

# BOMBARDIER

## BACKGROUNDER

### GLOBAL 5000

**Background:** In service since April 2005, the high-speed *Global 5000* jet is designed specifically to meet customers' needs in the evolving super-large business jet segment. Providing the widest and most spacious cabin among super-large business jets, the *Global 5000* jet is an intercontinental aircraft capable of flying non-stop from continental Europe to central North America at Mach 0.85 with eight passengers and three crew\*. Designed to execute transcontinental missions at a brisk Mach 0.89 – faster than any competing jet – it flies executives and government leaders in and out of airfields closer to their point of business than any widebody business jet.

Developed following an intensive 24-month market research program conducted among over 200 large business jet operators, the *Global 5000* jet provides a cost-effective step up for current large aircraft operators.

With the introduction of the *Global 5000* jet, operators flying both the *Global Express XRS* and the *Global 5000* business aircraft are now able to benefit from fleet commonality, particularly with enhanced crew flexibility, thanks to a common type rating, pilot and maintenance training, and spare parts.

**Description:** The *Global 5000* business jet cabin has been specifically designed to provide a highly productive working environment for eight passengers and three crew members, on a non-stop 5,200-nautical mile (9,630 km) mission, flown at Mach 0.85 (562 mph; 904 km/h), and landing with NBAA IFR fuel reserves.

The *Global 5000* jet's cabin is 45 feet six inches (12.94 m) long, eight feet two inches (2.49 m) wide and six feet three inches (1.91 m) tall. Offering the widest and longest cabin in its class, it provides comfortable seating and ample aisle space, typically seating up to 12 or 13 passengers. The standard interior includes a spacious forward galley area, forward and aft lavatories, and a main cabin three-zone compartment featuring an optional private aft "state room" for rest and privacy. City pairs linked non-stop at Mach 0.85 (561 mph; 904 km/h) by the *Global 5000* jet include London-Los Angeles, Sao Paulo-Paris, Hong Kong-Wellington, New York-Honolulu and Dubai-Perth\*.

In June 2005, the *Global 5000* jet demonstrated its high-speed capabilities by establishing a record, flying 3,510 nautical miles (6,500 km) non-stop from Chicago to Paris in just seven hours 15 minutes, firmly establishing itself as the world's fastest intercontinental business jet. The *Global 5000* jet also previously established distance records flying in both directions across the Atlantic. On July 16, 2004, a *Global 5000* aircraft flew 4,816 nautical miles (8,919 km) non-stop linking San Francisco-London in nine hours 34 minutes, while on October 12, 2004, the same aircraft flew 4,597 nautical miles (8,513 km) non-stop against fierce headwinds linking Dublin-Las Vegas in nine hours 55 minutes. In all cases, the flights were conducted with a representative payload and at a speed of at least Mach 0.85.

On October 21, 2007, the high-speed *Global 5000* jet set a new speed record, flying 3,652 nautical miles (6,765 km) non-stop from Berlin to Washington in just eight hours 17 minutes. This fourth NAA-sanctioned world record performance for the *Global 5000* jet represents the fastest time ever recorded for a civil flight between Berlin and Washington, DC.

With a best-in-class balanced field length at takeoff of 5,000 feet (1,524 m) (Sea Level, MTOW, ISA), and a landing distance (MLW, ISA, SL) of 2,670 feet (814 m), operators are able to fly in and out of challenging airfields closer to their areas of business.

The aircraft is powered by twin BR710A2-20 engines produced by Rolls-Royce Deutschland GmbH of Dahlewitz, Germany. Certificated in March 1997, they generate 14,750 pounds (65.6 kN) of thrust at takeoff, flat rated to ISA +20C.

The *Global 5000* jet also features the top cabin in its class as Bombardier engineers blended the latest in technology with experience gained from the *Global Express* aircraft program, resulting in a new cabin electronic system, more comfortable and flexible seats, new waste and water management systems, and colored LED cabin lighting.

