UNITED KINGDOM
CIVIL AVIATION AUTHORITY

FA71
Issue 2
APRIL 2002
CESSNA 750

TYPE CERTIFICATE DATA SHEET NO. FA 71

This data sheet which is part of CAA Type Certificate No. FA71, prescribes conditions and limitations under which the product, for which the type certificate was issued, meets the airworthiness requirements of the Civil Aviation Authority.

TYPE CERTIFICATE HOLDER:	**CESSNA AIRCRAFT COMPANY** **P.O. BOX 7704** **WICHITA** **KS 67277** **USA**
MANUFACTURER:	**CESSNA AIRCRAFT COMPANY**
AIRCRAFT TYPE/ MODEL NUMBER(S):	**CESSNA 750**

In this case, the CAA Type Certification has been granted on the basis of a recommendation from the Joint Airworthiness Authorities (JAA) following an investigation carried out in accordance with the JAA Joint Certification Procedures. Accordingly, the attached JAA Data Sheet No. JAA/25/99-021 Issue 3 dated 1 March 2002 has been accepted by the CAA for the Cessna 750.

- END -

JOINT AVIATION AUTHORITIES

JAR-25 AEROPLANE DATA SHEET

Data Sheet No. : JAA/25/99-021

Type : Cessna Model 750 (Citation X)

JOINT AVIATION AUTHORITIES

JAR-25 AEROPLANE DATA SHEET

I. General

1. Data Sheet N0: JAA/25/99-021 Issue: 3 Date: 1 March 2002

2. Type/Variant: Cessna Model 750 (Citation X)

3. Deleted

4. Authority of State of Design: Federal Aviation Administration (FAA)

5. Type Certificate Holder: Cessna Aircraft Company
   P.O. Box 7704
   Wichita, KS 67277

6. JAA Validation Application Date: 8 April 1992

7. JAA Validation Recommendation Date: 28 June 1999

II. Certification Basis

1. Reference Application Date for FAA Certification: 15 October 1991

2. FAA Certification Date: May 31, 1996

   FAA Type Certificate Data Sheet No: T00007WI

3. FAA Certification Basis:

   Part 25 of the Federal Aviation Regulations effective February 1, 1965, as amended by Amendments 25-1 through 25-74. FAR § 25.729(e) as amended by Amendment 25-75; and § 25.1316, as amended by Amendment 25-80. FAR Part 36 effective December 1, 1969 as amended by Amendment 36-1 through 36-21. Noise Control Act of 1972. FAR Part 34 of the Federal Aviation Regulations effective September 10, 1990.

   <u>Special Conditions</u>

   (a) No. 25-ANM-80, additional requirements for High Altitude Operation (See Note 7)
   (b) No. 25-ANM-99, additional requirements for protection of Electrical and Electronic Systems from High Intensity Radiated Fields (HIRF)
   (c) No. 25-ANM-113, additional requirements for operation with Fly-by-Wire Rudder.

Equivalent Safety Items

(a) FAR §§ 25.335(d) and 25.341, Design Discrete Gust Criteria;
(b) FAR § 25.811(e)(4), Red Arrow Marking for the Main Passenger Door Handle;
(c) FAR § 25.807(e), Ditching Emergency Exits for Passengers;
(d) FAR § 25.841(b)(6), Cabin Pressurization - High Altitude Takeoff and Landing Operations;
(e) FAR § 25.1549(a) & (c), Digital Turbine Speed;
(f) FAR § 25.1305, Digital APU Indicators (Oil Pressure, Oil Temperature, Gas Temperature, Tachometer);
(g) FAR §§ 25.101, 25.105, 25.109, 25.113, 25.115, 25.735, and 25.1587, Accelerate-Stop Distance;
(h) FAR §§ 25.811(d)(1) and 25.812(b)(1)(i), Emergency Exit Locator Signs.
(i) FAR §§ 25.201, 25.203 and 25.207, Stall Warning System for flight conditions above 34,500 feet.
(j) FAR § 25.813(e), Emergency Exit Access

Exemptions

(a) No. 6179, exemption from bird impact requirements of § 25.571(e)(1);
(b) No. 6431, exemption from Engine-out lateral trim requirements of § 25.161(d); and
(c) No. 6432, exemption from the emergency landing dynamic conditions of § 25.562 for multiple-occupancy, side-facing divans. Expires November 30, 1996.

