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# TYPE-CERTIFICATE DATA SHEET

No. EASA.IM.A.595

**for**

Gulfstream GVII

**Type Certificate Holder:**

Gulfstream Aerospace Corporation

500 Gulfstream Rd

Savannah, GA 31408

U.S.A.

For Model(s): GVII-G500 (G500)

GVII-G600 (G600)



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## TABLE OF CONTENTS

<b>SECTION 1: GENERAL (ALL MODELS)</b> .....	<b>6</b>
1. Airworthiness Category .....	6
2. Performance Class.....	6
3. Certifying Authority .....	6
4. Type Certificate Holder .....	6
5. Manufacturer .....	6
<b>SECTION 2: GVII-G500</b> .....	<b>6</b>
<b>I. General</b> .....	<b>6</b>
1. Type/ Model/ Variant .....	6
2. State of Design Authority Certification Application Date.....	6
3. EASA Type Certification Application Date.....	6
4. State of Design Authority Type Certificate Date.....	6
5. EASA Type Certification Date .....	6
<sup>(1)</sup> G500 is the commercial / marketing designation to identify Gulfstream GVII-G500 aircraft model. ....	6
<b>II. Certification Basis</b> .....	<b>6</b>
1. Reference Date for determining the applicable requirements .....	6
2. State of Design Airworthiness Authority Type Certification Data Sheet No. ....	7
3. State of Design Airworthiness Authority Certification Basis.....	7
4. EASA Airworthiness Requirements .....	7
5. Special Conditions .....	7
6. Exemptions.....	7
7. Deviations.....	7
8. Equivalent Safety Findings.....	7
9. Elect to Comply .....	8
10. Environmental Protection Standards .....	8
<b>III. Technical Characteristics and Operational Limitations</b> .....	<b>8</b>
1. Type Design Definition.....	8
2. Description .....	8
3. Equipment .....	8
4. Dimensions.....	9
5. Engines .....	9
6. Auxiliary Power Unit .....	9
7. Propellers .....	9
8. Fluids (Fuel, Oil, Additives, Hydraulics) .....	9
9. Fluid Capacities .....	10
10. Airspeed Limits.....	10
11. Flight Envelope.....	10
12. Operating Limitations .....	10
13. Maximum Certified Masses.....	11
14. Centre of Gravity Range.....	11
15. Datum.....	11
16. Mean Aerodynamic Chord (MAC) .....	11
17. Levelling Means .....	11
18. Minimum Flight Crew .....	11
19. Minimum Cabin Crew .....	11



20. Maximum Seating Capacity .....	11
21. Baggage/ Cargo Compartment .....	12
22. Wheels and Tyres .....	12
23. Extended Diversion Time Operations (EDTO) .....	12
24. Interiors Installations .....	12
<b>IV. Operating and Service Instructions .....</b>	<b>12</b>
1. Airplane Flight Manual (AFM) .....	12
2. Instructions for Continued Airworthiness and Airworthiness Limitations .....	12
3. Weight and Balance Manual (WBM) .....	13
<b>VI. Notes .....</b>	<b>14</b>
<b>SECTION 3: GVII-G600 .....</b>	<b>15</b>
<b>I. General .....</b>	<b>15</b>
1. Type/ Model/ Variant .....	15
2. State of Design Authority Certification Application Date .....	15
3. EASA Type Certification Application Date .....	15
4. State of Design Authority Type Certificate Date .....	15
5. EASA Type Certification Date .....	15
(1) G600 is the commercial / marketing designation to identify Gulfstream GVII-G600 aircraft model. ....	15
<b>II. Certification Basis .....</b>	<b>15</b>
1. Reference Date for determining the applicable requirements .....	15
2. State of Design Airworthiness Authority Type Certification Data Sheet No. ....	15
3. State of Design Airworthiness Authority Certification Basis .....	15
4. EASA Airworthiness Requirements .....	15
5. Special Conditions .....	17
6. Exemptions .....	17
7. Deviations .....	17
8. Equivalent Safety Findings .....	17
9. Elect to Comply .....	18
10. Environmental Protection Standards .....	18
<b>III. Technical Characteristics and Operational Limitations .....</b>	<b>18</b>
1. Type Design Definition .....	18
2. Description .....	18
3. Equipment .....	18
4. Dimensions .....	18
5. Engines .....	18
6. Auxiliary Power Unit .....	19
7. Propellers .....	19
8. Fluids (Fuel, Oil, Additives, Hydraulics) .....	19
9. Fluid Capacities .....	19
10. Airspeed Limits .....	20
11. Flight Envelope .....	20
12. Operating Limitations .....	20
13. Maximum Certified Masses .....	20
14. Centre of Gravity Range .....	21
15. Datum .....	21
16. Mean Aerodynamic Chord (MAC) .....	21
17. Levelling Means .....	21
18. Minimum Flight Crew .....	21



