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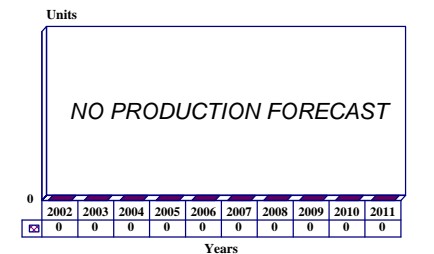
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Bombardier BRJ-X – Archived 5/2003

Outlook

- 90-seat model shelved in favor of stretched CRJ 700
- Studies continuing on 100- to 120-seat variant
- No production forecast at this time

10 Year Unit Production Forecast
2002 - 2011



Orientation

Description. Twin-turbofan, short-range passenger transport.

Sponsor. Privately sponsored by Bombardier Aerospace.

Contractors. Bombardier Aerospace Group, Bombardier Regional Aircraft, the combined regional aircraft operations of Canadair and de Havilland, Montreal, Quebec, Canada.

Status. Bombardier is reassessing program. 90-seat variant shelved in favor of a stretched CRJ 700 (see review in this Tab), with focus now on a baseline 100- to 120-seat design.

Total Produced. None

Application. 90- to 120-seat regional commercial passenger service.

Price Range. Manufacturer's target was \$26 million in 1999 US dollars.

Technical Data

Design Features. BRJ-X was to feature an all-new airfoil mated to a fuselage with a cross section of 128 inches. Seating was originally planned at five-abreast and aircraft was to be powered by two underwing-mounted turbofans in 60-92 kN (20,000 lbst) power class.

	<u>Metric</u>	<u>US</u>
Dimensions		
Length	33.2 m	108.9 ft
Height	10.5 m	34.4 ft
Wingspan	28.6 m	93.8 ft
Weight		
Max gross weight	45,500 kg	100,000 lb
Performance		
Max cruise speed	Mach 0.84	Mach 0.84
Typical cruise speed	Mach 0.8	Mach 0.8
Range	2,800 km	1,515 nm

MetricUS**Propulsion**

- (2) Advanced technology turbofans, 85-98 kN (19,000-22,000 lbst) each.

Variants/Upgrades

BRJ-X-90. Baseline model seating 90 and offering range of 1,500 nautical miles. Optional fuel packages would extend range to 2,475 nautical miles. Seating would be five-abreast in a “double-bubble” fuselage cross section 3.26 meters (10.75 ft) wide. Advanced turbofans in 20,000 lbst class would be underwing mounted.

This model superseded by a stretched, 90-passenger variant of 70-seat CRJ 700, which would become available sooner.

BRJ-X-110. Stretched variant (by 3.5 m) seating 110. Has since been repositioned as 100- to 120-seater and will likely be redesignated.

Program Review

Background. Bombardier announced plans to develop a 90-seat RJ at the September 1998 Farnborough Air Show, and the company planned to make a go/no-go launch decision in late 1999. At that time, the manufacturer was planning a 36-month development period leading to certification in 2003.

Designated BRJ-X, the aircraft would be an all-new design with a fuselage cross section of 128 inches, five-abreast seating, and two underwing-mounted engines in the 20,000 lbst power class. Bombardier saw the proposed type as slotting in between the 70-seat RJs and the new 100-seat Airbus A318 and Boeing 717-200 models. The Canadian manufacturer was also planning to develop a stretched BRJ-X-110 variant from the baseline design.

In late 1999, however, the Canadian manufacturer switched horses, offering instead to stretch its 70-seat CRJ 700 to seat 90 passengers. Bombardier’s strategy is to get a 90-seater into service a year or more before rivals Embraer and Fairchild can field a comparable model.

The BRJ-X may evolve into a 100- to 120-seater, which Bombardier sees as a viable candidate to replace the BAe 146, Fokker 100, and McDonnell Douglas DC-9 transports.

Powerplants. Prior to shelving the 90-seat BRJ-X, no clear favorite was apparent among the BMW Rolls-Royce BR715, CFM56-9, and the Pratt & Whitney PW6000.

Funding

Development costs estimated at \$1 billion.

Recent Contracts

Not applicable.

Timetable

<u>Month</u>	<u>Year</u>	<u>Major Development</u>
Sep	1998	Proposed design announced
	1999	Design, marketing studies continued
Oct	1999	Stretched CRJ 700 proposed as alternative to BRJ-X-90
Beyond	2002	100- to 120-seat variant may move into development stage
	2006-07	Possible certification of 100-120-seat BRJ-X model

Worldwide Distribution

Not applicable.

Forecast Rationale

Bombardier basically shelved the BRJ-X in 1999 in favor of the CRJ 900. The latter is a stretched, 90-passenger derivative of the Canadian manufacturer's 70-seat CRJ 700.

The original BRJ-X may possibly evolve into a 100- to 120-seater that can be offered as a replacement for the aging BAe 146, Fokker 100, and DC-9. We seriously question the wisdom of Bombardier's quest to go up

against Airbus (A318) and Boeing (717), particularly when both have such a head start on Bombardier.

We are not forecasting a go-ahead for the so-called BRJ-X-100 (or a similarly-sized Bombardier) at this time. For an appraisal of the 90-seat segment, we refer the reader to the "Bombardier CRJ Regional Jets" review in this binder.

Ten-Year Outlook

No production forecast.

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