



## **TYPE-CERTIFICATE DATA SHEET**

**No. EASA.IM.A.169**

**for  
Gulfstream GVI**

**Type Certificate Holder:  
Gulfstream Aerospace Corporation**

**500 Gulfstream Road,  
Savannah, GA, 31408  
USA**

**For Model: GVI (G650/G650ER)**

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## **SECTION 1: GVI**

### **I. General**

This Data Sheet, which is part of Type Certificate No. IM.A.169, prescribes conditions and limitations under which the product for which the Type Certificate was issued meets the airworthiness requirements of the European Aviation Safety Agency.

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

GVI (G650/G650ER)

#### **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. FAA Certification Application Date**

September 18, 2007

#### **6. EASA Validation Application Date**

September 18, 2007

#### **7. FAA Type Certification Date**

G650<sup>(1)</sup>  
G650ER<sup>(2)</sup>

September 07, 2012  
October 07, 2014

#### **8. EASA Type Validation Date**

G650<sup>(1)</sup>  
G650ER<sup>(2)</sup>

December 21, 2012  
April 01, 2016

(1) G650 is the commercial / marketed designation to identify Gulfstream GVI aircraft model.

(2) G650ER (ER standing for Extended Range) is the commercial / marketed designation to identify Gulfstream GVI aircraft model having received the Gulfstream modification 'Gross Weight Increase', supported by the embodiment of the Gulfstream ASC 014.  
The G650ER is not considered as new aircraft model or variant.

SECTION 1: GVI – continued

**II. Certification Basis**

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

September 18, 2007

**2. FAA Type Certification Data Sheet No.**

T00015AT

**3. FAA Certification Basis**

September 18, 2007

**4. EASA Airworthiness Requirements**

EASA Certification Specification (CS) 25, Amendment 2, effective as of October 02, 2006, except where identified below.

Certification Specification All Weather Operations (CS AWO), Book 1 and 2 published October 17, 2003.

**5. Special Conditions**

<u>CRI</u>	<u>Subject</u>
B-101	High Incidence Protection Function
C-102	Limit engine torque loads sudden engine stoppage
C-103	Design Roll Manoeuvre requirement
C-104	Automatic speed protection for design dive speed (dive speed definition)
D-06	Pilot view “Hydrophobic coatings”
D-07	Towbarless Towing
D-09	Application of ARAC proposal 25.671
D-15	Side facing seats and Divans
D-23	Installation of Flight Crew Sleeping Facility
D-24	Airworthiness standards for Subsonic Transport aeroplanes to be operated above of 41,000 ft
D-26	Isolated compartments
D-29	Control surface position awareness/Electronic flight control systems
E-04	Fuel tank safety
E-05	Freezing fog
E-07	Uncontrollable high thrust
E-12	Water/Ice in Fuel System
E-13	Fuel Quantity Indicating System
E-101	In flight verification of fire detector circuitry
E-102	Inflight engine re-start
E-103	Fuel vent system Fire Protection

SECTION 1: GVI – continued

<u>CRI</u>	<u>Subject</u>
F-05	High Intensity Radiated Fields (HIRF) Protection
F-06	Lightning Protection - Direct Effects (EL)
F-07	Lightning Protection - Indirect Effects (IEL)
F-44	Controller Pilot Data Link Communication (CPDLC)
F-45	Flight Data recorders including Data Link Recording
F-55	In Seat Power Supply Systems (ISPSS)
F-101	Control Surface Position Awareness
F-102	Yaw Oscillations
F-104	Pilot Compartment View Requirements with an Enhanced Flight Vision System
F-105	Electronic Flight Control System Mode Annunciation
F-106	Operation without normal electrical power
F-108	Security of Network Server Systems
F-110	Installation of non-rechargeable lithium battery

**6. Exemptions**

Not applicable

**7. Deviations**

D-22	Doors between passenger compartments
E-18	Uncontrollable thrust increase

**8. Equivalent Safety Findings**

The following table lists the Equivalent Safety Finding requests made by Gulfstream which are specific to the GVI model.