<b>19. Minimum Cabin Crew</b> .....	<b>21</b>
<b>20. Maximum Seating Capacity</b> .....	<b>21</b>
<b>21. Baggage/ Cargo Compartment</b> .....	<b>21</b>
<b>22. Wheels and Tyres</b> .....	<b>21</b>
<b>23. Extended Diversion Time Operations (EDTO)</b> .....	<b>21</b>
<b>24. Interiors Installations</b> .....	<b>22</b>
<b>IV. Operating and Service Instructions</b> .....	<b>22</b>
<b>1. Airplane Flight Manual (AFM)</b> .....	<b>22</b>
<b>2. Instructions for Continued Airworthiness and Airworthiness Limitations</b> .....	<b>22</b>
<b>3. Weight and Balance Manual (WBM)</b> .....	<b>22</b>
<b>VI. Notes</b> .....	<b>23</b>
<b>SECTION: ADMINISTRATIVE</b> .....	<b>24</b>
<b>I. Acronyms and Abbreviations</b> .....	<b>24</b>
<b>II. Type Certificate Holder Record</b> .....	<b>24</b>
<b>III. Change Record</b> .....	<b>25</b>



**SECTION 1: GENERAL (ALL MODELS)**

This Data Sheet, which is part of Type Certificate No. IM.A.595, prescribes conditions and limitations under which the product for which the Type Certificate was issued meets the airworthiness requirements of the European Union Aviation Safety Agency.

**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, GA 30337  
United States of America

**4. Type Certificate Holder**

Gulfstream Aerospace Corporation  
P.O. Box 2206  
Savannah, GA 31402-2206  
United States of America

**5. Manufacturer**

Gulfstream Aerospace Corporation  
P.O. Box 2206  
Savannah, GA 31402-2206  
United States of America

**SECTION 2: GVII-G500****I. General****1. Type/ Model/ Variant**

GVII-G500 (G500)

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

September 30, 2013

**3. EASA Type Certification Application Date**

September 30, 2013

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

July 20, 2018

**5. EASA Type Certification Date**GVII-G500<sup>(1)</sup>

11 October 2019

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

**II. Certification Basis****1. Reference Date for determining the applicable requirements**

September 30, 2013



## **SECTION 2: GVII-G500 - continued**

### **2. State of Design Airworthiness Authority Type Certification Data Sheet No.**

T000021AT

### **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**

<u>CRI</u>	<u>Subject</u>
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
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**

<u>CRI</u>	<u>Subject</u>
F-36	Compliance against CS 25.1322

### **8. Equivalent Safety Findings**

<u>CRI</u>	<u>Subject</u>
B-12	Electronic Flight Control System: Out-of-Trim Characteristics
D-03	Flight Control System Failure Criteria
D-11	Emergency Exit Signs



## **SECTION 2: GVII-G500 - continued**

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 detect sys
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. EASA.IM.A.595  
 Fuel Venting: CS-34 amendment 1, ICAO Annex 16, Volume II, Third edition, Amendment 7, Part II, chapter II.

## **III. Technical Characteristics and Operational 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, and post-TC modifications as defined in Report GVII-GER-3687, [GVII EASA Post-Type Certification Modifications (EASA Type Design)], later approved revision.

### **2. Description**

Twin turbo-fan, long range, large aeroplane

### **3. Equipment**





## **SECTION 2: GVII-G500 - continued**

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 (EASA Engine Type Certificate No. 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] EASA accepts 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.

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



## **SECTION 2: GVII-G500 - continued**

### Hydraulics

Refer to the applicable approved manuals.

## **9. Fluid Capacities**

<b>Tanks</b>	<b>Pounds</b>	<b>U.S. Gallons*</b>	<b>Kilograms*</b>	<b>Litres*</b>
<b>Right</b>	15,098.5	2253.5	6848.5	8530.4
<b>Left</b>	15,098.5	2253.5	6848.5	8530.4
<b>Total</b>	30,197	4507	13697	17060.8

\* Fuel Density is 6.700 Pounds / U.S. Gallon and 0.8028 Kilograms / Litre

See applicable Weights and Balance Manual

## **10. Airspeed Limits**

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

## **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



**SECTION 2: GVII-G500 - continued**

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
G500	36,287 kg	36,106 kg	29,189 kg	23,632 kg
	80,000 lbs	79,600 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**

No 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 EASA.IM.A.595 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 EASA approved prior to any operation with passengers.



