



Cessna 208 with cargo pannier (Paul Jackson)

NEW/0568411

Max width	1.57 m (5 ft 2 in)
Max height	1.30 m (4 ft 3 in)
Volume	9.7 m³ (341 cu ft)
Cargo pannier: Length	5.58 m (18 ft 3 1/4 in)
Width	1.28 m (4 ft 2 1/2 in)
Depth	0.50 m (1 ft 7 1/2 in)
Volume	2.4 m³ (83 cu ft)

AREAS:	
Wings, gross	25.96 m² (279.4 sq ft)
Vertical tail surfaces (total, incl dorsal fin)	

Horizontal tail surfaces (total)	3.57 m² (38.41 sq ft)
----------------------------------	-----------------------

WEIGHTS AND LOADINGS (A: 208-675 Caravan; B: Super Cargomaster; C: Grand Caravan; D: Caravan Amphibian):	
Weight empty: A	1,832 kg (4,039 lb)
D	2,259 kg (4,980 lb)

Baggage capacity	147 kg (325 lb)
Cargo pannier capacity	372 kg (820 lb)

Max fuel weight	1,009 kg (2,224 lb)
Max T-O weight: A, D	3,629 kg (8,000 lb)

B, C	3,969 kg (8,750 lb)
Max ramp weight: A, D	3,645 kg (8,035 lb)

B, C	3,985 kg (8,785 lb)
Max landing weight: A, D	3,538 kg (7,800 lb)

B, C	3,855 kg (8,500 lb)
Max wing loading: A, D	139.8 kg/m² (28.63 lb/sq ft)

B, C	152.9 kg/m² (31.32 lb/sq ft)
Max power loading: A, D	7.21 kg/kW (11.85 lb/shp)

B, C	7.89 kg/kW (12.96 lb/shp)
------	---------------------------

PERFORMANCE (A: 208-675 landplane; D: Caravan Amphibian):	
Max operating speed (V _{MO})	

	175 kt (325 km/h; 202 mph) IAS
Max cruising speed at FL100:	

A	186 kt (344 km/h; 214 mph)
D	163 kt (302 km/h; 188 mph)

Stalling speed, power off:	
flaps up: A	75 kt (139 km/h; 87 mph) CAS

D	74 kt (137 km/h; 86 mph) CAS
flaps down: A	61 kt (113 km/h; 71 mph) CAS

D	59 kt (110 km/h; 68 mph) CAS
F, A, landing configuration	

	59 kt (109 km/h; 68 mph) CAS
Max rate of climb at S/L: A	376 m (1,234 ft)/min

D	338 m (1,110 ft)/min
Max certified altitude: A	7,620 m (25,000 ft)

D	6,100 m (20,000 ft)
T-O run: A	354 m (1,160 ft)

D: on land	335 m (1,100 ft)
on water	585 m (1,920 ft)

T-O to 15 m (50 ft): A	626 m (2,053 ft)
Landing from 15 m (50 ft) at S/L, without propeller reversal: A	505 m (1,655 ft)

D: on land	454 m (1,490 ft)
on water	590 m (1,935 ft)

Landing run at S/L, without propeller reversal:	
A	227 m (745 ft)

D: on land	224 m (735 ft)
on water	319 m (1,045 ft)

Range with max fuel, at max cruise power, allowances for start, taxi and reserves stated:	
A at FL100 45 min	932 n miles (1,726 km; 1,072 miles)

A at FL200 45 min	1,220 n miles (2,259 km; 1,404 miles)
D at FL100 30 min	990 n miles (1,833 km; 1,139 miles)

Range with max fuel at max range power, allowances as above:	
A at FL100	1,085 n miles (2,009 km; 1,248 miles)

A at FL200	1,295 n miles (2,398 km; 1,490 miles)
g limits	+3.8/-1.52

PERFORMANCE (B: Super Cargomaster; C: Grand Caravan):	
Max cruising speed:	

at FL100: B	175 kt (324 km/h; 201 mph)
C	184 kt (341 km/h; 212 mph)

Stalling speed, power off:	
flaps up: B, C	78 kt (145 km/h; 90 mph)

flaps down: B, C	61 kt (113 km/h; 71 mph)
Max rate of climb at S/L: B	282 m (925 ft)/min

C	297 m (975 ft)/min
---	--------------------

--	--

--	--

--	--

--	--

--	--

at FL180, conditions as above:

B	1,076 n miles (1,992 km; 1,238 miles)
C	1,163 n miles (2,153 km; 1,338 miles)

UPDATED

CESSNA CITATION MUSTANG

TYPE: Light business jet.

PROGRAMME: Initial design studies, then as turboprop, began in 1996-97; twin-jet configuration chosen in early 2001; announced at NBAA Convention, Orlando, Florida, 10 September 2002, when cabin mockup unveiled. New design but with wing scaled down from Citation Sovereign; smallest of Cessna jet family. First flight anticipated in May 2005; certification to FAR Pt 23 (day, night, VFR, IFR, single pilot, known icing and RVSM) expected by mid-2006, with deliveries starting in fourth quarter. Target production rate 150 to 200 per year.

CUSTOMERS: Some 330 ordered by July 2003, of which approximately half were for US customers. Announced customers include three-times Formula One World Drivers' Champion Nelson Piquet, who ordered one on 11 September 2002 and Delta Aero-Taxi of Florence, Italy, which ordered seven on 21 October 2002 for its fractional ownership programme.

COSTS: US\$2.295 million (2002).

DESIGN FEATURES: Low-wing, T tail and twin, podded, rear-mounted turboprops in usual Cessna business jet configuration, but second type to employ new Sovereign wing planform.

FLYING CONTROLS: Conventional and manual. Ailerons and elevator horn-balanced. Flight-adjustable tabs in port aileron, rudder and both elevators. Slotted flaps.

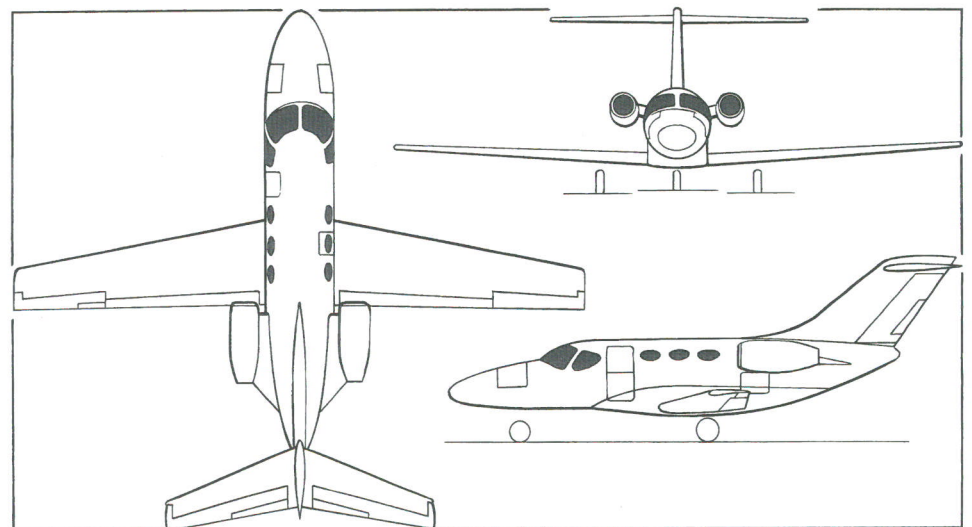
STRUCTURE: Generally of aluminium alloy; riveted and bonded joints, as required. Three-spar wing; centre-section, including fuel tank, mounted below fuselage to avoid penetration of pressure vessel. Semi-monocoque fuselage of frames and stringers with sheet metal skin; forward and aft pressure bulkheads.

LANDING GEAR: Nosewheel type; retractable. Single wheel on each leg. Trailing-link mainwheels retract inwards, nosewheel forwards; hydraulic actuation. Manually steerable nosewheel. Disc brakes with anti-skid on mainwheels.



Artist's impression of Cessna Citation Mustang

NEW/0567788



Cessna Citation Mustang light business jet (Paul Jackson)

0526901



Instrument panel of Cessna Citation Mustang



Citation Mustang cabin interior

NEW/0567786

NEW/0567787

POWER PLANT: Two pod-mounted Pratt & Whitney Canada PW615F turboprops, each rated at 6.00 kN (1,350 lb st) at ISA+15°C, with dual-channel FADEC.

ACCOMMODATION: Two pilots on flight deck; four passengers in club configuration in cabin; rearmost pair of seats have centre console with single 12 V DC power outlet, dual cup holders and storage area. Door port side, ahead of wing; emergency exit, starboard, over wing. Chemical lavatory with privacy curtain opposite door. Recessed central aisle; storage and refreshments cabinets behind each pilot's seat, facing cabin. Nose and aft baggage compartments both unpressurised, with external, port-side access only. Cabin pressurised to 0.57 bar (8.3 lb/sq in), giving 2,440 m (8,000 ft) environment at 12,500 m (41,000 ft). Air conditioning vents in cabin sidewalls.

SYSTEMS: Electrical system supplied by two starter/generators via left and right busses; separate emergency bus. Hydraulic system for landing gear actuation; icing protection for wing, tailplane, windscreen and engine air intakes; certified for flight into known icing. Vapour cycle air conditioning system with distribution via sidewalls and overhead panels.

AVIONICS: Garmin G1000 as core system.

Comms: Dual VHF/COM; Mode S transponder; dual audio controls.

Flight: Dual VHF/NAV/LOC/GS; GPS; ADF; DME; marker beacon receiver; flight director; digital AHRs three-axis autopilot with yaw damper; air data computer; traffic/terrain awareness systems.

Instrumentation: Dual 25.4 cm (10 in) active matrix LCD screens for MFD functions; single 38.1 cm (15 in) MFD for display of navigation, engine indication, weather, traffic and terrain data. Standby instruments.

DIMENSIONS, EXTERNAL:

Wing span	12.88 m (42 ft 3 in)
Length overall	11.86 m (38 ft 11 in)
Height overall	4.19 m (13 ft 9 in)

DIMENSIONS, INTERNAL:

Cabin: Length between pressure bulkheads	4.42 m (14 ft 6 in)
Length excl flight deck	2.74 m (9 ft 0 in)
Max width	1.40 m (4 ft 7 in)
Max height	1.37 m (4 ft 6 in)
Door width	0.61 m (2 ft 0 in)

Baggage compartment volume:	
nose	0.57 m ³ (20.0 cu ft)
tail	0.71 m ³ (25.0 cu ft)

WEIGHTS AND LOADINGS:

Basic operating weight	2,336 kg (5,150 lb)
Max fuel	1,170 kg (2,580 lb)
Payload with max fuel, one pilot	272 kg (600 lb)

PERFORMANCE (estimated):

Cruising speed at FL350	340 kt (630 km/h; 391 mph)
T-O balanced field length	950 m (3,120 ft)
Certified ceiling	12,500 m (41,000 ft)
Range, 45 min reserves	1,300 n miles (2,407 km; 1,496 miles)

UPDATED

CESSNA 525 CITATION CJ1

TYPE: Light business jet.

PROGRAMME: Original CitationJet announced at NBAA Convention 1989 as replacement for Citation 500 and I (production of which stopped 1985); first flight of FJ44 turboprops in Citation 500 April 1990; first flight of CitationJet (N525CJ) 29 April 1991; first flight of second (preproduction) prototype 20 November 1991; FAA certification for single-pilot operation received 16 October 1992; first customer delivery 31 March 1993. Russian certification achieved 4 September 1998. RVSM Group approval granted by FAA in January 2000.

Replacement Citation CJ1 announced at NBAA Convention 19 October 1998; first aircraft (N31CJ) completed late 1999; FAA certification 16 February 2000; first customer delivery 31 March 2000 to the Commercial

Envelope Company of Deer Park, New York; 500th Cessna 525 series, a CJ1, rolled out 7 June 2002. By June 2002 a total of 493 Model 525s were in service, at which time their flight time totalled more than 550,000 hours.

CUSTOMERS: Total 359 CitationJets, plus three prototypes, delivered up to early 2000, when manufacture turned to CJ1. Total of 175 CJ1s delivered by 30 September 2003, including 30 delivered in 2002 and 16 in the first nine months of 2003. Recent customers include Avemex SA of Toluca, Mexico (one); Taxi Marilia (TAM) of Brazil (three, including c/n 0500); Atlas Air Service GmbH of Germany (four), and Cessna's TAG Aviation USA's fractional ownership operation, CitationShares, which has received one, and the Chilean Air Force, which took delivery of three in November 2001. Total fleet time (CJ and CJ1) 697,488 hours in August 2003.

COSTS: US\$4.024 million, typically equipped (2003).

DESIGN FEATURES: Small business jet of conventional appearance; wings attached below fuselage; T tail; tapered wings and tailplane; podded engines mounted clear of upper rear fuselage. Natural Laminar Flow (NLF) aerofoil section. CJ1 is generally identical to CitationJet; increased maximum T-O, ramp and landing weights to provide improved range/payload; Pro Line 21 avionics.

FLYING CONTROLS: Conventional and manual. Ailerons and elevators horn balanced; trim tab on port aileron; trim tabs on rudder and both elevators; hydraulically actuated single-slotted flaps, deflections 15, 35 and 60°, last-named for ground use only, and selectable to any intermediate position between 0 and 35°. Speed brake in upper and lower surface of each wing.

STRUCTURE: All-metal. Three-spar wing.

LANDING GEAR: Hydraulically retractable tricycle type, with single wheel on each unit. Trailing-link main units retract inward into wing; nose gear retracts forward. Main tyres 22x7.75-10 (8 ply) tubeless; nose 18x4.4 (6 ply) tubeless.

