# Civil Aviation Authority
# United Kingdom

# TYPE-CERTIFICATE DATA SHEET

**UK.TC.A.00026**

for

**Gulfstream GVII**

**Type Certificate Holder**

Gulfstream Aerospace Corporation

500 Gulfstream Road

Savannah

Georgia 31408

United States of America

| | |
|---|---|
| Model(s): | GVII-G500 (G500)<br>GVII-G600 (G600) |
| Issue: | 2 |
| Date of issue: | 10 October 2022 |

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## Section 1 General

### I. General (All Models)

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:

1. 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.
2. Details of the type design that affected the TCDS and were approved or accepted by EASA before 01 January 2021, and were incorporated into EASA TCDS EASA.IM.A.595 at Issue 6 dated 21 July 2020 and are therefore accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

### 1. Airworthiness Category

Large Aeroplanes

### 2. Performance Class

A

### 3. Certifying Authority

Federal Aviation Administration (FAA)
Atlanta Aircraft Certification Office
1701 Columbia Avenue
College Park
Atlanta
Georgia 30337
United States of America

### 4. Type Certificate Holder

Gulfstream Aerospace Corporation
500 Gulfstream Road
Savannah
Georgia 31408
United States of America

### 5. Manufacturer

Gulfstream Aerospace Corporation
500 Gulfstream Road
Savannah
Georgia 31408
United States of America

## Section 2 GVII-G500 (G500)

### I. General

### 1. Type / Variant or Model

| | | |
|---|---|---|
| a) | Type: | Gulfstream GVII |
| b) | Model: | GVII-G500 (G500) |
| c) | Variant | N/A |

### 2. State of Design Authority Certification Application Date

30 September 2013

### 3. EASA Type Certification Application Date

30 September 2013

### 4. State of Design Authority Type Certificate Date

20 July 2018

### 5. EASA Type Certification Date

GVII-G500(1) 11 October 2019

(1) G500 is the commercial / marketing designation to identify Gulfstream GVII-G500 aircraft model

### II. Certification Basis

### 1. Reference Date for determining the applicable requirements

30 September 2013

### 2. State of Design Airworthiness Authority Type Certification Data Sheet Number

T00021AT

### 3. State of Design Airworthiness Authority Certification Basis

14 CFR Part 25, effective February 1, 1965, including Amendments 25-1 through 25-137. Additional voluntary compliance with Amendment 25-143 for 25.975(a)(7) only as it pertains to fuel tank vents, and Amendment 25-144 for 25.773(e) only as it pertains to pilot compartment view with installed vision systems with transparent displays.

### 4. EASA Airworthiness Requirements

EASA Certification Specification (CS) 25, Amendment 13, effective as of June 14, 2013 and CS AWO effective October 17, 2003, except where identified below. Additional voluntary compliance with CS 25, Amendment 19: 25.603 [completions phase only], 25.788, Appendix S. Compliance against CS-ACNS, Subpart B, Section 2, and Subpart D, section 4.

### 5. Special Conditions

| CRI | Subject |
|---|---|
| A-MCSD-01 | EASA OSD Maintenance Certifying Staff Data Certification Basis for Gulfstream GVII-G500 |
| A-SIMD-01 | EASA OSD Simulator Data for Gulfstream GVII-G500 |
| B-01 | Flight Envelope Protection |
| B-10 | High Incidence Protection Function; Stall speeds, stall warning |
| D-25 | High Altitude Operation |
| D-28 | Single- and multiple-place side facing seats |
| D-42 | Electronic Flight Control System: Control Surface Position Awareness |
| D-44 | Leg Flail |
| E-08 | Falling and blowing snow |

| CRI | Subject |
|---|---|
| E-41 | Fire Extinguishing Plumbing and Wiring Connections |
| F-05 | HIRF Protection |
| F-15 | Data Link Recording |
| F-16 | Security protection of Aircraft systems and networks |
| F-18 | Flight Instrument External Probes – Qualification in Icing Conditions |
| F-32 | Pilot Compartment View Requirement with Enhanced Flight Vision System |
| F-33 | Non-rechargeable Lithium Battery Installations |

## 6. Exemptions

Not Applicable.

## 7. Deviations

| CRI | Subject |
|---|---|
| F-36 | Compliance against CS 25.1322 |

## 8. Equivalent Safety Findings

| CRI | Subject |
|---|---|
| B-12 | Electronic Flight Control System: Out-of-Trim Characteristics |
| D-03 | Flight Control System Failure Criteria |
| D-11 | Emergency Exit Signs |
| D-13 | Emergency Exits |
| D-17 | Exits and seat encroachment* |
| D-27 | Hydrophobic Coating |
| D-48 | Combined Aircraft Pressurization Outflow and Positive Pressure Differential Relief Valves |
| D-50 | Use of Reduced Vertical Bunsen Burner Flammability Requirements for Interior Materials |
| E-03 | Thrust reverse testing |
| E-12 | Fan Zone Fire classification |
| E-30 | Green Arc PWP Instrument |
| E-33 | TRAS compartment absence of fire detection system |
| E-36 | APU Subpart J (Cover CRI) |
| E-37 | Engine Control in Icing |
| E-40 | Ignition Switches |
| F-24 | Vertical Acceleration for flight data recorder |
| F-37 | Use of an Electric-Only Direction Indicator for Standby Instrumentation |

