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)
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SECTION 1: GVII-G500

I. General
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. Type/ Model/ Variant
GVII-G500 (G500)

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

5. State of Design Authority Certification Application Date
September 30, 2013

6. EASA Type Certification Application Date
September 30, 2013

7. State of Design Authority Type Certificate Date
July 20, 2018

8. 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
September 30, 2013

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.
SECTION 1: GVII-G500 - continued

4. EASA Airworthiness Requirements


5. Special Conditions

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<th>Subject</th>
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<tbody>
<tr>
<td>A-MCSD-01</td>
<td>EASA OSD Maintenance Certifying Staff Data Certification Basis for Gulfstream GVII-G500</td>
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<tr>
<td>A-SIMD-01</td>
<td>EASA OSD Simulator Data for Gulfstream GVII-G500</td>
</tr>
<tr>
<td>B-01</td>
<td>Flight Envelope Protection</td>
</tr>
<tr>
<td>B-10</td>
<td>High Incidence Protection Function; Stall speeds, stall warning</td>
</tr>
<tr>
<td>D-25</td>
<td>High Altitude Operation</td>
</tr>
<tr>
<td>D-28</td>
<td>Single- and multiple-place side facing seats</td>
</tr>
<tr>
<td>D-42</td>
<td>Electronic Flight Control System: Control Surface Position Awareness</td>
</tr>
<tr>
<td>D-44</td>
<td>Leg Flail</td>
</tr>
<tr>
<td>E-04</td>
<td>Water/Ice in fuel system</td>
</tr>
<tr>
<td>E-05</td>
<td>Fuel Quantity Indicating System</td>
</tr>
<tr>
<td>E-08</td>
<td>Falling and blowing snow</td>
</tr>
<tr>
<td>E-41</td>
<td>Fire Extinguishing Plumbing and Wiring Connections</td>
</tr>
<tr>
<td>F-05</td>
<td>HIRF Protection</td>
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<tr>
<td>F-15</td>
<td>Data Link Recording</td>
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<tr>
<td>F-16</td>
<td>Security protection of Aircraft systems and networks</td>
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<td>F-18</td>
<td>Flight Instrument External Probes – Qualification in Icing Conditions</td>
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<td>F-32</td>
<td>Pilot Compartment View Requirement with Enhanced Flight Vision System</td>
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<td>F-33</td>
<td>Non-rechargeable Lithium Battery Installations</td>
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6. Exemptions

Not Applicable

7. Deviations

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<td>Compliance against CS 25.1322</td>
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8. Equivalent Safety Findings

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<tr>
<td>B-12</td>
<td>Electronic Flight Control System: Out-of-Trim Characteristics</td>
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<tr>
<td>D-03</td>
<td>Flight Control System Failure Criteria</td>
</tr>
<tr>
<td>D-11</td>
<td>Emergency Exit Signs</td>
</tr>
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<td>D-13</td>
<td>Emergency Exits</td>
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<tr>
<td>D-17</td>
<td>Exits and seat encroachment</td>
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<td>Hydrophobic Coating</td>
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<td>E-03</td>
<td>Thrust reverse testing</td>
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<td>E-12</td>
<td>Fan Zone Fire classification</td>
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<tr>
<td>E-30</td>
<td>Green Arc PWP Instrument</td>
</tr>
<tr>
<td>E-33</td>
<td>TRAS compartment absence of fire detect sys</td>
</tr>
</tbody>
</table>
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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

9. Elect to Comply
   CS 36 Amendment 3
   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: ICAO Annex 16, Volume I, Sixth Edition (Amendment 10), Chapter 14
    See TCDSN with same number as this TCDS.

III. Technical Characteristics and Operational Limitations

1. Type Design Definition
   Gulfstream drawing 72P0000000-001, GVII-G500 Aircraft Level Configuration Control
   Document, Revision C or later approved revision, as amended by Gulfstream ASC 007 for EASA
   aircraft, 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
   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.
SECTION 1: GVII-G500 - continued

7. Propellers
   Not Applicable

8. Fluids (Fuel, Oil, Additives, Hydraulics)
   Fuels: Pratt & Whitney Canada Turbofan Engines
   Refer to the applicable approved manuals.

