

# Directory: world airlines

## BOEING

	717-200	717-200 HGW	717-300X	737-600
Length (m)	37.8	37.8	42.0	31.2
Wingspan (m)	28.4	28.4	28.4	34.31
Height (m)	8.92	8.92	8.92	12.57
Wing area (m <sup>2</sup> )	92.97	92.97	92.97	125
Cabin width (m)	3.14	3.14	3.14	3.54
Max take-off weight (kg)	49,895	54,885	55,390	56,250*
Max landing weight (kg)	45,335	49,985	n/a	54,660
Operating empty weight (kg)	30,615	31,660	n/a	37,100
Max zero fuel weight (kg)	42,635	45,586	n/a	51,480
Max payload (kg)	12,220	11,059	n/a	14,380
Powerplant	2 x 18,500lb	2 x 21,000lb	2 x 21,000lb	2 x 19,500lb CFMI
	R-R BR715-A1-30	R-R BR715-C1-30	R-R BR715-C1-30	CFM56-7B18
Option	-	-	-	2 x 22,700lb CFM56-7B22
Standard fuel capacity (l)	13,905	16,667	16,667	26,025
Normal op speed (Mach)	0.77	0.77	0.77	0.785
Max op speed (Mach) <sup>7</sup>	0.77	0.77	0.77	0.82
Max op altitude (ft)	37,000	37,000	37,000	41,000
Take-off field length (m)	1,814	-	n/a	1,616**
Landing field length (m)				
(Sea level/ISA)	1,463	-	n/a	1,340
Accommodation (typical)	106 (two-class)	106 (two-class)	128 (two-class)	108
Design range with pax	2,645km/106	3,815km/106	2,930km/128	2,474km/110
Option	-	-	-	5,650km/110

Notes \*65,090kg MTOW available \*\*1,796 for HGW. Data for 717-300X is provisional

This year has seen a concerted effort by Boeing to obtain launch orders for the 717-300X stretched variant. Boeing is pitching the version as part of a campaign to meet a pending Star Alliance requirement for 100 or more regional aircraft, and says the variant could be delivered in the second quarter of 2006. The -300X would add five seat rows to the -200, seat about 130 passengers, and offer a range of just less than 3,000km. Boeing says that deliveries of the "simple stretch" would take 30-32 months from contract signature. Star Alliance members Air Canada, Austrian Airlines, Lufthansa and Scandinavian Airlines (SAS) are pursuing a joint purchase of commonly specified regional jets, from 70-110 passengers.

While shelving previous studies of an 86-seat -100X shrink variant, Boeing is now considering offering a reduced capacity 717-200 "Lite", structurally identical to the basic -200 but with as few as 84 passengers in two classes and priced to reflect the lower seating capacity.

Honeywell plans to upgrade the fleet with its Block O3 versatile integrated avionics software from the end of the year. The upgrade includes provision for a head-up display system on the 717, but as yet no operator has selected such a display.

A longer range -200X variant was also proposed last year, fitted with additional fuel tanks. Some 717s already have the required plumbing in place as Boeing previously lowered the optional MTOW to reduce air navigation and airport charges. The type was primarily targeted at AirTran Airways, but its order for 737-700s this year likely spells the end of studies into a longer-range 717-200 variant.

Midwest Airlines took delivery of the first of its 25 ordered 717s in February and is receiving one aircraft a month. The airline is understood to be also keen on the -300X stretch. The -300X is also being

pitched at Delta Air Lines and Northwest Airlines to meet their requirements for 737-200 and DC-9 replacements, respectively.

### Production

Final assembly is at Boeing's Long Beach, California, plant, former home of McDonnell Douglas. The 717 was the first Boeing production line to become a moving production line, with production running at about one aircraft a month. Twenty aircraft were delivered last year.

Ordered: 161

Delivered: 122

### 737-600

The smallest member of the 737 Next Generation family, the 108-seat 737-600 first flew in January 1998 and entered service with Scandinavian Airlines (SAS) eight months later.

The Next Generation family replaces the 737-300/400/500 and features a larger wing, new cockpit and systems, and more-powerful CFM56-7s. The -600 replaces the similarly sized -500.

Boeing is now offering a vertical situation display on its 737NGs, including the -600. The system entered service with Virgin Blue 737-700s in March. Hungarian carrier Malev, meanwhile, became the first operator of navigation performance scales (NPS) in February - an enhanced flightdeck display that uses vertical and horizontal indicators to provide precise position awareness on the primary flight displays (PFD) - also on a -700.

Boeing aims to flight test a fuel tank inerting system on a 737NG next year as part of its all-family fleet-wide inerting programme. The system will be available for retrofit via a service bulletin. The FAA has yet to decide if it will mandate the installation of the inerting systems. The 737's system consists of a single air separation module to reduce the oxygen

content of air in the fuel tank to below 12%

Sales of the -600 were poor in the last 12 months, with Boeing recording a net loss of nine orders.

### Production

All 737NG models are built at Boeing's Renton plant near Seattle, Washington.

Ordered: 72 (-600)

Delivered: 50 (-600)

## BOMBARDIER

**Bombardier Aeronautique, 400 Chemin de la Cote Vertu, Dorval, Quebec H4S 1Y9, Canada**  
**Tel: +1 (514) 855 5000 Fax: +1 (514) 855 7903;**  
**www.aero.bombardier.com**

### CRJ100/200/440

The CRJ (Canadair Regional Jet), which first flew in 1991, is derived from Bombardier's Challenger business jet. Pioneering 50-seat regional jet operations when it went into service in November 1992, the successful type has amassed more than 800 deliveries since. Longer range -ER and -LR models followed the original CRJ100 into service, and the later CRJ200, also available in -ER and -LR versions, offered improved GE CF34-3B1 engines.

In 2001, Bombardier added the 44-seat CRJ440 to the line-up. The aircraft was conceived to meet the pilot unions' scope clauses at Northwest Airlines, and is dimensionally identical to the CRJ200, but incorporates fewer weight options and fewer seats. Northwest has 75 of the type on order. Delta Connection/Skywest also ordered a 44-seat CRJ, but this aircraft is different to the CRJ440. Unofficially dubbed the CRJ400, this variant can be quickly reconfigured to 50 seats.

In March, Transport Canada approved the CRJ200 for high-altitude airport operations, clearing the aircraft for airports up to 13,000ft high. China Yunnan Airlines launched the new certification, requiring it for flights north of Vietnam and Tibet.

US Airways added significantly to the CRJ's orderbook in May when it split its regional jet order between rivals Bombardier and Embraer. The carrier placed a \$7 billion deal for up to 275 CRJs, including 60 firm orders for CRJ200s and 190 reconfirmable orders and options spread across the CRJ200 and CRJ700 types.

### Production

CRJ100/200/440s are assembled at the Canadair plant at Montreal's Dorval airport. A total of 134 aircraft was delivered in 2002, and output runs at around 13 a month.

Ordered: 1,039

Delivered: 844

### CRJ700

The 70-seat CRJ700 is a stretched version of the 50-seat CRJ, and first flew in 1999, with deliveries beginning in January 2001 to Brit Air.

The baseline model is designated the CRJ700 Series 701. Its fuselage has two plugs increasing overall length by 4.72m over the earlier CRJs, and wing root inserts increase wingspan by 1.82m. More powerful GE CF34-8C1 engines, strengthened landing gear and leading edge slats are incorporated.

In March, Bombardier decided to use just the