*FAA ELOS TC-01-2010-0024-C-7-GVI Rev. 1 - Encroachment into Emergency Exits (for 25.813(c)(2)(ii) aspects of CRI D-17)

## 9. Elect to Comply

CS 36 Amendment 4
NPA 2013-07 Chapter IV (CS 25.571) (CRI C-02)
CS 25.1316, Amendment 17
CS 25 Appendix S, Amendment 19
CS 25.603 [for the Completions STC] and CS 25.788, Amendment 19

## 10. Environmental Protection Standards

Noise: See TCDSN no. UK.TC.A.00026
Fuel Venting: CS-34 amendment 1, ICAO Annex 16, Volume II, Third edition, Amendment 7, Part II, chapter II.

## III. Technical Characteristic and Operating Limitations

### 1. Type Design Definition

Gulfstream, GVII-G500 Aircraft Level Configuration Control Document, 72P0000000-001, revision D or later approved revision, and Aircraft Service Change 07 Configuration Control Document 72A0400007-001 Rev B or later approved revision, post-TC modifications approved by EASA prior to 01 January 2021, as defined in Report GVII-GER-3687, [GVII EASA Post-Type Certification Modifications (EASA Type Design)], later approved revision, and post-TC modifications approved by the UK CAA from 01 January 2021.

### 2. Description

Twin turbo-fan, long range, large aeroplane.

### 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

Wingspan 26.30 metres [86.29 feet]
Fuselage Length 27.78 metres [91.13 feet]
Fuselage Width at Constant Section 2.57 metres [8.42 feet (101 inches)]

### 5. Engines

Two (2) Pratt & Whitney Canada Turbofan Engines Model: PW814GA (CAA Engine Type Certificate No. EASA.IM.E.096), see the Engine Type Certificate Data Sheet EASA.IM.E.096 dated 31 August 2017. See Note 1.

### 6. Auxiliary Power Unit

One (1) Honeywell HGT400[G] CAA accepts (under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement) the existing EASA acceptance of FAA Approval to TSO C77b per FAA Letter 140L-17-121; Complies with EASA CS-APU.

### 7. Propellers

Not Applicable.

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

Fuels: Pratt & Whitney Canada Turbofan Engines Refer to the applicable approved manuals.

| **Kerosene Type** | | |
|---|---|---|
| **American** | **British** | **Canadian** |
| ASTM D 1655, Jet A<br>ASTM D 1655 Jet A-1<br>MIL-T-83133 (JP-8) | DEF. STAN. 91-91<br>DEF. STAN. 91-87 | CAN/CGSB-3.23 |
| **French** | **CIS** | **Chinese** |
| N/A | GOST 10227-86, RT<br>GOST 10227-86, TS-1 (with/without Decree 118) | N/A |
| **JP-5 Type** | | |
| **American** | **British** | **Canadian** |
| MIL-DTL-5624 | DEF STAN 91-86 | CAN/GCSB -3.24 |
| **French** | | |
| DCSEA 144B | | |

For required use of anti-icing additives and emergency use of alternate fuel types, refer to the approved Airplane Flight Manual.

Oils
Refer to the applicable approved manuals.

Hydraulics
Refer to the applicable approved manuals.

## 9. Fluid Capacities

Refer to the approved Airplane Flight Manual.

## 10. Airspeed Limits

$V_{MO}/M_{MO}$ = 340KCAS / 0.925M

## 11. Flight Envelope

Maximum Operating Altitude: 15,545 Metres (51,000 feet)

## 12. Operating Limitations

12.1 Approved Operations

The airplane is approved for the following kinds of operation, both day and night, provided the required equipment is installed and approved in accordance with the applicable regulations/specifications:

- Visual (VFR)
- Instrument (IFR)
- Icing Conditions
- Low Weather Minima (CAT I Operations)
- RVSM (Reduced Vertical Separation Minimums) [CS ACNS subpart E section 2]
- Wet and contaminated runway operations (Appendix D data to FAA approved AFM)

12.2 Other Limitations

Runway slope +/- 2%
Maximum Take-off and Landing Tailwind Component – 10 knots
When operating in a flight control law mode other than normal, maximum crosswind component for landing: 10 knots
Maximum tailwind component for landing with flaps 10° or less is zero knots
Maximum Operating Altitude – 15,545 metres (51,000 feet) pressure altitude
Normal take-off crosswind limit – 22 knots

See GVII-G500 Airplane Flight Manual (AFM) for complete list of limitations.

## 13. Maximum Certified Masses

| Configuration | Maximum Taxi Weight | Maximum Take-off Weight | Maximum Landing Weight | Maximum Zero Fuel Weight |
|---|---|---|---|---|
| TC Configuration | 36,287 kg | 36,106 kg | 29,189 kg | 23,632 kg |
| | 80,000 lbs | 79,600 lbs | 64,350 lbs | 52,100 lbs |
| ASC 005 | 33,974 kg | 33,974 kg | 29,189 kg | 23,632 kg |
| | 74,900 lbs | 74,900 lbs | 64,350 lbs | 52,100 lbs |

## 14. Centre of Gravity Range

See the approved Airplane Flight Manual.

