

DEPARTMENT OF TRANSPORTATION**Federal Aviation Administration****14 CFR Part 39****[Docket No. 96-NM-143-AD]****RIN 2120-AA64****Airworthiness Directives; Gulfstream Aerospace Model G-159 Airplanes**

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Supplemental notice of proposed rulemaking; reopening of comment period.

SUMMARY: This document revises an earlier supplemental notice of proposed rulemaking (NPRM), applicable to all Gulfstream Aerospace Corporation Model G-159 airplanes, that would have required repetitive non-destructive testing inspections to detect corrosion of the skin of certain structural assemblies, and corrective action if necessary. The first supplemental NPRM also would have required x-ray and ultrasonic inspections to detect corrosion and cracking of the splicing of certain structural assemblies, and repair if necessary. This new action revises the proposed rule by limiting the time certain repetitive inspections may be repeated before corrective action must be taken. The actions specified by this new proposed supplemental 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: Comments must be received by August 7, 2006.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 96-NM-143-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056. Comments may be inspected at this location between 9 a.m. and 3 p.m., Monday through Friday, except Federal holidays. Comments may be submitted via fax to (425) 227-1232. Comments may also be sent via the Internet using the following address: 9-anm-nprmcomment@faa.gov. Comments sent via fax or the Internet must contain "Docket No. 96-NM-143-AD" in the subject line and need not be submitted in triplicate. Comments sent via the Internet as attached electronic files must

be formatted in Microsoft Word 97 or 2000 or ASCII text.

The service information referenced in the proposed rule 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 FAA, Transport Airplane Directorate, 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:**Comments Invited**

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this action may be changed in light of the comments received.

Submit comments using the following format:

- Organize comments issue-by-issue. For example, discuss a request to change the compliance time and a request to change the service bulletin reference as two separate issues.
- For each issue, state what specific change to the proposed AD is being requested.
- Include justification (e.g., reasons or data) for each request.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this action must submit a self-addressed, stamped postcard on which the following

statement is made: "Comments to Docket Number 96-NM-143-AD." The postcard will be date stamped and returned to the commenter.

Availability of NPRMs

Any person may obtain a copy of this second supplemental NPRM by submitting a request to the FAA, Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 96-NM-143-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056.

Discussion

A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to add an airworthiness directive (AD), applicable to all Gulfstream Aerospace Corporation Model G-159 airplanes, was published as a supplemental notice of proposed rulemaking (NPRM) in the **Federal Register** on March 21, 2006 (71 FR 14123). The first supplemental NPRM would have required repetitive non-destructive testing inspections to detect corrosion of the skin of certain structural assemblies, and corrective action if necessary. The first supplemental NPRM also would have required x-ray and ultrasonic inspections to detect corrosion and cracking of the splicing of certain structural assemblies, and repair if necessary. The first supplemental NPRM was prompted by reports indicating corrosion had been detected in a larger area than previously reported. That condition, if not detected and corrected, could result in cracking of the lower wing plank splices and spot-welded skins of certain structural assemblies, which could result in reduced controllability of the airplane. That action was intended to address the identified unsafe condition.

Comments

Due consideration has been given to the comments received in response to the first supplemental NPRM.

Request To Clarify Paragraph (a)(3) of the Supplemental NPRM

The manufacturer, Gulfstream, requests that the inspection specified in paragraph (a)(3) of the NPRM be revised to specify that the airplane may remain in service for up to 18 months with a proviso that repeat x-ray inspections are accomplished at 9-month intervals until rework or replacement is accomplished.

We agree that further clarification is necessary for paragraph (a)(3) of this second supplemental NPRM and have revised paragraph (a)(3) accordingly.

Request To Clarify the Areas of Inspection

The same commenter, Gulfstream, would like us to clarify the “Summary” section of the first supplemental NPRM. The commenter states that Customer Bulletin (CB) 337B, dated August 17, 2005 expands only the wing lower plank inspection from WS 40 to WS 310. Gulfstream points out that all other areas identified within CB 337, Revision B, were established as part of the original CB inspection criteria.