<table>
<thead>
<tr>
<th>Kerosene Type</th>
<th>American</th>
<th>British</th>
<th>Canadian</th>
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<tr>
<td>ASTM D 1655, Jet A</td>
<td>DEF. STAN. 91-91</td>
<td>DEF. STAN. 91-87</td>
<td>CAN/CGSB-3.23</td>
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<tr>
<td>ASTM D 1655 Jet A-1</td>
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<td>MIL-T-83133 (JP-8)</td>
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<tr>
<th>French</th>
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<table>
<thead>
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<th>JP-5 Type</th>
<th>American</th>
<th>British</th>
<th>Canadian</th>
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<tbody>
<tr>
<td>MIL-DTL-5624</td>
<td>DEF STAN 91-86</td>
<td>CAN/GCSB -3.24</td>
<td></td>
</tr>
</tbody>
</table>

   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

<table>
<thead>
<tr>
<th>Tanks</th>
<th>Pounds</th>
<th>U.S. Gallons*</th>
<th>Kilograms*</th>
<th>Litres*</th>
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</thead>
<tbody>
<tr>
<td>Right</td>
<td>15,098.5</td>
<td>2253.5</td>
<td>6848.5</td>
<td>8530.4</td>
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<tr>
<td>Left</td>
<td>15,098.5</td>
<td>2253.5</td>
<td>6848.5</td>
<td>8530.4</td>
</tr>
<tr>
<td>Total</td>
<td>30,197</td>
<td>4507</td>
<td>13697</td>
<td>17060.8</td>
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</tbody>
</table>

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

10. Airspeed Limits

    \[ V_{MO}/M_{D} = 340\text{KCAS} / 0.925\text{M} \]

11. Flight Envelope

    Maximum Operating Altitude: 15,545 Metres (51,000 feet)
**SECTION 1: GVII-G500 - continued**

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 – 30 knots

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

13. Maximum Certified Masses

<table>
<thead>
<tr>
<th>Configuration</th>
<th>Maximum Taxi Weight</th>
<th>Maximum Take-off Weight</th>
<th>Maximum Landing Weight</th>
<th>Maximum Zero Fuel Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>G500</td>
<td>36,287 kg</td>
<td>36,106 kg</td>
<td>29,189 kg</td>
<td>23,632 kg</td>
</tr>
<tr>
<td></td>
<td>80,000 lbs</td>
<td>79,600 lbs</td>
<td>64,350 lbs</td>
<td>52,100 lbs</td>
</tr>
</tbody>
</table>

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
SECTION 1: GVII-G500 - continued

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 G500 Weight and Balance Manual revision G dated July 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 report “GVII-G500 and GVII-G600 Interior Certification Requirements Document”.

SECTION 1: GVII-G500 - continued

IV. Operating and Service Instructions

1. Airplane Flight Manual (AFM)
   For aircraft fitted with ASC 007:

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.

   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:

<table>
<thead>
<tr>
<th>Component</th>
<th>Part No.</th>
</tr>
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<tbody>
<tr>
<td>Single Motor Actuator</td>
<td>D97C00-669 or D97C00-687</td>
</tr>
<tr>
<td>Single Motor Actuator with Manual Override</td>
<td>D97L00-617</td>
</tr>
<tr>
<td>Pressure Fueling Solenoid SOV</td>
<td>L94-51-603</td>
</tr>
<tr>
<td>Fuel Boost Pump</td>
<td>P92C31-603</td>
</tr>
</tbody>
</table>

   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).

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.

   **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
SECTION 1: GVII-G500 - continued

a. In agreement with TIP revision 5.1 FAA document, GVIII-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.

3. 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.

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: 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

<table>
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<th>Date</th>
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<td>Issue 01</td>
<td>11 October 2019</td>
<td>Initial Issue</td>
<td>Initial Issue</td>
</tr>
<tr>
<td>Issue 02</td>
<td>21 October 2019</td>
<td>Section I, Paragraph IV: Typo corrected</td>
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<tr>
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<td>18 February 2020</td>
<td>Section I, Paragraph IV, 2 limitation added</td>
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