

# **Super Light Jets**

Manufacturers are looking at upgrading, speed size and comfort while still remaining in the Light Jet category where the Cessna and Bombardier products go head to head for a share of the top end of this market segment.

 The Learjet 45 is the first all-new Learjet since the original Learjet 23 launched almost 40 years earlier. Fast in the climb and smooth in the cruise it is a true Learjet. Artist Tim Hall.
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## **CESSNA CITATION XLS**

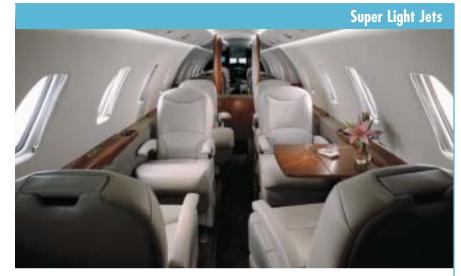


#### HERITAGE

The Citation XLS carries the designation 560X Announced at NBAA in 1994 as the Citation XL. made use of the wing and tail of the Encore and combined it with a shortened **Citation X fusela Once in production** it was renamed the Excel. The Excel first flew in February 1996. The upgraded XLS took over in 2004.

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|---|----|-----|-----|-----|----|
|   |    |     |     |     |    |

| Length                 | 51' 10"   | 15.79m  |
|------------------------|---|---|
| Wingspan               | 56' 4"  | 17.17m  |
| Height                 | 17' 2"  | 5.24m   |
| Cabin Length           | 18' 6"  | 5.64m   |
| Cabin Width            | 5' 6"   | 1.68m   |
| Cabin Height           | 5' 8"   | 1.73m   |
| Max Range              | 1,939nm (full fuel MTOW)  | 3,593km   |
| Max Seating            | 2 + 10  |   |
| Typical Seating        | 2 + 8   |   |
| Powperplant            | 2x P&WC PW545B  | 3,9911b/17.75kN each  |
| Avionics               | Honeywell Primus 1000   |   |
| Max Cruise Speed       | M 0.75  | 433KTAS/802km/h   |
| Max Ceiling            | 45,000ft  | 13,716m   |
| Rate of Climb          | 3,500fpm  | 1,067mpm  |
| Take off Distance      | 3,560ft   | 1,085m  |
| Landing Distance       | 3,180ft   | 969m  |
| MTOW                   | 20,200lbs   | 9,163kg   |
| Max Landing Weight     | 18,700lbs   | 8,482kg   |
| Useful load            | 7,600lbs  | 3,447kg   |
| Payload with full fuel | 860lbs  | 390kg   |
| Price                  | \$10.7  | €8.35m  |
|                        | Wingspan     Height     Cabin Length     Cabin Width     Cabin Height     Max Range     Max Seating     Typical Seating     Powperplant     Avionics     Max Cruise Speed     Max Ceiling     Rate of Climb     Take off Distance     Landing Distance     MTOW     Max Landing Weight     Useful load     Payload with full fuel | Wingspan     56' 4"       Height     17' 2"       Cabin Length     18' 6"       Cabin Width     5' 6"       Cabin Height     5' 8"       Max Range     1,939nm (full fuel MTOW)       Max Seating     2 + 10       Typical Seating     2 + 8       Powperplant     2x P&WC PW545B       Avionics     Honeywell Primus 1000       Max Cruise Speed     M 0.75       Max Ceiling     45,000ft       Rate of Climb     3,500fpm       Take off Distance     3,180ft       MTOW     20,200lbs       Max Landing Weight     18,700lbs       Useful load     7,600lbs       Payload with full fuel     860lbs |



**WITH** about a million hours of operation and more than 500 aircraft sold it is no wonder that the XLS – and the Excel before it – has been described as the "workhorse" for short-range charter operators.

Customers like the stand-up cabin, and operators like the economy, purchase price, operating cost, ease of maintenance and field service support.