POWER PLANT: Two 8.45 kN (1,900 lb st) Williams FJ44-1A turboprops pod-mounted, with thrust attenuators. Two independent fuel systems, with fuel contained in integral wing tanks, and single filler port in each wing; see under Weights and Loadings.

ACCOMMODATION: Crew of two on flight deck. Main cabin with standard seating for five passengers, one on sideways-facing seat at front of cabin, with four in club arrangement; tray tables which stow in elbow rails, and individual reading lights and ventilation ducts, standard.

SYSTEMS: Digitally controlled pressurisation system, maximum differential 0.58 bar (8.5 lb/sq in).

AVIONICS: Rockwell Collins Pro Line 21 as core system.

Comms: Honeywell CNI5000 radios and radio altimeter.

Radar: Rockwell Collins RTA 800 colour weather radar.

Flight: Bendix/King KLN-900 FMS. Dual VHF nav receivers, ADF, DME, RMI, Bendix/King KLN-900 GPS.

Instrumentation: Two-tube EFIS with 203 x 253 mm (8 x 10 in) adaptive flight displays (third optional), LCD attitude director indicator (ADI) and horizontal situation indicator (HSI) for co-pilot.

DIMENSIONS, EXTERNAL:

Wing span	14.26 m (46 ft 9 1/2 in)
Wing aspect ratio	9.1
Length overall	12.98 m (42 ft 7 in)
Height overall	4.20 m (13 ft 9 1/2 in)
Tailplane span	5.64 m (18 ft 6 in)
Wheel track	3.96 m (13 ft 0 in)
Wheelbase	4.68 m (15 ft 4 1/2 in)
Crew/passenger door: Height	1.29 m (4 ft 2 1/2 in)
Width	0.60 m (1 ft 11 1/2 in)

DIMENSIONS, INTERNAL:

Cabin:	
Length: between pressure bulkheads	4.80 m (15 ft 9 in)
excl cockpit	3.35 m (11 ft 0 in)
Max width	1.47 m (4 ft 10 in)
Max height	1.45 m (4 ft 9 in)
Baggage compartment volume:	
nose	0.58 m ³ (20.4 cu ft)
cabin	0.11 m ³ (4.0 cu ft)
tailcone	0.86 m ³ (30.2 cu ft)
total	1.55 m ³ (54.6 cu ft)

AREAS:

Wings, gross	22.30 m ² (240.0 sq ft)
Vertical tail surfaces (total, incl tab)	4.35 m ² (46.8 sq ft)
Horizontal tail surfaces (total, incl tabs)	5.64 m ² (60.7 sq ft)

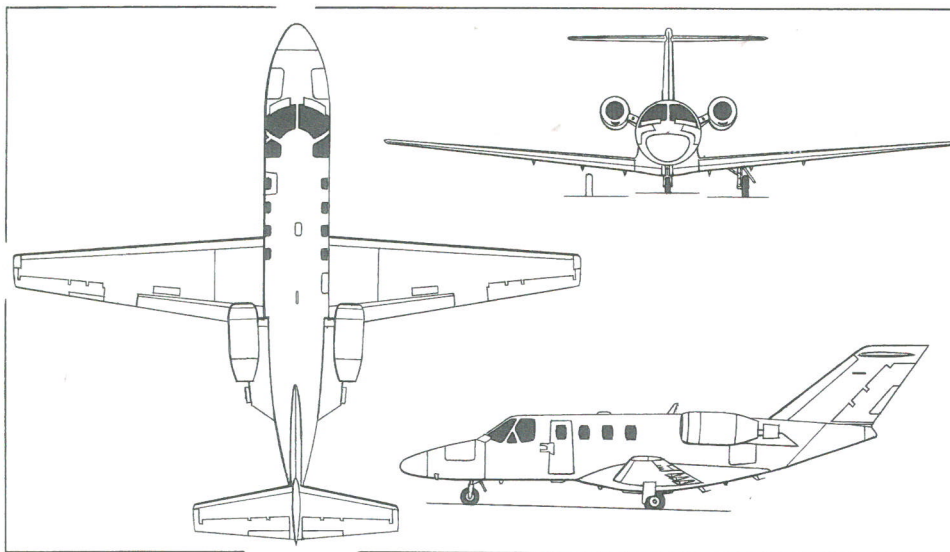
WEIGHTS AND LOADINGS:

Weight empty, typically equipped	3,025 kg (6,670 lb)
Max usable fuel weight	1,460 kg (3,220 lb)
Payload with max fuel, single pilot	306 kg (675 lb)
Max T-O weight	4,808 kg (10,600 lb)
Max landing weight	4,445 kg (9,800 lb)



Cessna CJ1 six/seven-seat light business jet

NEW/0568410



Cessna 525 Citation CJ1 (two Williams FJ44 turbofans) (Jane's/Dennis Punnett)

Max ramp weight 4,853 kg (10,700 lb)
 Max wing loading 215.6 kg/m² (44.17 lb/sq ft)
 Max power loading 284 kg/kN (2.79 lb/lb st)

PERFORMANCE:

Max operating speed (V_{MO}):
 S/L to FL305 263 kt (487 km/h; 302 mph) IAS
 above FL305 M0.71
 Max cruising speed at 3,992 kg (8,800 lb) AUV at
 FL350 381 kt (706 km/h; 438 mph)
 Stalling speed, landing configuration at max landing
 weight 83 kt (154 km/h; 96 mph) CAS
 Max rate of climb at S/L 985 m (3,230 ft)/min
 Rate of climb at S/L, OEI 259 m (850 ft)/min
 Max certified altitude 12,500 m (41,000 ft)
 Service ceiling, OEI 6,462 m (21,200 ft)
 FAR Pt 25 T-O field length: 1,000 m (3,280 ft)
 Landing field length 841 m (2,760 ft)
 IFR range with 100 n mile (185 km; 115 mile) alternate
 and 45 min reserves 1,248 n miles (2,311 km; 1,436 miles)
 VFR range with reserves 1,475 n miles (2,731 km; 1,697 miles)

OPERATIONAL NOISE LEVELS:

T-O 73.6 EPNdB
 Approach 89.7 EPNdB
 Sideline 83.6 EPNdB
UPDATED

CESSNA 525A CITATION CJ2

TYPE: Light business jet.

PROGRAMME: Design began 1 May 1998; construction of prototype started August 1998; announced at NBAA Convention at Las Vegas, Nevada, 18 October 1998; first flight of prototype (N2CJ, a rebuilt CitationJet) 27 April 1999, followed by first preproduction aircraft (N525AZ) on 15 October and second (N765CT) in mid-December 1999; total of 1,008 flight test hours accumulated by three aircraft by 9 April 2000; first production aircraft c/n 525A-0003 (N132CJ) rolled out 14 January 2000; FAA FAR Pt 23 certification achieved 21 June 2000; public debut at EAA AirVenture Oshkosh in July 2000; first customer delivery, 30 November 2000, was N200KP to King Pharmaceuticals of Tennessee (second production aircraft). By August 2003 the 176 CJ2s then in service had logged a total of 54,849 flight hours.

CUSTOMERS: Total of 76 firm orders held at time of launch; by December 2000 order backlog accounted for planned production until first quarter of 2004. Recent customers include WD40 Something LLC (second preproduction aircraft, re-registered N400WD), Avemex SA of Toluca, Mexico (one); Taxi Aereo Marilia (TAM) of Brazil (five); and Atlas Air Service GmbH of Germany (three). First delivery to overseas customer was D-IBBB, which arrived at Bremen for Atlas on 21 June 2001. 100th production CJ2 (N170TM) delivered to TitleMax Aviation Inc of Savannah, Georgia, on 27 August 2002. Total of 86 delivered in 2002, and 42 in the first nine months of 2003.

COSTS: US\$5.214 million, typically equipped (2003).
 DESIGN FEATURES: Development of CitationJet/CJ1 (which see) with fuselage stretched by 1.30 m (4 ft 3 in) in cabin and tailcone areas (extra two cabin windows), wing span increased by 0.84 m (2 ft 9 in), swept tailplane of greater span, Williams FJ44-2C turbofans and Rockwell Collins Pro Line 21 avionics. Design goals included improvements in cabin room and comfort, speed and range over CitationJet. Common type rating with CJ1.

Description for the Citation CJ1 applies also to the Citation CJ2, except as follows:

FLYING CONTROLS: Spoilers, 60° flap deflection and engine nacelle thrust attenuators provide lift dump function during landing roll.

STRUCTURE: Primarily metal, with composites in non-critical areas such as fairings, wing and tailplane tips and exhaust nozzles. Three-spar wing.

POWER PLANT: Two pod-mounted Williams FJ44-2C turbofans, each flat rated at 10.68 kN (2,400 lb st) at 22°C (72°F), with thrust attenuators. Integral fuel tank in each wing, total capacity 2,245 litres (593 US gallons; 494 Imp gallons), of which 2,222 litres (587 US gallons; 489 Imp gallons) are usable; overwing gravity refuelling.

ACCOMMODATION: One or two crew on flight deck; six passengers in standard centre club layout with refreshment centre on starboard side; customised interiors to customer's choice. Flight accessible baggage area at rear of cabin; other baggage compartments in nose and tailcone. Cabin is pressurised, heated and air conditioned. Six cabin windows per side. Main door on port side forward of wing; emergency exit starboard aft.

SYSTEMS: Pressurisation system, maximum pressure differential 0.61 bar (8.9 lb/sq in). Open-centre 103.4 bar (1,500 lb/sq in) hydraulic system for operation of landing gear, flaps, speedbrakes and thrust attenuators. Vapour cycle air conditioning system. Electrical system supplied by battery and two engine-driven starter/generators. Oxygen system, capacity 623 litres (22.0 cu ft) standard, 1,417 litres (50.0 cu ft) optional.

AVIONICS: Rockwell Collins Pro Line 21 suite as core system. Comms: Honeywell CNI-5000 panel-mounted radios.

Radar: Rockwell Collins RTA-800 solid-state colour weather radar.

Flight: Honeywell KLN 900 GPS FMS, VOR, DME, ADF, Rockwell Collins digital autopilot, digital air data computer and AHRS standard.

Instrumentation: Two-tube EFIS with 203 × 254 mm (8 × 10 in) PFD and MFD active matrix LCDs; co-pilot's PFD optional.

DIMENSIONS, EXTERNAL:

Wing span 15.19 m (49 ft 10 in)
 Wing aspect ratio 9.4
 Length overall 14.53 m (47 ft 8 in)
 Height overall 4.24 m (13 ft 10 3/4 in)
 Tailplane span 6.34 m (20 ft 9 1/2 in)
 Wheel track 4.88 m (16 ft 0 in)
 Wheelbase 5.59 m (18 ft 4 in)
 Passenger door: Height 1.29 m (4 ft 2 3/4 in)
 Width 0.60 m (1 ft 11 1/2 in)

DIMENSIONS, INTERNAL:

Cabin: Length: overall 5.74 m (18 ft 10 in)
 excl cockpit 4.19 m (13 ft 9 in)
 Max width 1.47 m (4 ft 10 in)
 Max height 1.45 m (4 ft 9 in)
 Baggage volume: nose 0.58 m³ (20.4 cu ft)
 cabin 0.11 m³ (4.0 cu ft)
 tailcone 1.42 m³ (50.0 cu ft)
 total 2.11 m³ (74.4 cu ft)

AREAS:

Wings, gross 24.53 m² (264.0 sq ft)
 Vertical tail surfaces 4.35 m² (46.8 sq ft)
 Horizontal tail surfaces 6.57 m² (70.7 sq ft)

WEIGHTS AND LOADINGS:

Weight empty, typically equipped 3,465 kg (7,640 lb)
 Max fuel 1,783 kg (3,930 lb)
 Payload with max fuel 363 kg (800 lb)
 Baggage capacity: nose 181 kg (400 lb)
 cabin 45 kg (100 lb)
 tailcone 272 kg (600 lb)
 total 499 kg (1,100 lb)
 Max T-O weight 5,613 kg (12,375 lb)
 Max landing weight 5,216 kg (11,500 lb)
 Max ramp weight 5,670 kg (12,500 lb)
 Max zero-fuel weight 4,218 kg (9,300 lb)
 Max wing loading 228.9 kg/m² (46.88 lb/sq ft)
 Max power loading 263 kg/kN (2.58 lb/lb st)

PERFORMANCE (estimated):

Max operating Mach No. (M_{MO}) 0.72
 Max operating speed (V_{MO}):
 S/L to FL80 260 kt (481 km/h; 299 mph)
 FL80 to FL293 275 kt (509 km/h; 316 mph)
 above FL293 M0.72
 Max cruising speed at FL330 410 kt (759 km/h; 472 mph)
 Econ cruising speed at FL410 332 kt (615 km/h; 382 mph)

Stalling speed in landing configuration at MLW 86 kt (160 km/h; 99 mph)

Max rate of climb at S/L 1,180 m (3,870 ft)/min
 Rate of climb at S/L, OEI 342 m (1,123 ft)/min
 Time to: FL370 17 min
 FL430 36 min
 Max certified altitude 13,715 m (45,000 ft)
 FAR Pt 25 T-O balanced field length 1,042 m (3,420 ft)
 Landing field length at max landing weight 908 m (2,980 ft)

Range: NBAA IFR reserves

1,550 n miles (2,870 km; 1,783 miles)
 VFR reserves 1,738 n miles (3,218 km; 2,000 miles)

OPERATIONAL NOISE LEVELS:

T-O 74.5 EPNdB
 Approach 91.4 EPNdB
 Sideline 88.8 EPNdB
UPDATED

CESSNA 525B CITATION CJ3

TYPE: Light business jet.

