Civil Aviation Authority

United Kingdom

TYPE-CERTIFICATE DATA SHEET

UK.TC.A.00068

for

Textron 700

Type Certificate Holder

Textron Aviation Inc.

One Cessna Boulevard

Wichita, Kansas 67215

USA

Model(s):	Model 700
Issue:	1
Date of issue:	14 December 2023

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I. General

This Type-Certificate Data Sheet (TCDS) is the concise definition of the type-certificated product accepted and or approved by the CAA in the UK for the affected types and models.

This TCDS includes:

a) Details of the type design that affect the TCDS that have been approved or accepted by the CAA in the UK since 01 January 2021.

1. Type / Variant / Model

a) Type: Textron Aviation
b) Model: 700
c) Variant: N/A

2. Type Certificate Holder

Textron Aviation Inc.
One Cessna Boulevard
Wichita, Kansas 67215
USA

I. Certification Basis

1. Reference Date for determining the applicable requirements
20 November 2014

2. State of Design Airworthiness Authority Type Certification Data Sheet No.
FAA Type Certificate Data Sheet No. T00015WI

3. State of Design Airworthiness Authority Certification Basis
See FAA Type Certificate Data Sheet No. T00015WI

4. CAA/EASA Airworthiness Requirements

Certification Specification CS-25 Amendment 15, dated 23 July 2014 amended with the following requirements:

CS 25.1316 and CS 25.1317 at CS-25 Amendment 17, dated 16 July 2015.
CS 25.975 at CS-25 Amendment 18, dated 22 June 2016.
CS 25.603(a), 25.788(b), 25.811(e)(2), 25.812(d), Appendix S at CS-25 Amendment 19, dated 12 May 2017
CS 25.853(g) at CS-25 Amendment 23, dated 16 July 2019
CS-ACNS issue 2 dated 26 April 2019
CS-FCD Initial Issue, dated 31 January 2014
CS-MMEL Initial Issue, dated 31 January 2014
CS-SIMD Initial Issue, dated 2 December 2014

5. Special Conditions (see note 12)

D-01	Flight Instrument External Probes – Qualification in Icing Conditions
D-05	Control Surface Position Awareness / Electronic Flight Control Systems
D-09	Airworthiness Standards for aircraft operations under snow, both falling and blowing.

D-18	Rudder Control Reversal Load Conditions
D-19	High Altitude Operation above 41.000 ft / High Cabin Heat Load
D-27	Personal injury criteria of dynamic testing of side facing sofas.
D-33	Occupant Protection for Side-Facing Seat Installed Forward of Aft-Facing Seat
D-34	Pilot compartment view – Hydrophobic coatings in lieu of windshield wipers.
E-05	Water / Ice in Fuel
E-09	Engine Cowling Retention
SC-E25.904-01	Use of APR for Go-Around Performance Credit
F-09	Flight Recorders including Data Link Recording
F-12	Security Protection of Aircraft Systems and Networks
F-20	Rechargeable Lithium battery installations
F-24	Non-rechargeable Lithium Battery Installations
MCSD-01	MCSD requirements

6. Exemptions

Reserved

7. Deviations (see note 12)

DEV-E25.981-01	Deviation to CS 25.981(b)(3), M25.1(a), M25.1(b) and M25.2(b) of appendix M of CS 25 amdt. 15 for fuel tank flammability reduction means.

8. Equivalent Safety Findings (see note 12)

D-20	Pressurization and Low-Pressure Pneumatic System
D-24	Flight Control System Failure Criteria
D-30	Cabin Outflow Valve
D-31	Cabin Entry Door Latching and Locking Independence
D-32	Ditching Emergency Exits for Passengers
E-07	Green Arc for Powerplant Instrument
E-08	Thrust Reverser Testing
ESF-E25.1141-01	Powerplant Valves Indication
F-26	Electronic Standby Direction Indicator (Compass)

9. Environmental Protection

N-01	See CAA Type Certificate Data Sheet Noise, ref UK.TC.A.00068.
N-02	Fuel Venting Requirements, ICAO Annex 16, Volume II, Part II, Chapter 2

II. Technical Characteristic and Operating Limitations

1. Type Design Definition: The Model 700 is defined by Cessna Airplane Assembly Drawing Number 7400100.

2. Description: The Textron Aviation Model 700 is a pressurized, low-wing monoplane that is certified for up to thirteen occupants including a minimum crew of two.

