
COMMUNICATION DEPARTMENT

Dassault Falcon 900LX backgrounder

DASSAULT'S PROVEN PERFORMER

The Falcon 900LX stands alone in its range segment for performance and operating economy.

The 900LX is the latest iteration of the popular Falcon 900 aircraft, more than 500 of which have been delivered to date, and has been the industry benchmark for reliability, versatility and fuel economy since its introduction a decade ago.

The LX features the lowest cost of operation and lowest emissions in its class, along with the added safety margin and economics offered by its distinct trijet configuration. Plus the power and aerodynamics to operate from short strips and fly steep, stable approaches to challenging airports such as London City or Lugano – delivering passengers closer to their final destination.

The 900LX also offers a sleek new interior, for increased passenger comfort; new connectivity features and new avionics systems. The aircraft is available with new state of the art options such as Dassault's revolutionary FalconEye Combined Vision System, which allows poor visibility approaches down to 100 ft.

The 900LX was certified in 2010 and modernized in 2016.

A NEW SUPERCONNECTED, SUPER-COMFORTABLE CABIN

➤ **A true, three-zone intercontinental cabin in Dassault's elegantly understated, modern style.**

The Falcon 900LX offers the room to travel anywhere in the world with total comfort and unrivaled efficiency.

- Cabin height: 6 feet 2 inches (1.88 m)
- Max width: 7 feet 8 inches (2.34 m)
- Length: 33 feet 2 inches (10.11 m)

The LX has a restyled cabin endowed with a sleek modern look and equipped with the latest in cabin connectivity, lighting and soundproofing technologies. The cabin includes a large galley and three separate lounge areas designed to ensure passengers can work, dine and relax in full comfort and emerge fully refreshed after a long 10 hour flight.

Room for up to 14 passengers. Operators can take a large team—up to 14 people--on long transoceanic flights. More often, however, it will be flown with smaller groups who can move among the lounges with ease and sleep on comfortable berthable seats and divans.

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The sound of silence. New advanced acoustical insulation, leveraging techniques introduced on the top of the line Falcon 7X and 8X, makes the 900LX cabin the quietest in the 900 series and renders the sound of its crisp and clear HiFi entertainment system that much better.

The ease of entertainment. FalconCabin HD+, from Dassault and Rockwell Collins, gives each passenger control of entertainment features via a mobile app, including the ability to access a vast onboard library of music and videos. The system utilizes the latest fiber-optic network technology to distribute crisp, high-definition audio and video content throughout the cabin. An innovative “candy box” armrest design enables passengers to use personal electronic devices while charging.

Simple, seamless onboard connectivity. For streaming Internet and placing voice calls, FalconConnect provides a single point of contact for hardware, network installation, troubleshooting, and cost management, including ready access to data consumption information through the FalconConnect portal.

Offered in partnership with Honeywell GoDirect, FalconConnect is the result of extensive development and testing that evaluated and selected the most reliable, flexible and best-value connectivity choices for cockpit, passenger cabin and ground services. The package includes:

- Cockpit safety communications such as FANS (Future Air Navigation System) and ACARS (Aircraft Communications Addressing and Reporting System)
- High-speed Ka band satellite communications services for passenger cabin connectivity, including real-time videoconferencing, voice over IP, Internet browsing, and email
- 3G and 4G ground networks
- Third-party compatible EFB (Electronic Flight Bag), ATG (air-to-ground), and other services

A LED lighting system produces both high-quality white light and a selection of programmable mood lighting ambiance. All 24 cabin windows are located within the passenger seating area for a bright daylight cabin.

PROVEN PERFORMANCE

➤ **The 900LX is the only trijet option in its cabin size, and the only one in the intercontinental range segment. Three engines create distinct advantages for accessing short fields, especially when combined with hot and high conditions. Trijets can also take advantage of more economical direct overwater routings, while giving greater peace of mind on those missions.**

Range and efficiency. This latest 900-series aircraft improves on its predecessor, the Falcon 900EX, with the addition of High-Mach Blended Winglets. These graceful wing extensions effectively increase wingspan and lift, while reducing spanwise airflow. Drag is reduced up to 7%, allowing the 900LX to fly farther on less fuel. Maximum range is extended by about 250 nm (460 km) to 4,750 nm (8,800 km).

Climb performance improves by 10%. Top speed is .87 Mach and typical cruise is .80 Mach. The 900LX achieves 15% better efficiency than smaller twin jets with smaller cabin and less range.

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The short field advantage. As with all Falcons, the wing adapts for exceptional low-speed control. Leading-edge slats and double-slotted Fowler flaps deploy on approach. Airbrakes help with precise glide path control and add stopping power on the ground.

Fueled for a 3,000 nm (5,556 km) trip, the 900LX can depart from runways of less than 4,000 feet (1,219 m) at sea level and less than 6,000 feet (1,829 m) at mile-high airports such as Denver. The 900LX approach speed of 110 knots at typical landing weight gives operators access to short or demanding high-elevation airports including Aspen, Cannes, London City, St. Moritz and Toluca outside Mexico City.