<u>CRI</u>	<u>Subject</u>
B-12	Steep Approach and Landing Capability
C-105	Widespread Fatigue damage limits of validity
D-16	Emergency Exit Locator Signs
D-20	Emergency exit and encroachment
E-03	APU mounting system fireproofness
E-104	Fuel Filter Indication System
E-105	Turbine Engine tailpipe Fire Detection
E-106	Oil fire detection system
E-107	Digital-only Display of Engine HP Rotor speed
E-108	Flammable Fluid Carrying Components in Nacelle Areas Behind the Firewall
F-39	Standby (Magnetic) Compass Removal

SECTION 1: GVI – continued

FAA ELOS TC8700AT-T-C-7 Rev. 2 – Encroachment into Emergency Exits

**9. Elect to Comply**

- B-07 CS 25.1419 Am 3 “Flight in Icing Conditions”  
C-04 CS 25.561; 25.721; 25.963 Am 3 “Fuel Tank Integrity and Access Covers”

<u>NPA</u>	<u>Subject</u>
NPA 15/2004	CS 25.1302 Am 3 “Human Factors”
NPA 02/2006	CS 25.783 Am 4 “Doors”
NPA 18/2004	CS 25.1329 Am 4 “Flight Guidance Systems”
NPA 2008-13	CS 25.856 Am 6 “Thermal/Acoustic Insulation Materials”

**10. Environmental Protection Standards**

For aircraft not fitted with ASC 014:

- Noise: ICAO Annex 16, Volume I, Amendment 8(\*) (Fifth Edition), Chapter 4 for Noise; and
- Emissions: ICAO Annex 16, Volume II (Third Edition), Amendment 6, for Emissions.

For aircraft fitted with ASC 014:

- Noise: ICAO Annex 16, Volume I, Amendment 10(\*) (Fifth Edition), Chapter 4 for Noise; and
- Emissions: ICAO Annex 16, Volume II (Third Edition), Amendment 6, for Emissions.

For aircraft fitted with ASC 014 and (ASC 026, ASC 027, ASC 028, ASC 029, or ASC 082):

- Noise: ICAO Annex 16, Volume I, Amendment 11B(\*) (Fifth Edition), Chapter 4 for Noise; and
- Emissions: ICAO Annex 16, Volume II (Third Edition), Amendment 6, for Emissions.

(\*) Note: The difference between the ICAO Annex 16, Volume I amendment level is relevant with their applicability at the time of the certification exercises.

For details of the certified noise levels see TCDSN EASA.IM.A.169



SECTION 1: GVI – continued

**III. Technical Characteristics and Operational Limitations**

**1. Type Design Definition**

Gulfstream drawing 60P0000000-001, GVI Aircraft Level Configuration Control Document, revision M, or later approved revision, (EASA Project No. IM.A.169), as amended by Gulfstream ASC 10 for EASA aircraft, and post TC modifications as defined in Report GVI-GER-0331 “EASA POST-TYPE CERTIFICATION MODIFICATIONS (EASA TYPE DESIGN)”, latest 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	30.36 meters [99.62 feet]
Fuselage Length	30.41 meters [99.78 feet,]
Fuselage Width at Constant Section	2.74 meters [9.00 feet,]

**5. Engines**

Two (2) Rolls Royce Deutschland Ltd & Co. KG Turbofan Engine Models: BR700-725A1-12 (EASA Engine Type Certificate No. E.018)

Engine Limits:

<b>Engine Limits Data Sheet EASA E.018</b>	<b>GVI BR700-725A1-12</b>
<b>Static thrust at sea level (Standard Day)</b>	75.2 kN (16,900 lbs)

Other engine limitations: See the Engine Type Certificate Data Sheet EASA.E.018.

**6. Auxiliary Power Unit**

One (1) Honeywell RE220(GVI) EASA approval JTSO 6615.