## 15. Datum

For Weight and Balance purposes, the zero datum is 100 inches forward of the radome.

**16. Mean Aerodynamic Chord (MAC)**

4.0894 metres [161 inches] (L.E. of MAC = Fuselage Station 14.7955 metres (582.5 inches))

**17. Levelling Means**

Longitudinal: Lugs at left nose wheel well door longeron STA 163.0 & 174.0
Lateral: Lugs on rear face of bulkhead STA 148.5 in nose wheel well

See GVII-G500 Aircraft Maintenance Manual (AMM) for level procedure.

**18. Minimum Flight Crew**

Two (2): Pilot and Co-Pilot

**19. Minimum Cabin Crew**

None required.

**20. Maximum Seating Capacity**

Total number of occupants shall not exceed 22.

The number of passengers shall not exceed 19 as determined by emergency exit requirements, nor shall the number of passengers exceed the number of seating accommodations approved for take- off and landing.

Note: Type Certificate UK.TC.A.00026 considers a “green” aircraft (aircraft without an approved cabin interior) configuration only. Cabin interior installations (including passenger seating configurations up to 19 passengers are subject to completion STCs being CAA approved prior to any operation with passengers.

**21. Baggage/ Cargo Compartment**

Refer to applicable GVII-G500 Weight and Balance Manual (see Section 2.IV.3).

**22. Wheels and Tyres**

Nose wheels TSO C135a, Tyres Twin 12 x 7.5 R 10 (TSO C62e) nominal pressure 182 psi (+/-9 psi)
Main wheels TSO C135a, Tyres Twin H34 x 9.5 R 18 (TSO C62e) nominal pressure 223 psi (+/- 10 psi)
See Aircraft Maintenance Manual for proper servicing of tyres.

**23. Extended Diversion Time Operations (EDTO)**

The GVII-G500 aircraft model has been demonstrated compliant with the design and reliability requirement for 180 min ETOPS flights required by EU regulation 965/2012, CAT.OP.MPA.140 and SPA.ETOPS.100, as retained (and amended in UK domestic law) under the European Union (Withdrawal) Act 2018 and amended by the Aviation Safety (Amendment etc.) (EU Exit) Regulations 2019, however this implies no operations approval. This must be sought from the UK Civil Aviation Authority.

**24. Interiors Installations**

GVII cabin interior installations must be in accordance with report GVII-GER-0149 “GVII-G500 and GVII-G600 Interior Certification Requirements Document”.

## IV. Operating and Service Instructions

### 1. Airplane Flight Manual (AFM)

For aircraft fitted with ASC 007:
Gulfstream GVII-G500, FAA approved Flight Manual ref. GAC-AC-GVII-G500-OPS-0002 and

UK-CAA approved Airplane Flight Manual Supplement ref. UK-CAA-GVII-G500 (Issue 1)-2022-01, latest approved revisions.

For aircraft fitted with ASC 005:
Aircraft fitted with GVII-G500 ASC 005 additionally require Airplane Flight Manual Supplement ref.GVII-G500-2019-01, latest approved revision.

### 2. Instructions for Continued Airworthiness and Airworthiness Limitations

Maintenance criteria to comply with the certification maintenance requirements are provided in Chapter 5 of the GVII-G500 Aircraft Maintenance Manual.

For aircraft fitted with ASC 007:
Component life limitations are provided in Section 05-10-10, Chapter 5 of the GVII-G500 Aircraft Maintenance Manual (AMM).

Component maintenance manuals (CMMs) for the following items manufactured by Zodiac Fuel & Inerting Systems (ZFIS) have not yet been approved, therefore only new components can be delivered to customers for removal and replacement:

| Component | Part No. |
|---|---|
| Single Motor Actuator | D97C00-669 or D97C00-687 |
| Single Motor Actuator with Manual Override | D97L00-617 |
| Pressure Fueling Solenoid SOV | L94-51-603 |
| Fuel Boost Pump | P92C31-603 |

### 3. Weight and Balance Manual (WBM)

For aircraft fitted with ASC 007:
Gulfstream GVII-G500 Weight and Balance Manual revision 1 dated August 2019 or later approved versions.

For aircraft fitted with ASC 005:
Gulfstream GVII-G500 Weight and Balance Manual revision 2 dated April 2020 or later approved versions.

Note 1: A current Weight and Balance Report must be in each aircraft at the time of original airworthiness certification.

Note 2: Airplane operation must be in accordance with the approved Airplane Flight Manual and applicable approved Airplane Flight Manual Supplements. All placards required by either the approved Airplane Flight Manual, applicable approved Airplane Flight Manual Supplements, the applicable operating rules, or the Certification Basis must be installed in the airplane.

