



## **REPUBLIC of SAN MARINO CIVIL AVIATION AUTHORITY**

**Information Circular No. 40 Issue 01**

### **AMOC for Gulfstream airplanes regarding FAA AD 2023-10-02**

This circular serves to inform all Gulfstream operators about an Alternative Method of Compliance (AMOC) issued by the FAA that affects AD 2023-10-02, applicable to all serial numbers of Gulfstream G-159, G-1159, G-1159A, G-1159B, G-IV, GIV-X, GV, GV-SP, GVI, GVII-500 and GVII-G600 aircraft.

The Civil Aviation Authority has recently become aware that some operators are not aware that the AFM Supplement bearing Document Number: AFMS-GAC-LC-2021-01, titled FAA APPROVED AIRPLANE FLIGHT MANUAL SUPPLEMENT FOR ALL GULFSTREAM LARGE CABIN MODELS FOR 5G WIRELESS BROADBAND INTERFERENCE WITH RADIO ALTIMETER DATA (AD-2023-10-02), is an Alternative Method of Compliance (AMOC) for the aforementioned Airworthiness Directive (AD).

All Gulfstream operators are required to verify whether their non-5G C-Band interference-tolerant airplanes have complied with the Airworthiness Directive using the FAA approved AMOC by inserting the applicable Gulfstream AFM supplement into the AFM or by including it in the Gulfstream Application Planebook. For operators who have used this method of compliance, it is necessary to apply to the San Marino CAA for approval of the AMOC using Form SM 98. Failing to do so will result in the airplane being technically non-compliant with the AD, which would invalidate the Certificate of Airworthiness with all associated consequences.

An airplane is considered non-applicable or compliant with AD 2023-10-02 if it is either radio altimeter tolerant or if Figure 4 from paragraph (i) of the AD has been included in the AFM. In such cases, no further action is required.

Yours sincerely,

Eng. Marco Conti  
Director General

Attachment: FAA AMOC incl. Gulfstream AFMS & MOL



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

Aviation Safety  
Aircraft Certification Service  
Compliance & Airworthiness Division

Operational Safety Branch  
10101 Hillwood Pkwy  
Fort Worth, TX 76177

*June 29, 2023*

In Reply

Refer To: 720-23-00142R1

Brittnee Kikolski  
Continued Operational Safety  
Gulfstream Aerospace Corporation  
P.O. Box 2206, M/S JSAV-R4P  
Savannah, GA 31402-2206

Subject: Approval of Alternative Method of Compliance (AMOC) to Airworthiness  
Directive (AD) 2023-10-02, Paragraph (i)(1)

Reference: Gulfstream AMOC Request Letter SEI-23-007, dated June 15, 2023

Dear Ms. Kikolski:

The Federal Aviation Administration (FAA) received your proposal dated June 15, 2023 proposing an AMOC to paragraph (i)(1) of AD 2023-10-02. This letter is provided to revise a typographical error for the AD reference in paragraph two of the June 27, 2023 letter.

The manager of the Operational Safety Branch approves your proposal to use a multi-ship Airplane Flight Manual Supplement (AFMS) to provide the limitations mandated by AD 2023-10-02 paragraph (i)(1):

- Gulfstream AFMS-GAC-LC-2021-01, "AIRPLANE FLIGHT MANUAL SUPPLEMENT FOR ALL GULFSTREAM LARGE CABIN MODELS FOR 5G WIRELESS BROADBAND INTERFERENCE WITH RADIO ALTIMETER DATA (AD-2023-10-02)," Revision 1, dated June 15, 2023.

The acceptable level of safety is substantiated by the fact that AFMS-GAC-LC-2021-01, Revision 1, incorporates all of the limitations contained in AD 2023-10-02, paragraph (i)(1), for all of the affected Gulfstream models.

In addition, the manager of the Operational Safety Branch approves your AMOC proposal to use an electronic flight bag (EFB) version of AFMS-GAC-LC-2021-01, Revision 1, in lieu of inserting a copy of the AD into the existing AFM.

