



## 適航指令發布單

## Airworthiness Directive Issuance Form

民航局AD編號 AD Number	CAA-2016-11-009	發布日期 Date issued	2016/11/29
適用之航空產品 Applied to (models, serial numbers or part numbers, as applicable)	Gulfstream Aerospace Corporation Model GV airplanes, certificated in any category, serial numbers 501 through 693 inclusive and serial number 699; and Model GV-SP airplanes, certificated in any category, serial numbers 5001 through 5433 inclusive.		
主旨摘要	Time and Limitation - Maintenance or Inspection Program - Revision		
民航局 CAA  <input type="checkbox"/> 本國產品 Native products  <input type="checkbox"/> 其他個案 Other	設計國民航主關機構 Original Authorities <input checked="" type="checkbox"/> FAA <input type="checkbox"/> EASA <input type="checkbox"/> Brazil <input type="checkbox"/> Transport Canada Civil Aviation <input type="checkbox"/> DGAC <input type="checkbox"/> Germany LBA <input type="checkbox"/> CAA-NL <input type="checkbox"/> UK CAA <input type="checkbox"/> Japan CAB <input type="checkbox"/> CAA of Israel <input type="checkbox"/> Other _____		
	設計國AD編號 Original AD number	2016-22-04	
	1. 直接採用原AD之內容?(Is the original AD directly adopted?) <input checked="" type="checkbox"/> 是(Yes) <input type="checkbox"/> 否(No) ____ a. 生效日期另訂為(Re-specify the effective date as) : _____ b. 執行時限另訂為(Re-specify the compliance time or period as) : _____ 2. 使用人是否需要將AD執行結果向民航局提出報告?(Do Users need to report the status of compliance to the CAA?) <input type="checkbox"/> 是(Yes) <input checked="" type="checkbox"/> 否(No)		
備註 Note	Gulfstream Document GV-GER-9973, Summary of Changes to the GV Series Airworthiness Limitations, Revision C, dated January 8, 2015. The revision level and date of this document are not specified on the title page of the document.		
註：1. AD內容後附。 2. 航空器產品使用人得向民航局提出豁免、替代符合方法、執行時限之展延之申請。 3. 如有任何問題，請聯絡交通部民用航空局初始適航科。Tel：(02)2349-6331~3, Fax：(02)2545-8464, e-mail：adcaa@mail.caa.gov.tw Note：1. The AD text is enclosed. 2. Exemption, an alternative method of compliance or adjustment of the compliance time may be proposed to the CAA for approval. 3. For further information, please contact Civil Aeronautics Administration on Tel：(02)2349-6331~3, Fax：(02)2545-8464, e-mail：adcaa@mail.caa.gov.tw			

[Federal Register Volume 81, Number 225 (Tuesday, November 22, 2016)]  
[Rules and Regulations]  
[Pages 83662-83665]  
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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2016-4223; Directorate Identifier 2015-NM-108-AD; Amendment 39-18693; AD 2016-22-04]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Gulfstream Aerospace Corporation Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

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**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain Gulfstream Aerospace Corporation Model GV and GV-SP airplanes. This AD was prompted by a new revision to the Airworthiness Limitations Section (ALS) of the Aircraft Maintenance Manual (AMM) based on fatigue and damage tolerance testing, and updated analysis. This AD requires revising the maintenance or inspection program to incorporate updated inspection requirements and life limits that address fatigue cracking of principal structural elements (PSEs). We are issuing this AD to ensure that fatigue cracking of PSEs is detected and corrected; such fatigue cracking could result in reduced structural integrity of the PSEs and critical components.

**DATES:** This AD is effective December 27, 2016.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of December 27, 2016.

**ADDRESSES:** For service information identified in this final rule, contact Gulfstream Aerospace Corporation, Technical Publications Dept., P.O. Box 2206, Savannah, GA 31402-2206; telephone: 800-810-4853; fax: 912-965-3520; email: [pubs@gulfstream.com](mailto:pubs@gulfstream.com); Internet: [http://www.gulfstream.com/product\\_support/technical\\_pubs/pubs/index.htm](http://www.gulfstream.com/product_support/technical_pubs/pubs/index.htm). You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-4223.