## V. Operational Suitability Data (OSD)

The Operational Suitability Data elements listed below are approved by EASA under the EASA Type Certificate EASA.IM.A.595 as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014, and are therefore accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

### 1. Master Minimum Equipment List

a) In agreement with TIP revision 5.1 (between EASA and the FAA), FAA document, GVII-G500 MMEL, revision 01, dated 21 June 2019, is deemed to grant an equivalent safety level as the CS-MMEL, initial issue dated 31 January 2014.
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 reference “EASA-OSD-FC-GVII-GAC, Initial Issue” at the latest applicable revision.
b) Required for entry into service by UK operator.

### 3. Maintenance Certifying Staff

a) The Maintenance Certifying Staff data has been approved as per the defined Operational Suitability Data Certification Basis and as documented in reference “GVII-OSD-MCS-001” at the latest applicable revision.
b) Required for entry into service by UK operator.

### 4. Simulator Data

a) The Simulator Data has been approved as per the defined Operational Suitability Data Certification Basis and as documented in reference “GVII-GER-3543” at the latest applicable revision.
b) Required for entry into service by UK operator.

## VI. Notes

**Note 1**: Engines for UK delivery must be identified as an -01 Engine Standard as denoted on the data plate.

**Note 2:** GVII-G500 Aircraft for UK delivery must have ASC number 007 incorporated.

## Section 3 GVII-G600 (G600)

### I. General

#### 1. Type / Variant or Model

a) Type: Gulfstream GVII
b) Model: GVII-G600 (G600)
c) Variant N/A

#### 2. State of Design Authority Certification Application Date

18 December 2013

#### 3. EASA Type Certification Application Date

20 July 2014

#### 4. State of Design Authority Type Certificate Date

28 June 2019

#### 5. EASA Type Certification Date

GVII-G600(1) 11 May 2020

(1) G600 is the commercial / marketing designation to identify Gulfstream GVII-G600 aircraft model

### II. Certification Basis

#### 1. Reference Date for determining the applicable requirements

20 July 2014

#### 2. State of Design Airworthiness Authority Type Certification Data Sheet Number

T00021AT

#### 3. State of Design Airworthiness Authority Certification Basis

14 CFR Part 25, effective February 1, 1965, including Amendments 25-1 through 25-138. Additional voluntary compliance with Amendment 25-143 for 25.975(a)(7) only as it pertains to fuel tank vents, and Amendment 25-144 for 25.773(e) only as it pertains to pilot compartment view with installed vision systems with transparent displays.

#### 4. EASA Airworthiness Requirements

EASA Certification Specification (CS) 25, Amendment 14, effective as of December 19, 2013 amended by the following:

- CS 25.729(f) Amdt 13
- CS 25.734 Amdt 13
- CS 25.735(l) Amdt 13
- CS 25.963(e) Amdt 13

and CS AWO effective October 17, 2003, except where identified below. Additional voluntary compliance with CS 25, Amendment 19: 25.603 [completions phase only], 25.788, Appendix S. Compliance against CS-ACNS, Subpart B, Section 2, and Subpart D, section 4.

CS 25.963(e) Amdt 13 remains applicable only if the following described design features are not invalidated:

> The current design within the zone subject to engine debris impact is the minimum standard regarding the risk of penetration or perforation of the fuel tanks (e.g. maximum fuel tank surface area, minimum skin thickness, minimum performance of tank shielding, skin material or assembly details) unless substantiated to CS 25.963 Amdt 14 or later.

**Definitions:**

Zone subject to engine debris impact: - 15 degrees forward of the front engine compressor or fan plane measured from the centre of rotation to 45 degrees aft of the rear most engine turbine plane measured from the centre of rotation.

Engine debris: is characterized by the impact of a 9.5 mm (3/8 inch) cube steel debris at 213.4 m/s (700 fps). The angle of the debris impact to the surface depends on the volume considered from rotor centreline as follows:

- 90 degrees to the impacted surface or area should be used within the zone from 15 degrees forward of the front engine compressor or fan plane measured from the centre of rotation to 15 degrees aft of the rear most engine turbine plane measured from the centre of rotation;
- actual incidence angle to the impacted surface should be used within the zone from 15 to 45 degrees aft of the rear most engine turbine plane measured from the centre of rotation.

Fuel tank perforation: includes, in addition to penetration of the tank by debris, an event where the specified debris is stopped at the fuel tank surface (no penetration), but creates a fuel tank damage (e.g. hole or crack) that results in a fuel leak that does not meet the no hazardous fuel leak criteria of AMC 25.963 Amdt 14.

Fuel tank penetration: means an event where the whole engine debris enters the fuel tank creating a hole in fuel tank allowing fuel leakage.