In accordance with FAA Order 8110.103B, the following limitations apply to this AMOC:

1. This AMOC approval applies to all serial numbers of Gulfstream G-159, G-1159, G-1159A, G-1159B, G-IV, GIV-X, GV, GV-SP, GVI, GVII-G500, and GVII-G600 aircraft.
2. This AMOC is transferable with the aircraft to a new owner/operator who operates the aircraft under U.S. registry.
3. All provisions of AD 2023-10-02 that are not specifically referenced above remain fully applicable and must be complied with accordingly.
4. Before using this AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local Flight Standards District Office/Certificate Holding District Office.
5. The preceding paragraph also applies to any applicable foreign-registered aircraft upon transfer of the aircraft to the U.S. registry if compliance with the AMOC has not been accomplished.
6. This AMOC only applies to the FAA AD listed above. The FAA does not have the authority to approve this as an AMOC to any AD issued by another civil aviation authority (CAA). Approval of an AMOC to another CAA's AD must come from that CAA.

If you have any questions, or need additional information, please contact Brett Portwood, Continued Operational Safety Technical Advisor, by telephone at (562) 627-5350, or by email at [brett.portwood@faa.gov](mailto:brett.portwood@faa.gov).

Sincerely,

**TOMASZ**  
**RAKOWSKI**

Digitally signed by  
TOMASZ RAKOWSKI  
Date: 2023.06.29  
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Tomasz Rakowski  
Acting Manager, Operational Safety Branch  
Compliance & Airworthiness Division  
Aircraft Certification Service

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# Gulfstream™

A GENERAL DYNAMICS COMPANY

Gulfstream Aerospace Document Number: AFMS-GAC-LC-2021-01

Gulfstream Aerospace Corporation  
P.O. Box 2206  
Savannah, GA 31402-2206

FAA APPROVED AIRPLANE FLIGHT MANUAL SUPPLEMENT FOR ALL  
GULFSTREAM LARGE CABIN MODELS FOR 5G WIRELESS BROADBAND  
INTERFERENCE WITH RADIO ALTIMETER DATA (AD-2023-10-02)

Registration Number: \_\_\_\_\_

Serial Number: \_\_\_\_\_

This Supplement must be attached to the current FAA Approved Airplane Flight Manual for Gulfstream airplane models G-159, G-1159, G-1159B, G-1159A, G-IV, GIV-X, GV, GV-SP, GVI, GVII-G500, GVII-G600.

The information contained herein supplements or supersedes the information of the basic Airplane Flight Manual. For Limitations, Normal Procedures, Abnormal Procedures, Emergency Procedures, and the Performance Information not contained in this supplement, consult the basic Airplane Flight Manual.

FAA Approved:



 **Robert Glasscock**  
ODA Lead Administrator  
Gulfstream Aerospace Corporation  
ODA-51131-CE  
Date: June 15, 2023

## SUPPLEMENT HIGHLIGHTS

1. This Airplane Flight Manual Supplement (AFMS) provides FAA operators with limitations on certain operations in the presence of "5G" wireless broadband signals.
2. **See below for changes to the Airplane Flight Manual:**
  - a. Chapter 01: Limitations. See Navigation.
  - b. Chapter 02: Normal Operations. No changes.
  - c. Chapter 03: Abnormal Procedures. No changes.
  - d. Chapter 3A: Warning CAS Messages. No changes.
  - e. Chapter 3B: Caution CAS Messages. No changes.
  - f. Chapter 3C: Advisory CAS Messages. No changes.
  - g. Chapter 3D: Status CAS Messages. No changes.
  - h. Chapter 3E: Other Annunciations and Procedures. No changes.
  - i. Chapter 04: Emergency Procedures. No changes.
  - j. Chapter 05: Performance. No changes.
  - k. Appendixes. No changes.

**RECORD OF REVISIONS**

<b>Revision No</b>	<b>Dated</b>
Basic Issue	2021-12-15
Revision 1	2023-06-15

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## Log of Revision 1

Listed below are the highlights of Revision 1 along with their respective Section and Description of Change. Remove and insert all affected pages as listed in the List of Effective Pages and enter Revision 1 dated June 15, 2023 to the Log/Record of Revisions Sheet.

FAA APPROVED BY:



Robert Glasscock

ODA Lead Administrator

Gulfstream Aerospace Corporation

ODA-511131-CE

The following topics were revised in this revision:

SECTION	DESCRIPTION OF CHANGE
Cover Page	Revised supplement title. Updated supplement formatting to match applicable AFM structure. Deleted owner information page.
01-34	Navigation: Revised figure: Radio Altimeter Flight Restrictions. Revised Note.

