EFFICIENTISSIMO!
THE NEW FALCON 2000LX

Translation: Not just the most efficient in its large-cabin class. More efficient than "the most advanced" in the next smaller class. And less fuel means fewer emissions. Even with a 4000km range - and the unique ability to hop from city to city, then loop over an ocean without stopping to refuel.

The Common Sense of Efficiency.

The newly certificated Falcon 2000LX proves again that we share a common sense of efficiency with companies who need to stay close to their customers, get the most out of their best people, see and seize opportunities in person - and keep on working en-route. Visit us at falconjet.com/2000LX.

DASSAULT'S ULTIMATE TWINJET
THE FALCON 2000 LX

EMPTY LEGS
GIVING YOU A RUN FOR YOUR MONEY

IRAQI LANDING PERMITS
ONE FOR MEBAA TO SOLVE

SAUDIA PRIVATE AVIATION
AMBITIOUS PLANS FOR THE KINGDOM

Reprinted from Altitudes Arabia N°12 - June/July 2010
The latest large body twinjet from Dassault is the culmination of years of technological improvements that combine to give this Falcon great range to go with its world-class cabin and cutting-edge electronics.

BY Robert Goyer
PHOTOS Dassault Falcon/Alain Ernoult, Etienne de Malglaive, Philippe Stroppa, Germain Suignard

The Falcon 2000LX
DASSAULT’S ULTIMATE TWINJET
If you’ve flown a long trip on a large-body business jet like the Falcon 2000LX, you already know that the experience is one that defies easy description. If you were to try to describe the experience anyway, you might rely on the numbers to tell the tale. For the LX you might mention the cabin height (6’ 2”); the thrust of the engines, (7,000 pounds aside); the maximum range (4,000 nautical miles); or the balanced field length (5,585 feet). But raw data does a poor job of capturing the essence of the experience, that sense that you are not a captive to your environment, that space and movement are under your control, that your needs are satisfied, and that time is wholly on your side. It’s a feeling of arrival while the journey is ongoing, a feeling that few get to experience.

A purveyor of just such an experience, the Falcon 2000LX is one of the premier bizjets in the world. It is not Dassault’s flagship—the Falcon 7X bears that distinction. The 2000LX, however, is an aircraft of surpassing comfort, remarkable performance and unbridled luxury, one that is as much at home hopping continents as it is popping a time zone or two over for a quick lunch meeting, to close a deal or to rekindle connections with important friends.

A Large Presence

The 2000-series aircraft have been around since the model was launched in 1989 and first delivered in 1993. The Falcon 2000LX was certified just last April. The first customer delivery of the 2000LX was made shortly thereafter, and it, fittingly, was the 2,000th bizjet delivery for Dassault. The 2000LX was descended from the tri-jet Falcon 900, itself a remarkable product. The 2000LX, it’s clear however, has an identity all its own. It is, of course, a twinjet and not a tri-jet like the 900, and while the 2000 has a slightly shorter body than the 900, it has a large presence. The twinjet design also allowed Dassault to incorporate improved fuselage aerodynamics and a simplified wing design. It can accommodate from eight to 12 passengers in a variety of layouts.

There’s not much that is brand new with the LX, but what is new is revolutionary. Plus, the model draws upon the very recent success of the Falcon 2000EX EASy model, which has the new, more powerful Pratt & Whitney 308-C turbofan engines and the advanced EASy flight deck, both of which the LX retains. The Pratt & Whitney engines, developed specifically for the 2000EX, produce 7,000 pounds of thrust apiece and feature Nordam clamshell-style thrust reversers that can be deployed at full power down to 20 knots on the ground. This helps give the 2000LX remarkable short field performance. It can be down and stopped in 2,630 feet, allowing it to make use of very intimate destination airfields. Moreover, Dassault says the engines have a ‘mature’ time between overhaul of 7,000 hours, which means that operators can expect many, many years of largely carefree operation before overhaul.

With sufficient storage and preparation area to allow gourmet fare at 47,000 feet, the galley helps define the Falcon experience.

A purveyor of just such an experience, the Falcon 2000LX is one of the premier bizjets in the world. It is not Dassault’s flagship—the Falcon 7X bears that distinction. The 2000LX is, however, an aircraft of surpassing comfort, remarkable performance and unbridled luxury, one that is as much at home hopping continents as it is popping a time zone or two over for a quick lunch meeting, to close a deal or to rekindle connections with important friends.

A Large Presence

The 2000-series aircraft have been around since the model was launched in 1989 and first delivered in 1993. The Falcon 2000LX was certified just last April. The first customer delivery of the 2000LX was made shortly thereafter, and it, fittingly, was the 2,000th bizjet delivery for Dassault. The 2000LX was descended from the tri-jet Falcon 900, itself a remarkable product. The 2000LX, it’s clear however, has an identity all its own. It is, of course, a twinjet and not a tri-jet like the 900, and while the 2000 has a slightly shorter body than the 900, it has a large presence. The twinjet design also allowed Dassault to incorporate improved fuselage aerodynamics and a simplified wing design. It can accommodate from eight to 12 passengers in a variety of layouts.

There’s not much that is brand new with the LX, but what is new is revolutionary. Plus, the model draws upon the very recent success of the Falcon 2000EX EASy model, which has the new, more powerful Pratt & Whitney 308-C turbofan engines and the advanced EASy flight deck, both of which the LX retains. The Pratt & Whitney engines, developed specifically for the 2000EX, produce 7,000 pounds of thrust apiece and feature Nordam clamshell-style thrust reversers that can be deployed at full power down to 20 knots on the ground. This helps give the 2000LX remarkable short field performance. It can be down and stopped in 2,630 feet, allowing it to make use of very intimate destination airfields. Moreover, Dassault says the engines have a ‘mature’ time between overhaul of 7,000 hours, which means that operators can expect many, many years of largely carefree operation before overhaul.
Winglets: Twisted Magic

The secret behind the success of the 2000LX is to be found at the end of the wing, those little upturned tips that seem so simple they must surely have been added almost as an afterthought. Nothing could be further from the truth. The winglets, developed by aerodynamics magic maker Aviation Partners Incorporated, are the result of three years of intensive development by Dassault and API. And the effect they have on the aircraft’s performance is remarkable.