## 5. Special Conditions

| CRI | Subject |
|---|---|
| A-MCSD-01 | EASA OSD Maintenance Certifying Staff Data Certification Basis for Gulfstream GVII-G500 |
| A-SIMD-01 | EASA OSD Simulator Data for Gulfstream GVII-G500 |
| B-01 | Flight Envelope Protection |
| B-10 | High Incidence Protection Function; Stall speeds, stall warning |
| G600-D-16 | Flight Crew Sleeping Facility |
| D-25 | High Altitude Operation |
| D-28 | Single- and multiple-place side facing seats |
| D-42 | Electronic Flight Control System: Control Surface Position Awareness |
| D-44 | Leg Flail |
| E-08 | Falling and blowing snow |
| E-41 | Fire Extinguishing Plumbing and Wiring Connections |
| F-05 | HIRF Protection |
| F-15 | Data Link Recording |
| F-16 | Security protection of Aircraft systems and networks |
| F-18 | Flight Instrument External Probes – Qualification in Icing Conditions |
| F-32 | Pilot Compartment View Requirement with Enhanced Flight Vision System |
| F-33 | Non-rechargeable Lithium Battery Installations |

## 6. Exemptions

Not Applicable.

## 7. Deviations

| CRI | Subject |
|---|---|
| F-36 | Compliance against CS 25.1322 |

## 8. Equivalent Safety Findings

| CRI | Subject |
|---|---|
| B-12 | Electronic Flight Control System: Out-of-Trim Characteristics |
| G600-C-07 | Proof of Structure |
| D-03 | Flight Control System Failure Criteria |
| D-11 | Emergency Exit Signs |

| CRI | Subject |
|---|---|
| D-13 | Emergency Exits |
| D-17 | Exits and seat encroachment* |
| D-27 | Hydrophobic Coating |
| D-48 | Combined Aircraft Pressurization Outflow and Positive Pressure Differential Relief Valves |
| D-50 | Use of Reduced Vertical Bunsen Burner Flammability Requirements for Interior Materials |
| E-03 | Thrust reverse testing |
| E-12 | Fan Zone Fire classification |
| E-30 | Green Arc PWP Instrument |
| E-33 | TRAS compartment absence of fire detection system |
| E-36 | APU Subpart J (Cover CRI) |
| E-37 | Engine Control in Icing |
| E-40 | Ignition Switches |
| F-24 | Vertical Acceleration for flight data recorder |
| F-37 | Use of an Electric-Only Direction Indicator for Standby Instrumentation |

*FAA ELOS TC-01-2010-0024-C-7-GVI Rev. 1 - Encroachment into Emergency Exits (for 25.813(c)(2)(ii) aspects of CRI D-17)

**9. Elect to Comply**

CS 36 Amendment 4
NPA 2013-07 Chapter IV (CS 25.571) (CRI C-02)
CS 25.1316, Amendment 17
CS 25 Appendix S, Amendment 19
CS 25.603 [for the Completions STC] and CS 25.788, Amendment 19

**10. Environmental Protection Standards**

Noise: See TCDSN no. UK.TC.A.00026.
Fuel Venting: CS-34 amendment 1, ICAO Annex 16, Volume II, Third edition, Amendment 7, Part II, chapter II.

## III. Technical Characteristic and Operating Limitations

### 1. Type Design Definition

Gulfstream, GVII-G600 Aircraft Level Configuration Control Document, 73P0000000-001, revision C or later approved revision, and Aircraft Service Change 007 Configuration Control Document 73A0400007-001 Rev C or later approved revision, post-TC modifications approved by EASA prior to 01 January 2021, as defined in Report GVII-GER-3607, Gulfstream GVII EASA Post-Type Certification Modifications (EASA Type Design)], later approved revision, and post-TC modifications approved by the UK CAA from 01 January 2021.

Aircraft with Serial Numbers 73001 through 73034 do not require ASC 803 to be implemented as a prerequisite to ASC 007; but, must implement the related changes in accordance with maintenance program requirements.

Aircraft serial numbers 73035 and subsequent will comply with ASC 803 from production and will satisfy the prerequisite requirement for ASC 007.

### 2. Description

Twin turbo-fan, long range, large aeroplane.

### 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

Wingspan 28.96 metres [95.00 feet]
Fuselage Length 29.29 metres [96.11 feet]
Fuselage Width at Constant Section 2.57 metres [8.42 feet (101 inches)]

### 5. Engines

Two (2) Pratt & Whitney Canada Turbofan Engines Model: PW815GA (CAA Engine Type Certificate No. EASA.IM.E.096), see the CAA Engine Type Certificate Data Sheet EASA.IM.E.096 dated 31 August 2017. See Note 1.

### 6. Auxiliary Power Unit

One (1) Honeywell HGT400[G] CAA accepts (under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement) the existing EASA acceptance of FAA Approval to TSO C77b per FAA Letter 140L-17-121; Complies with EASA CS-APU.

### 7. Propellers

Not Applicable

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

Fuels: Pratt & Whitney Canada Turbofan Engines
Refer to the applicable approved manuals.

| Kerosene Type | | |
|---|---|---|
| **American** | **British** | **Canadian** |
| ASTM D 1655, Jet A<br>ASTM D 1655 Jet A-1<br>MIL-T-83133 (JP-8) | DEF. STAN. 91-91<br>DEF. STAN. 91-87 | CAN/CGSB-3.23 |
| **French** | **CIS** | **Chinese** |
| N/A | GOST 10227-86, RT<br>GOST 10227-86, TS-1 (with/without Decree 118) | N/A |

| JP-5 Type | | |
|---|---|---|
| **American** | **British** | **Canadian** |
| MIL-DTL-5624 | DEF STAN 91-86 | CAN/GCSB -3.24 |
| **French** | | |
| DCSEA 144B | | |

For required use of anti-icing additives and emergency use of alternate fuel types, refer to the approved Airplane Flight Manual.