FAR § 25.801 ditching not complied with.

Compliance with ice protection has been demonstrated in accordance with FAR § 25.1419.

4. JAA Airworthiness Requirements

JAR 1 Definitions	Change 4	1 June 1987
JAR 25 Large Aeroplanes	Change 13	5 Oct 1989
Amendment (OP) 90/1		11 May 1990
Amendment (OP) 91/1		12 Apr 1991
JAR AWO	Change 1	29 Nov 1985
	Change 2	1 Aug 1996 (Cat. II)
	+ NPA AWO-5	(Cat. II)
	+ NPA AWO-9	(Cat. II)
JAR APU (Note: APU is classified as "non-essential" on this aircraft)	Change 2	26 Sept 1983

Cessna elected to comply with the following standards, which became mandatory at TC:

Amendment (OP) 93/1	8 March 1993
NPA 25B-240	Landing performance in abnormal configurations
NPA 25G-255	Issue 1, 28 August 1992. Flight Manuals - General.

5. JAA Special Conditions:

CRI B-02	Crew Alerting System
CRI B-03	Definition of M_{Df}
CRI C-10	Personal injury criteria for dynamic testing of Single Place Side-Facing Seats
CRI D-09	Special Conditions for operation to 51000 feet Altitude

CRI B-01	TGM/25/02	Flight in icing conditions.
CRI C-03	TGM/GEN/01 (NPA 25C-199)	Interaction of Systems with Structures.
CRI C-04	TGM/GEN/01	Ground Gust
CRI D-01	INT/POL/25/6	Worn Brakes
CRI D-02	INT/POL/25/2	Protection from the effects of HIRF
CRI D-03	INT/POL/25/3	Protection from the Effects of Lightning Strike; Direct Effects
CRI D-04	INT/POL/25/4	Protection from the Effects of Lightning Strike; Indirect Effects
CRI F-01	TGL/3 rev 1	Basic RNAV (B-RNAV) Systems Airworthiness Approval
CRI A-01	TGM/25/01	Thrust reversers.
CRI A-01	INT/POL/25/5	Accelerate-Stop Distances and Related Performance Matters, 16 February 1993
CRI A-01	INT/POL/25/8	Yawing manoeuvring conditions.

6. JAA Exemptions:

Engine-out lateral trim requirements of § 25.161(d) (FAA exemption number 6431) (Ref: CRI A-01)

7. JAA Equivalent Safety Findings:

CRI B-04	JAR 25.901(e)	High Altitude Minimum Speed System.
CRI D-05	JAR 25X745 (d)	Towing, towbarless towing
CRI D-06	25.811(d)(1), 25.812(b)(1)(i)	Emergency Exit Marker and Location Signs
CRI D-07	25.807(e)	Ditching Emergency Exits for Passengers
CRI D-08	JAR 25.841(b)(6)	Cabin Pressurization-High Altitude Takeoff and Landing Operations
CRI D-10	JAR 25.813(e)	Emergency Exit Access
CRI K-01	JAR AWO 253(a)	Approach Flight Path – Automatic Control, Audible Warning

8. JAA Environmental Standards, Ref. CRI A-03:

Noise: ICAO Annex 16, Volume 1, Third Edition.

Fuel Venting: ICAO Annex 16, Volume 2, Second Edition.

9. Additional National Design Requirements (ANDR)

Additional National Design Requirements as specified in JAA Administrative and Guidance Material, Section 3, Part 4, in effect at the time of Type Certification. Ref. CRI A-02.

10. Kinds of Operation

Eligible for the following kinds of operation when the appropriate equipment and instruments required by the operating requirements are installed, approved and in operable condition:

Category I
Category II – see note No. 9
VFR (Visual)
IFR (Instrument)
Day
Night
Icing
RVSM – see note No. 8

Cessna have elected not to comply with JAR Part 25 provisions for:
25.801 Ditching.