## **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-4223; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Ronald Wissing, Aerospace Engineer, Airframe Branch, ACE-117A, FAA, Atlanta Aircraft Certification Office (ACO), 1701 Columbia Avenue, College Park, GA 30337; phone: 404-474-5552; fax: 404-474-5606; email: [ronald.wissing@faa.gov](mailto:ronald.wissing@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Gulfstream Aerospace Corporation Model GV and GV-SP airplanes. The NPRM published in the Federal Register on March 14, 2016 (81 FR 13301) ("the NPRM"). The NPRM was prompted by a new revision to the ALS of the AMM, Chapter 05-10-10, based on fatigue and damage tolerance testing, and updated analysis. The NPRM proposed to require revising the maintenance or inspection program to update inspection requirements and life limits that address fatigue cracking of principal structural elements (PSEs). We are issuing this AD to ensure that fatigue cracking of PSEs is detected and corrected; such fatigue cracking could result in reduced structural integrity of the PSEs and critical components.

### **Comments**

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM and the FAA's response to each comment.

### **Request To Specify Referenced Document**

Gulfstream requested that we revise the SUMMARY section and the Discussion section of the NPRM, and paragraph (e) of the proposed AD, to refer to the AMM, Chapter 05-10-10, which contains updated inspection requirements and life limits.

We agree with the request. We have revised the SUMMARY and Discussion sections of this final rule, and paragraph (e) of this AD accordingly.

### **Request To Remove Certain Language From the NPRM**

Gulfstream requested that we revise the FAA's Determination section of the NPRM, which states that the unsafe condition is likely to exist or develop "in other products of the same type design." Gulfstream requested that we remove the quoted language, and pointed out that they believe the statement is irrelevant to the unsafe condition.

We disagree with the commenter's request. Our phrasing is intentional. The finding that the condition is likely to exist or develop in other products of the same type design is necessary to ensure that the AD falls within the scope of 14 CFR part 39 ("Airworthiness Directives".) (Specifically, see 14 CFR 39.5.) Additionally, the FAA's Determination section of the NPRM is not restated in this final rule. We have not changed this AD regarding this issue.

## **Request for Clarification of Certain Language From the NPRM**

Gulfstream requested clarification regarding which "operator maintenance documents" require revision. Gulfstream did not provide any justification for its request.

We agree that clarification is necessary. Regardless of the maintenance program that an operator uses, this AD requires revising the applicable maintenance or inspection program documentation. The owner or operator is responsible for maintaining its fleet in an airworthy condition, including compliance with 14 CFR part 39. This final rule has not been changed in this regard.

## **Request To Clarify Applicability**

Gulfstream requested that we revise the "Differences Between This Proposed AD and the Service Information" section of the NPRM. Gulfstream pointed out that they believe the applicability is contradictory to Gulfstream Document GV-GER-9973, Summary of Changes to the GV Series Airworthiness Limitations, Revision C, dated January 8, 2015. Gulfstream also mentioned that it does not believe an operator would be able to log compliance with the proposed AD.

We agree to clarify. The applicability of this AD differs from the effectivity of Gulfstream Document GV-GER-9973, Summary of Changes to the GV Series Airworthiness Limitations, Revision C, dated January 8, 2015, which excludes airplanes on which certain supplemental type certificates (STCs) have been accomplished. Airplanes on which those STCs have been accomplished are included in the applicability of this AD because those airplanes could have inspections and limits that are applicable. If it is determined that an airplane with a listed STC cannot accomplish the requirements of this AD, the operator may request an alternative method of compliance (AMOC) in accordance with paragraph (i) of this AD.

Also, we do not agree with the statement in Gulfstream Document GV-GER-9973, Summary of Changes to the GV Series Airworthiness Limitations, Revision C, dated January 8, 2015, indicating that airplanes with specific STCs installed should be excluded from the effectivity of Gulfstream Document GV-GER-9973, Summary of Changes to the GV Series Airworthiness Limitations, Revision C, dated January 8, 2015. We have not changed this AD in this regard.

## **Request To Allow the Use of Later-Approved Service Information**

Gulfstream requested that we revise Note 1 to paragraph (g) of the proposed AD. Gulfstream specifically requested adding language that would specify "or later FAA approved revision" to clarify operator compliance with the proposed AD.

We do not agree to revise Note 1 to paragraph (g) of this AD to allow use of "later FAA-approved revisions." Note 1 to paragraph (g) of this AD specifies the AMM revisions specifically identified in Gulfstream Document GV-GER-9973, Summary of Changes to the GV Series Airworthiness Limitations, Revision C, dated January 8, 2015. This AD does not require any actions to be done in accordance with the AMM revisions specified in Note 1 to paragraph (g) of this AD. Additionally, we may not refer to any document that does not yet exist. However, we have revised Note 1 to paragraph (g) of this AD to clarify the intent of that note.

## **Request To Verify the Contact Information for Gulfstream**

Gulfstream requested that we verify the contact information used in the ADDRESSES section and paragraph (k)(3) of this AD before publication. Gulfstream stated that its contact information and data storage location may change before the publication date of the final rule.