3. Equipment: The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification.

4. Dimensions

Length: 22.30 m (73.2 Ft)

Height (Static Condition):	5.91 m (19.5 Ft)
Wing Span:	21.00 m (68.11 Ft)
Wing Area:	49.91 m^2 (537.27 Ft^2)

5. Engines

Two Honeywell AS907-2-1S Turbofan Engines (Grandfathered refer to EASA Data Sheet EASA.IM.E.058)

Engine Limits Static Thrust Standard Day, Sea Level

Takeoff:	34.10 kN (7,665 lbs)
Maximum Continuous:	33.04 kN (7,428 lbs)

Maximum Permissible Engine Rotor Operating Speeds:

N1 (Fan)	9,830 RPM (96.79%) Takeoff
	9,800 RPM (96.49%) Continuous
N2 (Gas Gen.)	27,714 RPM (98.62%) Takeoff
	27,599 RPM (98.22%) Continuous
	28,075 RPM (99.9%) Transient (20 sec. max)

Maximum Permissible Inter-turbine Gas Temperatures °C (°F) :

Takeoff	955 (1,751)
Max. Continuous	950 (1,742)

6. Auxiliary Power Unit

APU Model 36-150, from Honeywell

APU is non-essential.

APU limitations: according to applicable Approved Aircraft Flight Manual (referenced in Chapter III.1.)

Maximum Operating Altitude	FL350
Maximum Starting Altitude	FL310

7. Propellers

None

8. Fluids (Fuel, Oil, Additives, Hydraulics)

The fluids are defined in the applicable Approved Aircraft Flight Manual; referenced in Chapter III.1.

9. Fluid Capacities

Fuel Capacity (usable)	Total usable fuel 6580.95 kg (8199.2 l) [14,511 lb (2,166 US gal)]. Two wing tanks with 3290.25 kg (4099.6 l) [7,255.5 lb (1,083 US gal)] usable each (See NOTE 1 for unusable); +10.73 m (+422.39 in) aft of datum.
Oil Capacity (usable)	Tank mounted on each engine: 1.51 l (1.60 US quarts) usable RH engine, 1.60 l (1.7 US quarts) usable LH engine; +15.07 m (+593.29 in) aft of datum (See NOTE 1)

10. Airspeed Limits

Vmo (maximum operating speed)

Sea Level (0 ft.)	290 KIAS (289 KCAS)
8,000 ft.	305 KIAS (304 KCAS)

Airspeed to be linearly interpolated from 0 ft. – 8,000 ft.

8,000 ft. to 29,375 ft.	325 KIAS (324 KCAS)
Mmo above 29,375 ft.	0.84 MI (0.838 MACH calibrated)
Va (Maneuvering speed sea level)	
39,500 lb.	222 KIAS (221 KCAS)
See AFM for variations with weight and altitude.	
VRA (Rough air speed)	235 KIAS (234 KCAS)/ 0.75 MI (0.747 MACH calibrated)
Flap extension speeds	
VFE (Up (0°) to 1 (7°) extension)	250 KIAS (249 KCAS)
VFE (1 (7°) to 2 (15°) extension)	230 KIAS (229 KCAS)
VFE (2 (15°) to Full (35°) extension)	180 KIAS (179 KCAS)
VMCA (Minimum control speed) Air Flaps 1	100 KIAS (100 KCAS)
VMCA (Minimum control speed) Air Flaps 2	96 KIAS (96 KCAS)
VMCL (Minimum control speed)	
Landing Flaps 2	102 KIAS (102 KCAS)
VMCL (Minimum control speed)	
Landing Flaps Full	91 KIAS (91 KCAS)
VMCG (Minimum control speed)	
Ground Flaps 1	80 KIAS (80 KCAS)
VMCG (Minimum control speed)	
Ground Flaps 2	80 KIAS (80 KCAS)
VLO (Landing gear operating speed)	230 KIAS (229 KCAS)
VLE (Landing gear extended speed)	230 KIAS (229 KCAS)
VSB (Max speed brakes extension speed)	No Limit
Maximum tyre ground speed	195 knots