Just how do they work? It’s both remarkably complicated in practice while being relatively straightforward in principle.

We think of wingspan as being a measure of the length of the wing across its straight line from tip to tip. But with winglets, the span of the wing is increased just as surely, even though that extra wingspan is bent upward. This has two major effects. It serves to increase span, and all other things being equal, increased span improves an airplane’s range. The winglets also cut down on drag, which, again, improves efficiency and, hence, range. By taming the wingtip vortices (powerful mini-tornados that stream off an airplane’s wing tips), properly designed winglets cut the drag that vortices create and turn their power to good.

Winglets, when properly installed—and the design is very aircraft-specific and very tricky—can actually produce the equivalent of thrust. Just as a sailboat’s sail deflects the wind to propel the craft forward, so too can winglets take that energy diverted from the vortices and redirect it, creating the opposite of drag, thrust. It might not be a free lunch, but it’s pretty darned close.

It’s one that many aircraft manufacturers have used in recent years, and it’s easy to see why. Well designed winglets add range and improve fuel efficiency. Earlier this year Aviation Partners announced that its winglets, installed in several dozen models of aircraft, from bizjets to commercial airliners, had already saved two billion gallons of jet fuel and lessened the amount of carbon emissions that otherwise would have been pumped into the atmosphere by more than 20 tonnes. The end result of the winglet programme for the 2000LX is an additional 200nm of range compared to the 2000 EX, an increase of around five percent, a phenomenal figure in a discipline so efficient to begin with that improvements of a fraction of a percent are considered breakthroughs.

What does it mean in practice? Suffice it to say that two additional miles often can be the difference between being able to reach the destination on not, or to reach the destination at high cruise or the lower speed, more efficient economy cruise settings. Plus, the aircraft, already miserly with its next-gen Pratt & Whitney turbofan engines, is instantly five percent more fuel efficient.

What’s in a Falcon?

The Falcon 2000LX is a big aircraft and designers have made the most of that room with a variety of interior options that give customers a broad choice of layouts, all of which offer different functionality while preserving the sense of space for which Falcon jets are famous.

While some manufacturers tinker with the definition of a ‘stand up’ cabin so that their product squeezes into the requirement, the 2000’s cabin is simply big. At 6’ 2” in height, and with a maximum cabin width of 7’ 8”, along with a 26 foot-plus cabin length, the 2000LX’s sheer space allows features that lesser aircraft can only hint at. For example, the seats in the 2000LX are clearly not made just to fit their allotted space but to fulfill a need, to provide comfort and freedom of movement. In the rear cabin, a four-person conference table (a popular option among LX customers) easily converts to a two-person bed so those red-eye flights don’t have to be quite so descriptive.

The galley is another feature that must be hard to live without once you’ve experienced it. With suff-
Falcon 2000LX
Specifications

**PERFORMANCE**
- Range: 4,000nm at Mach .80
- Landing Distance: 2,630ft
- Balanced Field Length: 5,585ft at maximum take off weight
- Service ceiling: 47,000ft

**WEIGHTS**
- Max Ramp Weight: 42,400lb
- Max Takeoff Weight: 42,200lb
- Max Landing Weight: 39,300lb
- Max Zero Fuel Weight: 39,700lb
- Basic Operating Weight: 23,465lb
- Fuel Capacity (usable): 2,487 US gallons

**DIMENSIONS**
- Length: 66.36 ft
- Wingspan: 70.17 ft
- Height: 23.17 ft

**CABIN**
- Crew: 2
- Passengers (Typical): 6
- Width (cockpit separator to baggage door): 7ft 8in
- Height: 6ft 2in
- Length (excluding cockpit and baggage): 26ft 2in
- Cabin Volume: 1,024cu ft
- Baggage Volume: 130.6cu ft

**ENGINES**
- 2 x Pratt & Whitney 308C turbofan engines
- Engine Thrust: 7,000lb aside

Travelling Music
The 2000LX is clearly an aircraft meant to transport people great distances in grand style, and it does just that. And it’s noteworthy that the 2000LX’s range today is 4,000nm, exactly 1,000nm greater than the first Falcon 2000. So, for those who don’t think that aviation manufacturers have embraced efficiency, they had better think again. And the 2000LX can do 4,000nm at Mach .80, an impressive speed. For shorter distances, it’s even faster.

As it turns out, 4,000nm is a magic number, one that allows the LX to link together some very desirable city pairs. Starting from Dubai, Singapore, Shanghai, all of Europe, including Dublin, are within reach, and from New York you can easily get to Los Angeles and also fly nonstop to Rome, Stockholm or La Paz. From Mumbai you can make Tokyo and Pretoria. While there are aircraft with greater range, including Dassault’s own 7X, for all but the longest trips, the 2000LX does the job with high style and at an excellent clip. The LX sets Falcon twinjet standards in every regard. It has the best performance of any 2000, the best avionics, the best cabin electronics, the best range and the best fuel efficiency. It is, in essence, Dassault’s ultimate twinjet, and customers clearly agree. Many have, in fact, modified their existing Falcon 2000 orders so they could instead have the LX version. Looking at the numbers, it’s easy to see why. After you fly in the aircraft, it’s even easier.