III. Technical Characteristics and Operational Limitations

1. Type Certificate Type Design Definition

1.a. Type Certificate Type Design Definition, 750-0001 thru 750-0172:

The definition of the JAA TC build standard is described by CRI A-06 and is defined by the following Cessna documents:

Parts List No. 6700000: Airplane Assembly Model 750	Revision BG, Dated September 9, 1998
750-96-023: Master Drawing List Model 750	Revision H, Dated October 7, 1998
Engineering Change Record No. 038362: JAA Certification - Option	Revision C, Dated October 5, 1998
Engineering Change Record No. 039700: System Improvements - Electrical	Revision N/C, Dated October 2, 1998
Engineering Change Record No. 039996: Windmill Airstart Envelope Certification Note: AFM Change Only.	Revision N/C, Dated October 14, 1998

1.b. Type Certificate Type Design Definition, 750-0173 and on:

The definition of the JAA TC build standard is described by CRI A-06 and is defined by the following Cessna documents:

Parts List No. 6700000: Airplane Assembly Model 750	Revision BN, Dated August 8, 2001
750-96-023: Master Drawing List Model 750	Revision S, Dated October 1, 2001
Engineering Change Record No. 038362: JAA Certification - Option	Revision F, Dated November 23, 1998
Engineering Change Record No. 046281: Production Bullet Update, 2002 BPC	Revision C, Dated September 11, 2001
Engineering Change Record No. 046360: AE 3007C1 Thrust Increase, 2002 BPC	Revision C, Dated December 19, 2001
Engineering Change Record No. 046418: P2000 Phase 7 Software Update, 2002 BPC	Revision A, Dated May 7, 2001
Engineering Change Record No. 046612: Tailcone Baggage Compartment, 2002 BPC	Revision B, Dated November 21, 2001
Engineering Change Record No. 047004: Gross Weight Increase, 2002 BPC	Revision N/C, Dated August 28, 2001

1.c. ECRs 038362 and 039700 define physical build standard differences from the FAA certified build standard. These are further expanded by the Cessna "JAA Certification Collector":

6700012 JAA Certification Collector: These modifications are applicable to all JAA configured Model 750 aircraft.

- 6705013 Placards Instl JAA Opt
  Adds the baggage door locking placard

- 6719163 JAA Certification - Opt
  Interior mods collector:
  Installs the JAA window shade placard and the No Smoking placards, and installs the crew protective breathing equipment and the lavatory ash receiver.

- 6790022 Openable Window Mod Cockpit
  Installs the openable side window with increased pane thickness.

- 6791161 Baggage Door Seal Service Air Mod
  Modifies service air system to add steel service air line and to provide that the baggage door is latched and locked prior to the door seal inflating. Steel service air line is embodied in basic aircraft at EC 46835 (Unit 750-0173).

- 6791179 Baggage Door Fire Protection Mod
  Adds a fire protective finish to the baggage door perimeter edges.

- 6791186 Baggage Door Structural Mod Collector - JAA
  JAA baggage door mod (Ref CAI D-01) incorporated on aircraft S/N 750-0134 and subsequent for delivery to JAA member states. Retrospective embodiment by SB750-52-21
  Doors – Baggage Door Modification for JAA certified airplanes.

- 6797016 Electrical Equipment Installation Mod Collector - JAA
  Split Bus Electrical System for aircraft prior to EC41566 (unit 750-0101)

- 6718514 AOA Computer Installation – to enable stick shaker at 80 knots.

2. Description

The Cessna Model 750 (Citation X) is a swept-wing business jet using aft-mounted twin turbofan power plants and integrated digital electronics. A variety of interior arrangements can be specified from low density executive configurations to high density (up to 12 passenger) configurations.

3. Equipment:

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) and defined in the Type Certificate Type Design Definition (see above), must be installed in the aeroplane for certification.

4. Dimensions:

Wing Area:	48.96 m² (527 ft^2)
Wing Span:	19.39 m (63.6 ft)
Length:	22.04 m (72.3 ft)
Height:	5.85 m (19.2 ft)

5. Engines:

For aircraft serial numbers 750-0001 through 750-0172 not incorporating Cessna Service Bulletin SB750-71-10:

Two Rolls-Royce Model AE 3007C Turbofan Engines, Part number 23057202
Reference: JAA TC Data Sheet JAA/E 96-017

For aircraft serial numbers 750-0173 and on, or aircraft incorporating Cessna Service Bulletin SB750-71-10:

Two Rolls-Royce Model AE 3007C1 Turbofan Engines, Part number 23074408
Reference: JAA TC Data Sheet JAA/E 96-017