PROGRAMME: Announced on eve of NBAA Convention, Orlando, Florida, 9 September 2002; fuselage mockup shown following day. First flight (N3CJ, c/n 711) 17 April 2003, followed by first production aircraft (N753CJ, c/n 525B-001) 11 August 2003; public debut (N753CJ) at NBAA Convention, Orlando, Florida 7 October 2003; second production aircraft (N763CJ, c/n 525B-002) flew 6 November 2003; total of 340 hours in 200 sorties completed by all three aircraft by 20 November 2003; certification to FAR Pt 23, including single pilot operation, second quarter of 2004; deliveries from third quarter of 2004.

DESIGN FEATURES: Further development of CJ1/CJ2 family. Fuselage stretched by 1.00 m (3 ft 3 1/2 in) (seven windows each side), giving 0.61 m (2 ft 0 in) extra in cabin, and wing span extended by 1.03 m (3 ft 4 1/4 in). Up-rated engines with 14 per cent more T-O thrust and 12 per cent more in cruise. Improved range and passenger comfort.

Description for Citation CJ1/CJ2 applies to CJ3, except as follows:

CUSTOMERS: Orders for more than 160 held by mid-September 2003.

COSTS: US\$5,995,000 typically equipped (2003).

DESIGN FEATURES: Wing dihedral 5° 0'; sweepback 0° at 31 per cent chord; taper ratio 0.30. Tailplane sweepback 20° 0' at 25 per cent chord; no dihedral; taper ratio 0.43. Fin sweepback 49° 0' at 25 per cent chord; taper ratio 0.56.

FLYING CONTROLS: Flaps fitted (deflection 55° on ground).

POWER PLANT: Two 12.37 kN (2,780 lb st) Williams FJ44-3A turbofans with FADEC.

ACCOMMODATION: As CJ2, but chemical lavatory starboard, rear, opposite baggage area.



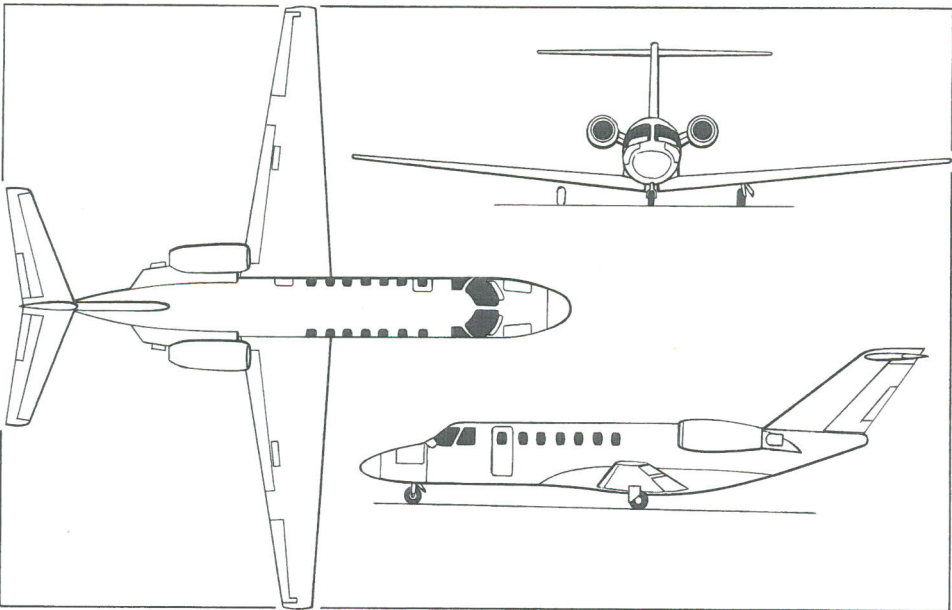
Cessna 525A Citation CJ2 (Paul Jackson)

NEW/0568409



First production Cessna Citation CJ3

NEW/0567799



Cessna 525B Citation CJ3 (James Goulding)

0526904

SYSTEMS: Hydraulic system with two engine-driven pumps, pressure 103.5 bar (1,500 lb/sq in). Secondary hydraulic system for mainwheel brakes. Cabin pressurisation as CJ2. Emergency oxygen system reservoir 1,134 litres (40.0 cu ft). Electrical system 28 V DC includes two engine-driven generators and one 44 Ah Ni/Cd battery. Engine bleed air for anti-icing of wing leading-edges, engine air intakes and windscreen, and inflation of de-icing

boots on horizontal leading-edges. Backup windscreen alcohol de-icing. **AVIONICS:** Rockwell Collins Pro Line 21 suite as core system. **Comms:** Dual VHF-4000 transceivers. Dual TDR-94 Mode S transponders. Optional CVR. Artex C-406-2 ELT. **Radar:** As CJ2. **Flight:** Collins NAV-4000/NAV-4500 dual VOR, LOC, glideslope and MKR; single (optional second) ADF.

DME-4000 DME. AHC-3000 AHRS, ADC-3000 ADC, FMS-3000 FMS, GPS-4000A GPS, ALT-4000 radio altimeter, Goodrich Skywatch TCAS, Goodrich TAWS 8000 Landmark terrain-avoidance. Maintenance diagnostic system.

Instrumentation: Three-tube EFIS with 203 × 254 mm (8 × 10 in) PFD and MFD active matrix LCDs. Goodrich GH-3000 standby instruments; Smiths standby EHSI.

DIMENSIONS, EXTERNAL:

Wing span	16.13 m (52 ft 11 in)
Wing mean chord	1.90 m (6 ft 2 3/4 in)
Wing aspect ratio	9.5
Length: overall	15.60 m (51 ft 2 in)
fuselage	13.79 m (45 ft 2 3/4 in)
Height overall	4.60 m (15 ft 1 1/4 in)
Tailplane span	6.32 m (20 ft 9 in)
Tailplane mean chord	1.09 m (3 ft 7 in)
Wheel track	4.88 m (16 ft 0 in)
Wheelbase	6.10 m (20 ft 0 1/4 in)
Door:	
Height	1.29 m (4 ft 3 in)
Max width	0.60 m (1 ft 11 1/2 in)
Emergency exit width	0.51 m (1 ft 8 in)

DIMENSIONS, INTERNAL:

Cabin: Length overall	6.35 m (20 ft 10 in)
Max width	1.45 m (4 ft 9 1/4 in)
Max height	1.45 m (4 ft 9 in)
Baggage volume	as CJ2

AREAS:

Wings, gross	27.32 m ² (294.1 sq ft)
Vertical tail surfaces (total)	5.23 m ² (56.30 sq ft)
Horizontal tail surfaces (total)	6.57 m ² (70.68 sq ft)

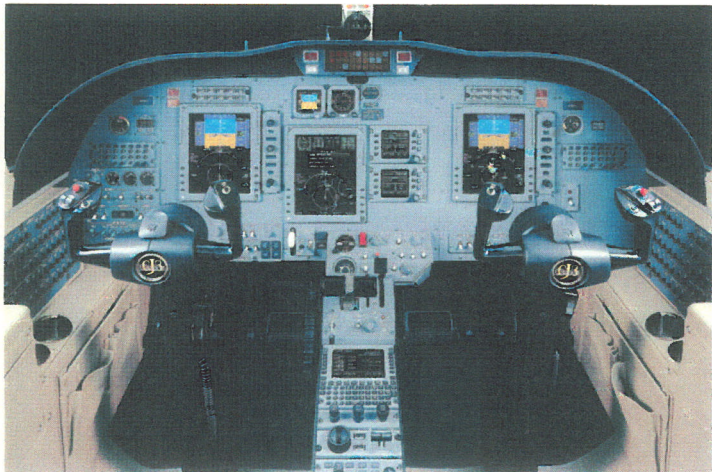
WEIGHTS AND LOADINGS:

Weight empty, typically equipped	3,747 kg (8,260 lb)
Max fuel	2,136 kg (4,710 lb)
Baggage capacity	as CJ2
Max ramp weight	6,382 kg (14,070 lb)
Max T-O weight	6,291 kg (13,870 lb)
Max landing weight	5,783 kg (12,750 lb)



Cessna Citation CJ3 N753CJ at Orlando during its public debut (Paul Jackson)

NEW/0567785



Instrument panel of Citation CJ3



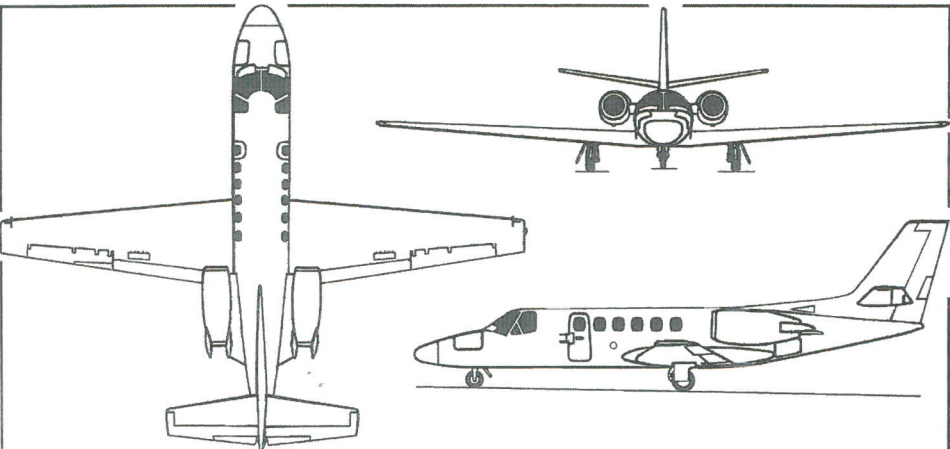
Citation CJ3 cabin interior

Max zero-fuel weight 4,767 kg (10,510 lb)
 Max wing loading 230.3 kg/m² (47.16 lb/sq ft)
 Max power loading 254 kg/kN (2.49 lb/lb st)
 PERFORMANCE (estimated):
 Max operating speed (V_{MO}): S/L to FL80 220 kt (407 km/h; 222 mph) CAS
 FL80 to FL293 275 kt (509 km/h; 316 mph) CAS
 above FL 293 M0.72
 Max cruising speed, at mid-cruise weight: at FL350 414 kt (767 km/h; 476 mph)
 at FL390 408 kt (756 km/h; 496 mph)
 Stalling speed, landing configuration at MLW 86 kt (159 km/h; 99 mph) CAS
 Time to: FL410 22 min
 FL430 26 min
 Max certified altitude 13,715 m (45,000 ft)
 T-O balanced field length 1,052 m (3,450 ft)
 Landing runway length 936 m (3,070 ft)
 Range: with max fuel, VFR reserves 1,900 n miles (3,518 km; 2,186 miles)
 with four passengers, NBAA IFR reserves 1,771 n miles (3,280 km; 2,038 miles)
 UPDATED

Max zero-fuel weight 4,767 kg (10,510 lb)
 Max wing loading 230.3 kg/m² (47.16 lb/sq ft)
 Max power loading 254 kg/kN (2.49 lb/lb st)
 PERFORMANCE (estimated):
 Max operating speed (V_{MO}): S/L to FL80 220 kt (407 km/h; 222 mph) CAS
 FL80 to FL293 275 kt (509 km/h; 316 mph) CAS
 above FL 293 M0.72
 Max cruising speed, at mid-cruise weight: at FL350 414 kt (767 km/h; 476 mph)
 at FL390 408 kt (756 km/h; 496 mph)
 Stalling speed, landing configuration at MLW 86 kt (159 km/h; 99 mph) CAS
 Time to: FL410 22 min
 FL430 26 min
 Max certified altitude 13,715 m (45,000 ft)
 T-O balanced field length 1,052 m (3,450 ft)
 Landing runway length 936 m (3,070 ft)
 Range: with max fuel, VFR reserves 1,900 n miles (3,518 km; 2,186 miles)
 with four passengers, NBAA IFR reserves 1,771 n miles (3,280 km; 2,038 miles)
 UPDATED

CESSNA 550 CITATION BRAVO

TYPE: Business jet.
 PROGRAMME: Cessna 550 Citation II first flew 31 January 1977; Bravo announced at Farnborough Air Show September 1994; replaced Citation II; prototype (N550BB, c/n 0734) first flight 19 April 1995; initial production aircraft (N801BB, c/n 0801) flew mid-1996; FAA certification in January 1997; first delivery, to Firebond Corporation of Minden, Louisiana, on 25 February 1997. Russian certification achieved 4 September 1998. Certification for operation into London City Airport achieved in May 2002.
 CUSTOMERS: First 18 months' production had been sold by time of initial delivery. Earlier production in this series accounted for 621 Model 550 Citation IIs, 97 Model 551 Citation II SPs and 15 Model 552 T-47A Citations, or 733 in all. Total of 252 Bravos delivered by 30 September 2003, comprising 28 in 1997, 34 in 1998, 36 in 1999, 54 in 2000, 48 in 2001, 41 in 2002, and 18 in the first nine months of 2003. Recent customers include Avemex SA of Toluca, Mexico (two, for delivery from May 2002); Taxi Aereo Marilia (TAM) of Brazil (three, for delivery from April 2002); Flying Partners CV of Antwerp, Belgium, which has ordered two for its shared ownership programme, for delivery from January 2002; Cessna's and TAG Aviation USA's fractional ownership operation,