For aircraft not fitted with ASC 014:

Limitations and Operating Procedures - See the FAA approved Flight Manual ref GAC-AC-G650-OPS-0001 and EASA approved Airplane Flight Manual Supplement ref EASA-G650-2012-01, latest approved revisions.

For aircraft fitted with ASC 014:

Limitations and Operating Procedures – See the FAA approved Flight Manual ref GAC-AC-G650ER-OPS-0001 and EASA approved Airplane Flight Manual Supplement ref EASA-G650ER-2015-01, latest approved revisions

**7. Propellers**

N/A

SECTION 1: GVI – continued

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

Fuels: Rolls Royce PLC Turbofan Engines\*

Refer to the applicable approved Manuals.

<b>Kerosene Type (AVTUR, JP8) NATO Code F24/F34/F35</b>		
<b>American</b>	<b>British</b>	<b>Canadian</b>
ASTM D1655, Jet A ASTM D1655, Jet A-1 MIL-T-83133, JP-8 MIL-DTL-83133, JP8	DEF STAN 91-87 DEF STAN 91-91	CAN/CGSB-3.23
<b>French</b>	<b>CIS</b>	<b>Chinese</b>
DCSEA 134/A	TS-1 & RT (GOST 10227, AM 1) GSTU 320.001149943.007-97 (RT Type) GSTU 320.001149943.011-99 (TS-1 Type)	GB 6537-2006 including the fuel additives limited to the concentrations stated in Annex A of GB 6537-2006 (see Chinese Fuel Additives note below)

**NOTE:**

The following Chinese fuel additives are approved for use on this Gulfstream aircraft model:

1. Static Dissipater additive: Stadis 450
2. Antioxidant: 2,6-ditertiary-butyl-4-methyl-phenol
3. Icing Inhibitor: Ethylene Glycol Monomethyl Ether or Diethylene Glycol Monomethyl Ether
4. Metal Deactivator: N,N'-disalicylidene 1,2-propanediamine

The following Chinese fuel additives are not approved for use on this Gulfstream aircraft model:

1. Static Dissipater additive T1502
2. Antifriction additives T1601 or T1602

**Oils**

Refer to the applicable approved Manuals.

**Hydraulics**

Refer to the applicable approved Manuals.

SECTION 1: GVI – continued

**9. Fuel Capacities**

For aircraft not fitted with ASC 014, the following fuel capacities apply:

<b>Tanks</b>	<b>Pounds</b>	<b>U.S. Gallons*</b>	<b>Kilograms*</b>	<b>Litres*</b>
<b>Right</b>	22,100	3,298	10,024	12,486
<b>Left</b>	22,100	3,298	10,024	12,486
<b>Total</b>	44,200	6,597	20,048	24,972

For aircraft fitted with ASC 014, the following fluid capacities apply:

<b>Tanks</b>	<b>Pounds*</b>	<b>U.S. Gallons*</b>	<b>Kilograms*</b>	<b>Litres*</b>
<b>Right</b>	24,100	3,597	10,931	13,616
<b>Left</b>	24,100	3,597	10,931	13,616
<b>Total</b>	48,200	7,194	21,863	27,233

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

See applicable Weights and Balance Manual

**10. Airspeed Limits**

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

For aircraft not fitted with ASC 014:

For other airspeed limits, see the FAA approved Flight Manual ref GAC-AC-G650-OPS-0001 and EASA approved Airplane Flight Manual Supplement ref EASA-G650-2012-01, latest approved revisions. (Section 1)

For aircraft fitted with ASC 014:

For other airspeed limits, see the FAA approved Flight Manual ref GAC-AC-G650ER-OPS-0001 and EASA approved Airplane Flight Manual Supplement ref EASA-G650ER-2015-01, latest approved revisions. (Section 1):

**11. Flight Envelope**

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

For aircraft not fitted with ASC 014:

See the FAA approved Flight Manual ref GAC-AC-G650-OPS-0001 and EASA approved Airplane Flight Manual Supplement ref EASA-G650-2012-01, latest approved revisions.

