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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0677; Directorate Identifier 2012-NM-105-AD; Amendment 39-17114; AD 2012-13-12]

RIN 2120-AA64

Airworthiness Directives; Gulfstream Aerospace Corporation Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain Gulfstream Aerospace Corporation Model G-IV, GIV-X, GV, and GV-SP airplanes. This AD requires measuring to determine paint thickness on the flight control surfaces and corrective actions if necessary, and revising the Airplane Flight Manual (AFM). This AD was prompted by reports of failure to inspect or document the paint thickness on flight controls (ailerons, rudder, elevator), potentially having a negative impact on the flutter characteristics of the airplane. We are issuing this AD to detect and correct paint thickness on flight controls, which could result in loss of control of the airplane due to flutter.

DATES: This AD is effective August 1, 2012.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD as of August 1, 2012.

We must receive comments on this AD by August 31, 2012.

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For 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; Internet http://www.gulfstream.com/product_support/technical_pubs/pubs/index.htm. You may review copies of the 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.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; 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 street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Michael Cann, Senior Aerospace Engineer, Airframe Branch, ACE-117A, FAA, Atlanta Aircraft Certification Office, 1701 Columbia Avenue, College Park, GA 30337; phone 404-474-5548; fax 404-474-5605; email: michael.cann@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We received reports of failure to inspect or document the paint thickness on flight controls (ailerons, rudder, elevator), potentially having a negative impact on the flutter characteristics of the airplane. Excessive paint thickness will affect the balance moment of the flight control surface. This condition, if not corrected, could result in loss of control of the airplane due to flutter.

Relevant Service Information

We reviewed the following service information, which describes procedures for measuring the paint thickness on both sides of each flight control surface (ailerons, rudder, and elevator) and corrective actions if necessary. The customer bulletins also describe procedures for revising the AFM to advise the flightcrew to not exceed a certain altitude until corrective actions have been accomplished. Corrective actions include removing the flight control surface and rebalancing, stripping, repainting with an average thickness less than 5.0 mils, and sanding/buffing down to 5.0 mils or less and re-measuring thicknesses (not recommended on surfaces with averages exceeding 7.0 mils).

- For Model G-IV airplanes: Gulfstream IV Customer Bulletin 223, including Part I and Part II Service Reply Cards, dated March 23, 2012, which includes Gulfstream GIV Airplane Flight Manual Supplement GIV-2012-01, dated March 13, 2012.
- For Model GV airplanes: Gulfstream V Customer Bulletin 196, including Part I and Part II Service Reply Cards, dated March 23, 2012, which includes Gulfstream GV Airplane Flight Manual Supplement GV-2012-01, dated March 13, 2012.
- For Model GIV-X airplanes: Gulfstream G450 Customer Bulletin 140, including Part I and Part II Service Reply Cards, dated March 23, 2012, which includes Gulfstream G450/G350 Airplane Flight Manual Supplement G450-2012-01, dated March 13, 2012.
- For Model GV-SP airplanes: Gulfstream G550 Customer Bulletin 121, including Part I and Part II Service Reply Cards, dated March 23, 2012, which includes Gulfstream G550 Airplane Flight Manual Supplement G550-2012-01, dated March 13, 2012; and Gulfstream G550 EASA Airplane Flight Manual Supplement EASA-G550-2012-01, dated March 14, 2012.

FAA's Determination

We are issuing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of these same type designs.

AD Requirements

This AD requires accomplishing the actions specified in the service information described previously, except as discussed under "Differences Between the AD and the Service Information." This AD also requires sending the measurement and corrective action results to Gulfstream Aerospace Corporation.

Differences Between the AD and the Service Information

The customer bulletins specified in paragraph (g) of this AD incorporate the airplane flight manual supplement (AFMS) as an on-condition action. This AD requires operators to incorporate the AFMS within 20 days after the effective date of this AD. We have determined that this action is necessary to address the identified unsafe condition.

Although the customer bulletins specified in paragraph (g) of this AD specify that operators may contact the manufacturer for disposition of certain repair conditions, this AD requires operators to repair those conditions in accordance with a method approved by the FAA.

FAA's Justification and Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of this AD. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule, because we received reports of failure to inspect or document the paint thickness on flight controls (ailerons, rudder, elevator), potentially having a negative impact on the flutter characteristics of the airplane. Excessive paint thickness will affect the balance moment of the flight control surface. This condition, if not corrected, could result in loss of control of the airplane due to flutter. Therefore, we find that notice and opportunity for prior public comment are impracticable and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety and was not preceded by notice and an opportunity for public comment. However, we invite you to send any written data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include the docket number FAA-2012-0677 and Directorate Identifier 2012-NM-105-AD at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this AD.