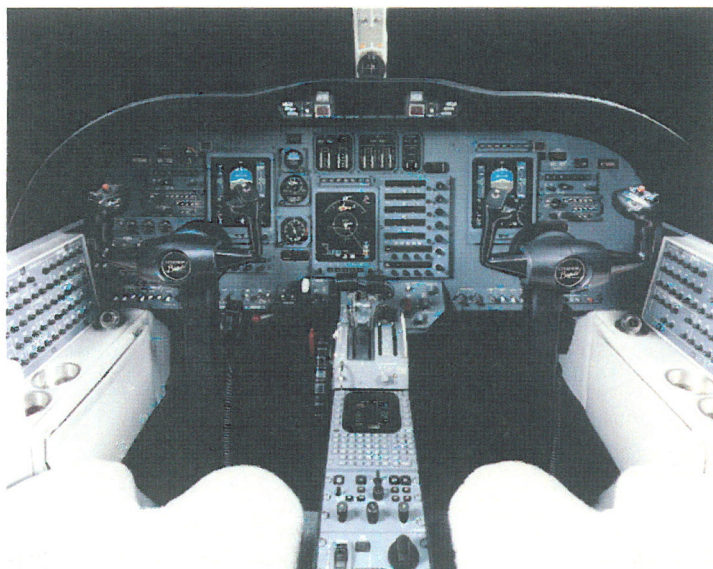
Cessna 550 Citation Bravo (Paul Jackson)



Venezuelan-operated Cessna Citation Bravo twin-turboprop business jet (Paul Jackson)

CitationShares, which placed an initial order for six, for delivery before the end of 2000; and The Company Jet of Grand Rapids, Michigan, which has ordered five for delivery in 2003 for its fractional ownership operation. By August 2003 some 944 Citation IIs, II SPs and Bravos had been delivered, and total fleet time stood at 4,584,470 hours.
 COSTS: US\$5.708 million, typically equipped (2003).
 DESIGN FEATURES: Small/mid-size business jet. Based on Citation II airframe; tapered wing; tapered, mid-set tailplane; sweptback fin; podded engines mounted clear of upper rear fuselage; wide track landing gear.
 Wing aerofoil NACA 23014 (modified) at centreline, NACA 23012 at wing station 247.95; dihedral 4°; tailplane dihedral 9°.
 FLYING CONTROLS: Conventional and manual. Trim tab on port aileron is manually operated; manual rudder trim; electric elevator trim tab with manual standby; electrically actuated single-slotted flaps, maximum deflection 40°; hydraulically actuated airbrake.
 STRUCTURE: Two primary, one auxiliary metal wing spars; three fuselage attachment points; conventional ribs and stringers. All-metal pressurised fuselage with fail-safe design providing multiple load paths.
 LANDING GEAR: Hydraulically retractable tricycle type with single wheel on each unit. Trailing-link main units retract inward into the wing, nose gear forward. Free-fall and pneumatic emergency extension systems. Steerable nosewheel maximum deflection ±20°, or ±95° for ground handling and towing. Mainwheel tyres H22.0x8.25-10 (14 ply); steerable nosewheel with tyre size 18x4.4DD (10 ply); all tubeless. Toe-actuated multiple disc brakes on mainwheels. Parking brake and pneumatic emergency brake system. Anti-skid system standard.
 POWER PLANT: Two 12.84 kN (2,887 lb st) Pratt & Whitney Canada PW530A turboprops; Nordam target-type thrust

reversers standard. Two independent fuel systems with integral tank in each wing, with combined usable capacity of 2,725 litres (720 US gallons; 600 Imp gallons).
 ACCOMMODATION: Crew of two on separate flight deck, on fully adjustable seats, with seat belts and inertia reel shoulder harness. Sun visors standard. Fully carpeted main cabin equipped with seats for seven to 10 passengers (seven standard, on pedestal-mounted seats). Main baggage areas in nose and tailcone; flight accessible baggage area at rear of cabin. Refreshment centre standard. Cabin is pressurised, heated and air conditioned. Individual reading lights and air inlets for each passenger. Dropout constant-flow oxygen system for emergency use. Cabin door with integral airstair at front on port side and one emergency exit on starboard side. Doors on each side of nose baggage compartment. Tinted windows, each with curtains. Pilot's storm window, birdproof windscreen with de-fog system, anti-icing, standby alcohol anti-icing and bleed air rain removal system.
 SYSTEMS: Pressurisation system supplied with engine bleed air, maximum pressure differential 0.61 bar (8.9 lb/sq in), maintaining a sea level cabin altitude to 7,189 m (23,586 ft), or a 2,440 m (8,000 ft) cabin altitude to 13,715 m (45,000 ft). Hydraulic system, pressure 103.5 bar (1,500 lb/sq in), with two pumps to operate landing gear and speed brakes. Separate hydraulic system for wheel brakes. Electrical system supplied by two 28 V 400 A DC starter/generators, with two 350 VA inverters and 24 V 44 Ah Ni/Cd battery. Oxygen system of 1,814 litre (64 cu ft) capacity includes two crew demand masks and five dropout constant-flow masks for passengers. Engine fire detection and extinguishing systems. Wing leading-edges electrically de-iced ahead of engines; pneumatic de-icing boots on outer wings and on leading-edges of tailplane and fins; engine inlets and windscreen have anti-ice protection via engine bleed air, with back-up alcohol system for windscreen; pitot tubes and static ports have electric anti-icing.
 AVIONICS: Honeywell Primus 1000 as core system.
 Comms: Dual Honeywell KY-196B VHF transceivers with 25 kHz and 8.33 kHz channel spacing; dual Avtech audio amplifiers; Dual Telex hand microphones, headsets and cockpit speakers; dual Honeywell Mode S transponders; L3 Communications FA2100 CVR; Artex 110-4 ELT.
 Radar: Honeywell Primus 660 colour weather radar.
 Flight: Honeywell GNS-XLS FMS; three-axis fail-passive autopilot; dual Honeywell navigation systems including VOR/LOC/GS/MKR, DME, digitally tuned ADF. Dual integrated computers combine EFIS display functions with flight guidance function; dual Honeywell VG-14A vertical gyros and C-14D compass systems supply primary heading and attitude information to cockpit displays.
 Instrumentation: EFIS with two 178 x 203 mm (7 x 8 in) screens for primary flight display (PFD) and additional multifunction display (MFD) of same size; standby 3 in HSI; Davtron clock.
 DIMENSIONS, EXTERNAL:
 Wing span 15.75 m (51 ft 8 in)



Flight deck of Cessna Citation Bravo



Standard cabin interior of Cessna Citation Bravo, facing rear

0015667

0015666

Wing aspect ratio	8.4
Length overall	14.40 m (47 ft 3 in)
Height overall	4.57 m (15 ft 0 in)
Tailplane span	5.79 m (19 ft 0 in)
Wheel track	3.99 m (13 ft 1 in)
Wheelbase	5.64 m (18 ft 6 in)
Crew/passenger door: Height	1.21 m (3 ft 11½ in)
Width	0.60 m (1 ft 11½ in)

DIMENSIONS, INTERNAL:

Cabin: Length (between pressure bulkheads)	6.37 m (20 ft 11 in)
excl cockpit	4.75 m (15 ft 7 in)
Max width	1.48 m (4 ft 10¼ in)
Max height	1.43 m (4 ft 8¼ in)
Baggage volume: nose	0.44 m³ (15.6 cu ft)
cabin	0.31 m³ (10.8 cu ft)
tailcone	0.79 m³ (28.0 cu ft)

AREAS:

Wings, gross	30.00 m² (322.9 sq ft)
Vertical tail surfaces (total)	4.73 m² (50.9 sq ft)
Horizontal tail surfaces (total, incl tab)	6.48 m² (69.8 sq ft)

WEIGHTS AND LOADINGS:

Design empty weight	3,992 kg (8,800 lb)
Weight empty, typically equipped	4,073 kg (8,980 lb)
Max fuel weight (usable)	2,204 kg (4,860 lb)
Baggage capacity:	
nose	159 kg (350 lb)
cabin	136 kg (300 lb)
tailcone	227 kg (500 lb)
Max T-O weight	6,713 kg (14,800 lb)
Max ramp weight	6,804 kg (15,000 lb)
Max landing weight	6,123 kg (13,500 lb)
Max zero-fuel weight	5,126 kg (11,300 lb)
Max wing loading	223.8 kg/m² (45.83 lb/sq ft)
Max power loading	262 kg/kN (2.56 lb/lb st)

PERFORMANCE:

Max operating speed (VMO):	
S/L to FL80	260 kt (481 km/h; 299 mph)
FL80 to FL279	275 kt (509 km/h; 316 mph)
at FL279 and above	M0.70
Max cruising speed at FL330	402 kt (744 km/h; 463 mph)
Stalling speed in landing configuration at max landing weight	86 kt (160 km/h; 99 mph) CAS
Max rate of climb at S/L	972 m (3,190 ft)/min
Rate of climb at S/L, OEI	345 m (1,133 ft)/min
Max certified altitude	13,715 m (45,000 ft)
Service ceiling, OEI	8,458 m (27,750 ft)
T-O balanced field length	1,098 m (3,600 ft)
FAR Pt 25 landing field length at max landing weight	970 m (3,180 ft)
NBAA IFR range, 100 n mile (185 km; 115 mile)	
alternate, plus 45 min reserves	1,744 n miles (3,230 km; 2,007 miles)
Range with max fuel, VFR reserves	2,000 n miles (3,704 km; 2,302 miles)

OPERATIONAL NOISE LEVELS:

T-O	73.7 EPNdB
Approach	91.2 EPNdB
Sideline	85.2 EPNdB

UPDATED

CESSNA 560 CITATION ENCORE

US Army designation: UC-35B

US Marine Corps designation: UC-35D

TYPE: Business jet.

PROGRAMME: Original Cessna 560 was stretched, higher-performance version of Citation S/II, first flown August 1987 and marketed as Citation V; Citation Ultra introduced from c/n 560-0260, but replaced by current Encore.



Cessna 560 Citation Encore

NEW/0567707

Prototype Encore, based on rebuilt Citation Ultra, first flown (N560VU) 9 July 1998; announced at NBAA Convention at Las Vegas, Nevada 18 October 1998; first production aircraft (c/n 560-0539) rolled out in early March 2000. FAA certification achieved 26 April 2000; first delivery (N539CE/N5108G) on 29 September 2000 to J R Simplot Company of Boise, Idaho.

CURRENT VERSIONS: **Citation Encore:** Civilian business jet; as described.

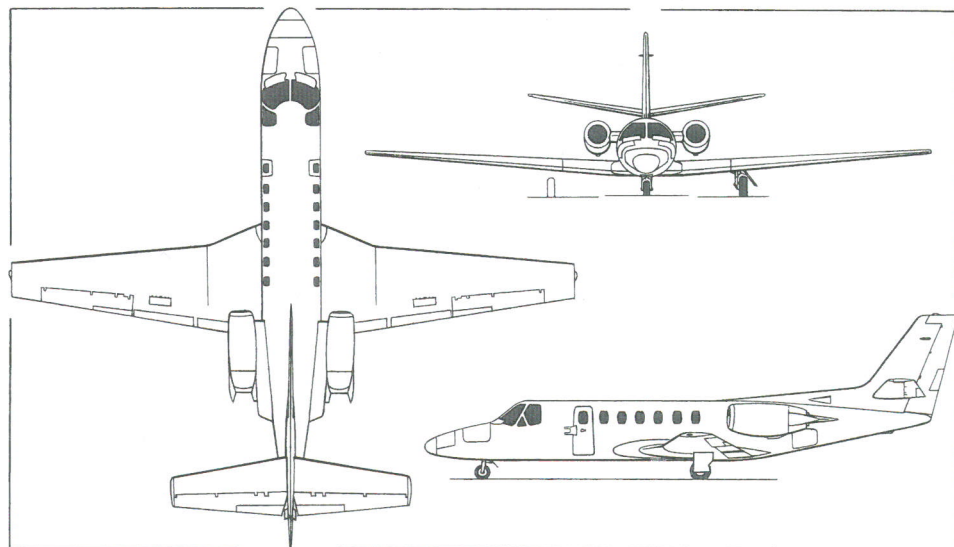
UC-35B: In January 1996, US Army selected Ultra for its C-XX medium-range transport aircraft programme, for which 35 aircraft are required over a five year period; equipped with 0.90 x 1.15 m (2 ft 11½ in x 3 ft 9 in) upward-opening clamshell cargo door on port forward fuselage; first order was for two UC-35As, of which one (95-0123) was delivered in last quarter of 1996; first two serve with 207 AvnCo at Heidelberg, Germany. Subsequent

orders for five in each of FY96, FY97, FY98 and FY99; (last two aircraft of this batch are first UC-35Bs), three in 2000 and one in 2001 (delivered December 2001). Total six UC-35Bs, plus 20 earlier UC-35As.

UC-35D: Equivalent version to UC-35B for US Marine Corps.

Citation Excel: Described separately.

CUSTOMERS: Deliveries of Ultra began July 1994; deliveries comprised 24 in 1994, 56 in 1995, 52 in 1996, 47 in 1997, 41 in 1998, 32 in 1999, six in 2000, 37 in 2001, 36 in 2002, and 18 in the first nine months of 2003. Announced customers for Encore include J R Simplot Co of Boise, Idaho, which has ordered two; Taxi Aereo Marilia (TAM) of Brazil (one); Flying Partner CV of Antwerp, Belgium (one). By August 2003 a total of 647 Citation Vs and Encores had been delivered, and total fleet time stood at 2,117,373 flight hours.



Cessna 560 Citation Encore (two Pratt & Whitney Canada JT15D-5D turbfans) (Jane's/Dennis Punnett)



COSTS: US\$7.576 million, typically equipped (2003).
DESIGN FEATURES: Stretched version of Citation S/II for full eight-seat cabin and with fully enclosed toilet/vanity area; seventh cabin window each side; two baggage compartments outside main cabin. Rear-engined executive jet with low-mounted wing of tapered planform with root gloves; tapered horizontal tail with sweptback fin and fillet. Encore generally as Citation Ultra and Citation Bravo (which see). Compared to Ultra, has increased wing span; bleed air anti-icing for wing leading-edges; boundary layer energisers and stall fences to improve stall characteristics; trailing-link main landing gear with narrower track; decreased fuel capacity; Pratt & Whitney Canada PW535 turbofans offering 10 per cent increase in thrust and 15 per cent improvement in specific fuel consumption; reduced fuel capacity; fuel heaters obviating the need for additives; digital pressurisation system; improved braking system; single level access electrical junction box; and redesigned interior with increased headroom, new passenger service units, pin-mounted seats for easy removal/replacement and increased serviceability.