Oils: Refer to the applicable approved manuals.

Hydraulics: Refer to the applicable approved manuals.

**9. Fluid Capacities**

Refer to the approved Airplane Flight Manual.

**10. Airspeed Limits**

$V_{MO}/M_{MO}$ = 340KCAS / 0.925M

**11. Flight Envelope**

Maximum Operating Altitude: 15,545 Metres (51,000 feet)

**12. Operating Limitations**

12.1 Approved Operations

The airplane is approved for the following kinds of operation, both day and night, provided the required equipment is installed and approved in accordance with the applicable regulations/specifications:

- Visual (VFR)
- Instrument (IFR)
- Icing Conditions
- Low Weather Minima (CAT I Operations)
- RVSM (Reduced Vertical Separation Minimums) [CS ACNS subpart E section 2]
- Wet and contaminated runway operations (Appendix D data to FAA approved AFM)

12.2 Other Limitations

Runway slope +/- 2%
Maximum Take-off and Landing Tailwind Component – 10 knots
When operating in a flight control law mode other than normal, maximum crosswind component for landing: 10 knots
Maximum tailwind component for landing with flaps 10° or less is zero knots
Maximum Operating Altitude – 15,545 metres (51,000 feet) pressure altitude
Normal take-off crosswind limit – 22 knots

See GVII-G600 Airplane Flight Manual (AFM) for complete list of limitations

**13. Maximum Certified Masses**

| Configuration | Maximum Taxi Weight | Maximum Take-off Weight | Maximum Landing Weight | Maximum Zero Fuel Weight |
|---|---|---|---|---|
| TC Configuration | 43,091 kg | 42,910kg | 34,836 kg | 26,054 kg |
| | 95,000 lbs | 94,600 lbs | 76,800 lbs | 57,440 lbs |
| ASC 005 | 33,374 kg | 33,374 kg | 33,374 kg | 26,054 kg |
| | 74,900 lbs | 74,900 lbs | 74,900 lbs | 57,440 lbs |
| ASC 030 | 40,823 kg | 40,823 kg | 34,836 kg | 26,054 kg |
| | 90,000 lbs | 90,000 lbs | 76,800 lbs | 57,440 lbs |

**14. Centre of Gravity Range**

See the approved Airplane Flight Manual.

**15. Datum**

For Weight and Balance purposes, the zero datum is 100 inches forward of the radome.

**16. Mean Aerodynamic Chord (MAC)**

4.5502 metres [179.41 inches] (L.E. of MAC = Fuselage Station 15.2357 metres (599.83 inches))

**17. Levelling Means**

Longitudinal: Lugs at left nose wheel well door longeron STA 163.0 & 174.0
Lateral: Lugs on rear face of bulkhead STA 148.5 in nose wheel well

See GVII-G600 Aircraft Maintenance Manual (AMM) for level procedure.

**18. Minimum Flight Crew**

Two (2): Pilot and Co-Pilot

**19. Minimum Cabin Crew**

None Required.

**20. Maximum Seating Capacity**

Total number of occupants shall not exceed 22.

The number of passengers shall not exceed 19 as determined by emergency exit requirements, nor shall the number of passengers exceed the number of seating accommodations approved for take- off and landing.

Note: Type Certificate UK.TC.A.00026 considers a “green” aircraft (aircraft without an approved cabin interior) configuration only. Cabin interior installations (including passenger seating configurations up to 19 passengers are subject to completion STCs being CAA approved prior to any operation with passengers.

**21. Baggage/ Cargo Compartment**

Refer to applicable GVII-G600 Weight and Balance Manual (see Section 3.IV.3).

**22. Wheels and Tyres**

Nose wheels TSO C135a, Tyres Twin 12 x 7.5 R 10 (TSO C62e) nominal pressure 182 psi (+/-9 psi)
Main wheels TSO C135a, Tyres Twin H34 x 9.5 R 18 (TSO C62e) nominal pressure 223 psi (+/- 10 psi)

See Aircraft Maintenance Manual for proper servicing of tyres.

**23. Extended Diversion Time Operations (EDTO)**

The GVII-G600 aircraft model has been demonstrated compliant with the design and reliability requirement for 180 min ETOPS flights required by EU regulation 965/2012, CAT.OP.MPA.140 and SPA.ETOPS.100, as retained (and amended in UK domestic law) under the European Union (Withdrawal) Act 2018 and amended by the Aviation Safety (Amendment etc.) (EU Exit) Regulations 2019, however this implies no operations approval. This must be sought from the UK Civil Aviation Authority.

**24. Interiors Installations**

GVII cabin interior installations must be in accordance with report GVII-GER-0149 “GVII-G500 and GVII-G600 Interior Certification Requirements Document”.

## IV. Operating and Service Instructions

### 1. Airplane Flight Manual (AFM)

For aircraft fitted with ASC 007:
Gulfstream GVII-G600, FAA approved Airplane Flight Manual ref. GAC-AC-GVII-G600-OPS-0001 and

UK-CAA approved Airplane Flight Manual Supplement ref. UK-CAA-GVII-G600-2022-01, latest approved revision.