5.1 Engine Limits:

	AE 3007C**	AE 3007C1***
Static thrust standard day, sea level:		
Takeoff	28.66 kN (6442 lb)	30.09 kN (6764 lb)
Max. continuous	28.66 kN (6442 lb)	30.09 kN (6764 lb)
Max. permissible engine rotor operating speed:		
N_1 (Fan) steady state	100% r.p.m.	100% r.p.m.
N_2 (Gas gen.) steady state	101.6% r.p.m.	101.6% r.p.m.
Max. permissible interstage turbine gas temperatures:		
Takeoff (5 minute limit)	888° C (1630° F) *850° C (1652° F)	907° C (1665° F)
Max. continuous	850° C (1652° F)	857° C (1575° F)
Starting:		
Starter assisted	800° C (1472° F)	800° C (1472° F)
Windmill	888° C (1630° F) *850° C (1652° F)	888° C (1630° F)

* For aircraft serial numbers 750-0003 through 750-0022 not incorporating Cessna Service Bulletin SB 750-34-04

** For aircraft serial numbers 750-0001 through 750-0172 not incorporating Cessna Service Bulletin SB 750-71-10

*** For aircraft serial numbers 750-0173 and on, or aircraft incorporating Cessna Service Bulletin SB 750-71-10

6. Auxiliary Power Unit (APU):

Auxiliary Power Unit model Allied Signal GTCP 36-150 (CX), P/N 3800576-1 (non-essential APU).

6.1 APU Limits:

Maximum Altitude for starting	31,000 feet
Maximum airspeed for starting	300 KIAS from 31,000 to 20,000 feet 350 KIAS from 20,000 to 8,000 feet 270 KIAS below 8,000 feet
Maximum Operating Altitude	31,000 feet
Maximum Generator Load (26 to 29 volts)	Ground 300 Amps Flight 200 Amps
Turbine Speed: Normal Governed	100%±1%RPM
Caution Range	>101% to 108%RPM
Maximum	>108% RPM
Exhaust Gas Temperature:	
Maximum during start	973°C (1783°F)
Maximum, governed operation	718°C (1324°C)
Maximum Continuous	665°C (1229°F)

7. Propellers: Not Applicable

7.1 Propeller Limits: Not Applicable

8. Fluids (Fuel/Oil/Additives):

For airplane serial numbers 750-0001 through 750-0172 not incorporating Cessna Service Bulletin SB 750-71-10.

Reference: Approved JAA Aeroplane Flight Manual Model 750 Citation X (Metric, ICAO Units of Measure), Document No. 75EUM

Reference: Approved JAA Aeroplane Flight Manual Model 750 Citation X (Imperial Units of Measure), Document No. 75EU

For airplane serial numbers 750-0173 and on, or aircraft incorporating Cessna Service Bulletin SB 750-71-10.

Reference: Approved JAA Aeroplane Flight Manual Model 750 Citation X (Metric, ICAO Units of Measure), Document No. 75EUMA

Reference: Approved JAA Aeroplane Flight Manual Model 750 Citation X (Imperial Units of Measure), Document No. 75EUA

9. Fluid Capacities: see Note No. 6

Useable fuel Capacity:

	Two wing tanks	1,972 Liters (521 US gals) 1,592 kg (3,510 lbs) each
	Arm:	410.07 inches
	Center tank:	3361 Liters (888 US gals) 2,712 kg (5,980 lbs)
	Arm	335.32 in
Oil Capacity:		
Two engine mounted tanks:	Total	22.86 Liters (6.04 US gals) 21.2 kg (46.80 lbs)
	Useable	22.37 Liters (5.91 US gals) 20.8 kg (45.80 lbs)
	Arm:	544.30 in

10. Air Speeds:

V_{MO}	(Maximum Operating)	Below 8,000 feet	270 KIAS
		8,000 feet to 30,650 feet	350 KIAS
M_{MO}	(Maximum Operating)	Above 30,650 feet	0.92 Mach (indicated)
		Mach trim off	0.82 Mach (indicated)