## **SECTION 2: GVII-G500 - continued**

### **21. Baggage/ Cargo Compartment**

Gulfstream G500 Weight and Balance Manual revision 1 dated August 2019 or later approved versions

### **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, however this implies no operations approval. This must be sought from the Aviation Authority of the country of registry of the individual aircraft.

### **24. Interiors Installations**

GVII cabin interior installations must be in accordance with Gulfstream 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-0001 and EASA approved Airplane Flight Manual Supplement ref. EASA-GVII-G500-2016-01, latest approved revisions.

For aircraft fitted with ASC 901, ASC 022, ASC 025, ASC 001A:

Gulfstream GVII-G500, FAA approved Flight Manual ref. GAC-AC-GVII-G500-OPS-0002, *GVII-G500 Airplane Flight Manual for Aircraft with ASC 901, ASC 022, ASC 025, ASC 001A*, as applicable and EASA approved Airplane Flight Manual Supplement ref. EASA-GVII-G500 (Issue 1)-2020-01, latest approved revisions

### **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 or *with ASC 901, ASC 022, ASC 025, ASC 001A*:

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:



**SECTION 2: GVII-G500 - continued**

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 or *with ASC 901, ASC 022, ASC 025, ASC 001A*:

Gulfstream GVII-G500 Weight and Balance Manual revision 1 dated August 2019 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 EASA approved Airplane Flight Manual. All placards required by either the EASA approved Flight Manual, 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.

**1. Master Minimum Equipment List**

- a. In agreement with TIP revision 5.1 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 EU 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 EU 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 EU 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 EU operator.



## **SECTION 2: GVII-G500 - continued**

### **VI. Notes**

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

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



## **SECTION 3: GVII-G600**

### **I. General**

#### **1. Type/ Model/ Variant**

GVII-G600 (G600)

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

December 18, 2013

#### **3. EASA Type Certification Application Date**

July 20, 2014

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

June 28, 2019

#### **5. EASA Type Certification Date**

GVII-G600<sup>(1)</sup>

11 May 2020

<sup>(1)</sup> 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 No.**

T000021AT

#### **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



### **SECTION 3: GVII-G600 - continued**

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.





## **SECTION 3: GVII-G600 - continued**

### **5. Special Conditions**

<u>CRI</u>	<u>Subject</u>
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**

<u>CRI</u>	<u>Subject</u>
F-36	Compliance against CS 25.1322

### **8. Equivalent Safety Findings**

<u>CRI</u>	<u>Subject</u>
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
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 detect system
E-36	APU Subpart J (Cover CRI)
E-37	Engine Control in Icing



## **SECTION 3: GVII-G600 - continued**

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. EASA.IM.A.595  
Fuel Venting: CS-34 amendment 1, ICAO Annex 16, Volume II, Third edition, Amendment 7, Part II, chapter II.

## **III. Technical Characteristics and Operational 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 07 Configuration Control Document 73A0400007-001 Rev C or later approved revision and post-TC modifications as defined in Report GVII-GER-3607, [Gulfstream GVII EASA Post-Type Certification Modifications (EASA Type Design)], later approved revision. 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**



### **SECTION 3: GVII-G600 - continued**

Two (2) Pratt & Whitney Canada Turbofan Engines Model: PW815GA (EASA Engine Type Certificate No. 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] EASA accepts 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.

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

<b>Tanks</b>	<b>Pounds</b>	<b>U.S. Gallons*</b>	<b>Kilograms*</b>	<b>Litres*</b>
<b>Right</b>	19,375	2,891.8	8788.5	10932.3



**SECTION 3: GVII-G600 - continued**

<b>Left</b>	19,375	2,891.8	8788.5	10932.3
<b>Total</b>	38,750	5,783.6	17577	21894.6

\* Fuel Density is 6.700 Pounds / U.S. Gallon and 0.8028 Kilograms / Litre

See applicable Weights and Balance Manual

**10. Airspeed Limits**

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

**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**

<b>Configuration</b>	<b>Maximum Taxi Weight</b>	<b>Maximum Take-off Weight</b>	<b>Maximum Landing Weight</b>	<b>Maximum Zero Fuel Weight</b>
<b>G600</b>	43,091 kg	42,910kg	34,836 kg	26,054 kg
	95,000 lbs	94,600 lbs	76,800 lbs	57,440 lbs



## **SECTION 3: GVII-G600 - continued**

### **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**

No 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 EASA.IM.A.595 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 EASA approved prior to any operation with passengers.