For aircraft fitted with ASC 005 or ASC 030
Aircraft fitted with GVII-G600 ASC 005 or ASC 030 additionally require Airplane Flight Manual Supplement GVII-G600-2020-07, latest approved revision.

### 2. Instructions for Continued Airworthiness and Airworthiness Limitations

Maintenance criteria to comply with the certification maintenance requirements are provided in Chapter 5 of the GVII-G600 Aircraft Maintenance Manual.

For aircraft fitted with ASC 007:
Component life limitations are provided in Section 05-10-10, Chapter 5 of the GVII-G600 Aircraft Maintenance Manual (AMM).

Component maintenance manuals (CMMs) for the following items manufactured by Zodiac Fuel & Inerting Systems (ZFIS) have not yet been approved, therefore only new components can be delivered to customers for removal and replacement:

| Component | Part No. |
|---|---|
| Single Motor Actuator | D97C00-669 or D97C00-687 |
| Single Motor Actuator with Manual Override | D97L00-617 |
| Pressure Fueling Solenoid SOV | L94-51-603 |
| Fuel Boost Pump | P92C31-603 |

### 3. Weight and Balance Manual (WBM)

For aircraft fitted with ASC 007:
Gulfstream GVII-G600 Weight and Balance Manual revision 1 dated August 2019 or later approved versions.

For aircraft fitted with ASC 005 or ASC 030:
Gulfstream GVII-G600 Weight and Balance Manual revision 2 dated May 2021 or later approved versions.

**Note 1:** A current Weight and Balance Report must be in each aircraft at the time of original airworthiness certification.

**Note 2:** Airplane operation must be in accordance with the approved Airplane Flight Manual and applicable approved Airplane Flight Manual Supplements. All placards required by either the approved Airplane Flight Manual, applicable approved Airplane Flight Manual Supplements, the applicable operating rules, or the Certification Basis must be installed in the airplane.

## V. Operational Suitability Data (OSD)

The Operational Suitability Data elements listed below are approved by the European Union Aviation Safety Agency under the EASA Type Certificate EASA.IM.A.595 as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014, and are therefore accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

### 1. Master Minimum Equipment List

a) In agreement with TIP revision 5.1 (between EASA and the FAA), FAA document, GVII-G600 MMEL, revision 01, dated 21 June 2019, is deemed to grant an equivalent safety level as the CS-MMEL, initial issue dated 31 January 2014.
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 reference “EASA-OSD-FC-GVII-GAC, Initial Issue” at the latest applicable revision.
b) Required for entry into service by UK operator.

### 3. Maintenance Certifying Staff

a) The Maintenance Certifying Staff data has been approved as per the defined Operational Suitability Data Certification Basis and as documented in reference “GVII-OSD-MCS-001” at the latest applicable revision.
b) Required for entry into service by UK operator.

### 4. Simulator Data

a) The Simulator Data has been approved as per the defined Operational Suitability Data Certification Basis and as documented in reference “GVII-GER-3735” at the latest applicable revision.
b) Required for entry into service by UK operator.

## VI. Notes

Note 1: GVII-G600 Aircraft for UK delivery must have ASC number 007 incorporated.

## Section 4 Administration

### I. Acronyms and Abbreviations

| Acronym / Abbreviation | Definition |
|---|---|
| AFM | Airplane Flight Manual |
| AMM | Aircraft Maintenance Manual |
| APU | Auxiliary Power Unit |
| ASC | Aircraft Service Change |
| ASTM | American Society for Testing and Materials |
| ATA | Air Transport Association |
| AWO | All Weather Operations |
| CAA | (United Kingdom) Civil Airworthiness Authority |
| CFR | Code of Federal Regulations |
| CRI | Certification Review Item |
| CS | Certification Specification |
| EASA | European Union Aviation Safety Agency |
| ELOS | Equivalent Level of Safety |
| ETDO | Extended Diversion Time Operations |
| ETOPS | Extended-Range Twin-Engine Operational Performance Standards |
| FAA | Federal Aviation Administration |
| GA | Georgia |
| HIRF | High Intensity Radiated Field |
| ICAO | International Civil Aviation Organization |
| IFR | Instrument Flight Rules |
| KCAS | Knots Calibrated Airspeed |
| Kg | Kilograms |
| Lbs | U.S. Pounds |
| M | Mach |
| MAC | Mean Aerodynamic Chord |
| $M_{MO}$ | Maximum Operating Limit Speed (Mach) |
| No | Number |
| OSD | Operational Suitability Data |
| PSI | Pounds per Square Inch (pressure) |
| PW | Pratt & Whitney |
| Ref | Reference |
| RVSM | Reduced Vertical Separation Minima |
| STA | Station |
| STC | Supplemental Type Certificate |
| TC | Type Certificate |
| TCDS | Type Certificate Data Sheet |
| TCH | Type Certificate Holder |
| USA | United States of America |
| VFR | Visual Flight Rules |
| $V_{MO}$ | Maximum Operating Limit Speed (KCAS) |
| WBM | Weight and Balance Manual |