V_A* (Sea Level)	223 KIAS	16,375 kg (36,100 lbs)	(For airplane serial numbers 750-0173 and on, or aircraft incorporating Cessna Service Bulletin SB 750-71-10.)
	221 KIAS	16,193 kg (35,700 lbs)	
	217 KIAS	15,649 kg (34,500 lbs)	
	204 KIAS	14,288 kg (31,500 lbs)	
	193 KIAS	12,927 kg (28,500 lbs)	
	177 KIAS	11,113 kg (24,500 lbs)	
	163 KIAS	9,752 kg (21,500 lbs)	

* See AFM for variations with altitude

V_B	(Speed for maximum gust intensity)	300 KIAS/0.9 Mach
V_{FE}	(Flaps Extended):	
	Flaps 5°	250 KIAS
	Flaps 15°	210 KIAS
	Flaps Full	180 KIAS
V_{LO}	(Landing gear operating)	210 KIAS
V_{LE}	(Landing gear extended)	210 KIAS

Maximum tyre ground speeds: 210 Knots

For airplane serial numbers 750-0001 through 750-0172 not incorporating Cessna Service Bulletin SB 750-71-10.

V_{MCA}	(Minimum Control Speed, Air)		110 KIAS	15° Flaps
V_{MCG}	(Minimum Control Speed, Ground)		109 KIAS	15° Flaps
V_{MCL}	(Minimum Control Speed, Landing)			
	Approach:	5° Flaps	129 KIAS	
		15° Flaps	120 KIAS	
	Landing:	15° Flaps	118 KIAS	
		Full Flaps	108 KIAS	

For airplane serial numbers 750-0173 and on, or aircraft incorporating Cessna Service Bulletin SB 750-71-10.

V_{MCA}	(Minimum Control Speed, Air)		112 KIAS	15° Flaps
V_{MCG}	(Minimum Control Speed, Ground)		111 KIAS	15° Flaps
V_{MCL}	(Minimum Control Speed, Landing):			
	Approach:	5° Flaps	133 KIAS	
		15° Flaps	123 KIAS	
	Landing:	15° Flaps	123 KIAS	
		Full Flaps	112 KIAS	

11. Maximum Operating Altitude: 51,000 feet

12. All Weather Capability: Category II see note No. 9

13. Maximum Weights:

	Airplane serial numbers 750-0001 through 750-0172 not incorporating Cessna Service Bulletin SB 750-71-10	Airplane serial numbers 750-0173 and on, or aircraft incorporating Cessna Service Bulletin SB 750-71-10
Ramp	16,329 kg (36,000 lb)	16,511 kg (36,400 lb)
Takeoff	16,193 kg (35,700 lb)	16,375 kg (36,100 lb)
Landing	14,424 kg (31,800 lb)	14,424 kg (31,800 lb)
Zero Fuel	11,068 kg (24,400 lb)	11,068 kg (24,400 lb)

14. Centre of Gravity Range:

For airplane serial numbers 750-0001 through 750-0172 not incorporating Cessna Service Bulletin SB 750-71-10.

Reference: Approved JAA Aeroplane Flight Manual Model 750 Citation X (Metric, ICAO Units of Measure), Document No. 75EUM

Reference: Approved JAA Aeroplane Flight Manual Model 750 Citation X (Imperial Units of Measure), Document No. 75EU

For airplane serial numbers 750-0173 and on, or aircraft incorporating Cessna Service Bulletin SB 750-71-10.

Reference: Approved JAA Aeroplane Flight Manual Model 750 Citation X (Metric, ICAO Units of Measure), Document No. 75EUMA

Reference Approved JAA Aeroplane Flight Manual Model 750 Citation X (Imperial Units of Measure), Document No. 75EUA

15. Longitudinal datum location: see note No. 6

Zero reference datum is 184.5 in forward of the levelling screw located 2.5 in forward of the cabin door frame on W.L. 127.25

16. Mean Aerodynamic Chord (MAC): see note No. 6

118.6 in. (Leading Edge of MAC at F.S. 387.60)

17. Levelling Means: see note No. 6

Levelling marks are located at the outboard floor panel inside the door parallel to B.L. 13.00

18. Minimum Flight Crew: 2

19. Maximum Passenger Seating Capacity: 12

20. Emergency Exits:

	No	Type	Size	Location
L/H	1	I	63.5 Wcm x 91.4 Hcm (25 in x 36 in)	F.S. 202.00
R/H	1	III	50.8 Wcm x 95.7 Hcm (20 in x 37.67 in)	F.S. 351.26

21. Baggage/Cargo Compartments:

Class	Volume	Max. allowable load
D	2.039 M^3 (72 ft^3)	317.5 kg (700 lb) at F.S. 490.0

Load distribution limit: 830 kg/m^2 (170 lb/ft^2)

Max. operating altitude, baggage compartment unpressurised 41000 feet
No use of baggage compartment permitted with the cabin unpressurised.