Description for Citation Ultra applies also to Citation Encore except as follows:

FLYING CONTROLS: Conventional and manual. Trim tab on port aileron manually actuated; manual rudder trim; electric elevator trim tab with manual standby; hydraulically actuated Fowler flaps; hydraulically actuated airbrake.

STRUCTURE: Two primary, one auxiliary metal wing spars; four fuselage attachment points, conventional ribs and stringers. All-metal pressurised fuselage with fail-safe design providing multiple load paths.

LANDING GEAR: Hydraulically retractable trailing-link tricycle type with single wheel on each unit. Main units retract inward into the wing, nose gear forward. Free-fall and pneumatic emergency extension systems. Goodyear mainwheels with tubeless tyres size 22x8.0-10 (12 ply), pressure 6.90 bar (100 lb/sq in). Steerable nosewheel (±20°) with Goodyear wheel and tyre size 18x4.4DD (10 ply), pressure 8.27 bar (120 lb/sq in). Goodyear hydraulic brakes. Parking brake and pneumatic emergency brake system. Anti-skid system standard. Minimum ground turning radius about nosewheel 8.38 m (27 ft 6 in).

POWER PLANT: Two Pratt & Whitney Canada PW535A turbofans, each rated at 15.12 kN (3,400 lb st) at 27°C (80°F). Integral fuel tank in each wing, combined usable capacity 3,047 litres (805 US gallons; 670 Imp gallons).

ACCOMMODATION: Standard seating for seven passengers in four forward-facing and three aft-facing seats, or eight passengers in double-club arrangement, on swivelling and fore/aft/inboard-tracking pedestal seats; refreshment centre in forward cabin area; lavatory/vanity centre with sliding doors to rear, metallic plating on cabin fittings, veneer overlay on armrests, optional pleated window shades and cabin divider mirror standard; space in aft section of cabin for 272 kg (600 lb) of baggage, in addition to baggage compartments in nose and rear fuselage.

SYSTEMS: Pressurisation system supplied with engine bleed air, maximum pressure differential 0.69 bar (8.9 lb/sq in), maintaining a sea level cabin altitude to 7,189 m (23,586 ft), or a 2,440 m (8,000 ft) cabin altitude to 13,716 m (45,000 ft). Hydraulic system, pressure 103.5 bar (1,500 lb/sq in), with two pumps to operate flaps landing gear, speed brakes and thrust reversers. Separate hydraulic system for wheel brakes. Electrical system supplied by two 28 V 300 A DC starter/generators, with two 375 VA inverters and 24 V 40 Ah Ni/Cd battery. Oxygen system of 1.81 m³ (64 cu ft) capacity includes two crew demand masks and dropout constant flow masks for passengers. Engine fire detection and extinguishing system. Bleed air anti-icing system for wing leading-edges and engine inlets; pneumatic de-icing boots on tailplane leading-edges.



Flight deck of Cessna 560 Citation Encore (Paul Jackson)

0075949

Cabin interior of Cessna 560 Citation Encore 0054037

AVIONICS: Standard avionics package based on Honeywell Primus 1000 digital flight control system with integrated avionics computer.

Comms: Dual Honeywell Primus II transceivers, dual TDR-94 transponders, dual altitude reporting systems and cockpit voice recorder standard.

Radar: Honeywell Primus 660 colour weather radar standard.

Flight: Dual Honeywell Primus II, single Honeywell ADF, ALT-55 radio altimeter, coupled vertical navigation system, Global GNS-XL with GPS, expanded keyboard and colour CDU display standard. Universal Avionics UNS-1Csp FMS optional.

Instrumentation: Three-tube EFIS with 203 x 178 mm (8 x 7 in) CRTs comprising pilot's and co-pilot's primary flight displays (PFDs) and centrally mounted multifunction display (MFD); PFDs integrate functions of five flight instruments and several sources of navigation data, and provide trend data for airspeed, altitude and rate of climb.

DIMENSIONS, EXTERNAL:

Wing span	16.48 m (54 ft 1 in)
Wing aspect ratio	9
Length overall	14.90 m (48 ft 10 3/4 in)
Height overall	4.63 m (15 ft 2 1/4 in)
Tailplane span	6.55 m (21 ft 6 in)
Wheelbase	6.13 m (20 ft 1 1/4 in)
Wheel track	4.05 m (13 ft 3 1/2 in)

DIMENSIONS, INTERNAL:

Cabin:	
Length: between pressure bulkheads	6.88 m (22 ft 7 in)
excl cockpit	5.28 m (17 ft 4 in)
Max width	1.48 m (4 ft 10 1/4 in)
Max height	1.43 m (4 ft 8 1/2 in)
Baggage compartment volume	1.95 m³ (69 cu ft)

AREAS:

Wings, gross	29.94 m² (322.3 sq ft)
Vertical tail surfaces (total, incl tab)	4.73 m² (50.90 sq ft)
Horizontal tail surfaces (total)	7.88 m² (84.80 sq ft)

WEIGHTS AND LOADINGS:

Weight empty, typically equipped	4,590 kg (10,120 lb)
Max fuel	2,468 kg (5,440 lb)
Baggage capacity:	
nose	141 kg (310 lb)
aft cabin	272 kg (600 lb)
tailcone	227 kg (500 lb)
Max T-O weight	7,543 kg (16,630 lb)
Max ramp weight	7,634 kg (16,830 lb)
Max landing weight	6,895 kg (15,200 lb)
Max zero-fuel weight	5,715 kg (12,600 lb)
Max wing loading	251.9 kg/m² (51.60 lb/sq ft)
Max power loading	249 kg/kN (2.45 lb/lb st)

PERFORMANCE:

Max cruising speed at FL350	429 kt (795 km/h; 494 mph)
Stalling speed, flaps down	83 kt (154 km/h; 96 mph)
Max rate of climb at S/L	1,445 m (4,740 ft)/min
Time to: FL350	12 min
FL450	28 min
Rate of climb at S/L, OEI	439 m (1,440 ft)/min
Max certified altitude	13,715 m (45,000 ft)
T-O balanced field length	1,064 m (3,490 ft)
Landing field length at max landing weight	844 m (2,770 ft)
NBAA IFR range, 100 n mile (185 km; 115 mile) alternate, plus 45 min reserves	1,178 n miles (2,182 km; 1,356 miles)
Range with max fuel, VFR reserves	1,970 n miles (3,648 km; 2,267 miles)

OPERATIONAL NOISE LEVELS:

T-O	70.0 EPNdB
Approach	90.5 EPNdB
Sideline	89.8 EPNdB
	UPDATED

CESSNA 560XL CITATION EXCEL AND XLS

TYPE: Business jet.

PROGRAMME: Announced at National Business Aircraft Association Convention in New Orleans, October 1994; derivation of Model 560 Citation V/Ultra. Construction of prototype (N560XL) began February 1995; first flight 29 February 1996; public debut at NBAA convention at Orlando, Florida, November 1996, by which time prototype and preproduction aircraft (N561XL, c/n 560-5001) had completed 350 hours of flight testing in 400 sorties; first production aircraft rolled out 21 November 1997; FAA certification achieved 22 April 1998; first delivery 2 July 1998 to Swift Transportation Inc of Phoenix, Arizona. First export, September 1998, to Automobilvertriebs AG, Austria; 100th production Excel rolled out 17 April 2000 and delivered in August 2000. Cessna delivered its 4,000th Citation, an Excel, on 7 October 2003.

CURRENT VERSION: Citation Excel: As described.

Citation XLS: Upgraded version, announced at NBAA Convention in Orlando 7 October 2003, where development aircraft (N562XL, c/n 560-5313) was displayed statically. Features 17.75 kN (3,991 lb st) Pratt & Whitney Canada PW545B turbofans providing 4.9 per cent more take-off thrust; and revised flight deck and cabin interior featuring Goodrich Aerospace crew seats, BE Aerospace passenger seats, LED lightning and restyled and



Cessna Citation Excel (Paul Jackson)

NEW/0567706

upgraded furnishings. Empty weight 5,520 kg (12,170 lb); max zero-fuel weight 6,849 kg (15,100 lb); max T-O weight 9,163 kg (20,200 lb); max ramp weight 9,253 kg (20,400 lb); cruising speed at FL450 428 kt (793 km/h; 492 mph); max rate of climb at S/L 1,064 m (3,490 ft)/min; time to climb to FL450 25 min; IFR range, with two crew and five passengers, 1,945 n miles (3,602 km/h; 2,238 miles); VFR range with max fuel 2,100 n miles (3,889 km; 2,417 miles). FAA certification scheduled for first quarter 2004, with deliveries beginning mid-2004, replacing Excel from c/n 560-5501. Unit cost \$9.895 million (2003).

CUSTOMERS: Total market expected to exceed 1,000. Total of 15 delivered in 1998, 39 in 1999, 79 in 2000, 85 in 2001, 81 in 2002, and 42 in the first nine months of 2003. Recent customers include Avemex SA of Toluca, Mexico (three), Taxi Aereo Marilia (TAM) of Brazil (one) and the Swiss Federal Office for Civil Aviation, which took delivery of one on 28 August 2002. By August 2003 some 340 Excels were in service and had flown a total of 311,151 hours.

COSTS: US\$9.451 million (2002).

DESIGN FEATURES: Combines systems and wing and tail surfaces of Citation Ultra (Encore) with shortened version of Citation X's fuselage, providing eight-seat cabin with stand-up headroom; dual ventral strakes.

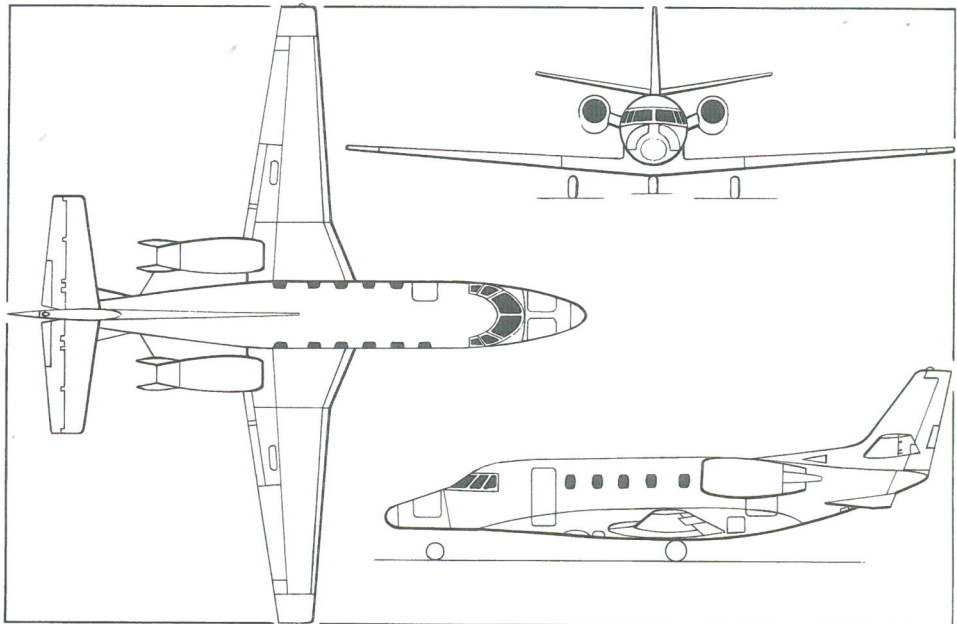
FLYING CONTROLS: As Citation Encore.

LANDING GEAR: Hydraulically retractable tricycle type with single wheel on each unit; trailing-link suspension on main legs. Mainwheel tyre size 23.5 x 8.0-10 (12 ply) tubeless, pressure 14.48 bar (210 lb/sq in); mechanically steerable nosewheel (±20°) with chined tyre, size 18x4.4DD (10 ply) tubeless, pressure 8.96 bar (130 lb/sq in). Hydraulic multiple disc carbon brakes with anti-skid and pneumatic emergency system.

POWER PLANT: Two 16.92 kN (3,800 lb st) Pratt & Whitney Canada PW545A turbofans. Nordam clamshell-type thrust reversers standard. Integral fuel tank in each wing, usable capacity 3,808 litres (1,006 US gallons; 838 Imp gallons) single-point pressure refuelling.

ACCOMMODATION: Choice of four standard seating configurations for up to 10 passengers in various layouts; seats recline, swivel and track forward and aft and laterally; forward refreshment centre and cupboard; aft lavatory and centreline cupboard. Airstair door on port side aft of flight deck. Baggage compartment in rear fuselage, capacity 317.5 kg (700 lb), with external access door incorporating integral step.

SYSTEMS: Honeywell RE-100(XL) APU optional from c/n 5021 (mid-1999) onwards, and retrofittable to earlier aircraft. Pressurisation system maximum differential 0.64 bar (9.3 lb/sq in), maintaining a sea level cabin altitude to 7,690 m (25,230 ft) or a 2,070 m (6,800 ft) cabin altitude to 13,715 m (45,000 ft). Hydraulic system, pressure 103.5 bar (1,500 lb/sq in), with two engine-driven pumps to operate landing gear, flaps, horizontal stabiliser, speed brakes and thrust reversers; separate hydraulic system for wheel brakes and anti-skid. Electrical system supplied by two 28 V 300 A DC starter/generators, with 24 V 44 Ah Ni/Cd battery. Vapour cycle air conditioning system standard; APU optional. Oxygen



Cessna Citation Excel (PW545 turbofans) (James Goulding)

0126686

system, capacity 2.15 m³ (76 cu ft) with pressure demand masks for crew and dropout constant-flow masks for passengers. Engine inlets and wing leading-edges supplied by engine bleed air for anti-icing; tailplane has de-icer boots; fin unprotected; electrically heated windscreen and cockpit side windows with PPG SurfaceSeal coating for rain dispersal, with electric blower assistance.