Costs of Compliance

We estimate that this AD affects 33 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
Measurement	5 work-hours × \$85 per hour = \$425	\$0	\$425	\$14,025
Airplane flight manual revision	1 work-hour × \$85 per hour = \$85	0	85	2,805

We have received no definitive data that would enable us to provide a cost estimate for the on-condition actions specified in this AD.

According to the manufacturer, the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

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):



2012-13-12 Gulfstream Aerospace Corporation: Amendment 39-17114; Docket No. FAA-2012-0677; Directorate Identifier 2012-NM-105-AD.

(a) Effective Date

This AD is effective August 1, 2012.

(b) Affected ADs

None.

(c) Applicability

This AD applies to the airplanes identified in paragraphs (c)(1) through (c)(4) of this AD, certificated in any category.

(1) Gulfstream Aerospace Corporation Model G-IV airplanes, serial numbers 1265, 1286, 1298, 1301, 1347, 1372, 1378, 1380, 1423, 1458, and 1497.

(2) Gulfstream Aerospace Corporation Model GIV-X airplanes, serial numbers 4064, 4151, 4192, 4194, 4199, and 4214.

(3) Gulfstream Aerospace Corporation Model GV airplanes, serial numbers 612, 630, and 691.

(4) Gulfstream Aerospace Corporation Model GV-SP airplanes, serial numbers 5038, 5079, 5223, 5227, 5237, 5240, 5245, 5246, 5252, 5258, 5261, 5265, 5267, 5283, 5290, 5293, 5294, 5302, 5307, 5311, 5318, and 5320.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 27, Flight controls.

(e) Unsafe Condition

This AD was prompted by reports of failure to inspect or document the paint thickness on flight controls (ailerons, rudder, elevator), potentially having a negative impact on the flutter characteristics of the airplane. We are issuing this AD to detect and correct paint thickness on flight controls, which could result in loss of control of the airplane due to flutter.

(f) Compliance

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

(g) Airplane Flight Manual Revision

Within 20 days after the effective date of this AD, revise the airplane flight manual (AFM) by incorporating the applicable airplane flight manual supplement (AFMS) specified in paragraphs (g)(1), (g)(2), (g)(3), and (g)(4) of this AD. After accomplishing the actions in paragraph (h) of this

AD, and all applicable corrective actions required by paragraph (i) of this AD, the AFMS specified in paragraph (g) of this AD may be removed from the AFM.

(1) For Model G-IV airplanes: Gulfstream IV Customer Bulletin 223, including Part I and Part II Service Reply Cards, dated March 23, 2012, which includes Gulfstream GIV Airplane Flight Manual Supplement GIV-2012-01, dated March 13, 2012.

(2) For Model GV airplanes: Gulfstream V Customer Bulletin 196, including Part I and Part II Service Reply Cards, dated March 23, 2012, which includes Gulfstream GV Airplane Flight Manual Supplement GV-2012-01, dated March 13, 2012.

(3) For Model GIV-X airplanes: Gulfstream G450 Customer Bulletin 140, including Part I and Part II Service Reply Cards, dated March 23, 2012, which includes Gulfstream G450/G350 Airplane Flight Manual Supplement G450-2012-01, dated March 13, 2012.

(4) For Model GV-SP airplanes: Gulfstream G550 Customer Bulletin 121, including Part I and Part II Service Reply Cards, dated March 23, 2012, which includes Gulfstream G550 Airplane Flight Manual Supplement G550-2012-01, dated March 13, 2012; and Gulfstream G550 EASA Airplane Flight Manual Supplement EASA-G550-2012-01, dated March 14, 2012.

(h) Measurement

At the applicable compliance time specified in paragraph (h)(1) or (h)(2) of this AD, measure the paint thickness on both sides of the flight control surfaces, in accordance with the Accomplishment Instructions of the applicable customer bulletin identified in paragraph (g) of this AD. If average paint thickness is equal to or less than 5.0 mils; or if average paint thickness is greater than 5.0 mils, but equal to or less than the serial number specific allowances provided in table 4 of the applicable customer bulletin identified in paragraph (g) of this AD: The AFMS specified in paragraph (g) of this AD may be removed from the AFM.

(1) For Model GIV-X, GV, and GV-SP airplanes: Within 90 days after the effective date of this AD.

(2) For Model G-IV airplanes: Within 180 days after the effective date of this AD.

(i) Corrective Actions

(1) If, during the measurement required by paragraph (h) of this AD, the average paint thickness is greater than the serial number specific allowances provided in table 4 of the applicable customer bulletin specified in paragraph (g) of this AD, and is equal to or greater than 13.0 mils: Before further flight, repair, in accordance with a method approved by the Manager, Atlanta Aircraft Certification Office (ACO), FAA. For a repair method to be approved by the Manager, Atlanta ACO, as required by this paragraph, the Manager's approval letter must specifically refer to this AD.