11. Flight Envelope

The flight envelope is defined in the applicable Approved Aircraft Flight Manual; referenced in Chapter III.1.

12. Operating Limitations

12.1 Approved Operations

The Model 700 is eligible for the following kinds of operation when the appropriate equipment and instruments required by the operating requirements are installed, approved, and operating as defined by the MMEL or MEL:

- Category I
- VFR (Visual)
- IFR (Instrument)
- Day
- Night
- Icing
- Enhanced Surveillance

12.2 Other Limitations

Other limitations as defined in the applicable Approved Aircraft Flight Manual (AFM); referenced in Chapter III.1.

13. Maximum Certified Masses

Takeoff	17,917 kg (39,500 lb)

Landing	15,195 kg (33,500 lb)
Zero Fuel	12,156 kg (26,800 lb)
Ramp	18,008 kg (39,700 lb)

14. Centre of Gravity Range

Forward: Linear variation from 34.00% MAC at 10,160 kg (22,400 lb) to 30.57% MAC at 10,886 kg (24,000 lb).

Linear variation from 30.57% MAC at 10,886 kg (24,000 lb) to 26.30% MAC at 12,701 kg (28,000 lb).

Linear variation from 26.30% MAC at 12,701 kg (28,000 lb) to 24.00% MAC at 14,515 kg (32,000 lb).

24.00% MAC at 14,515 kg (32,000 lb) to 16,329 kg (36,000lb).

Linear variation from 24.00% MAC at 16,329 kg (36,000 lb). to 25.50% MAC at 18,008 kg (39,700 lb).

Takeoff Forward 25.42% MAC at 17,913.83 (39,500 lb).

Aft: 40.63% MAC at 10,160 kg to 10,433 kg (22,400 lb to 23,000 lb)

Linear variation from 40.63% MAC at 10,433 kg (23,000 lb) to 31.95% MAC at 13,608 kg (30,000 lb).

31.95% MAC at 13,608 kg to 17,010 kg (30,000 lb to 37,500 lb).

Linear variation from 31.95% MAC at 17,010 kg (37,500 lb) to 30.99% MAC at 18,008 kg (39,700 lb).

Takeoff Aft 31.07% MAC at 17917 kg (39,500 lb).

Landing Gear retracting moment -780.01 Nm (-6,904 in-lb).

15. Datum

3.44 m (135.52 in) forward of the nose jack point.

16. Mean Aerodynamic Chord (MAC)

3.02 m (118.99 in) (L.E. of MAC at +10.21 m (+402.02 in) aft of datum)

17. Levelling Means

Longitudinal: Place level directly on the inboard crew seat rail and ensure it is parallel with the seat rail.

Lateral: Place the leveling bar across the inboard crew seat rails flush against the back of the rails at approximately FS 4.06 m (160.00 in).

18. Minimum Flight Crew

For all flights: 2 (pilot and co-pilot)

19. Minimum Cabin Crew

None

20. Maximum Seating Capacity

Maximum Fourteen (two crew plus twelve passenger seats)

21. Baggage/ Cargo Compartment

Aft Cabin Baggage Compartment 453.6 kg (1,000 lbs)

22. Wheels and Tyres

Tyre limit-maximum ground speed 195 Knots

23. ETOPS

Reserved

III. Operating and Service Instructions

1. Airplane Flight Manual (AFM)

FAA approved Flight Manual ref 700FM-03, Airplane Flight Manual Model 700 Citation Longitude (or later CAA approved or accepted revision)

2. Instructions for Continued Airworthiness and Airworthiness Limitations

The MRB process has been selected as Means of Compliance for developing the scheduled maintenance instructions as required by CS 25.1529 and Appendix H. The tasks and their frequencies listed in the MRB Report form part of the Instructions for Continued Airworthiness.