AVIONICS: Standard Honeywell Primus 1000 integrated digital avionics suite with IC-600 avionics computer as core system. Rockwell Collins system optional.

Comms: Dual Honeywell SRZ-850 transceivers, dual XS-852B Mode S transponders, Artex 110-4 ELT, L3 communications FA2100 CVR, airborne telephone system.

Radar: Honeywell Primus 880 colour weather radar.

Flight: Dual Honeywell NV-850, dual DM-850 DME, single DF-850 ADF, long-range navigation management system incorporating GPS, and Honeywell AA-300 radio altimeter.

Instrumentation: Three-tube EFIS with 178 x 203 mm (7 x 8 in) CRT screens comprising dual primary flight displays (PFDs) showing attitude/heading and all air data information, and single multifunction display (MFD) for map/plan, weather and checklist data.

DIMENSIONS, EXTERNAL:

Wing span	17.16 m (56 ft 3 3/4 in)
Wing aspect ratio	8.4
Length: overall	15.79 m (51 ft 9 1/2 in)
Height overall	5.30 m (17 ft 4 1/2 in)

Tailplane span	6.55 m (21 ft 6 in)
Wheelbase	6.67 m (21 ft 10 1/4 in)
Wheel track	4.54 m (14 ft 10 1/4 in)

DIMENSIONS, INTERNAL:

Cabin: Length:	
between pressure bulkheads	7.39 m (24 ft 3 in)
excl cockpit	5.69 m (18 ft 8 in)
Max width	1.70 m (5 ft 7 in)
Max height	1.73 m (5 ft 8 in)
Baggage capacity (aft)	2.26 m ³ (80 cu ft)

AREAS:

Wings, gross	34.35 m ² (369.7 sq ft)
Vertical tail surfaces (total, incl tab)	4.73 m ² (50.9 sq ft)
Horizontal tail surfaces (total, incl tab)	7.88 m ² (84.8 sq ft)

WEIGHTS AND LOADINGS:

Weight empty, typically equipped	5,579 kg (12,300 lb)
Max fuel weight (usable)	3,057 kg (6,740 lb)
Max T-O weight	9,071 kg (20,000 lb)
Max ramp weight	9,163 kg (20,200 lb)
Max landing weight	8,482 kg (18,700 lb)
Max zero-fuel weight	6,804 kg (15,000 lb)
Max wing loading	264.1 kg/m ² (54.10 lb/sq ft)
Max power loading	269 kg/kN (2.64 lb/lb st)

PERFORMANCE:

Max operating speed (V _{MO}):	
S/L to FL80	260 kt (481 km/h; 299 mph)
FL80 to FL265	305 kt (564 km/h; 351 mph) CAS
above FL265	M0.75



Cessna 560 Citation XLS prototype

NEW/0567703



Cabin interior of Cessna Citation XLS

NEW/0567705



Instrument panel of Cessna Citation XLS

NEW/0567704

Max cruising speed at FL350 429 kt (795 km/h; 494 mph)
 Stalling speed in landing configuration, at max landing weight 90 kt (167 km/h; 104 mph)
 Max rate of climb at S/L 1,155 m (3,790 ft)/min
 Rate of climb at S/L, OEI 259 m (850 ft)/min
 Max certified altitude 13,715 m (45,000 ft)
 Service ceiling, OEI 8,717 m (28,600 ft)
 T-O balanced field length 1,095 m (3,590 ft)
 Landing field length at max weight 969 m (3,180 ft)
 NBAA IFR range 1,847 n miles (3,421 km; 2,157 miles)
 VFR range with max fuel 2,080 n miles (3,852 km; 2,394 miles)

OPERATIONAL NOISE LEVELS:

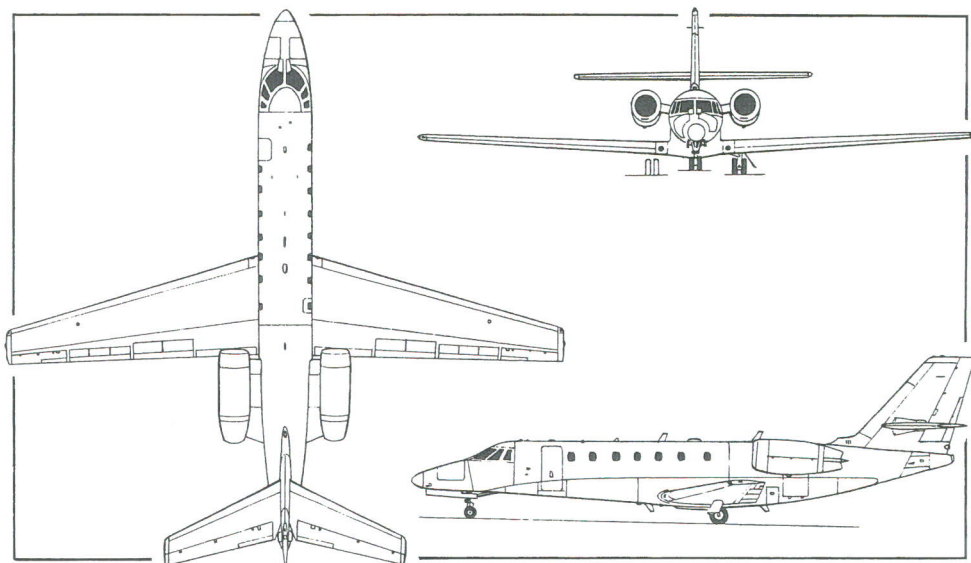
T-O	72.4 EPNdB
Approach	93.1 EPNdB
Sideline	85.3 EPNdB

UPDATED

CESSNA 680 CITATION SOVEREIGN

TYPE: Business jet.

PROGRAMME: Design started mid-1998; announced at NBAA Convention at Las Vegas, Nevada, 18 October 1998; critical design review completed in late 1999; structural testing of fatigue test fuselage began in late 1999; official launch 3 January 2000; construction of cyclic fatigue test airframe started October 2000; manufacture of prototype started in 2001; first flight (prototype N680CS, c/n 000P, N680CS, c/n 000P) 27 February 2002, followed by first preproduction aircraft (N681CS/c/n 0001) on 27 June 2002. Public debut (N681CS) at NBAA Convention in Orlando, Florida, 10 September 2002. These aircraft, plus N682CS, c/n 0002, which flew in fourth quarter 2002, undertook a 2,000-hour, 19-month test programme. By 27 August 2003 the three aircraft had logged more than 1,600 flight hours. Two static test airframes have also been built, one of which will undertake a 36,000-cycle fatigue test programme. After completion of initial flight tests and envelope expansion in June 2002, 000P was dedicated to stability and control checks, high altitude stall tests, cruise performance validation, systems and APU testing and airfield performance; c/n 0001 is the systems verification and certification article; and c/n 0002/N682CS is dedicated to avionics and autopilot testing. FAA certification to FAR



Citation Sovereign eight/11-passenger business jet (Michael Badrocke)

0526865

Pt 25 Amendment 98 and JAR 25 Change 15, both including TVSM compliance, is scheduled for late 2003; c/n 0002 was also to perform a 150-hour function and reliability programme and, with c/n 0001, undertake 300 hours of post-certification in-service testing before first customer delivery in January 2004; both pre-production aircraft will then be refurbished and brought up to final production configuration before sale to customers. First production aircraft (N52114, c/n 0003) rolled out 27 August 2003. Delivery targets are 21 in 2004, 40 in 2005 and 58 in 2006.

CUSTOMERS: Launch customer Swift Air of Phoenix, Arizona, ordered six on day of launch announcement; Executive Jet Aviation ordered 50, with 50 options, on 20 October for its NetJets fractional ownership scheme. Other announced customers include Atlas Air Service GmbH of Germany,

which has ordered one. Firm orders totalled more than 100 by August 2003.

COSTS: US\$13.523 million, typically equipped (2003).

DESIGN FEATURES: Design goals included large cabin, good short-field performance and US coast-to-coast range. Low wing with sweepback leading-edge; mid-mounted tailplane with leading-edge sweepback; podded engines on rear fuselage shoulders.

New wing design; sweepback 16° 18' at leading-edge, -12° 42' at quarter-chord, dihedral 3°. Mid-mounted tailplane, sweepback 17° 36' at leading-edge, dihedral 0°.

FLYING CONTROLS: Conventional. Five hydraulically actuated spoiler panels per wing; three centre panels function as roll spoilers, variable position speedbrakes and ground spoilers; inner and outboard panels function as variable speedbrakes and ground spoilers. Trim tabs in ailerons and rudder; trimmable tailplane; yaw damper.

STRUCTURE: Primarily metal. Fokker Aerostructures of the Netherlands selected in 2000 to manufacture the tail surfaces of production aircraft.

LANDING GEAR: Hydraulically retractable tricycle type with twin wheels on trailing-link main units and nosewheel; main units retract inboard, nosewheel forwards. Carbon brakes; anti-skid standard; hydraulically boosted nosewheel steering.

POWER PLANT: Two Pratt & Whitney Canada PW306C turbofans with FADEC, each developing 25.3 kN (5,686 lb st) flat rated to ISA + 15°C; target-type thrust reversers. Integral fuel tanks in wings total usable capacity 6,091 litres (1,609 US gallons; 1,340 Imp gallons); single-point pressure fuelling.

ACCOMMODATION: Crew of two on flight deck and up to 12 passengers in cabin; standard accommodation for eight passengers in double club arrangement with forward galley and aft lavatory. Fully dimmable LED cabin lighting. Baggage compartment in tailcone with external access. Cabin is pressurised, heated and air conditioned. Airstair door at front on port side; one emergency exit on starboard side, above the wing.

SYSTEMS: Pressurisation system, maximum differential 0.64 bar (9.3 lb/sq in), and air-conditioning system supplied by engine bleed air; pressurisation system maintains sea level cabin to 7,690 m (25,230 ft); closed-centre hydraulic system, pressure 207 bar (3,000 lb/sq in), for operation of landing gear, nosewheel steering, braking system, spoilers and thrust reversers. 28 V DC split-bus electrical system, supplied by two 400 A starter/generators and two AC alternators. Honeywell RE100 APU certified for in-flight



Second preproduction Cessna 680 Citation Sovereign

NEW/0572388



Typical cabin of Cessna 680 Citation Sovereign



Flight deck of Cessna Citation Sovereign

operation up to 9,145 m (30,000 ft); and Honeywell environmental control and cabin pressure control systems. Oxygen system standard. Wing and tailplane leading-edges and engine inlets anti-iced by engine bleed air; electrically anti-iced windscreens and air data probes.

AVIONICS: Honeywell Primus Epic as core system.

Comms: L-3 Communications CVR standard.

Radar: Honeywell Primus 880 colour weather radar.

Flight: VOR, ILS, ADF, GPS, dual NZ-2000 FMS, TAWS, TCASII and three-axis autopilot standard.

Instrumentation: Four-tube EFIS with 203 × 254 mm (8 × 10 in) active matrix quartz PFD, MFD and EICAS displays. Max-Viz EVS2000 enhanced visibility system optional.

DIMENSIONS, EXTERNAL:

Wing span	19.24 m (63 ft 1½ in)
Wing aspect ratio	7.7
Length overall	19.35 m (63 ft 6 in)
Height overall	6.07 m (19 ft 11 in)
Tailplane span	8.38 m (27 ft 6 in)
Wheel track	3.11 m (10 ft 2½ in)
Wheelbase	8.51 m (27 ft 11 in)

DIMENSIONS, INTERNAL:

Cabin: Length between pressure bulkheads	9.07 m (29 ft 9 in)
Length excluding cockpit	7.38 m (24 ft 2½ in)
Max width	1.70 m (5 ft 7 in)
Max height	1.73 m (5 ft 8 in)
Baggage compartment volume	2.83 m³ (100 cu ft)

AREAS:

Wings, gross	47.93 m² (515.9 sq ft)
Vertical tail surfaces	8.85 m² (95.3 sq ft)
Horizontal tail surfaces	12.87 m² (138.5 sq ft)

WEIGHTS AND LOADINGS:

Empty weight, typically equipped	7,892 kg (17,400 lb)
Max fuel	4,863 kg (10,720 lb)
Max ramp weight	13,721 kg (30,250 lb)
Max T-O weight	13,607 kg (30,000 lb)
Baggage capacity	454 kg (1,000 lb)
Max landing weight	12,292 kg (27,100 lb)
Max zero-fuel weight	9,208 kg (20,300 ft)
Max wing loading	283.9 kg/m² (58.15 lb/sq ft)
Max power loading	269 kg/kN (2.64 lb/lb st)

PERFORMANCE:

Max operating speed (VMO)	M0.80
Max cruising speed	446 kt (826 km/h; 513 mph)
Time to FL370	14 min
Time to FL430	26 min
Max certified altitude	14,325 m (47,000 ft)
Service ceiling	13,105 m (43,000 ft)
T-O balanced field length	1,126 m (3,695 ft)
Landing run	959 m (3,145 ft)
NBAA IFR range, 100 n mile (185 km; 115 mile) alternate, 45 min reserves	2,518 n miles (4,663 km; 2,898 miles)
VFR range with max fuel	2,820 n miles (5,223 km; 3,245 miles)

UPDATED

CESSNA 750 CITATION X

TYPE: Business jet.