## II. Type Certificate Holder Record

| TCH Record | Period |
|---|---|
| Gulfstream Aerospace Corporation<br>500 Gulfstream Road<br>Savannah<br>Georgia 31408<br>United States of America | Present. No changes. |

## III. Amendment Record

| TCDS Issue No. | TCDS Issue Date | Changes | TC Issue and Date |
|---|---|---|---|
| 1 | 16 Dec 2021 | The content of the initial issue of this UK CAA TCDS was taken from EASA TCDS No. EASA.IM.A.595 Issue 6 dated 21 July 2020 which was the current EASA version at 31 December 2020 and therefore the version of the TCDS for the Gulfstream VII accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement,<br>except as listed below:<br><br>Changes related to UK.MAJ.00068 approval:<br>• Section 2.II.8: Added FAA ELOS TC-01-2010-0024-C-7-GVI R1 relating to CRI D-17.<br>• Section 3.II.8: Added FAA ELOS TC-01-2010-0024-C-7-GVI R1 relating to CRI D-17.<br>• Section 2.III.24: Added Gulfstream Report Number GVII-GER-0149.<br>• Section 3.III.24: Added Gulfstream Report Number GVII-GER-0149.<br><br>Changes related to UK.MAJ.00079 approval:<br>• Section 2.III.13: Table updated to include ASC 005.<br>• Section 2.III.21: added reference to WBM (as specified in Section 2.IV.3).<br>• Section 2.IV.1: Added reference to AFM supplement related to ASC 005.<br>• Section 2.IV.3: Added reference to WBM revision related to ASC 005. Wording of Note 2 updated to make additional reference to AFM supplements.<br>• Section 3.III.13: Table updated to include ASC 005 and ASC 030.<br>• Section 3.III.21: added reference to WBM (as specified in Section 3.IV.3).<br>• Section 3.IV.1: Added reference to AFM supplement related to ASC 005 and ASC 030.<br>• Section 3.IV.3: Added reference to WBM revision related to ASC 005 and ASC 030. Wording of Note 2 updated to make additional reference to AFM supplements.<br><br>Editorial changes/Changes to reflect EU Exit:<br>• Section 1.I: Updated to reflect CAA Type Certificate number.<br>• Section 1.I.4: Type Certificate holder address updated.<br>• Section 1.I.5: Manufacturer address updated.<br>• Section 2.II.10: TCDSN number updated. | Issue 1<br>16 Dec 2021 |

| TCDS Issue No. | TCDS Issue Date | Changes | TC Issue and Date |
|---|---|---|---|
| | | • Section 2.III.5, 2.III.6: added reference to UK CAA.<br>• Section 2.III.9: table deleted, reference to Airplane Flight Manual added.<br>• Section 2.III.19: Correction of typographical error.<br>• Section 2.III.20: TCDS reference updated, and added reference to UK CAA.<br>• Section 2.III.23: Wording updated to reflect EU Exit.<br>• Section 2.V: Approval statement updated to reflect acceptance of EASA Approved OSD under UK-EU Trade and Cooperation Agreement.<br>• Section 2.V.1: Wording revised to clarify that TIP applies to EASA and FAA.<br>• Section 2.V.1, 2, 3, 4: wording updated to 'UK Operator'.<br>• Section 2.VI: Notes 1 and 2 wording updated to 'UK Delivery'.<br>• Section 3.II.8: CRI D-50 renumbered (was G600-D-50).<br>• Section 3.II.10: TCDSN number updated.<br>• Section 3.III.5, 3.III.6: added reference to UK CAA.<br>• Section 3.III.9: table deleted, reference to Airplane Flight Manual added.<br>• Section 3.III.19: Correction of typographical error.<br>• Section 3.III.20: TCDS reference updated, and added reference to UK CAA.<br>• Section 3.III.23: Wording updated to reflect EU Exit.<br>• Section 3.V: Approval statement updated to reflect acceptance of EASA Approved OSD under UK-EU Trade and Cooperation Agreement.<br>• Section 3.V.1: Wording revised to clarify that TIP applies to EASA and FAA.<br>• Section 3.V.1, 2, 3, 4: wording updated to 'UK Operator'.<br>• Section 3.VI: Note 1 wording updated to 'UK Delivery'. | |
| 2 | 10 Oct 2022 | Change related to UK.MAJ.00128 Approval<br>• Section 2.II.8 Equivalent Safety Findings: CRI D-50 added<br><br>Correction of typographical error<br>• Section 2.I.1.(b), Section 3.I.1.(b)<br>• Section II. 2 FAA TCDS ref corrected.<br>• G500 Section 2.IV.1 FAA AFM reference corrected to -002<br><br>Change FCC V9 SW update related to UK.MAJ.00162 Approval<br>• Section 2.IV.1 Reference to UK-CAA Flight Manual Supplement for GVII-G500 Added<br>• Section 3.IV.1 Reference to UK-CAA Flight Manual Supplement for GVII-G600 Added | Issue 1<br>16 Dec 2021 |

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