For aircraft fitted with ASC 014:

See the FAA approved Flight Manual ref GAC-AC-G650ER-OPS-0001 and EASA approved Airplane Flight Manual Supplement ref EASA-G650ER-2015-01, latest approved revisions.

SECTION 1: GVI – continued

**12. Operating Limitations**

**Gulfstream GVI (G650)**

For aircraft not fitted with ASC 014:

See the FAA approved Flight Manual ref GAC-AC-G650-OPS-0001 and EASA approved Airplane Flight Manual Supplement ref EASA-G650-2012-01, latest approved revisions.

For aircraft outfitted with ASC 101 (Steep Approach and Landing):

See the FAA approved Flight Manual ref GAC-AC-G650-OPS-0001 and EASA approved Airplane Flight Manual Supplement EASA-G650-2012-01, and EASA-G650-2021-01, latest approved revisions.

For aircraft outfitted with ASC 109 (CAT II Operations):

See the FAA approved Flight Manual ref GAC-AC-G650-OPS-0001 and EASA approved Airplane Flight Manual Supplement EASA-G650-2012-01, and FAA approved Flight Manual Supplement G650-2017-04, latest approved revisions.

**Gulfstream GVI (G650ER)**

For aircraft fitted with ASC 014:

See the FAA approved Flight Manual ref GAC-AC-G650ER-OPS-0001 and EASA approved Airplane Flight Manual Supplement ref EASA-G650ER-2015-01, latest approved revisions.

For aircraft outfitted with ASC 101 (Steep Approach and Landing):

See the FAA approved Flight Manual GAC-AC-G650ER-OPS-0001 and EASA approved Airplane Flight Manual Supplement EASA-G650ER-2015-01 and EASA-G650ER-2021-01, latest approved revisions.

For aircraft outfitted with ASC 109 (CAT II Operations):

See the FAA approved Flight Manual GAC-AC-G650ER-OPS-0001 and EASA approved Airplane Flight Manual Supplement EASA-G650ER-2015-01 and FAA approved Flight Manual Supplement G650ER-2017-04, latest approved revisions

**12.1 Approved Operations**

The airplane is approved for the following kinds of flight and 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)
- Low weather minima (CAT II operations)
- RVSM
- Wet and contaminated runway operations (Appendix D data to FAA approved AFM)
- Steep Approach and Landing

**12.2 Other Limitations**

SECTION 1: GVI – continued

Runway slope  $\pm 2\%$

Maximum Takeoff and Landing Tailwind Component – 10 knots

Maximum Operating Altitude – 15,545 m (51,000 feet) pressure altitude

Maximum demonstrated crosswind component for takeoff and landing is 28 knots.

When operating in a flight control law mode other than Normal (i.e. Alternate, Direct, or Backup), maximum crosswind component for Landing is 10 knots.

SECTION 1: GVI – continued

**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>G650</b>	45,359 kg	45,177 kg	37,874 kg	27,442 kg
	100,000 lbs	99,600 lbs	83,500 lbs	60,500 lbs
<b>G650ER (ASC 014)</b>	47,173 kg	46,991 kg	37,874 kg	27,442 kg
	104,000 lbs	103,600 lbs	83,500 lbs	60,500 lbs
<b>G650ER (ASC 14 + ASC 26)</b>	33,974 kg	33,974 kg	33,974 kg	27,442 kg
	74,900 lbs	74,900 lbs	74,900 lbs	60,500 lbs
<b>G650ER (ASC 14 + ASC 27)</b>	40,823 kg	40,823 kg	37,874 kg	27,442 kg
	90,000 lbs	90,000 lbs	83,500 lbs	60,500 lbs
<b>G650ER (ASC 14 + ASC 28)</b>	43,091 kg	43,091 kg	37,874 kg	27,442 kg
	95,000 lbs	95,000 lbs	83,500 lbs	60,500 lbs
<b>G650ER (ASC 14 + ASC 29)</b>	45,359 kg	45,177 kg	37,874 kg	27,442 kg
	100,000 lbs	99,600 lbs	83,500 lbs	60,500 lbs
<b>G650ER (ASC 14 + ASC 82)</b>	45,681 kg	45,550 kg	37,874 kg	27,442 kg
	100,710 lbs	100,310 lbs	83,500 lbs	60,500 lbs
<b>G650 (ASC 137)</b>	45,359 kg	45,177 kg	29,483 kg	27,442 kg
	100,000 lbs	99,600 lbs	65,000 lbs	60,500 lbs
<b>G650ER (ASC 137)</b>	47,173 kg	46,991 kg	29,483 kg	27,442 kg
	104,000 lbs	103,600 lbs	65,000 lbs	60,500 lbs