Information essential to the proper servicing and maintenance of the aircraft is contained in the Manufacturer's Manual section of the Instructions for Continued Airworthiness, Maintenance Manual marked 700MM03 or later revision. Mandatory component replacement times, structural inspection intervals and related structural inspection procedures and Certification Maintenance Requirements are presented in the approved Airworthiness Limitations Manual marked 700ALM04, or later revision approved or accepted by EASA.

IV. Operational Suitability Data

The Operational Suitability Data elements listed below are approved by the European Union Aviation Safety Agency under the EASA Type Certificate as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014 and are accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

1. Master Minimum Equipment List

a. The Master Minimum Equipment List has been approved as per the defined Operational Suitability Data Certification Basis and as documented in Model 700 Operational Suitability Data MMEL (reference: 700UK_MMEL-00) revision/original dated 4th December 2023, or later CAA approved or accepted revisions.

b. Required for entry into service by UK operator.

2. Flight Crew Data

a. The Flight Crew data has been approved as per the defined Operational Suitability Data Certification Basis and as documented in model 700 Operational Suitability Data Flight Crew Data (Ref: PR-700-804 Rev _ dated 4th December 2023), or later CAA approved or accepted revisions.

b. Required for entry into service by UK operator.

3. Maintenance Certifying Staff Data

a. The Maintenance Certifying Staff Data has been approved as per the defined Operational Suitability Data Certification Basis and as documented in model 700 Operational Suitability Data Maintenance Certifying staff data (Ref: 700OSDMCS-01 rev./- dated 19 November 2020), or later CAA approved or accepted revisions.

b. Required for entry into service by UK operator.

4. Flight Simulator Training Device Data

a. The Flight Simulator Training Device Data has been approved as per the defined Operational Suitability Data Certification Basis and as documented in model 700 Flight Simulator Training Device Data (Ref: PR-700-800 rev./- dated 30th April 2021), or later CAA approved or accepted revisions.

b. Required for entry into service by UK operator.

V. Notes

NOTE 1: Current weight and balance information, including list of equipment included in certificated empty weight, and loading instructions are provided for each airplane at the time of original certification.

The certificated empty weight and corresponding centre of gravity location must include:

Unusable Fuel	37.68 kg at +10.59 m (83.08 lb. at +417.07 in)
Full Oil	10.55 kg at +15.07 m (23.25 lb. at +593.29 in)
Hydraulic Fluid	35.17 kg at +12.39 m (77.53 lb. at +487.89 in)

NOTE 2: Airplanes must be operated according to the FAA Approved AFM, part numbers 700FM-00 AFM Volume 1, 700NP-00 AFM Volume 2 Normal Procedures, and 700EAP-00 AFM Volume 3 Emergency/ Abnormal Procedures (or later FAA approved revisions). All placards required by either the FAA-approved Aircraft Flight Manual, the applicable operating rules, or the certification basis must be installed as specified for this Type Certificate via Parts List 7400100, Airplane Assembly. (A useful placarding reference is the Textron Aviation Illustrated Parts Catalogue (IPC). Any discrepancies identified between the IPC and an aircraft under inspection need to be reconciled using the previously stated parts list.)

NOTE 3: See Maintenance Manual, Chapter 4, "Airworthiness Limitations" for inspections, mandatory retirement life information, and other requirements for continued airworthiness.

NOTE 4: Aircraft definition for Type Certificate is Parts List 7400100, Airplane Assembly.

NOTE 5: Certification Maintenance Requirements (CMR) are found in Maintenance Manual, Chapter 4. Engineering approval of the CMR's is documented in the Textron Aviation System Safety Assessment reports.