Tough, by design. Like all Falcons, the 900LX has no speed limitations in turbulence – a testament to efficient design and rugged construction.

Typical Falcon 900LX missions:

- Cannes – New York
- New York – São Paulo
- New York – Moscow
- Mumbai – London
- Geneva – Chicago Executive
- Hong Kong – Sydney

Flexible flyer. The 900LX has a high maximum landing weight, meaning it can take on nearly a full load of fuel and fly a short distance – Washington D.C. to New York, for example – and then make a trans-Atlantic crossing without taking on additional fuel. Day in and day out this adds up to efficiency of operation and the ability to economize by re-fueling where costs are the best.

More than 100 million hours of proven power. The 900LX's lean and efficient Honeywell TFE731-60 engines have accumulated an enviable service record. More than 11,000 TFE731 variants have entered service. The -60 produces 5,000 pounds (22.25 kN) of thrust at sea level up to ISA +17° C with a reputation for low fuel consumption and quiet operation. The combination of efficient powerplant and clean airframe design reduces operating cost well below competitors and reduces greenhouse gas emissions.

A DREAM FLIGHT DECK

The aircraft comes with the award-winning EASy II flight deck, which dramatically improves situational awareness, presenting everything from flight planning and automated checklists to the aircraft's precise position, situation and environment through an innovative graphical interface that allows pilots to work "eyes up."

The Falcon Electronic Flight Bag (EFB), running Falcon Sphere II software, reduces the time and effort to prepare and manage business jet missions. The EFB runs apps for calculating performance and weight-and-balance, and includes flight manuals and weather services.

An integrated airborne monitoring service, FalconBroadcast[®], provides real-time notification of in-flight events and maintenance status, helping operators maximize dispatch reliability by beginning the troubleshooting process while in the air.

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Dassault's proprietary Combined Vision System, FalconEye™, is available on the 900LX. It is the first head-up display (HUD) system to blend synthetic, database-driven terrain mapping and real-world thermal and low-light camera images into a single view, providing an unprecedented level of situational awareness to flight crews in all conditions of weather, day or night.

FalconEye is approved for an enhanced flight vision system capability that gives operational credit for poor visibility approaches down to 100 ft, greatly improving access to airports in all-weather conditions.

Advanced Manufacturing Quality and Precision

Falcons are built alongside Dassault's renowned Rafale fighter with the same precision and quality honed in building more than 6,000 military aircraft. Dassault uses the most advanced design software programs (and, in fact, created the industry's leading engineering software, CATIA). Falcons such as the 900LX have structures that are light and stronger. For example, all Falcon horizontal stabilizers are made of carbon composites and titanium, with 80% fewer parts than conventional aluminum-riveted structures. Dassault quality manufacturing results in industry-leading efficiency, productivity, safety and durability.

Dassault structures are so strong that the aircraft has no speed limitations in turbulence. Most aircraft have turbulence penetration speeds well below normal cruise speed.

Military-derived systems and technologies are found throughout Falcon aircraft. The Falcon 900 fuel system, for example, is pressurized, ensuring that engines draw adequate fuel, even should boost pumps fail at takeoff under full power. Pressurization also causes the interconnected tanks to balance fuel levels without monitoring and intervention from the pilots.

The balanced structural design is efficient with no fuel-consuming dead weight.

Robust control systems include sturdy push-rod and dual-servo actuators, as on Dassault's Mach 2 fighters, versus cable and single-servo systems elsewhere in the industry.

On the Falcon 900LX, artificial feel systems for ailerons and elevators impart light, precise control feedback for improved handling. Here the objective is to adapt fighter technology for smooth and confidence-inspiring maneuverability.

Technology and Safety, Always Ahead of the Curve

The Falcon 900LX is high-tech inside and out. Its advanced design begins with an exceptionally clean and efficient wing that allows the 900LX to operate across a wide speed envelope. The wing adapts for low- and high-speed conditions with leading-edge slats, double-slotted flaps and six airbrakes. Wing surfaces are completely clean and uncluttered with no vortex generators, fences or other devices required to manage airflow. The wing provides natural stall warning with buffeting well in advance of a stall break and has straightforward stall behavior. The aircraft, therefore, requires no artificial stall protection such as a stick shaker or pusher, testimony to a safe aircraft with refined aerodynamics. Elegant and aerodynamically sophisticated High Mach Blended Winglets extend range and conserve fuel.

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Inside, the EASy II flight deck is intuitive and up-to-date with the latest navigation capabilities. Primary and multi-function displays are arranged in Dassault's distinctive T-layout, allowing pilots to share the same information on center screens, improving crew coordination.

Other systems, such as Falcon Broadcast for in-flight transmission of maintenance data, FalconSphere II integrated Electronic Flight Bag, and FalconConnect for worldwide seamless internet access are also state-of-the-art. FalconEye, the most advanced system of its type, provides improved visibility, situational awareness and low landing minimums virtually anywhere.

WHATEVER IT TAKES[®] SUPPORT

➤ **More dispatch reliability.** Dassault Aviation's renowned global support network. Service centers on six continents. A team of more than 1,700 professionals dedicated to keeping customer aircraft in the air.