Note: The maximum weight limits may be less as limited by centre of gravity, fuel density and fuel loading limits, as given in the EASA approved Airplane Flight Manual Supplement (See Section 1).

For aircraft not fitted with ASC 014:

See the FAA approved Flight Manual ref GAC-AC-G650-OPS-0001 and EASA approved Airplane Flight Manual Supplement ref EASA-G650-2012-01, latest approved revisions. (Section 1).

For aircraft fitted with ASC 014:

SECTION 1: GVI – continued

See the FAA approved Flight Manual ref GAC-AC-G650ER-OPS-0001 and EASA approved Airplane Flight Manual Supplement ref EASA-G650ER-2015-01, latest approved revisions (Section 1).

For aircraft fitted with ASC 014 and (ASC 026, ASC 027, ASC 028, ASC 029, or ASC 082):

See the FAA approved Flight Manual Supplement ref AFMS EASA-G650-2016-01 or AFMS EASA-G650ER-2016-02, latest approved revisions.

**14. Centre of Gravity Range**

For aircraft not fitted with ASC 014:

See the FAA approved Flight Manual ref GAC-AC-G650-OPS-0001 and EASA approved Airplane Flight Manual Supplement ref EASA-G650-2012-01, latest approved revisions (Section 1).

For aircraft fitted with ASC 014:

See the FAA approved Flight Manual ref GAC-AC-G650ER-OPS-0001 and EASA approved Airplane Flight Manual Supplement ref EASA-G650ER-2015-01, latest approved revisions (Section 1).

**15. Datum**

For weight and balance purposes, the zero datum is 100 inches forward of the radome

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

4.756 meters [187.24 inches]

**17. Levelling Means**

Longitudinal: Lugs at left nose well door longeron STA 163.0 & 174.0

Lateral: Lugs on rear face of bulkhead STA 148.5 in nose wheel well

**18. Minimum Flight Crew**

Two (2): Pilot and co-pilot

**19. 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 takeoff and landing.

Note: Type Certificate EASA.IM.A.169 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.

**20. Baggage/ Cargo Compartment**

For aircraft not fitted with ASC 014:

SECTION 1: GVI – continued

Gulfstream G650 Weight and Balance Manual Issue 3, dated April 2012 or later approved revisions.

For aircraft fitted with ASC 014:

Gulfstream G650ER Weight and Balance Manual revision 1 dated April 2015 or later approved revisions.

**21. Wheels and Tyres**

Nose wheels TSO C135a, Tyres Twin 21 x 7.25-10 bias ply (TSO C62e) nominal pressure 216 psi.

Main wheels TSO C135a, Tyres Twin H37.5 x 12.0 R 19 (TSO C62e) nominal pressure 216 psi.

See Aircraft Maintenance Manual for proper servicing of tires

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

The following EDTO capabilities granted by EASA are valid for Commercial Air Transport Operations.

Operational approval must be sought from the State of Registry of each individual aircraft.

The GVI aircraft model has been demonstrated compliant with the design and reliability requirement for 180min diversion time from an adequate aerodrome without ETOPS.

**23. EVS and HUD Operations**

The GVI Type Design has been shown to be operable in accordance with Commission Regulation (EU) No 965/2012, paragraphs SPA.LVO.100 and CAT.OP.MPA.110. It has been demonstrated compliant with the appropriate design and reliability requirements defined in CRI F-51.