NOTE 6: The Model 700 has been approved for high altitude operations (altitudes above 41,000 ft) by compliance with certain Part 25 sections. To ensure the compliance is maintained, any modifications to the pressure vessel must be approved in accordance with the requirements as shown in the appropriate certification basis. To ensure pressurization compliance is not affected, this includes modifications which could result in a pressure vessel opening, either crack-growth or antenna loss, greater than 35.48 cm2 (5.5 in2).

NOTE 7: The Model 700 has been shown to meet the airworthiness requirements for operations in RVSM airspace. All serial numbers are eligible. Each operator must obtain RVSM operating approval from their Competent Authority (CA).

NOTE 8: The Model 700 received a Provisional Type Certificate on December 4, 2018, that was subsequently cancelled when the Type Certificate was issued on September 21, 2019.

NOTE 9: The following serials will be certificated TC only: 700-0001 through 700-0004, 700-0008, 700-0009, and 700-0011. Production Certificate No. 4 applies to Model 700 serial numbers: 700-0007, 700-0010, 700-0012 and onwards.

NOTE 10: The Model 700 is configured with fuel tank vent system protection approved by the FAA administrator, meeting the requirements of §121.1119(b) and §129.119(b).

NOTE 11: Required Emergency Equipment: The basic required emergency equipment prescribed in the applicable airworthiness requirements (see certification basis) must be installed in the aircraft. Only hand fire extinguishers that use water and U.S. – UL 5B:C – Halotron BrX (2-BTP), C3H2BrF3, CAS Number 1514-82-5 OR U.S. – UL 2A:10B:C – Halotron (HCFC Blend-B), C2HCl2BrF3, CAS Number

306-83-2 are approved for use. No airplanes may have a combination of Halotron BrX AND Halotron I hand fire extinguishers installed. Refer to Regulation (EC) No 1005/2009 (as amended) for information on controlled substances.

NOTE 12: Annex 1 contains public non-proprietary data in Special Conditions (including Deviations, Equivalent Safety Findings) that are part of the applicable Certification Basis as recorded in TCDS UK.TC.A.00068.

NOTE 13: The Textron Model 700 is marketed as the Cessna Citation Longitude this is a marketing name only the correct Type Designation from an approval and airworthiness perspective is Model 700.

Section 1 Administration

I. Acronyms and Abbreviations

Acronym / Abbreviation	Definition
ACNS	Airborne Communications, Navigation and Surveillance
APU	Auxiliary Power Unit
AWO	All Weather Operation
CRI	Certification Review Item
CS	Certification Specification
EASA	European Union Aviation Safety Agency
ESF	Equivalent Safety Finding
FAA	Federal Aviation Administration
ICAO	International Civil Aviation Organization
JAR	Joint Aviation Requirement
MMEL	Master Minimum Equipment List
MEL	Minimum Equipment List
NPA	Notice of Proposed Amendment
INT/POL	JAA Interim Policy
RVSM	Reduced Vertical Separation Minima
SB	Cessna Service Bulletin
SC	Special Condition
S/N	Serial Number
TC	Type Certificate
TCDS	Type Certificate Data Sheet
TCDSN	Type Certificate Data Sheet for Noise
TCH	Type Certificate Holder

II. Type Certificate Holder Record

TCH Record	Period
Textron Aviation Inc. One Cessna Boulevard Wichita, Kansas 67215 USA	Present. No changes.

III. Amendment Record

TCDS Issue No.	TCDS Issue Date	Changes	TC Issue and Date
1	14 Dec 2023	Initial Issue based on application from Textron dated 01.December 2022, based on the BASA/IP Agreements in particular the Paragraph 3.3 to Revision 1 to the Special Arrangement between FAA and CAA this was classified as an "Administrative Validation". EASA TC ref EASA.IM.A.620 was applied for on 25 November 2014 and Issue on 12 July 2021, the aircraft is therefore covered by the Paragraph 3.3 referenced above.	Issue 1 14 Dec 2023

– END –