## **VOLVO AERO**

**Press release** 

## **Important milestone for Volvo Aero when GEnx engine is certified**

The GEnx aircraft engine, in which Volvo Aero plays a major role, has received airworthiness certification from the U.S. Federal Aviation Administration (FAA). "Certification is an important milestone in the work to develop the environmentally adapted aircraft engines of the future. This is the fruit of four years of hard work, involving many," comments Volvo Aero President Olof Persson.

Volvo Aero currently has a role in most large aircraft engines, but in the case of the GEnx the involvement is extra important, since it is the largest the company has ever had in a commercial engine. Volvo Aero has been responsible for product development of three key components and will manufacture six components for the new engine. Volvo Aero expects the GEnx to result in sales of more than SEK 30 billion during the lifetime of the engine

Development of the three components started in Trollhättan four years ago. At the peak, more than 200 persons were engaged in the project. In addition, during this time Volvo Aero had some ten persons on-site at General Electric, Boeing and at various suppliers.

During the past two years, the GEnx has undergone an extensive ground- and flight-test program. Eight test engines went through 4,800 cycles and more than 3,600 hours of operation.

The engine now certified is designated GEnx-1B. It is intended for the next Boeing aircraft, the 787 Dreamliner. The certification represents a sort of graduation, a clearance for the engine to be used in commercial traffic.

"The ground- and flight-tests validate that the GEnx-1B engine will be the most environmentally responsible aircraft engine, with significantly lower fuel consumption than today's engines, partly due to new lightweight technology from Volvo Aero," says Joakim Andersson, GEnx Project leader at Volvo Aero.

"Certification is an important recognition of our ability to develop products for the commercial market. Our entire product development team should be very proud of their efforts," he says.

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For more information, please contact Joakim Andersson, GEnx Project leader at Volvo Aero, +46 520-94470 or +46 70 2068570.

*Photos can be found on* http://www.volvo.com/volvoaero/global/en-gb/newsmedia/image\_gallery/

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After four years of hard work, the project leaders Joakim Andersson, Stefan Oscarsson and Tony Karlsson celebrate the FAA certification of the GEnx engine.

## Facts about GEnx

With more than 1,100 engines sold to date, the GEnx is the fastest-selling engine in General Electric's history. Based on the proven architecture of the GE90, the GEnx will succeed GE's CF6 engine. Compared with the CF6, the GEnx will offer 15 percent improved fuel efficiency, which translates into 15 percent less  $CO_2$  emissions. It is designed to stay on wing 30 percent longer than the CF6 between scheduled overhauls. Combined with using 30 percent fewer parts, this greatly reduces maintenance costs.

The GEnx emissions will be as much as 95 percent below current regulatory limits. The GEnx will also be the quietest engine that GE has produced, based on a pound-of-thrust-per-decibel ratio. As the world's only jet engine with both a front fan case and fan blades made of carbon fiber composites, the GEnx will also have greater durability, less weight as well as lower operating costs than comparable engines in its class.

Volvo Aero's responsibility in the GEnx engine comprises development, design, manufacture and product support for three different components: fan hub frame, turbine rear frame and booster spool. Volvo Aero will also manufacture the HPT seal, aft fan case and C-sump cover for the engine.

Manufacture of components and spare parts of the GEnx, which is expected to span at least 30 years, will be at Volvo Aero's plants in Trollhättan, (Sweden), Kongsberg, (Norway) and Newington, Connecticut, (in the US).