Operational approval must be sought from the State of Registry of each individual aircraft.

**24. Interiors Installations**

GVI cabin interior installations must be in accordance with Gulfstream report GVI-GER-6855 “GVI Interior Certification Requirements Document”.

**IV. Operating and Service Instructions**

**1. Airplane Flight Manual (AFM)**

Gulfstream GVI (G650)

For aircraft not fitted with ASC 014:

Gulfstream GVI (G650) AFM, FAA approved Flight Manual ref GAC-AC-G650-OPS-0001 and EASA approved Airplane Flight Manual Supplement ref EASA-G650-2012-01, latest approved revisions.

For aircraft outfitted with ASC 101 (Steep Approach and Landing):

See the FAA approved Flight Manual ref GAC-AC-G650-OPS-0001 and EASA approved Airplane Flight Manual Supplement EASA-G650-2012-01, and EASA-G650-2021-01, latest approved revisions.



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For aircraft outfitted with ASC 109 (CAT II Operations):

See the FAA approved Flight Manual ref GAC-AC-G650-OPS-0001 and EASA approved Airplane Flight Manual Supplement EASA-G650-2012-01, and FAA approved Flight Manual Supplement G650-2017-04, latest approved revisions.

Gulfstream GVI (G650ER)

For aircraft fitted with ASC 014:

Gulfstream GVI (G650ER) FAA approved Flight Manual ref GAC-AC-G650ER-OPS-0001 and EASA approved Airplane Flight Manual Supplement ref EASA-G650ER-2015-01, latest approved revisions.

For aircraft outfitted with ASC 101 (Steep Approach and Landing):

See the FAA approved Flight Manual GAC-AC-G650ER-OPS-0001 and EASA approved Airplane Flight Manual Supplement EASA-G650ER-2015-01 and EASA-G650ER-2021-01, latest approved revisions.

For aircraft outfitted with ASC 109 (CAT II Operations):

See the FAA approved Flight Manual GAC-AC-G650ER-OPS-0001 and EASA approved Airplane Flight Manual Supplement EASA-G650ER-2015-01 and FAA approved Flight Manual Supplement G650ER-2017-04, latest approved revisions.

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

For aircraft not fitted with ASC 014:

Component life limitations are provided in Section 05-10-10, Chapter 5 of the GVI (G650) Aircraft Maintenance Manual.

Maintenance criteria to comply with the certification maintenance requirements are provided in Chapter 5 of the GVI (G650) Aircraft Maintenance Manual.

For aircraft fitted with ASC 014:

Component life limitations are provided in Section 05-10-10, Chapter 5 of the GVI (G650ER) Aircraft Maintenance Manual.

Maintenance criteria to comply with the certification maintenance requirements are provided in Chapter 5 of the GVI (G650 ER) Aircraft Maintenance Manual.

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

For aircraft not fitted with ASC 014:

Gulfstream G650 Weight and Balance Manual Issue 3 dated April 2012 or later approved revisions (Note 1).

For aircraft fitted with ASC 014:

Gulfstream G650ER Weight and Balance Manual revision 1 dated April 2015 or later approved revisions (Note 1).

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,

SECTION 1: GVI – continued

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 Aviation Safety Agency under the EASA Type Certificate EASA.IM.A.169, as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014.

**1. Master Minimum Equipment List**

- a. Master Minimum Equipment List (MMEL), reference: EASA-MMEL-AC-G650-OPS-0004 dated 7 January 2013, as per the defined Operational Suitability Data Certification Basis, recorded in the Operational Review Item (ORI) n°4 Issue 2, or later approved revisions
- b. Required for entry into service by EU operator.

**2. Flight Crew Data**

- a. The Flight Crew Data (FCD), reference: EASA-OSD-FC-GVI-GAC-002, Revision 2, dated 20 Jan 2017, or later approved revisions, as per the defined Operational Suitability Data Certification Basis recorded in the same document [Section 2].
- b. Required for entry into service by EU operator.
- c. Pilot Type Rating: GVI.

