

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 96-NM-143-AD; Amendment 39-14843; AD 2006-25-02]

RIN 2120-AA64

Airworthiness Directives; Gulfstream Model G-159 Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to all Gulfstream Model G-159 airplanes, that requires repetitive non-destructive testing inspections to detect corrosion of the skin of certain structural assemblies, and corrective action if necessary. This AD also requires x-ray and ultrasonic inspections to detect corrosion and cracking of the splicing of certain structural assemblies, and repair if necessary. The actions specified by this AD are intended to detect and correct corrosion and cracking of the lower wing plank splices and spot-welded skins of certain structural assemblies, which could result in reduced controllability of the airplane. This action is intended to address the identified unsafe condition.

DATES: Effective January 11, 2007.

The incorporation by reference of a certain publication listed in the regulations is approved by the Director of the Federal Register as of January 11, 2007.

ADDRESSES: The service information referenced in this AD may be obtained from Gulfstream Aerospace Corporation, Technical Publications Dept., P.O. Box 2206, Savannah, Georgia 31402-2206. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Atlanta Aircraft Certification Office, One Crown Center, 1895 Phoenix Boulevard, Suite 450, Atlanta, Georgia.

FOR FURTHER INFORMATION CONTACT: Michael Cann, Aerospace Engineer, Airframe Branch, ACE-117A, FAA, Atlanta Aircraft Certification Office, One Crown Center, 1895 Phoenix Boulevard, suite 450, Atlanta, Georgia 30349; telephone (770) 703-6038; fax (770) 703-6097.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to all

Gulfstream Model G-159 airplanes was published as a second supplemental notice of proposed rulemaking (NPRM) in the Federal Register on July 12, 2006 (71 FR 39242). That action proposed to require repetitive non-destructive testing inspections to detect corrosion of the skin of certain structural assemblies, and corrective action if necessary. That action also proposed to require x-ray and ultrasonic inspections to detect corrosion and cracking of the splicing of certain structural assemblies, and repair if necessary.

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

Request To Incorporate by Reference Service Information

One commenter, the Modification and Replacement Parts Association (MARPA), requests that service documents deemed essential to the accomplishment of the proposed action be incorporated by reference into the regulatory instrument. The commenter states that once a service document is incorporated by reference into a public document such as an airworthiness directive (AD), it loses its private, protected status and becomes itself a public document. The commenter also states that there is concern that failure to incorporate essential service information could result in a court decision invalidating the AD.

We do not agree that documents should be incorporated by reference during the NPRM phase of rulemaking. The Office of the Federal Register requires that documents that are necessary to accomplish the requirements of the AD be incorporated by reference during the final rule phase of rulemaking. This final rule incorporates by reference the document necessary for the accomplishment of the requirements mandated by this AD. Further, we point out that while documents that are incorporated by reference do become public information, they do not lose their copyright protection. For that reason, we advise the public to contact the manufacturer to obtain copies of the referenced service information. No change is necessary to the AD in this regard.

Request To Publish Appropriate Service Information

The same commenter, MARPA, also requests that service information necessary to accomplish actions specified in ADs be published in the Docket Management System (DMS).

We are currently in the process of reviewing issues surrounding the posting of service bulletins on the Department of Transportation's DMS as part of an AD docket. Once we have thoroughly examined all aspects of this issue and have made a final determination, we will consider whether our current practice needs to be revised. No change is necessary to the AD in this regard.

Conclusion

We have carefully reviewed the available data, including the comments received, and determined that air safety and the public interest require adopting the AD as proposed in the second supplemental NPRM.

Cost Impact

There are approximately 52 airplanes of the affected design in the worldwide fleet. The FAA estimates that 25 airplanes of U.S. registry will be affected by this AD, that it will take approximately between 300 and 450 work hours per airplane, depending upon how many spot-welded skins have been replaced with bonded skin panels, to accomplish the required actions, and that the average labor rate is \$80 per work hour. Based on these figures, the cost impact of this AD on U.S. operators is estimated to be between \$600,000 and \$900,000, or between \$24,000 and \$36,000 per airplane, per inspection cycle.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the proposed requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

Regulatory Impact

The regulations adopted herein 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. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (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); and (3) 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. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

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

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (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. Section 39.13 is amended by adding the following new airworthiness directive:



2006-25-02 Gulfstream Aerospace Corporation: Amendment 39-14843. Docket 96-NM-143-AD.

Applicability

All Model G-159 airplanes, certificated in any category.

Compliance

Required as indicated, unless accomplished previously.

To detect and correct corrosion and cracking of the lower wing plank splices and spot-welded skins of certain structural assemblies, which could result in reduced controllability of the airplane, accomplish the following:

Note 1: A note in the Accomplishment Instructions of the Gulfstream customer bulletin instructs operators to contact Gulfstream if any difficulty is encountered in accomplishing the customer bulletin. However, any deviation from the instructions provided in the customer bulletin must be approved as an alternative method of compliance (AMOC) under paragraph (h) of this AD.

