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# Bombardier eyes CRJ700 'shrink'

Aircraft maker looks at standardising production line with new 50-seater as part of long-term strategy

Bombardier has been discussing a "shrink" derivative of the CRJ700 with customers as a possible successor to its successful 50-seat CRJ100/200 series, as the regional aircraft manufacturer weighs up its long-term strategy in that market sector.

The proposed design, believed to be codenamed "CRJ500", would essentially be a 50-seat version of the 70-seat CRJ700, incorporating the larger wing and leading edge slats, as well as its redesigned fuselage structure. The engine would be standardised on the CRJ700's increased thrust General Electric CF34-8C1. The CRJ700's reduced depth fuselage frames provide about 25mm (1in) more cabin width than the CRJ100/200, while the floor is 130mm lower and the window line 150mm higher.

John Giraudy, Bombardier's senior vice president of regional



Lufthansa is not interested in a 50-seat shrink of the CRJ700 (above)

aircraft sales says that "because we have to justify every gram of metal we put in the air, we talk about any new project with our most important customers". The manufacturer, however, officially declines to comment on the study.

Lufthansa CityLine, which is a major CRJ operator with 45 50-seaters in service and is just introducing the first of 20 CRJ700s, con-

firms that it has been involved in the studies but does not have an immediate need for the aircraft.

CityLine managing director Dr Thomas Dräger says that although the increased cabin diameter allows better window positioning, bigger baggage compartment and additional headroom, the increased costs of using a bigger wing does not make the choice economical.

"Customers we've polled do not have a negative image of the cabin size of the CRJ200," he says.

The CRJ500 would offer improved performance and range, and a more comfortable cabin, albeit at increased operating costs. With just 30% commonality between the 50-seat CRJ and the new 70/90-seat CRJ700/900 family, it would provide fleetwide standardisation for operators of all models. Bombardier could also have a standardised CRJ200/700 production line.

The CRJ200 design is 12 years old, and is itself based on the 25 year old Challenger business jet airframe. The dilemma faced by Bombardier is whether demand and competition in the 50-seat sector will warrant the investment in the CRJ500, and if it does, at what point does it switch from the current model?

## MARKETPLACE

■ **American Trans Air** has agreed to lease a 15th Boeing 737-800 from **International Lease Finance** for a 15-year term commencing June 2004.

■ **Pelita Air Service** is to lease two Fokker 100s from **Debis Air Finance**, to be delivered this month and to run on a four and five year contract. ■ **Vanguard Airlines** has introduced a McDonnell Douglas MD-87, its first example of the short fuselage MD-80, on services between Las Vegas and Los Angeles.

■ **British World Airlines** has based a BAe ATP in Las Palmas Gran Canaria where it will operate on behalf of **Binter Canarias** for four months from July primarily on flights between Las Palmas and Fuerteventura. ■ **Norway's Wideroe Flyveselskap** has ordered three **Bombardier** Dash 8 Q400s and taken options on five more. The aircraft will be delivered in October, next July and August and will fly on Wideroe's domestic services.

## LITIGATION

# SilkAir crash case opens

Legal action against SilkAir over the 1997 Boeing 737-300 crash has begun with plaintiffs' witnesses alleging it was deliberately caused by a member of the cockpit crew.

The lawsuit in Singapore has been brought against the Singapore Airlines subsidiary by families of six victims of the crash, which killed 104 people (*Flight International* 26 June-2 July, P4). The trial opened on 2 July with senior counsel Michael Khoo arguing that SilkAir is liable under the Warsaw Convention or the Hague Convention as the crash was a result of "wilful misconduct" by a member of the flight crew, or negligence by the airline itself.

On 3 July the court heard from SilkAir first officer Lawrence Dittmer, who flew several times with Tsu Way Ming, the captain of the crashed 737-300. Many including the US National Transportation Safety Board (NTSB) believe Tsu, who had financial troubles and had been disciplined by the airline for procedural breaches, deliberately

crashed the aircraft.

Dittmer recounted a March 1997 incident in which Tsu botched an approach to Manado airport in Indonesia and carried out a violent manoeuvre to slow the aircraft.

Three months later, while a SilkAir inquiry into the incident was continuing, Tsu and Dittmer were again scheduled to fly together and discussed it in the cockpit before departure. Tsu then disconnected the cockpit voice recorder to save its contents but Dittmer refused to fly unless it was re-started. Tsu was demoted from instructor pilot.

The court also heard on 4 July from Australian aviation expert Capt John Laming, who said the aircraft's flight profile during its steep dive was consistent with sustained nose-down control input. He said it appeared there was no attempt to recover the aircraft.

SilkAir will argue there was no evidence that the crew had either suicidal tendencies or a motive to cause the crash.

## PROPULSION

# P&W tackles PW2000 stator cracks

Pratt & Whitney is testing a new high pressure compressor (HPC) stator design on the PW2000 following cracking problems with the original unit which has led to at least two in-flight shut downs.

P&W says "vibratory pressures" have led to cracking in the 10th and 11th stage HPC stators. After a fleet-wide inspection the company has issued a service bulletin to either replace or repair affected units while it tests the new design. The in-flight shutdowns are believed to have affected Boeing 757-200s belonging to Delta Air Lines which temporarily grounded up to nine aircraft.

P&W says the problem is "not a safety of flight issue" and will be resolved with the revised unit which is designed to dampen the vibratory mode. P&W says it will be available in the third quarter of the year.