

BOMBARDIER

BACKGROUNDER

LEARJET 85

Background: Launched on October 30, 2007, the new *Learjet 85* aircraft will be the first Bombardier Aerospace jet to feature an all-composite structure and will be the first all-composite structure business jet designed for type certification under Federal Aviation Regulations (FAR) Part 25. The new jet, with a customer driven clean-sheet design, will be positioned between the midsize *Learjet 60 XR* aircraft and the super-midsize *Challenger 300* jet, redefining the midsize market segment.

Description: True to its legendary heritage, the new *Learjet 85* aircraft is set to deliver the extraordinary performance *Learjet* aircraft owners expect. The clean-sheet *Learjet 85* aircraft targets a high-speed cruise of Mach 0.82 and a transcontinental range of up to 3,000 nautical miles (5,556 km)¹. With a cabin volume of 665 cubic-feet² the *Learjet 85* aircraft is designed to provide a larger, more comfortable cabin than any existing midsize aircraft. This jet will offer eight passengers a 71-inch³ (180.3-cm) stand-up cabin built to ensure superior productivity and comfort.

An extraordinary advancement in next generation flight, the *Learjet 85* aircraft's all-composite structure will allow *Learjet* designers to maximize cabin comfort while minimizing drag and improving performance. Exceptional strength-to-weight ratio, reduced maintenance and extended service life are key characteristics of all composite airframes and the ultra smooth surfaces of composite structures permit superior aerodynamics. Other competitive advantages of composites include reduced structural part count and significantly less vulnerability to corrosion or fatigue damage than metal.

Building on legendary Learjet performance

The *Learjet 85* jet will be powered by two Pratt & Whitney Canada (P&WC) PW307B turbofan engines. At 6,100 pounds⁴ of take-off thrust, the PW307B engine incorporates a suite of advanced technologies, including a TALON™ low-emissions combustor, an advanced shock-management fan for increased flow capacity, and powdered-metal, high-pressure turbine disks for improved efficiency.

For the flight deck, the latest in technological advancements from Rockwell Collins – Pro Line Fusion™ – is once again paired with superior design aesthetics to create the ultimate *Learjet* flight deck environment. Rockwell Collins' most advanced avionics suite technology, provides an integrated flight deck to ensure interoperability between systems and overall increased efficiency.

The new avionics suite features three high resolution 15-inch diagonal LCD displays, synthetic enhanced vision, advanced human-machine interface including graphical flight planning capability, Integrated Flight Information Systems (IFIS) with electronic charts, dual advanced flight management systems, electronic checklists linked to the Engine Indicating and Crew Alerting System (EICAS) and integrated circuit breaker control.

Learjet is the first name in corporate aviation. Since acquiring Learjet Inc. in 1990, Bombardier has carried forward the brand's proud legacy by launching eight high-performance and fuel-efficient aircraft.

Status: Following its introduction at NBAA 2008 in Orlando, the full-scale mockup of the *Learjet* 85 aircraft interior began a European tour with a viewing at the Farnborough UK airport in late April, and a presentation on the static display in Geneva at EBACE2009. The mockup will be on hand for viewing at select Bombardier events throughout 2009.

Highlights:

Max. cruise speed:	Mach 0.82 (541 mph; 870km/hr)
Max. range:	3,000 nm (5,556 km)*
Passengers:	8

Milestones:

Program launch:	October 30, 2007
First flight:	TBD
Certification:	TBD
First delivery:	2013

- 1 Range with 2 crew, 4 passengers (200 lb each) and 100 NM NBAA IFR reserves. Assumes standard BOW, sea level departure and landing, unrestricted climb, cruise and descent with zero wind and standard (ISA) conditions in route.
- 2 As measured from cockpit divider to end of pressurized compartment.
- 3 As measured from the floor panel to the overhead liner at centerline (+/- 1%)
- 4 Flat-rated to ISA at 15 C (86F)

Statements about performance and design as stated in this document are solely based on projections and forecasts, and are subject to change without notice.

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