Non-Destructive Testing Inspections of the Fuselage, Empennage, and Flight Controls

(a) Within 9 months after the effective date of this AD, perform a non-destructive test (NDT) to detect corrosion of the skins of the elevators, ailerons, rudder and rudder trim tab, flaps, aft lower fuselage, and vertical and horizontal stabilizers; in accordance with the Accomplishment Instructions of Gulfstream GI Customer Bulletin (CB) 337B, including Appendix A, dated August 17, 2005. The corrosion criteria must be determined by the Manager, Atlanta Aircraft Certification Office (ACO), FAA. Gulfstream Tool ST905-377 is also an acceptable method of determining the corrosion criteria.

(1) If no corrosion or cracking is detected, repeat the inspection thereafter at intervals not to exceed 18 months.

(2) If any corrosion is detected that meets the criteria of "light" or "mild" corrosion, repeat the NDT inspections of that component thereafter at intervals not to exceed 12 months.

(3) If any corrosion is detected that meets the criteria of "moderate" corrosion: Within 9 months after the initial inspection, repeat the NDT inspection of that component, and within 18 months since the initial inspection, repair or replace the component with a serviceable component in accordance with the CB.

(4) If any corrosion is detected that meets the criteria of "severe" corrosion, before further flight, replace the component with a serviceable component in accordance with the CB.

Existing Repairs

(b) If any existing repairs are found during the inspections required by paragraph (a) of this AD, before further flight, ensure that the repairs are in accordance with a method approved by the Manager, Atlanta ACO.

Inspections of the Lower Wing Plank

(c) Except as provided in paragraph (f) of this AD: Within 9 months after the effective date of this AD, perform NDT inspections to detect corrosion and cracking of the lower wing plank splices, in accordance with the Accomplishment Instructions of Gulfstream GI CB 337B, including Appendix A, dated August 17, 2005.

(1) If no corrosion or cracking is detected, repeat the NDT inspection at intervals not to exceed 18 months.

(2) If any corrosion or cracking is detected, before further flight, perform all applicable investigative actions and corrective actions in accordance with the customer bulletin.

Repair Removal Threshold

(d) For repairs specified in Appendix A of Gulfstream GI CB 337B, dated August 17, 2005: Within 144 months after the date of the repair installation, remove the repaired component and replace it with a new or serviceable component, in accordance with Gulfstream GI CB 337B, including Appendix A, dated August 17, 2005.

Prior Blending in the Riser Areas

(e) If, during the performance of the inspections required by paragraph (c) or (f) of this AD, the inspection reveals that prior blending has been performed on the riser areas: Before further flight, perform an eddy current or fluorescent penetrant inspection, as applicable, to evaluate the blending, and accomplish appropriate corrective actions, in accordance with the Accomplishment Instructions of Gulfstream GI CB 337B, including Appendix A, dated August 17, 2005. If any blend-out is outside the limits specified in the CB, before further flight, repair in a manner approved by the Manager, Atlanta ACO.

For Airplanes with New Lower Wing Planks

(f) For airplanes with new lower wing planks: Within 144 months after replacement of the lower wing planks with new lower wing planks, or within 9 months after the effective date of this AD, whichever occurs later, perform all of the actions, including all related investigative actions and corrective actions, specified in paragraph (c) of this AD.

Reporting Requirement

(g) Within 30 days of performing the inspections required by this AD: Submit a report of inspection findings (both positive and negative) to Gulfstream Aerospace Corporation; Attention: Technical Operations—Structures Group, Dept. 893, Mail Station D-25, 500 Gulfstream Road, Savannah, Georgia 31408. Information collection requirements contained in this regulation have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.) and have been assigned OMB Control Number 2120-0056.

Alternative Methods of Compliance

(h)(1) The Manager, Atlanta ACO, has the authority to approve AMOCs for this AD, if requested in accordance with the procedures found in 14 CFR 39.19.

(2) Before using any AMOC approved in accordance with § 39.19 on any airplane to which the AMOC applies, notify the appropriate principal inspector in the FAA Flight Standards Certificate Holding District Office.

Incorporation by Reference

(i) Unless otherwise specified in this AD, the actions must be done in accordance with Gulfstream GI Customer Bulletin 337B, including Appendix A, dated August 17, 2005. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. To get copies of this service information, contact Gulfstream Aerospace Corporation, Technical Publications Dept., P.O. Box 2206, Savannah, Georgia 31402-2206. To inspect copies of this service information, go to the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; to FAA, Atlanta Aircraft Certification Office, One Crown Center, 1895 Phoenix Boulevard, suite 450, Atlanta, Georgia; or to the National Archives and Records Administration (NARA). For information on the availability of this material at the NARA, call (202) 741-6030, or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Effective Date

(j) This amendment becomes effective on January 11, 2007.

Issued in Renton, Washington, on November 20, 2006.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. E6-20620 Filed 12-6-06; 8:45 am]