22. Wheels and tyres:

Tyre	Size	Rating	Pressure
Main	66 cm x 18 cm (26 in x 6.6 in)	14 Ply	1,241 kP (180 psi)
Nose (single chine)	41 cm x 11cm (16 in x 4.4 in)	10 ply	896 kP (130 psi)

IV. Operating and Service Instructions

1. Maintenance Manual
   Document No. 75MM Hardcopy ring-bound with tabs
   Document No. 75CD12 CD-ROM Combined Technical Library (Includes Maintenance Manual, Illustrated Parts Catalog, Wiring Diagram Manual, Component Maintenance Manual, Structural Repair Manual, Illustrated Tool & Equipment Manual, Nondestructive Testing Manual, Service Bulletins and Service Letters)

2. For airplane serial numbers 750-0001 through 750-0172 not incorporating Cessna Service Bulletin SB 750-71-10.

2.a. Approved JAA Aeroplane Flight Manual Model 750 Citation X (Imperial Units of Measure), Document No. 75EU

2.b. Approved JAA Aeroplane Flight Manual Model 750 Citation X (Metric, ICAO Units of Measure), Document No. 75EUM

3. For airplane serial numbers 750-0173 and on, or aircraft incorporating Cessna Service Bulletin SB 750-71-10.

3.a. Approved JAA Aeroplane Flight Manual Model 750 Citation X (Imperial Units of Measure), Document No. 75EUA

3.b. Approved JAA Aeroplane Flight Manual Model 750 Citation X (Metric, ICAO Units of Measure), Document No. 75EUMA

V. Notes

1. Customised Cabin and Interior Seating Configurations must be approved.

2. The Weight and Balance Report 75WB-02 (or later approved version) (For airplane serial numbers 750-0001 through 750-0172 not incorporating Cessna Service Bulletin SB 750-71-10.) or 75WBA-00 (or later approved version) (For airplane serial numbers 750-0173 and on, or aircraft incorporating Cessna Service Bulletin SB 750-71-10.), loading instructions (when necessary) and a list of equipment included in the certificated empty weight must be provided for each aeroplane at the time of original airworthiness certification.

3. Required placards are included in the Maintenance Manual, ref. 75MM00 (or later approved revision) Chapter 11, Placards and Markings.

4. JAA approved Airworthiness Limitations for mandatory compliance retirement life or inspection are included in the Maintenance Manual, 75MM00, Chapter 4 including the JAA supplement.

5. Certification Maintenance Requirements are included in the Maintenance Manual, 75MM00, Chapter 4, Instruction for implementation are included in the same document, chapter 5.

6. Moment arm values are quoted in inches and have not been converted to metric. This is to maintain consistency with the aircraft datum definition.

7. Instrument Panel Mounted Stand-by Nav-Comm Control is required equipment on all JAA aircraft. (ECR #044110 P/N CD-850)

8. Two (2) Honeywell AZ-840 Micro Air Data Computers (MADC) are required equipment. Approved part numbers are listed in the following table:

MADC Part Number	Model 750-xxxx Serial Range	Service Bulletin
7014700-904	-0003 through -0041	N/A
7014700-604	-0001, 0002, -0042 through -0105	SB750-34-05 Rev. 0,1
7014700-607	-0106 and on	SB750-34-05 Rev. 2

Aircraft with part number 7014700-607 MADCs meet the initial airworthiness requirements for operation in Reduced Vertical Separation Minimum (RVSM) airspace.

9. Category II operation is approved for flight-director coupled only. Minimum approved integrated computer (IC-800) software is Phase VI.

10. Two Honeywell Primus II Radio Systems (Model No. RCZ-883E) are installed as standard equipment on the Model 750. The Radio installation complies with 8.33 kHz channel spacing requirements.