### **21. Baggage/ Cargo Compartment**

Gulfstream G600 Weight and Balance Manual revision 1 dated August 2019 or later approved versions

### **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



## **SECTION 3: GVII-G600 - continued**

SPA.ETOPS.100, however this implies no operations approval. This must be sought from the Aviation Authority of the country of registry of the individual aircraft.

### **24. Interiors Installations**

GVII cabin interior installations must be in accordance with Gulfstream 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 Flight Manual ref. GAC-AC-GVII-G600-OPS-0001 and EASA approved Airplane Flight Manual Supplement ref. EASA-GVII-G600-2018-01, latest approved revisions.

### **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:

<b>Component</b>	<b>Part No.</b>
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.

**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 EASA approved Airplane Flight Manual. All placards required by either the EASA approved Flight Manual, the applicable operating rules, or the Certification Basis must be installed in the airplane.

## **V. Operational Suitability Data (OSD)**



### **SECTION 3: GVII-G600 - continued**

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.

1. Master Minimum Equipment List
  - a. In agreement with TIP revision 5.1 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 EU 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 EU 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 EU 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 EU operator.

### **VI. Notes**

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



**SECTION: ADMINISTRATIVE****I. Acronyms and Abbreviations**

AFM	Airplane Flight Manual
AMM	Aircraft Maintenance Manual
APU	Auxiliary Power Unit
ASC	Aircraft Service Change
ASTM	American Society for Testing and Materials
CFR	Code of Federal Regulations
CRI	Certification Review Item
CS	Certification Specification
EASA	European Union Aviation Safety Agency
ETOPS	Extended-Range Twin-Engine Operational Performance Standards
FAA	Federal Aviation Administration
GA	Georgia
ICAO	International Civil Aviation Organization
KCAS	Knots Calibrated Airspeed
Kg	Kilograms
Lbs	U.S. Pounds
M	Mach
MAC	Mean Aerodynamic Chord
MMO	Maximum Operating Limit Speed (Mach)
No	Number
OSD	Operational Suitability Data
PSI	Pressure per Square Inch
PW	Pratt & Whitney
Ref	Reference
RVSM	Reduced Vertical Separation Minimums
STA	Station
STC	Supplemental Type Certificate
TC	Type Certificate
USA	United States of America
VMO	Maximum Operating Limit Speed (KCAS)
WBM	Weight and Balance Manual

**II. Type Certificate Holder Record**

Gulfstream Aerospace Corporation  
500 Gulfstream Road,  
Savannah, GA 31408  
United States of America





### III. Change Record

Issue	Date	Changes	TC issue
Issue 01	11 October 2019	Initial Issue	Initial Issue
Issue 02	21 October 2019	Section I, Paragraph IV: Typo corrected	
Issue 03	18 February 2020	Section I, Paragraph IV, 2 limitation added	
Issue 04	15 April 2020	Section I, Paragraph III, CIS fuel types added	
Issue 05	8 May 2020	Derivative model GVII-G600 added	GVII-G600
Issue 06	21 July 2020	Section 3, Paragraph III, CIS fuel types added Section 3, Paragraph IV, 1 Airplane Flight Manual (AFM): Typo corrected Section 2, Paragraph II, 10 Environmental Protection Standards: Updated Section 3, Paragraph II, 10 Environmental Protection Standards: Updated	
Issue 07	18 March 2021	Section 2, Paragraph II, 8 Equivalent Safety Findings: CRI D-50 added Section 3, Paragraph II, 8 Equivalent Safety Findings: CRI D-50 renumbered Section 2, Paragraph IV, Paragraphs 1, 2, 3: Added GVII-G500, FAA approved Flight Manual ref. GAC-AC-GVII-G500-OPS-0002, <i>GVII-G500 Airplane Flight Manual for Aircraft with ASC 901, ASC 022, ASC 025, ASC 001A</i> , as applicable and EASA approved Airplane Flight Manual Supplement ref. EASA-GVII-G500 (Issue 1)-2020-01, latest approved revisions	
Issue 08	12 August 2021	Section 2: Page 8, Added FAA ELOS TC-01-2010-0024-C-7-GVI R1 Section 3: Page 18, Added FAA ELOS TC-01-2010-0024-C-7-GVI R1 Section 24: Added Gulfstream Report Number GVII-GER-0149	

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