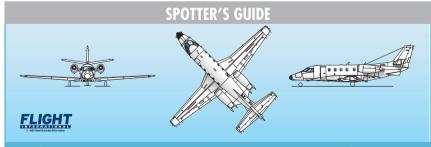
The 560 series began with the Citation XL, which was granted Federal Aviation Administration type certification in April

1998. The XL received a block point change in 2004 and became the XLS.

The XLS travels as fast as 500mph, has a range of more than 1,800nm (3,334km), climbs direct to 45,000ft (13,716m) in 29 minutes, and can land on runways as short as 3,560ft (1,085m).

The first European delivery, to an operator in Portugal, occurred late in 2004.

The Excel was one of the first applications for the new generation PW-500 series engines.



The XLS has six windows on the port side and five on starboard of this shortened Citation X fuselage (the same fuselage cross section as the Citation III, VI and VII). Look for the modified unswept supercritical wing and, the cruciform tail configuration and two ventral strakes.

#### **BOMBARDIER LEARJET 45 XR**



#### **SPECIFICATION**

| Length                 | 57' 6"                     | 17.56m           |
|------------------------|----------------------------|------------------|
| Wingspan               | 47' 8"                     | 14.56m           |
| Height                 | 14' 1"                     | 4.31m            |
| Cabin Length           | 19' 8"                     | 6.02m            |
| Cabin Width            | 5' 1"                      | 1.56m            |
| Cabin Height           | 4' 9"                      | 1.50m            |
| Max Range              | 2,087nm                    | 3,865km          |
| Max Seating            | 2 + 9                      |                  |
| Typical Seating        | 2 + 6                      |                  |
| Powperplant            | 2x Honeywell TFE7361-20-BR | 3,500lbs/15.56kN |
| Avionics               | Honeywell Primus 1000      |                  |
| Max Cruise Speed       | M 0.81                     | 465ktas/860km/h  |
| Max Ceiling            | 51,000ft                   | 15,545m          |
| Rate of Climb          | 1,720fpm                   | 524mpm           |
| Take off Distance      | 5,040ft                    | 1,536m           |
| Landing Distance       | 2,660ft                    | 811m             |
| MTOW                   | 21,500lbs                  | 9,752kg          |
| Max Landing Weight     | 19,200lbs                  | 8,709kg          |
| Useful load            | 7,610lb                    | 3,451kg          |
| Payload with full fuel | 1,800lbs                   | 816kg            |
| Price                  | \$11.15m                   | €8.67m           |
|                        |                            |                  |

### Super Light Jets

**THE** Learjet 45 XR is proving popular with charter operators around the world. The upgraded derivative of the Learjet 45 has improved performance characteristics for hot and high fields thanks to the Honeywell TFE731-20BRengines, upgraded from the 731-20AR

Like all of the Learjet models, Bombardier prides itself on its unmatched time-to-climb performance.

The aircraft will typically fly nearly 2,000nm (3,675km) with eight passengers on board.

With four passengers it has a maximum range of 2,087nm (3,865km).

A high speed cruise of Mach 0.81 (465 ktas or 860km/h) at 51,000ft (15,545m) puts it way above commercial traffic.

It can climb to 43,000ft in just 25 minutes with maximum gross take off weight.

The Learjet 45 with the –AR engines are still available, but with reduced value on re-sale are not so popular and since the first delivery in July 2004 the XR is easily the most popular choice.

It can carry up to nine passengers.



#### HERITAGE

The Learjet 45 launched in September 1992 was the first all-new Learjet since the original Learjet 23 launched almost 40 years earlier. The aircraft was the first business-jet to be fully designed on computer rather than paper (CAD). A smaller derivative of the aircraft was launched as the Learjet 40 in 2002. The Learjet 45 was the first business jet under 35,000lbs to receive type approval from Europe's JAA.



The Learjet 45XR has eight windows on each side plus the T-tail and the Learjet winglets makes it easily recognisable on the ramp.