PROGRAMME: Announced at NBAA Convention in New Orleans in October 1990; engine flew on Citation VII testbed (N650) 21 August 1992; first flight (N750CX) 21 December 1993; two preproduction aircraft to aid integration of production systems; first of these (N751CX) flown 27 September 1994, second (N752CX) flown 11 January 1995; FAA FAR Pt 25, Amendment 74 certification 31 May 1996 after flight test programme totalling more than 3,000 hours; JAA certification achieved 26 May 1998. First customer delivery July 1996. Citation X design team awarded the National Aeronautic Association's Robert J. Collier Trophy in February 1997. Cessna delivered its 3,000th Citation, a Citation X, on 19 November 1999.

In October 2000, Cessna announced improvements to the Citation X aimed at boosting range/payload

performance and enabling the aircraft to operate from shorter runways. Improvements, to be incorporated on all aircraft delivered after 1 January 2002, beginning with c/n 0173 include updated 30.01 kN (6,764 lb st) Rolls-Royce AE 3007C-1 turbofans; 181 kg (400 lb) increase in maximum take-off weight to 16,374 kg (36,100 lb), enabling a typically equipped aircraft to carry seven passengers with maximum fuel; and take-off balanced field length at MTOW of 1,567 m (5,140 ft). Several optional items of avionics became standard, including Honeywell TCAS II and EGPWS, CVR, satcom, VHF/AFIS, provisions for an FDR, and second HF transceiver, plus Teledyne angle of attack indicator/indexer, tail floodlights, red strobe light, pulse lights, Litton ELT, and 2,154 litre (76 cu ft) oxygen bottle. First delivery of an upgraded citation X took place on 5 February 2002 to golfer Arnold Palmer (c/n 0176/N1AP).

CUSTOMERS: First delivery (0003/N1AP) to Arnold Palmer July 1996; 100th Citation X delivered 23 December 1999 to Townsend Engineering of Des Moines, Iowa and 200th delivered 14 October 2002 to NetJets Inc; total 203 by 31 December 2002, comprising seven, 28, 30, 36 in 1996-99, 37 in 2000, 34 in 2001, 31 in 2002, and 12 in the first nine months of 2003; most to US operators, but others exported to Canada, Finland, Germany, Mexico, South Africa and UK. Executive Jet Aviation (EJA) ordered 31 for delivery beginning in 1997 and extending beyond 2000, for its NetJets fractional ownership operation. Other early recipients included General Motors (five), Honeywell (two) and Williams Companies (three). Recent customers include former World Motor Racing Champions Nigel Mansell, who took delivery of one in February 2002, and Nelson Piquet, who ordered one at the NBAA Convention at Orlando, Florida, in September 2002, and the Air Traffic Management Bureau of the Civil Aviation Authority of China, which ordered one on 1 October 2001. By August 2003 more than 213 Citation Xs had been delivered, and had accumulated 414,352 flight hours.

COSTS: US\$19,394 million, typically equipped. Direct operating cost, based on 1,000 n mile (1,852 km; 1,151 mile) stage length, US\$1,294.92 per hour (both 2003).

DESIGN FEATURES: Optimised for high maximum operating Mach number; US transcontinental and transatlantic range. Design generally as for Citation VII (which see), but with greater angles of sweepback on all flying surfaces and of increased size and weight.

Wing sweepback at quarter-chord 37°; dihedral 2°.

FLYING CONTROLS: Dual hydraulically powered controls with manual reversion. One-piece all-moving tailplane; two-piece rudder, lower portion hydraulically powered, upper

portion electrically powered; speed brakes/spoilers with manual back-up. Five spoiler panels per wing, operating in combination as aileron augmentors, airbrakes and lift dumpers.

STRUCTURE: Alloy fuselage. Thick wing skins, milled from solid; all control surfaces, spoilers, speedbrakes, wing fairings and flaps are of composites construction.

LANDING GEAR: Trailing-link main units, each with twin wheels; powered anti-skid carbon brakes; hydraulically steerable nose unit with twin wheels. Main tyres 26x6.6R14 (14 ply) tubeless; nose tyres 16x4.4D (6 or 10 ply) tubeless.

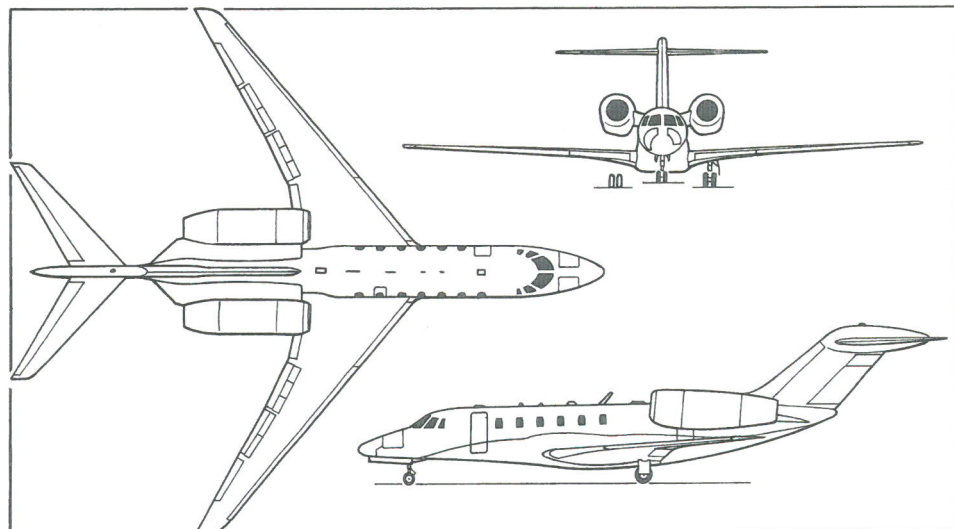
POWER PLANT: Two Rolls-Royce AE 3007C-1 turbofans, each rated at 30.01 kN (6,764 lb st) for take-off, pod-mounted on sides of rear fuselage; FADEC. Hydraulically operated target-type thrust reversers standard. Fuel contained in three separate tanks, one in each outer wing and one in centre-section/forward fairing, combined usable capacity 1,306 litres (1,930 US gallons; 1,607 Imp gallons). Two independent fuel supply systems; fuel is fed from centre tank to wing tanks; single point and over-wing refuelling.

ACCOMMODATION: Crew of two on separate flight deck, and up to 12 passengers; interior custom designed; cabin is pressurised, heated and air conditioned; heated and pressurised baggage compartment in rear fuselage with external door. Windscreens electrically heated and demisted.

SYSTEMS: Pressurisation system, maximum pressure differential 0.64 bar (9.3 lb/sq in), maintains 2,440 m (8,000 ft) cabin altitude at 15,545 m (51,000 ft). Dual isolated hydraulic systems, pressure 207 bar (3,000 lb/sq in), maintained by pressure-compensated pumps. Split-bus electrical system is powered by two engine-driven 400 A DC generators, plus an APU-driven 400 A DC generator usable to FL310, with two 24 V 44 Ah Ni/Cd batteries; wiring designed to minimise susceptibility of critical systems to HIRF interference. Wing and tail leading-edges and engine inlets heated by engine bleed air for ice protection; wing cuffs, pitot/static system, AoA system and windscreens electrically heated. Oxygen system, capacity 2.15 m³ (76 cu ft), with pressure demand masks for crew and dropout mask for each passenger.

AVIONICS: Honeywell Primus 2000 dual digital autopilot/flight director/EICAS as core system.

Comms: Dual Honeywell RCZ-833 communication units with 25 kHz and 8.33 kHz channel spacing; dual RM-855 radio management units; dual AV-850 audio control panels; single Honeywell KHF-950 HF with provision for second; dual Mode S transponders; Coltech CSD-714 Selcal; Honeywell airborne traffic information



Cessna 750 Citation X (Jane's/Dennis Punnett)