Note: These data cover the Gulfstream GVI (G650) aircraft model, including:

- G650 fitted with ASC 901 - PlaneView II Avionics Software Version "Block Point 1" -,
- G650 fitted with ASC 902 - PlaneView II Avionics Software Version "Block Point 2" -,
- G650 fitted with ASC 014 – Gross Weight Increase / G650ER.
- G650 fitted with ASC 037 – Flight Control Computer (FCC) version 6.2 software
- G650 fitted with ASC 055 - Autobrakes system

**3. Cabin Crew Data**

Not applicable

**VI. Notes**

## **SECTION 2: ADMINISTRATIVE**

### **I. Acronyms and Abbreviations**

A/C	Aircraft
AFM	Airplane Flight Manual
AMC	Acceptable Means of Compliance
APU	Auxiliary Power Unit
ASC	Gulfstream Aircraft Service Change
CG	Centre of Gravity
CRI	Certification Review Item
EASA	European Aviation Safety Agency
EDTO	Extended Diversion Time Operations
EU	European Union
EVS	Enhanced Vision System
FAA	Federal Aviation Administration
HUD	Head Up Display
ICA	Instructions for Continued Airworthiness
ICAO	International Civil Aviation Organization
IFR	Instrument Flight Rules
JAA	Joint Aviation Authorities
MTOM	Maximum Take-off Mass
NPA	Notice of Proposed Amendment
OSD	Operational Suitability Data
RR	Rolls Royce
RVSM	Reduced Vertical Separation Minima
TCDS	Type Certificate Data Sheet
TCDSN	Type Certificate Data Sheet for Noise
VFR	Visual Flight Rules
WBM	Weight and Balance Manual

### **II. Type Certificate Holder Record**

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### **III. Change Record**

<b>Issue</b>	<b>Date</b>	<b>Changes</b>	<b>TC issue</b>
Issue 01	21 December 2012	Initial Issue for Model GVI	Initial Issue, 21 December 2012
Issue 02	09 October 2014	-minor editorial changes -list of approved fuels extended to Russian Kerosene (Major change project 0010032587) -list of approved fuels extended to Chinese Kerosene (Major change project 0010032587)	
Issue 03	09 December 2015	-Editorial changes to page one	

SECTION 1: GVI – continued

		-OSD implementation in section V -CRI C-105 and E-101 withdrawn from the lists (withdrawn during TC process)	
Issue 04	18 May 2016	-Editorial change - Introduction of G650ER (Increased Gross Weight) modification	No Change
Issue 05	15 December 2017	- Minor editorial changes - List of approved fuels updated to reflect the approved fuels identified in the AFM (MIL-DTL-83133, JP8 and NATO Code F24). - Introduction of (optional) G650ER operational weight variants. - Revised Maximum Seating Capacity (Note). - Updated the Acronyms and Abbreviations section.	No Change
Issue 06	10 April 2019	- Section 22 – Update of the EDTO Section for consistency, removing limitations that are covered by operational requirements and remove references to operational requirement that can be subject to changes.	No Change
Issue 07	23 October 2020	- Section 1 (II) (5) Special Condition F-110 added	No Change
Issue 08	26 May 2021	- Section 13 Added ASC 137 for G650 & G650ER	No Change
Issue 09	12 August 2021	- Section 8, Deleted ref CRI D-27. Added FAA ELOS TC8700AT-T-C-7 Rev. 2 – Encroachment into Emergency Exits - Added Section 24. Interiors Installations	No Change
Issue 10	23 June 2022	- Minor editorial changes - Cover Page; added G650ER - Section I (1) added G650ER -Section II (8) added CRI B-12 - Section III (12) added EASA SAL AFMSs and FAA CAT II AFMSs. - Section III (12.1) added Steep Approach and Landing Capability - Section IV (1) added the EASA SAL AFMSs and CAT II FAA AFMS - Section V (2.a) added or later FAA approved revisions	No Change

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