END OF LOG OF REVISIONS

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**LIST OF EFFECTIVE PAGES**

<u>Section</u>	<u>Pages</u>	<u>Date</u>	<u>Section</u>	<u>Pages</u>	<u>Date</u>
01-34		2023-06-15			

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**CONTENTS**

**SUBJECT**

**CHAPTER 01 - LIMITATIONS**

Navigation

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## CHAPTER 01 – LIMITATIONS

### Navigation

#### Navigation

For Gulfstream airplane models G-159, G-1159, G-1159A, and G-1159B amend Chapter 1 Limitations to include the following restrictions:

For Gulfstream airplane models G-IV, GIV-X, GV, GV-SP, GVI, GVII-G500, and GVII-G600 amend Chapter 1 Limitations Section 01-34-00 to include the following restrictions:

**Figure 1. Radio Altimeter Flight Restrictions**

(Required by AD 2023-10-02)

#### Radio Altimeter Flight Restrictions

Due to the presence of 5G C-Band wireless broadband interference, when operating in the contiguous U.S. airspace, the following operations requiring radio altimeter are prohibited:

- Instrument Landing System (ILS) Instrument Approach Procedures (IAP), SA CAT I, SA CAT II, CAT II, and CAT III
- Automatic Landing operations
- Manual Flight Control Guidance System operations to landing/head-up display (HUD) to touchdown operation
- Use of Enhanced Flight Vision System (EFVS) to touchdown under 14 CFR 91.176(a).

As of February 1, 2024, this airplane must not operate under 14 CFR part 121 in the contiguous U.S.

#### 1. Definitions

- **SA CAT I:** Special Authorization CAT I Approach Procedure
- **SA CAT II:** Special Authorization CAT II Approach Procedure
- **Manual Flight Control Guidance System:** CAT IIIA guidance system flown using HUD guidance

#### Note

Gulfstream Large-Cabin aircraft have not been approved for the following:

- Automatic landing operations
- SA CAT II approach operations
- CAT III approach operations
- Manual Flight Control Guidance System operations (as defined above)

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## MAINTENANCE AND OPERATIONS LETTER

June 28, 2023  
ALL-MOL-23-0012

### FLIGHT CREW OPERATIONAL INFORMATION

**TO:** All Gulfstream Operators

**SUBJECT:** General (ATA 00) - Airworthiness Directive 2023-10-02 - Wireless Broadband (5G C-Band) Interference Affecting Radio Altimeters - Update

As communicated via Maintenance and Operations Letter (MOL) ALL-MOL-23-0009, the Federal Aviation Administration (FAA) released Airworthiness Directive (AD) 2023-10-02 applicable to all transport and commuter category airplanes equipped with a radar/radio altimeter. The AD supersedes/replaces AD 2021-23-12 and provides instructions to revise the Limitations section of the Airplane Flight Manual (AFM) in accordance with the requirements of paragraphs (h) and (i) of the AD. The AD Figures 3 and 4 apply restrictions to affected airplanes and their approach and landing operations in proximity to 5G wireless transmissions, which include some capabilities for which Gulfstream aircraft are approved.

To address the large cabin aircraft, Gulfstream has released the attached AFM Supplement AFMS-GAC-LC-2021-01, Revision 1, dated June 15, 2023, to revise the Limitations section of the AFM. In conjunction with the AFMS release, Gulfstream applied for and received the attached Alternative Methods of Compliance (AMOC) document to allow the use of the AFMS for compliance with the AD on large cabin aircraft. The AFMS includes exact verbiage required to satisfy the requirements of paragraph (i)(1) of the AD and is available in the individual aircraft AFM supplement sections on [MyGulfstream.com](http://MyGulfstream.com) and in PlaneBook as applicable.

To address the mid cabin aircraft, Gulfstream is revising the Limitations section of the AFMs via Temporary Revisions (TRs). We expect the mid-cabin TRs to be released by Friday, June 30, 2023, in time to meet the AD deadline. The mid cabin TRs include exact verbiage required to satisfy the requirements of paragraph (i) of the AD, and will also be available on [MyGulfstream.com](http://MyGulfstream.com) and in PlaneBook as applicable.

Supplements and temporary revisions will be mailed to operators using paper-copy manuals. In the interim, affected operators are advised to insert a copy of the AD into their AFMs on or before June 30, 2023.

This MOL informs you of the pending release of the mid cabin TRs, the release of the large cabin AFMS and the associated AMOC document.

If you have questions or comments regarding this communication, please contact Customer Support at 800-810-GULF (4853) or +1 912-965-4178, or by email at [technical.operations@gulfstream.com](mailto:technical.operations@gulfstream.com).

Sincerely,

Charlie Gray  
Vice President, Flight Operations and Test