reductions in maintenance and operating costs.

"I am pleased to welcome Volvo Aero to the growing list of partners on the Geared Turbofan engine program," said Todd Kallman, president, Pratt & Whitney Commercial Engines. "Volvo Aero has played a key role in the development and demonstration program to date and we are proud to continue that partnership into the production phase of the program with this agreement."

This cooperative project with Pratt & Whitney will enable Volvo Aero to refine its ability to develop products on the basis of proven Volvo Aero design and manufacturing tools and procedures. In addition, activities such as this will continue to enhance Volvo Aero's position as a strong independent partner to original equipment manufacturers of large turbofan engines.

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For more information, please contact Nils-Olof Gustafsson, Volvo Aero, +46 70 5738185, or Matthew Perra, Pratt & Whitney, matthew.perra@pw.utc.com, +1-860-595-6515.

Images of the Geared Turbofan<sup>TM</sup> Engine can be found under News images in the <u>image</u> gallery on volvoaero.com.

## **Facts on Geared Turbofan engine:**

The Geared Turbofan engine has already been selected as exclusive power for the 70-90 passenger Mitsubishi Regional Jet (MRJ) and the 100-149 seat class Bombardier CSeries mainline aircraft, that was launched in connection with the Farnborough Air Show that opened on Monday. According to current schedules, both the MRJ and CSeries aircraft will enter revenue service in 2013. The Geared Turbofan engine recently completed a 250 hours ground test program and is scheduled to begin flight testing in mid-July.

Volvo Aero develops and manufactures components for aircraft and rocket engines with a high technology content in cooperation with the world's leading producers. Volvo Aero offers an extensive range of services, including sales of spare parts for aircraft engines and aircraft, sales and leasing of aircraft engines and aircraft, as well as overhaul and repair of aircraft engines. Volvo Aero is part of the Volvo Group, one of the world's leading manufacturers of trucks, buses and construction equipment, drive systems for marine and industrial applications, aerospace components and services. The Group also provides complete solutions for financing and service.