

CAE opens New Facility For Falcon Training

Pilots of the leading Dassault business jets will have a new place to go for simulator training following the opening of CAE's (Stand C225) new Burgess Hill, UK, expansion last week.

The new bay has space for four simulators, but currently houses two brand-new units, a Dassault Falcon 900EX Easy/2000EX Easy combination and a Falcon 7X.

The 900/2000 simulator is fully functional and ready for training; the 7X should be ready by mid-2007. Maintenance training for the 7X has already begun at the Morristown, New Jersey, US centre and the first intake at Burgess Hill is expected to start imminently. The first batch of pilots is destined to start in April at Morristown, and around 30-days later in Burgess Hill.

CAE is currently the exclusive holder of Dassault Authorised Training Provider for maintenance on the 900EX Easy, 2000EX Easy and the 7X.

The Burgess Hill centre is also on track for a further four-bay expansion. "We started training operations in 2004, and since then, not only have we doubled our footprint but we will soon be tripling it with another expansion," says Jeff Roberts, group president, innovation and civil training and services at CAE.

Support team Has x-Factor

Cessna is celebrating more than 10 years of Team X, the assembly of experts providing Citation X business jet customers with service and support for the 250 Citation Xs flying around the world. "Team X is made up of dedicated specialists on the Citation X's engines, electrical systems, computers and structures, and, foremost, we're devoted to ensuring our customers have the fast, knowledgeable, timely and courteous response they expect from the moment they receive their Citation X, throughout their ownership of their airplanes," said Team X Supervisor Steve Lill.



Long-range vision: Pratt & Whitney's PW16 and Honeywell's HTF7000.



RISE OF THE SUPERPOWERS

Many visitors and delegates at the MEBA conference and exhibition will be focusing on the cabin but GEOFF THOMAS outlines how the power behind the jets is something worth knowing about.

When you settle down into the luxurious seat on a business jet, spare a thought for the engines and give credit where credit's due.

Although relatively simple in concept, they're incredibly sophisticated pieces of kit and – when all is said and done – they're responsible for getting you to, and keeping you at, the dizzy altitudes that today's business jets inhabit.

While operating in temperatures of around minus 60-degrees centigrade – and lower – parts of them are being exposed to combustion temperatures higher than the melting point of the sophisticated alloys they're made from, thanks to very clever cooling, and they're still producing vast quantities of reliable thrust to keep you aloft.

Today's engines run for many thousands of hours 'on wing' without needing anything more than a cursory glance and a check of lubricant levels – but they certainly shouldn't be taken for granted.

Most modern business jet engines produce up to around 10,000-lbs of thrust and the global engine makers are always looking at opportunities for utilising their products on new airframes.

However, with the growing market for larger, long-range business jets requiring engines in the 8,000/12,000-lbs thrust category, some of the engine makers have seized on an opportunity to produce suitable power-

plants in an unusually speculative manner.

Both French company SNECMA and the USA's Honeywell group have announced potential new engines in this market sector while the Canadian arm of Pratt & Whitney is also in the frame.

SNECMA are progressing the design and construction of parts for a new family of engines (now named Silvercrest) and targeting the long-range business jet market. The company's vice president of commercial engines, Jean-Pierre Cojan says: "We are scheduling the first ground test of the core in Q4 2007 and we'll then make a decision on whether or not to launch the engine – but it's the airframers who will 'call the shots'.

"The demonstrator will lay the foundations for the new generation of engines designed to meet the needs of long-range business jets, with a thrust range from

8,500lbs to 10,500lbs – although this could change, depending on the needs of the airframers."

Continues Cojan: "We are looking for around a 25% improvement in cruise/thrust performance and a significant 30dB reduction in noise compared with the current Stage 3 standards.

"We are also working on a fuel burn that will be up to 15% better than today's engines and an emissions figure of around 50% less than the current CAEP-4 standards."

US engine builders Honeywell have also announced that they're working on a new member of the HTF-7000 family, to be called the HTF-10000.

Designed primarily for yet-to-be-announced medium/large business jet applications, the HTF-10000 is in direct competition with the proposed new SNECMA engine.

According to Ron Rich,

the company's director of advanced technology, the new engine will also offer lower fuel consumption; extended operating temperatures and pressure levels (thanks to US department of defense technology programs); electric or pneumatic starting; and an entirely integrated powerplant system including nacelle and thrust reverser.

Meanwhile, Pratt & Whitney Canada (P&WC) is working hard on its advanced technology turbofan family, the PW800 – a project that has been on-going for some time now. Aimed at the next-generation 50 to 100+ passenger regional jets and future large, long-range business aircraft, the new engine will span the 10,000- to 20,000-lbs-thrust range and complete the P&W product line by bridging the gap between the PW300 series for small regional and business jets, in the 5,000- to 8,000-

pound-thrust range, and the PW6000 family in the 20,000+ pound thrust category.

Meanwhile, at the smaller end of the market, P&WC's PW600 family of 'very light jet' (VLJ) engines are selling well and production is being ramped-up so that a new engine is produced every eight hours, or 2,000 a year! The power of choice on three VLJs – Eclipse 500, Cessna Citation Mustang and Embraer Phenom 100 – the PW600 looks set to become a world-beater as the long-anticipated air taxi market gathers momentum (see story page 12).

US company Williams International also produces jet engines for the smaller end of the business jet and GA market with powerplants producing between 1,000 and 3,500lbs thrust.

The FJ33 and FJ44 families of engines can be found on a wide range of airframes from manufacturers as Cessna, Raytheon, Grob and Piper with its new Sport Utility Jet. Williams International is also bullish about orders for its updated version of the FJ33 that has been selected to power Cirrus Design's single-engined personal jet. Certification of the 1,900lbs thrust FJ33-4A-19 is scheduled for the end of 2008.



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SNECMA's Jean-Pierre Cojan