We acknowledge the commenter’s point. However, the intent of the first supplemental NPRM was to specify that the wing lower plank inspection was being added to the proposed requirements of the original NPRM. The proposed requirements are in accordance with Gulfstream GI CB 337B, dated August 17, 2005. No change is necessary to this supplemental NPRM as a result of that comment.

Request To Clarify Reference to “Exfoliation” Corrosion

Gulfstream also requests that we clarify the reference to “exfoliation” in the “Relevant Customer Bulletin” section of the preamble of the supplemental NPRM by changing the reference to “inter-granular/exfoliation” corrosion. Gulfstream states that, in order to convey the nature of this type of corrosion, it is important to understand that inter-granular starts first with the visible result, exfoliation, typically following significant structural damage. Gulfstream further notes that inter-granular corrosion often cannot be visibly seen as it goes down from the surface, transitions sideways following the boundary layer for a distance, and cannot be seen without non-destructive testing (NDT) inspection.

We acknowledge the commenter’s clarification regarding the reference to exfoliation in the supplemental NPRM. However, since the description of the “Relevant Customer Bulletin” does not reappear in this supplemental NPRM, it is unnecessary to revise this supplemental NPRM.

Request To Clarify “Difference Between the CB and the Proposed AD”

Gulfstream also notes that Gulfstream GI CB 337 refers to the Airplane Maintenance Manual (AMM), Chapter 05, which specifies corrective actions and follow-up inspection intervals.

We infer that Gulfstream would like us to clarify that, while the CB does not explicitly specify repetitive inspections, the CB does refer to the AMM, which contains certain corrective actions and repetitive inspection intervals. We

acknowledge that Gulfstream CB 337B, dated August 17, 2005, refers to the AMM, and that the AMM specifies certain repetitive inspection intervals. Since the “Differences Between the CB and the Proposed AD” section does not reappear in this supplemental AD, no change to this supplemental NPRM is necessary.

Request To Change Reporting Address

Gulfstream requests that we update the address where the reporting requirements are to be sent.

We agree to change the address for the reporting requirements and have revised this supplemental NPRM accordingly.

Editorial Change

We have also revised paragraph (f) of this supplemental NPRM to remove the phrase, “as defined by paragraphs (f)(1) and (f)(2) of this AD:”. That phrase was intended to define new lower wing planks based on when the new lower wing planks were installed. We removed that phrase, since the compliance time (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) is the same for all new lower wing planks.

Conclusion

Since these changes expand the scope of the first supplemental NPRM, the FAA has determined that it is necessary to reopen the comment period to provide additional opportunity for public comment.

Changes to 14 CFR Part 39/Effect on the Proposed AD

On July 10, 2002, the FAA issued a new version of 14 CFR part 39 (67 FR 47997, July 22, 2002), which governs the FAA’s airworthiness directives system. The regulation now includes material that relates to altered products, special flight permits, and alternative methods of compliance (AMOCs). These changes are reflected in this supplemental NPRM.

Explanation of Change to Costs of Compliance

After the first supplemental NPRM was issued, we reviewed the figures we have used over the past several years to calculate AD costs to operators. To account for various inflationary costs in the airline industry, we find it necessary to increase the labor rate used in these calculations from \$65 per work hour to \$80 per work hour. The cost impact information, below, reflects this increase in the specified hourly labor rate.

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 would be affected by this proposed AD, that it would 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 proposed actions, and that the average labor rate is \$80 per work hour. Based on these figures, the cost impact of the proposed 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 figure discussed above is 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.

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 Impact

The regulations proposed herein would 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 proposal would not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this proposed regulation (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) if promulgated, 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 copy of the draft regulatory evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption

ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

The Proposed Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend 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:

Gulfstream Aerospace Corporation: 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 spot-welded skins of the lower wing plank splices and 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 any other 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 of 1980 (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.

Issued in Renton, Washington, on June 30, 2006.

Kalene C. Yanamura,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. E6-10911 Filed 7-11-06; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2006-25328; Directorate Identifier 2006-NM-130-AD]

RIN 2120-AA64

Airworthiness Directives: Bombardier Model DHC-8-400 Series Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Notice of proposed rulemaking (NPRM).