0075950

Cessna Citation Sovereign, cutaway drawing key

- 1 Hinged composites radome

2 Weather radar antenna

3 ILS glide-slope antenna

4 Radar mounting bulkhead

5 Pilot head

6 Nose compartment hinged access doors, port and starboard

7 Windscreen blower

8 Nose avionics bay

9 Position of oxygen cylinder on starboard side

10 Nosewheel doors

11 Temperature probe

12 Taxiing lights

13 Twin nosewheels with chined tyres, forward retracting

14 Nose landing gear leg strut and torque links

15 Hydraulic jack

16 Canted front pressure bulkhead

17 Rudder pedals

18 Control column

19 Instrument panel, four full-colour LCD displays

20 Windscreen rain dispersal air ducts

21 Instrument panel shroud

22 Electrically heated windscreen panels

23 Cockpit roof frames

24 Curtained flight deck bulkhead

25 Warning horn

26 First officer's seat

27 Captain's seat

28 Direct vision opening side window panel

29 Side console panel with nosewheel steering tiller

30 Adjustable seat rails

31 Incidence vane

32 Door closure panel

33 Door with integral airstairs

34 Door internal latch

35 Door struts and balance cables

36 Folding handgrip

37 Doorway

38 Forward wardrobe

39 Starboard side refreshment cabinet

40 GPS 1 and 2 antennae

41 Cockpit section joint frame

42 Single side-facing seat to starboard

43 TCAS antenna

44 ATC 1 and 2 antennae

45 Fold-out table, four positions

46 Individual reclining seats with adjustable armrests

47 Cabin window panels

48 Sidewall storage pockets

49 Cabin sidewall trim panelling

50 Fuselage frame and stringer structure, frames riveted to bonded circumferential stiffeners

51 Wing inspection light

52 Forward ventral fairing structure, aluminium alloy
- 53 Tailplane control cables, outside fuselage pressure shell

54 Cabin insulation blankets

55 Individual window blinds

56 Wing spar/fuselage drag fitting

57 Wing centre section, continuous beneath fuselage pressure shell

58 Dropped aisle cabin floor

59 Fold-out table storage

60 Cup holders and individual LCD screen terminals

61 VHF 1 antenna

62 Starboard wing integral fuel tank

63 Structural fuel venting channels

64 Overwing fuel filler

65 Thermally de-iced leading-edge

66 Dual starboard navigation lights

67 De-icing air venting louvres

68 Wingtip strobe light

69 Starboard aileron

70 Aileron tab

71 Aileron actuator, cable operated
- 72 Outboard three-segment spoiler/speedbrake panels

73 Three-segment Fowler flaps, extended

74 Inboard two-segment spoiler/speedbrake panels

75 Spoiler hydraulic jacks

76 Flap tracks and guide rails

77 Flap operating screw-jacks

78 ADF antenna

79 Starboard side emergency escape hatch

80 Lavatory

81 Cabin bulkhead with sliding doors

82 Composites floor panels

83 Wing main and rear spar/fuselage attachment links
- 84 Rear spar/centre section yaw fittings

85 Wing spar attachment double fuselage frames

86 Dual cabin pressurisation valves

87 Wash basin

88 Rear wardrobe

89 Rear pressure bulkhead

90 Baggage compartment

91 Electrical equipment racks

92 Rear avionics equipment shelf

93 VHF 2 antenna

94 Transverse engine mounting beams

95 Engine pylon

96 Starboard engine installation

97 Target-type thrust reverser, deployed door actuator

98 Cabin air conditioning pack

99 Cabin air conditioning pack

100 Heat exchanger ram air intake structure

101 Aft fuselage frame and stringer

102 Canted fin spar mounting bulkhead

103 Tailplane de-icing air ducts

104 Variable incidence tailplane control jack
- 105 Tailplane pivot mounting

106 Elevator actuating levers, cable operated

107 Tailplane sealing plate

108 Two-spar and rib fin torsion box structure

109 Composites fin leading edge

110 Starboard elevator

111 Starboard aileron

112 Spoiler dischargers

113 VOR localiser antenna

114 Anti-collision beacon

115 Rudder rib structure

116 Rudder tab

117 Tab actuator, cable operated

118 Elevator tab

119 Tail navigation lights

120 Port elevator rib structure

121 Three-spar and rib tailplane torsion box structure

122 Tailplane leading-edge thermal de-icing

123 APU exhaust

124 Auxiliary Power Unit (APU) operated

125 Rudder control quadrant, cable operated

126 Fin rear spar mounting canted bulkhead

127 Engine fire suppression bottles

128 Port engine thrust reverser cowlings
- 129 Rear engine support links

130 Pylon-mounted engine bleed-air pre-cooler

131 Main engine mounting

132 Baggage bay hatch

133 Hinged cowl panels

134 Engine drain mast

135 Pratt & Whitney Canada PW306C turbofan

136 Engine accessory equipment gearbox

137 FADEC controller

138 Baggage bay door with integral steps
- 139 Generator cooling air duct

140 Intake lip bleed-air de-icing

141 Acoustically lined intake duct

142 Battery bay, port and starboard

143 Cabin conditioned air delivery ducting

144 Flap shroud ribs

145 Graphite composites flaps multispar structure

146 Port three-segment Fowler flaps

147 Spoiler panel graphite composites construction

148 Two-segment inboard spoiler/speedbrake panels

149 Outboard three-segment spoiler/speedbrake panels

150 Aileron tab

151 Port aileron

152 Wingtip strobe light

153 Port dual navigation lights

154 Wing panel three-spar and rib torsion box structure

155 Wing bonded bottom skin/stringer panel with access hatches

156 Overwing fuel filler
- 157 Port wing integral fuel tank

158 Leading-edge double skin de-icing air ducting

159 Wing rib structure

160 De-icing air piccolo tube

161 Twin mainwheels

162 Levered suspension axle beam

163 Shock-absorber strut

164 Main landing gear leg strut pivot mounting

165 Hydraulic jack

166 Mainwheel well

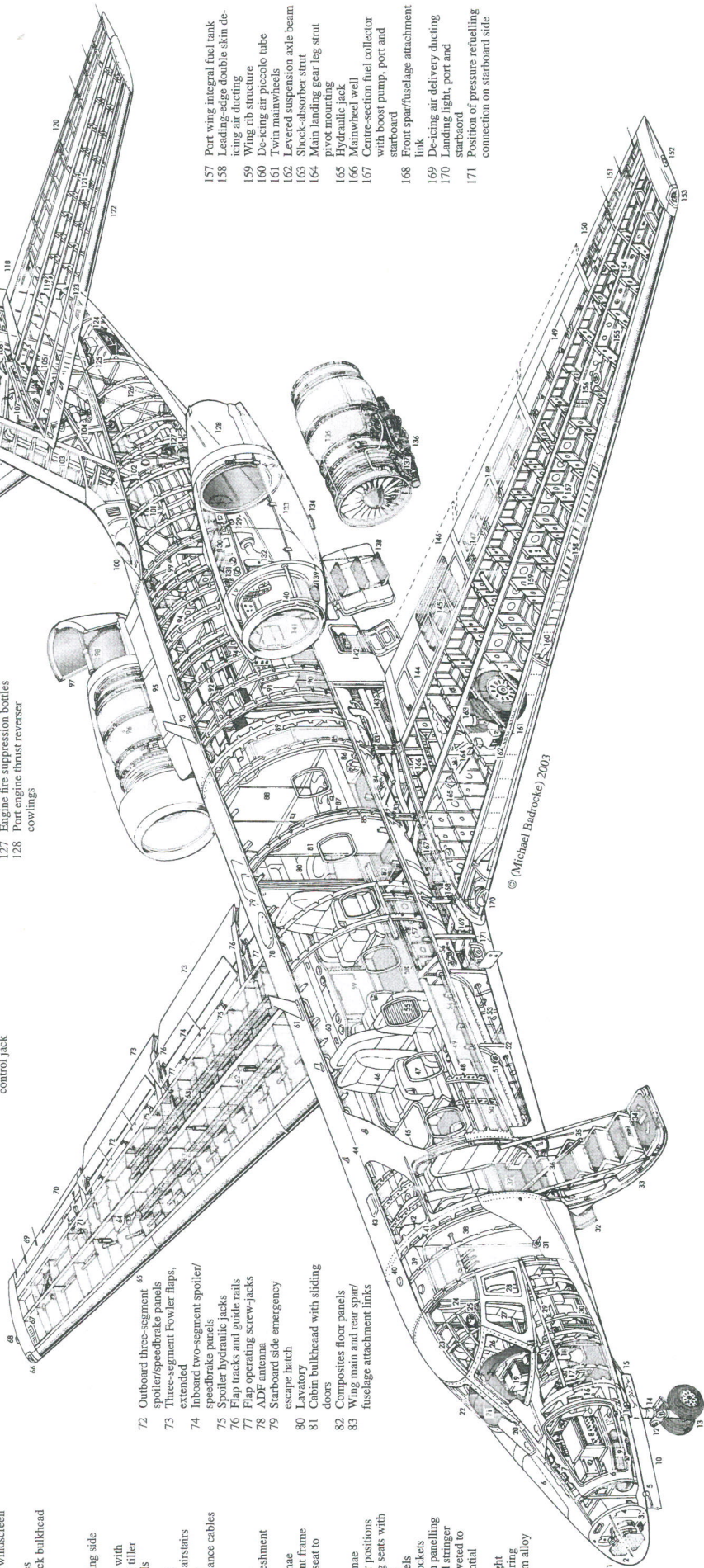
167 Centre-section fuel collector with boost pump, port and starboard

168 Front spar/fuselage attachment link

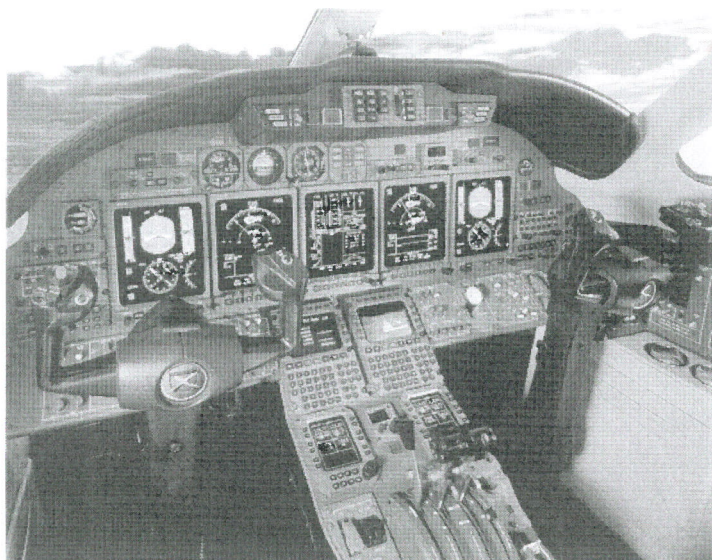
169 De-icing air delivery ducting

170 Landing light, port and starboard

171 Position of pressure refuelling connection on starboard side



© (Michael Badrocke) 2003



Cabin of Cessna Citation X

NEW/0567698

Cessna 750 Citation X flight deck

NEW/0567699

system (AFIS); L-3 Communications FA2100 CVR; three-frequency ELT.

Radar: Honeywell Primus 880 colour weather radar.

Flight: Dual Honeywell FMSEs; dual Honeywell navigation systems including VOR/LOC/GS/MKR and DME; dual Laser IV IRS; single ADF; Honeywell AA-300 radio altimeter. Air data is provided by dual AZ-840 micro air data computers.

Instrumentation: Five-tube EFIS with 178 x 203 mm (7 x 8 in) screens for pilot's and co-pilot's primary flight displays (PFD) and multifunction displays (MFD), with central EICAS display.

DIMENSIONS, EXTERNAL:

Wing span	19.38 m (63 ft 7 in)
Wing aspect ratio	7.8
Length overall	22.05 m (72 ft 4 in)
Height overall	5.87 m (19 ft 3 in)
Tailplane span	7.95 m (26 ft 1 in)
Wheel track	3.23 m (10 ft 7 in)
Wheelbase	8.74 m (28 ft 8 in)

DIMENSIONS, INTERNAL:

Cabin (front to mid-pressure bulkhead):	
Length: between pressure bulkheads	8.64 m (28 ft 4 in)
excl flight deck	7.16 m (23 ft 6 in)
Max width	1.70 m (5 ft 7 in)
Max height	1.73 m (5 ft 8 in)
Baggage compartment volume (aft, including ski compartment)	2.03 m ³ (72 cu ft)

AREAS:

Wings, gross	48.96 m ² (527.0 sq ft)
--------------	------------------------------------

Vertical tail surfaces (total)	10.31 m ² (111.0 sq ft)
Horizontal tail surfaces (total)	11.15 m ² (120.0 sq ft)
WEIGHTS AND LOADINGS:	
Weight empty, typically equipped	9,809 kg (21,625 lb)
Max fuel weight	5,897 kg (13,000 lb)
Max T-O weight	16,374 kg (36,100 lb)
Max ramp weight	16,511 kg (36,400 lb)
Max landing weight	14,424 kg (31,800 lb)
Max zero-fuel weight	11,068 kg (24,400 lb)
Max wing loading	334.5 kg/m ² (68.50 lb/sq ft)
Max power loading	272 kg/kN (2.67 lb/lb st)

PERFORMANCE:

Max operating Mach No. (MMO)	0.92
Max operating speed (VMO):	
S/L to FL800	270 kt (500 km/h; 310 mph)
FL800 to FL306	350 kt (648 km/h; 403 mph)
above FL306	M0.92

Max cruising speed, mid-cruise weight at FL370	M0.91
Max cruising speed at FL350	

525 kt (972 km/h; 604 mph)

Max rate of climb at S/L	1,113 m (3,650 ft)/min
--------------------------	------------------------

Max certified altitude	15,545 m (51,000 ft)
------------------------	----------------------

T-O balanced field length (FAR Pt 25)	1,585 m (5,200 ft)
---------------------------------------	--------------------

FAR Pt 25 landing field length	1,039 m (3,410 ft)
--------------------------------	--------------------

VFR range with two crew, M0.82 at FL490, 100 n mile	
---	--

(185 km; 115 mile alternate and 45 min reserves)	
--	--

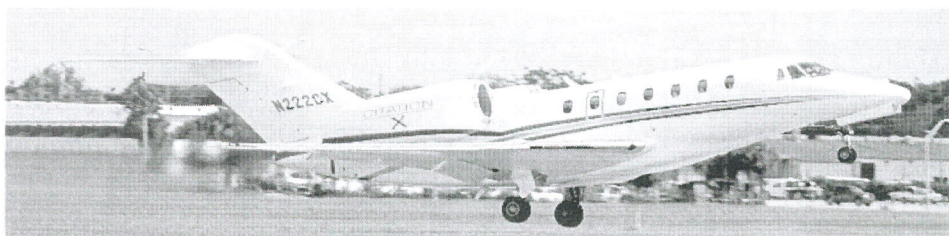
3,390 n miles (6,278 km; 3,901 miles)	
---------------------------------------	--

NBAA IFR range	3,070 n miles (5,686 km; 3,533 miles)
----------------	---------------------------------------

OPERATIONAL NOISE LEVELS (FAR Pt 36 Amendment 20):

T-O	73.2 EPNdB
Approach	90.3 EPNdB
Sideline	83.8 EPNdB

UPDATED



Cessna 750 Citation X business jet (Paul Jackson)

NEW/0567700

CIRRUS

CIRRUS DESIGN CORPORATION

4515 Taylor Circle, Duluth International Airport, Duluth, Minnesota 55811

Tel: (+1 218) 727 27 37

Fax: (+1 218) 727 21 48

Web: <http://www.cirrusdesign.com>

PRESIDENT: Alan Klapmeier

EXECUTIVE VICE-PRESIDENT: Dale Klapmeier

EXECUTIVE VICE-PRESIDENT AND CFO: Peter McDermott

EXECUTIVE VICE-PRESIDENT, OPERATIONS: David Coleal

EXECUTIVE VICE-PRESIDENT, SALES AND MARKETING:

John M Bingham

VICE-PRESIDENT, ENGINEERING: Patrick Waddick

VICE-PRESIDENT, RESEARCH AND TECHNOLOGY: Dean Vogel

VICE-PRESIDENT, SALES AND MARKETING: Thomas Shea

Founded 1984 by Klapmeier brothers. Previously engaged in production of kits, (ST-50 and VK-30), Cirrus is concentrating on fully certified factory-built aircraft.

Current products are SR20 and SR22. Cirrus purchased 20 per cent of parachute systems company BRS in September 1999. Workforce was 800 in May 2003, based at Duluth and Hibbing, Minnesota, and Grand Forks, North Dakota. In August 2001, Crescent Capital acquired 58 per cent share in Cirrus for US\$100 million. The 1,000th SR series aircraft, an SR22, was delivered in August 2003. Production rate was two per working day in August 2002, scheduled to rise to three per working day in 2003.

UPDATED

CIRRUS SR20 and SRV

TYPE: Four-seat lightplane.

PROGRAMME: Development began 1990; mockup revealed at Oshkosh 1994; first flight (N200SR) 31 March 1995; second prototype (N202CD) flown November 1995; FAR Pt 23 certification aircraft (N203FT), designated C-1, made first flight 28 January 1998 after completion of wing redesign to lower stall speed and improve lateral control.

By end 1997, the two prototypes had accumulated 1,500 hours of test flying. A second production-standard aircraft (N204CD; C-2) joined the flight test programme on 3 June 1998, committed to trials of fuel and electrical systems and avionics. Recovery parachute trials involved eight deployments, including three for FAA. Late 1998 start of deliveries delayed by decision of avionics supplier, Trimble, to withdraw from general aviation. FAR Pt 23 certification Amdt 47 received 23 October 1998; Transport Canada certification granted in March 2002; first aircraft manufactured to Canadian certification standard delivered 2 April 2002 to Tim Harpell of Toronto.

Initial production aircraft first flew (N115CD) 22 March 1999, but lost on following day. First delivery (c/n 1005, N415WM) 20 July 1999, at which time 325 on order (although many since upgraded to SR22 orders). Production certificate, to enable Cirrus to carry out its own inspections, awarded 12 June 2000.

CURRENT VERSIONS: **SR20:** Total 133 delivered to customers by April 2001, when production suspended. MTOW 1,315 kg (2,900 lb).

SR20A: In production from July 2001. Additional 45 kg (100 lb) MTOW; landing light repositioned lower on

engine cowl; and optional Goodrich Skywatch and Sandel SN3308 EHSI for traffic information. Upgrades (including MTOW) retrofittable. As described.

SR20 Version 2.0, Version 2.1 and Version 2.2: Upgraded versions available from 2003; launched at EAA Sun 'n' Fun in April 2002. Differ from SR20A principally in having no vacuum instruments and featuring electrical system and avionics packages based on those of the SR22. Version 2.0 has a single-alternator, dual-battery, dual-bus electrical system and features Avidyne FlightMax MFD, single Garmin GNS 430 GPS/com/nav and GNC 250XL GPS/com and S-Tec System 20 autopilot as standard. First delivery in January 2003 to 907th Flight Squadron Aero club at Jameson, Pennsylvania. Version 2.1 adds a dual-alternator electrical system and GNS 430/420 package. Version 2.2 has dual GNS 430s, S-Tec Fifty FiveX autopilot with altitude preselect and Sandel EHSI.

SRV: Basic VFR-only version, introduced at EAA AirVenture, Oshkosh, 29 July 2003, when demonstrator N936CD (c/n 1337) shown. Specification and performance generally as for SR20 except: cruising speed at 75 per cent power 150 kt (278 km/h; 173 mph); range with reserves



Cirrus SR20 four-seat lightplane (Paul Jackson)

NEW/0568408