They include:

- a three-zone seated area featuring six single club seats, two sets of double club seats and one three-place divan;
- a complete and redundant Ethernet-based airborne Local Area Network, complemented by an in-cabin telephone system capable of interfacing with a multi-channel satellite communications system comprised of the Inmarsat Aero H+ and Swift 64 communication services, as well as with Iridium communication services; a multi-function printer/fax; and a host of entertainment options;
- forward and aft vacuum toilets;
- Light Emitting Diode lighting technology throughout the cabin; and
- maintenance diagnostics for all cabin systems through the Cabin Electronic System.

To guarantee outstanding mission availability and reliability, the *Global 5000* jet has more system redundancy than any other large or super-large business jet. It is equipped with an Onboard Maintenance Systems (OMS), which is fully integrated with most airworthiness aircraft systems, and also features a new level in cabin system diagnostic and troubleshooting capabilities to provide key information in-flight, and allow data to be downlinked to the ground maintenance crews while airborne.

***Global Vision flight deck:*** A breakthrough in business aviation, the *Global Vision* flightdeck is designed to deliver a completely new cockpit experience. By combining the best in technological advancements with superior designer aesthetics, it provides pilots flying *Bombardier Global* aircraft an unprecedented level of control and comfort.

The *Global Vision* flight deck introduces the Rockwell Collins Pro Line Fusion avionics suite, providing an integrated flight deck to ensure interoperability between systems. Debuting on the *Bombardier Global* aircraft family, Pro Line Fusion features four high-resolution 15-inch diagonal active matrix liquid crystal displays (LCD) arranged in a T-shape working in concert with Head-up Guidance System (HGS<sup>®</sup>), personalized formats of display information, electronic checklist, maps with graphical flight planning, integrated cursor control panel, Synthetic-Enhanced Vision System, paperless operation enabled by Dual Electronics Charts, Future Air Navigation System (FANS), Controller-Pilot Datalink Communication (CPDLC), Wide Area Augmentation System (WAAS), Localizer Performance with Vertical Guidance (LPV) and MultiScan™ Weather Detection system.

With the *Global Vision* flight deck, advanced technology meets with exceptional aesthetics to create a new cockpit experience. The upgrade design features include the application of high quality materials and better overall use of space result in a wider looking flight deck. A great level of attention is dedicated to details, such as the twin needle stitching with contrast thread featured on the yoke, which provides the feel of a luxury vehicle steering wheel. Map lighting as well as the sun visor are more aesthetically pleasing and positioned where they are most effective. Storage is increased and designed to integrate smoothly into the cockpit environment.

**Standard equipment includes BEVS:** The *Bombardier Enhanced Vision System* (BEVS) provides pilots with significantly improved situational awareness and the ability to observe runway lights and the runway environment in difficult operating conditions, such as low visibility and or darkness. BEVS also enhances safety by helping to identify runway incursions. The heart of the BEVS is the CMC Electronics CMA-2700, a new, third-generation member of its SureSight<sup>®</sup> family of I-Series™ integrated sensor systems for Enhanced Flight Vision System (EFVS) applications, integrated with Rockwell Collins Heads-up Guidance System (HGS<sup>®</sup>).

Together, the system enables descent down to 100 feet above ground level, thereby enhancing operational flexibility.

**Highlights:**

Max. cruise speed: Mach 0.89 (590 mph; 950 km/hr)  
Max. range: 5,200 nm (9,630 km) at Mach 0.85 (562 mph; 904 km/hr)  
Max. altitude: 51,000 feet (15,545 m)  
Passengers: 8-17

**Milestones\*\*:**

Program launch: Feb. 5, 2002  
First flight: March 7, 2003  
Certification: March 12, 2004 Transport Canada  
July 15, 2004 European EASA  
Aug. 21, 2004 European JAA  
Sept. 20, 2004 U.S. FAA  
First delivery: April 18, 2005  
Aircraft manufactured: 100 (as of April 30, 2010)

\*Theoretical range ( $\pm$  5%) at Mach 0.85 (903 Km/h) with 8 pax / 3 crew, NBAA IFR reserves, ISA.

\* \*Includes all *Global 5000* aircraft manufactured by Bombardier Aerospace that have received their Certificate of Airworthiness. Backgrounders reflect number manufactured to end of last reported fiscal quarter.

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