Throughout the life of the Falcon 900LX, customers can rely on the Whatever It Takes[®] philosophy of Dassault's global service network.

In 2019, Dassault Aviation acquired the worldwide maintenance facilities of ExecuJet, strengthening its global product support footprint, especially in Asia-Pacific, Oceania, the Middle East and Africa. Dassault also acquired the maintenance activities of TAG Aviation and RUAG, reinforcing its European service center network.

Worldwide Service and Spares. Dassault Aviation supports Falcon operators with a network of more than 60 service centers, 16 regional spares distribution depots and more than 100 field representatives spread across six continents.

In 2019, Dassault Aviation opened a new \$50 million, 180,000-ft² (16,500-m²) flagship spares distribution center in Tremblay-en-France, in the immediate environs of Paris-Charles de Gaulle Airport. The proximity of the facility to one of the world's major transport hubs, together with its state-of-the-art design, will help ensure that parts and tools arrive in the hands of Falcon customers in Europe, the Middle East, Africa and the Asia/Pacific even more rapidly than before.

Expedited Go Teams. FalconResponse, an industry first, is Dassault's comprehensive portfolio of Aircraft on Ground (AOG) services. In the rare event that a Falcon operator has an AOG situation requiring emergency repair, a call to the global 24/7 Falcon Command Center activates a dedicated "GoTeam" of engineers, parts specialists and frontline managers to return the aircraft to flying condition as quickly as possible. If necessary, members of the GoTeam can utilize one of two dedicated Falcon Airborne Support aircraft that stand by to expedite the shipment of repair teams and spares to remote sites. Alternative lift flights – another industry first – are also available to customers affected by an AOG.

Dassault's excellence in customer service was recently recognized in two operator surveys conducted by *Professional Pilot* magazine and *Aviation International News*, which both voted Dassault Aviation the top service provider in the business jet sector. Operators cited spares availability, cost of parts, speed of AOG service and overall aircraft reliability as the major motivating factors in their decision.

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FALCON VALUE

➤ **More return on customer investment. Lower operating and maintenance costs. Higher resale value.**

Falcon models hold their value better than any other business jet. They retain up to 10% more value over an extended 10-year period than their closest competitor. Market analysis shows high demand for second-hand Falcons, and they tend to take less time to resell.

Reduced Maintenance Cost. The current fleet of more than 2,100 Falcons operated in 90+ countries fully demonstrates the exceptional strength of the Falcon line. Unlike some competitors, Falcons do not have any life-limited primary structural parts. Dassault's FalconCare guaranteed maintenance cost program assures budgeting predictability for parts, labor and AOG onsite service.

ABOUT DASSAULT AVIATION:

Dassault Aviation is a leading aerospace company with a presence in over 90 countries across five continents. It produces the Rafale fighter jet as well as the complete line of Falcons. The company employs a workforce of over 12,500 and has assembly and production plants in both France and the United States and service facilities around the globe. Since the rollout of the first Falcon 20 in 1963, over 2,500 Falcon jets have been delivered. Dassault offers a range of six business jets from the twin-engine 3,350 nm large-cabin Falcon 2000S to its flagship, the tri-engine 6,450 nm ultra-long range Falcon 8X and the new ultra widebody cabin Falcon 6X.

For more information about Dassault Falcon business jets, visit: dassault-aviation.com and dassaultfalcon.com

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- Range: 4,750 nm (8,800 km) at LRC (6 pax, 2 crew, NBAA IFR Reserves)
- Maximum Mach Operating (MMO) speed: Mach .84/ .87
 - o Takeoff Distance (SL-ISA, Max Takeoff Weight): 5,360 ft (1,633 m)
 - o Landing Distance (FAR91, 6 pax, SL, NBAA IFR reserves): 2,415 ft (736 m)
 - o Approach Speed (SL-ISA, NBAA IFR Res.): 110 kias (204 kph)
- Maximum Certified Altitude: 51,000 ft (15,545 m)

ENGINES & AVIONICS

- 3 Honeywell TFE731-60
- 5,000 lb / 22.25 kN (Max Thrust, ISA + 17°C, SL)
- EASy II Flight Deck
- With Honeywell Primus Epic System

EXTERNAL DIMENSIONS

- Wing Span: 70 ft 2 in (21.38 m)
- Length: 66 ft 4 in (20.21 m)
- Height: 25 ft 2in (7.67 m)

INTERNAL DIMENSIONS

- Cabin Height: 74 in (1.88 m)
- Cabin Width: 92 in (2.34 m)
- Cabin Length (excluding flight deck and baggage): 33 ft 2 in (10.11 m)
- Cabin Volume (excluding flight deck and baggage): 1,264 ft³ (35.8 m³)
- Baggage Volume: 127 ft³ (3.6 m³)

WEIGHTS/CAPACITIES

- Maximum Takeoff Weight: 49,000 lb (22,225 kg)
- Maximum Landing Weight: 44,500 lb (20,185 kg)
- Maximum Zero-Fuel Weight: 30,864 lb (14,000 kg)
- Maximum Fuel Weight: 20,905 lb (9,482 kg)

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