AVIONICS GRAHAM WARWICK / WASHINGTON DC

Bombardier launches EVS certification

Flight tests start as Canadian manufacturer sets sights on system approval on Global Express in early 2005

Bombardier has begun flight tests aimed at gaining certification of an enhanced vision system (EVS) on the Global Express long-range business jet in the first quarter of 2005. Aerodynamic flight testing of a prototype installation is under way at the Canadian manufacturer's test centre in Wichita, Kansas.

Whereas Gulfstream's already certificated EVS has the infrared sensor mounted under the nose, the Bombardier enhanced vision system (BEVS) has the sensor mounted just below the windscreen, closer to the pilot's line of sight. Flight tests will evaluate the impact of the aerodynamic fairing and viewing glass on altitude reporting for reduced vertical separation minima operations, and on overall air data system performance in icing conditions.

CMC Electronics will deliver its SureSight I-series infrared (IR) sensor to BEVS developer Thales Avionics in July. The dual-band IR sensor will be integrated with the Global Express's Thales-supplied pilot's head-up display (HUD) and co-pilot's head-down display. The BEVS will be standard on Global Express production aircraft from 2005 and will be available for retrofit. HUD and BEVS will also be available for the super-large Global 5000 derivative, which is now in flight test.

Gulfstream's EVS, meanwhile, is now operational on the large-cabin GIV-SP, having entered service last year on the long-range GV. EVS has been installed in 34 GVs and the 40-system backlog is divided equally between the GV and GIV/GV-SP. In Gulfstream's rebranded and expanded product line-up, the Kollsman-produced system is standard on the ultra-long-range G550 and available on the large-cabin G300 and G400 and long-range G500. Gulfstream is studying adapting the system to the super mid-size G200. A smaller sensor is required to preserve the aircraft's aerodynamics, and the company is looking at "innovative ways" of installing the HUD in the G200's smaller cockpit.

Cessna plans to certificate a Max-Viz EVS in the high-speed Citation X and mid-size Citation Sovereign late this year. The EVS-2000 combines a nose-mounted dual-channel sensor with a head-down display, as no HUD is yet available for any of the Citation series. The Citation CJ1, C2, CJ3, Bravo, Encore and Excel will be offered with the single-channel EVS-1000. Dassault is evaluating the EVS-1000 on its Falcon 900EX demonstrator, with a tail-mounted sensor and head-down display.

Portland, Oregon-based Max-Viz has supplemental type certification (STC) for the tail-mounted EVS-1000 on the Bombardier Challenger, and expects retrofit approval on the Falcon 50 in July and on the Falcon 900EX and Learjet 35 in August. EVS-1000 STCs are also in the works for several helicopters, including the Bell 206, 407 and 412 and Eurocopter AS350/355.

CERTIFICATION KATE SARSFIELD / LONDON

Pilatus fumes at JAA's single-engine dithering

Pilatus Aircraft says the delay by Europe's Joint Aviation Authorities in adopting commercial operations for single engine turboprop aircraft operating in instrument flight rules conditions (SEIFR) is destroying the single-engine aircraft manufacturing industry.

Pilatus PC-12 engineering manager Dominik Waser says: "We can't afford to wait around for the JAA anymore. This process started 10 years ago and now we have completely lost confidence." He adds: "Although the JAA says it could adopt NPA-29 [notice of proposed amendment] by the end of the year, we don't expect it to be signed off for at least two more years. This delay could cost us at least 10 PC-12 sales and even more for the industry as a whole."

Frustrated by the lengthy JAA process, Pilatus is pursuing SEIFR approval in Switzerland as a stepping stone to securing country-by-country certification in the JAA area. Each national aviation authority can define and apply national rules where there are no JAA requirements.

Pilatus is working with PC-12 operator Lions Air and the Swiss Federal Office for Civil Aviation (FOCA), and says it expects SEIFR approval before the end of June.

Waser says Pilatus and FOCA have used NPA-29 as the basis for obtaining this approval. The process involved Pilatus and Lions Air demonstrating, through flight tests and documentation, that the PC-12's performance meets the requirements of NPA-29.

Pilatus is calling on Cessna and EADS Socata to adopt similar approaches to European certification by working with European operators of their respective Caravan and TBM 700 types.

Correction We incorrectly stated in our 20-26 May issue that a Boeing 737-200 was chartered by the International Committee of the Red Cross and the Red Crescent on behalf of the US government from Chapman Freeborn Airchartering. The aircraft was chartered by Chapman Freeborn on behalf of the International Committee of the Red Cross with no US involvement.

FLIGHT TESTING

Eclipse aims 500 at Europe

Eclipse Aviation has applied for European certification for the Eclipse 500 personal jet. JAR 23 approval is expected in 2006, following US certification. Reduced vertical separation minima (RVSM) capability and 8.33kHz radios, both required in Europe, are standard in the aircraft, says Eclipse.

RVSM capability and autothrottle have been added to the guaranteed standard equipment on the $950,000 Eclipse 500. Equipment for RVSM includes two independent altimeters, automatic altitude control and altitude alert and reporting systems. Eclipse says the autothrottle will improve safety by reducing pilot workload, automatically managing power to maintain the pilot-selected speed.

The Albuquerque, New Mexico-based company, meanwhile, has resumed flight testing of the Eclipse 500 with surrogate engines following the decision late last year to switch from the original Williams International EJ22s to Pratt & Whitney Canada PW610Fs, which will not be available until late next year. The first aircraft has been re-engined with two Teledyne CAE 382-10E turbojet drone engines to allow aerodynamic and systems testing to resume and continue into early next year.

ECLIPSE

Flight testing of the Eclipse 500 has resumed with surrogate engines