Boeing set for final 777-300ER phase

Manufacturer hopes for US and European certification in March, having completed ETOPS trials in December

Boeing is close to completing the third 777-300ER that will be used to complete the certification programme. The aircraft will be powered by engines removed from the first test aircraft, WD501, which finished extended twin operations (ETOPS) tests on 13 December. Total 777-300ER flight test hours amount to 1,292h on 420 flights.

The ETOPS phase was completed by the two initial -300ERs over 38 flights and 267 ETOPS-qualifying flight hours. It also included eight 330min-plus engine-out segments, the longest of which extended to 6h 29min single-engined time. Boeing adds that the last two single-engine segments were completed on the same engine, running at maximum continuous thrust for the entire time. One single-engine segment included a cabin decompression test.

The aircraft also operated several flights into remote ETOPS diversion airfields. Twenty-three take-offs were undertaken at full thrust rating, and nine sectors were flown with reduced electrical systems. Ten flights were operated with bleed systems inoperative and 10 in high humidity conditions.

The longest single ETOPS flight was conducted on 4 November on a 18h 25min non-stop flight between Sydney and Recife, Brazil. After leaving Sydney at a take-off weight of 320t,980kg (707,000lb), the aircraft crossed New Zealand and skirted Antarctica, reaching a southerly latitude of 65° before overflying the tip of South America after 10h 20min flying time. Engine generators were then selected off for the final leg to Recife during which backup generators only were operating. The aircraft landed at Recife having crossed 10 time zones and the international date line.

The General Electric GE90-115B engines from WD501 are being fitted to the third test aircraft, which is the first production 777-300ER. Boeing says the used engines will power the aircraft until test flights are completed around early March, when new engines will be fitted before delivery. After a lay-up and fitting of replacement engines, WD501 will undergo a final series of natural icing tests, probably in the Washington state area, around early January. The third test aircraft is to start flying within the next two weeks, and will be used to focus on interior tests for smoke detection and evacuation, environmental control system, full interior, noise and function and reliability tests.

Boeing expects certification for the -300ER in March, with deliveries to launch operator Air France beginning in April.

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REGIONAL JETS BRIAN DUNN / MONTREAL & JACKSON FLORES / RIO DE JANEIRO

Bombardier urged to enter 100-seat market

Analysts have warned that Air Canada's recent decision to split its massive regional jet order between Bombardier and Embraer underlines the need for the Canadian manufacturer to move forward with a decision to build a new 100-seater.

The airline signed memoranda of understanding last month for the acquisition of 90 regional jets under a deal that could exceed $5.4 billion. The agreement includes firm orders for 15 50-seat Bombardier CRJ200s and 30 74-seat CRJ700 Series 705s, worth around $1.3 billion, and 45 Embraer 190LRs worth about $1.35 billion (Flight International, 23 December 2003-5 January).

Options are held for a further 45 CRJs and an equal number of Embraer 190s. Deliveries will begin in the third quarter of 2004. Air Canada says it is still negotiating a deal for another 15 aircraft of unspecified size.

Although Bombardier seriously examined the creation of an all-new 100-seater several years ago - the BRI-X - to rival the Embraer 170/190 and Fairchild 728/928, it shelved the plan in favour of stretching its existing aircraft. The company recently said it would begin a formal study of entering the 100-seat class market with a view to reaching a firm decision in 12-18 months time.

"If Bombardier wants to compete, they're going to have to build a jet in that size," says analyst Cameron Doerksen at Dlooby Merchant Group in Montreal. "If they wait too much longer, they're going to miss out on the market entirely."

Air Canada's regional jet evaluation was undertaken jointly with three other Star Alliance airlines - Austrian Airlines, Lufthansa and Scandinavian Airlines - in an effort to conclude a joint deal to satisfy their respective regional jet requirements.

Other aircraft under evaluation were the Airbus A318 and the Boeing 717.

Air Canada will equip its CRJ700s and Embraer 190s with two-class cabins and despite the stated intention of the four Star airlines to acquire a standardised regional jet, Embraer's executive vice-president for civil aircraft Fred Curado believes that only major specifications will actually be complied with.

"Should the 190 be selected by Air Canada's European partners, the different market requirements in Europe will probably lead to a somewhat different passenger cabin arrangement," he says.

STUDY GUY NORRIS / LOS ANGELES

717-300 derivative on course for Lufthansa despite Star deal

Boeing says its proposed 717-300 derivative is still a contender for Lufthansa's 100-seat-plus requirement, despite the selection of both Bombardier and Embraer regional aircraft by fellow Star Alliance member Air Canada in its hard-fought fleet-renewal contest last month.

Boeing says the Air Canada decision, and the way the airline is expected to configure its CRJ700 and Embraer 190s, "indicates they have made a strategic decision for aircraft below the 717-200 passenger size. We recognise the complexity of Air Canada's decision and the fact that several key non-airplane factors also played a role in the final decision," it adds. "The 717 has more customer orders than any other aircraft in its class, and there are currently more than 120 717s in revenue service today. We look forward to working with Lufthansa and other Star Alliance members, as well as airlines worldwide as they pursue fleet decisions in the 100-seat market."

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