(2) If, during the measurement required by paragraph (h) of this AD, the average paint thickness is greater than the serial number specific allowances provided in table 4 of the applicable customer bulletin specified in paragraph (g) of this AD, but is less than 13 mils: Within 12 months after the effective date of this AD, do all applicable corrective actions, in accordance with the applicable customer bulletin specified in paragraph (g) of this AD, except as required by paragraph (j) of this AD. After accomplishing the applicable corrective actions, the AFMS specified in paragraph (g) of this AD may be removed from the AFM.

(j) Exception

Where the customer bulletins identified in paragraph (g) of this AD specify to contact Gulfstream Aerospace Corporation for corrective actions, this AD requires doing corrective actions before further flight, in accordance with a method approved by the Manager, Atlanta ACO. For a repair method to be approved by the Manager, Atlanta ACO, as required by this paragraph, the Manager's approval letter must specifically refer to this AD.

(k) Reporting

(1) Submit a report of the measurements required by paragraph (h) of this AD, including the dimensions obtained from tables 1, 2, and 3, of the applicable customer bulletin specified in paragraph (g) of this AD. Submit the report using the Part I Service Reply Card in the applicable customer bulletin identified in paragraph (g) of this AD, to Gulfstream Aerospace Corporation, at the applicable time specified in paragraph (k)(1)(i) or (k)(1)(ii) of this AD. Under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved the information collection requirements contained in this AD and has assigned OMB Control Number 2120 0056.

(i) If the measurement was done on or after the effective date of this AD: Submit the report within 30 days after the measurement.

(ii) If the measurement was done before the effective date of this AD: Submit the report within 30 days after the effective date of this AD.

(2) Submit a report of compliance with the corrective actions required by paragraph (i) of this AD, using the Part II Service Reply Card in the applicable customer bulletin identified in paragraph (g) of this AD, to Gulfstream Aerospace Corporation, at the applicable time specified in paragraph (k)(2)(i) or (k)(2)(ii) of this AD.

(i) If the corrective action was done on or after the effective date of this AD: Submit the report within 30 days after accomplishing the corrective action.

(ii) If the corrective action was done before the effective date of this AD: Submit the report within 30 days after the effective date of this AD.

(l) Special Flight Permit

Special flight permits, as described in Section 21.197 and Section 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199), may be issued to operate the airplane to a location where the requirements of this AD can be accomplished if the applicable AFM specified in paragraph (g) of this AD has been revised as required by paragraph (g) of this AD.

(m) Paperwork Reduction Act Burden Statement

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW., Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

(n) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Atlanta 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 the Related Information section 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.

(o) Related Information

For more information about this AD, contact Michael Cann, Senior Aerospace Engineer, Airframe Branch, ACE-117A, FAA, Atlanta ACO, 1701 Columbia Avenue, College Park, GA 30337; phone 404-474-5548; fax 404-474-5605; email: michael.cann@faa.gov.

(p) Material Incorporated by Reference

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

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

(i) Gulfstream IV Customer Bulletin 223, dated March 23, 2012, which includes the following attachments:

(A) Part I Service Reply Card, dated March 23, 2012.

(B) Part II Service Reply Card, dated March 23, 2012.

(C) Gulfstream GIV Airplane Flight Manual Supplement GIV-2012-01, dated March 13, 2012.

(ii) Gulfstream V Customer Bulletin 196, dated March 23, 2012, which includes the following attachments:

(A) Part I Service Reply Card, dated March 23, 2012.

(B) Part II Service Reply Card, dated March 23, 2012.

(C) Gulfstream GV Airplane Flight Manual Supplement GV-2012-01, dated March 13, 2012.

(iii) Gulfstream G450 Customer Bulletin 140, dated March 23, 2012, which includes the following attachments:

(A) Part I Service Reply Card, dated March 23, 2012.

(B) Part II Service Reply Card, dated March 23, 2012.

(C) Gulfstream G450/G350 Airplane Flight Manual Supplement G450-2012-01, dated March 13, 2012.

(iv) Gulfstream G550 Customer Bulletin 121, dated March 23, 2012, which includes the following attachments:

(A) Part I Service Reply Card, dated March 23, 2012.

(B) Part II Service Reply Card, dated March 23, 2012.

(C) Gulfstream G550 Airplane Flight Manual Supplement G550-2012-01, dated March 13, 2012.

(D) Gulfstream G550 EASA Airplane Flight Manual Supplement EASA-G550-2012-01, dated March 14, 2012.

(3) For 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; Internet http://www.gulfstream.com/product_support/technical_pubs/pubs/index.htm.

(4) You may review copies of the service information at the FAA, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may also review copies of the 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 June 28, 2012.
Kalene C. Yanamura,
Acting Manager, Transport Airplane Directorate,
Aircraft Certification Service.