We have verified the contact information used in the ADDRESSES section of this final rule, and found that no change is necessary.

## Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD with the changes described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

## Related Service Information Under 1 CFR part 51

We reviewed Gulfstream Document GV-GER-9973, Summary of Changes to the GV Series Airworthiness Limitations, Revision C, dated January 8, 2015. The service information describes inspection requirements and life limits that address fatigue cracking of the PSEs. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

## Costs of Compliance

We estimate that this AD affects 392 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

Estimated Costs				
Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Revision of the maintenance or inspection program	1 work-hour × \$85 per hour = \$85	\$0	\$85	\$33,320

## Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

(3) Will not affect intrastate aviation in Alaska, and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39—AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):



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**2016-22-04 Gulfstream Aerospace Corporation:** Amendment 39-18693; Docket No. FAA-2016-4223; Directorate Identifier 2015-NM-108-AD.

**(a) Effective Date**

This AD is effective December 27, 2016.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Gulfstream Aerospace Corporation Model GV airplanes, certificated in any category, serial numbers 501 through 693 inclusive and serial number 699; and Model GV-SP airplanes, certificated in any category, serial numbers 5001 through 5433 inclusive.

**(d) Subject**

Air Transport Association (ATA) of America Code 32, Landing Gear; 53, Fuselage; 54, Nacelles/Pylons; 55, Stabilizers; and 57, Wings.

**(e) Unsafe Condition**

This AD was prompted by a new revision to the Airworthiness Limitations Section (ALS) of the Aircraft Maintenance Manual (AMM), Chapter 05-10-10, based on fatigue and damage tolerance testing, and updated analysis. We are issuing this AD to ensure fatigue cracking of principal structural elements (PSEs) is detected and corrected; such fatigue cracking could result in reduced structural integrity of the PSEs and critical components.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Revise Maintenance or Inspection Program**

Within 12 months after the effective date of this AD, revise the maintenance or inspection program, as applicable, to incorporate the airworthiness limitations specified in Gulfstream Document GV-GER-9973, Summary of Changes to the GV Series Airworthiness Limitations, Revision C, dated January 8, 2015. The initial compliance times for the tasks identified in Gulfstream Document GV-GER-9973, Summary of Changes to the GV Series Airworthiness Limitations, Revision C, dated January 8, 2015, are at the applicable times specified in Gulfstream Document GV-GER-9973, Summary of Changes to the GV Series Airworthiness Limitations, Revision C, dated January 8, 2015, or within twelve months after the effective date of this AD, whichever occurs later.

Note 1 to paragraph (g) of this AD: Gulfstream Document GV-GER-9973, Summary of Changes to the GV Series Airworthiness Limitations, Revision C, dated January 8, 2015, specifies the following AMM revisions as additional sources of guidance for the actions required by paragraph (g) of this AD. For Model GV airplanes, AMM Revision 43, dated February 15, 2015; and for Model GV-SP airplanes, G500 or G550 AMM Revision 24, dated February 15, 2015, as applicable.

#### **(h) No Alternative Actions or Intervals**

After the maintenance or inspection program has been revised as required by paragraph (g) of this AD, no alternative actions (e.g., inspections) or intervals may be used unless the actions or intervals are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (i) of this AD.

#### **(i) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Atlanta Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (j) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

#### **(j) Related Information**

For more information about this AD, contact Ronald Wissing, Aerospace Engineer, Airframe Branch, ACE-117A, FAA, Atlanta ACO, 1701 Columbia Avenue, College Park, GA 30337; phone: 404-474-5552; fax: 404-474-5606; email: [ronald.wissing@faa.gov](mailto:ronald.wissing@faa.gov).

#### **(k) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Gulfstream Document GV-GER-9973, Summary of Changes to the GV Series Airworthiness Limitations, Revision C, dated January 8, 2015. The revision level and date of this document are not specified on the title page of the document.

(ii) Reserved.

(3) For Gulfstream Aerospace Corporation service information identified in this AD, contact Gulfstream Aerospace Corporation, Technical Publications Dept., P.O. Box 2206, Savannah, GA 31402-2206; telephone: 800-810-4853; fax: 912-965-3520; email: [pubs@gulfstream.com](mailto:pubs@gulfstream.com); Internet: [http://www.gulfstream.com/product\\_support/technical\\_pubs/pubs/index.htm](http://www.gulfstream.com/product_support/technical_pubs/pubs/index.htm).

(4) You may view this service information at FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA 98057-3356. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.



Issued in Renton, Washington, on October 14, 2016.  
Michael Kaszycki,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.