

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2011-0038; Directorate Identifier 2010-NM-153-AD; Amendment 39-16684; AD 2011-10-03]

RIN 2120-AA64

Airworthiness Directives; Empresa Brasileira de Aeronautica S.A. (EMBRAER) Model ERJ 170 Airplanes; and Model ERJ 190-100 STD, ERJ 190-100 LR, ERJ 190-100 IGW, ERJ 190-200 STD, ERJ 190-200 LR, and ERJ 190-200 IGW Airplanes

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

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for the products listed above. This AD results from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as:

[T]he occurrence of drill marks [has been found] at the lower ring region of the rear pressure bulkhead between [the] circumferential splice joint and rear skin located between stringers 12 and 13. These marks may result in formation of fatigue cracks accelerated by corrosion reducing the structural strength of the rear pressure bulkhead, which may cause a sudden decompression of the passenger cabin.

* * * * *

We are issuing this AD to require actions to correct the unsafe condition on these products.

DATES: This AD becomes effective June 15, 2011.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of June 15, 2011.

ADDRESSES: You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC.

FOR FURTHER INFORMATION CONTACT: Cindy Ashforth, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone 425-227-2768; fax 425-227-1149.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM was published in the Federal Register on February 10, 2011 (76 FR 7511). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

[T]he occurrence of drill marks [has been found] at the lower ring region of the rear pressure bulkhead between [the] circumferential splice joint and rear skin located between stringers 12 and 13. These marks may result in formation of fatigue cracks accelerated by corrosion reducing the structural strength of the rear pressure bulkhead, which may cause a sudden decompression of the passenger cabin.

* * * * *

The required actions include doing a detailed inspection for signs of drill marks and repairing if necessary. You may obtain further information by examining the MCAI in the AD docket.

Comments

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM or on the determination of the cost to the public.

Conclusion

We reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed.

Differences Between This AD and the MCAI or Service Information

We have reviewed the MCAI and related service information and, in general, agree with their substance. But we might have found it necessary to use different words from those in the MCAI to ensure the AD is clear for U.S. operators and is enforceable. In making these changes, we do not intend to differ substantively from the information provided in the MCAI and related service information.

We might also have required different actions in this AD from those in the MCAI in order to follow our FAA policies. Any such differences are highlighted in a NOTE within the AD.

Costs of Compliance

We estimate that this AD will affect 241 products of U.S. registry. We also estimate that it will take about 1 work-hour per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of this AD to the U.S. operators to be \$20,485, or \$85 per product.

In addition, we estimate that any necessary follow-on actions would take about 2 work-hours and require parts costing \$20, for a cost of \$190 per product. We have no way of determining the number of products that may need these 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 Findings

We determined that 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 this AD:

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. 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.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains the NPRM, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

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 AD:



2011-10-03 Empresa Brasileira de Aeronautica S.A. (EMBRAER): Amendment 39-16684.
Docket No. FAA-2011-0038; Directorate Identifier 2010-NM-153-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective June 15, 2011.

Affected ADs

- (b) None.

Applicability

(c) This AD applies to Empresa Brasileira de Aeronautica S.A. (EMBRAER) Model ERJ 170-100 LR, -100 STD, -100 SE, and -100 SU airplanes; and Model ERJ 170-200 LR, -200 SU, and -200 STD airplanes; certificated in any category; serial numbers 17000002, 17000004 through 17000013 inclusive, 17000015 through 17000212 inclusive, 17000216 through 17000233 inclusive, 17000236, 17000269, 17000281 through 17000291 inclusive, and 17000293; and Model ERJ 190-100 STD, ERJ 190-100 LR, ERJ 190-100 IGW, ERJ 190-200 STD, ERJ 190-200 LR, and ERJ 190-200 IGW airplanes; certificated in any category; serial numbers 19000002, 19000004, 19000006 through 19000108 inclusive, 19000110 through 19000139 inclusive, 19000141 through 19000157 inclusive, 19000160, 19000165, 19000167 through 19000176 inclusive, 19000178 through 19000199 inclusive, 19000273 through 19000276 inclusive, 19000279 through 19000286 inclusive, 19000288 through 19000295 inclusive, 19000297 through 19000304 inclusive, and 19000309.

Subject

- (d) Air Transport Association (ATA) of America Code 53: Fuselage.

Reason

- (e) The mandatory continuing airworthiness information (MCAI) states:

[T]he occurrence of drill marks [has been found] at the lower ring region of the rear pressure bulkhead between [the] circumferential splice joint and rear skin located between stringers 12 and 13. These marks may result in formation of fatigue cracks accelerated by corrosion reducing the structural strength of the rear pressure bulkhead, which may cause a sudden decompression of the passenger cabin.

* * * * *

Compliance

- (f) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Actions

(g) Before the accumulation of 20,000 flight cycles, do a detailed inspection for signs of drill marks at the left and right lower ring region of the rear pressure bulkhead between the circumferential splice joint and rear skin between stringers 12 and 13, in accordance with EMBRAER Service Bulletin 170-53-0082 or 190-53-0042, both Revision 01, both dated April 28, 2010, as applicable. If drill marks are found, repair before further flight, in accordance with EMBRAER Service Bulletin 170-53-0082 or 190-53-0042, both Revision 01, both dated April 28, 2010, as applicable.

Note 1: For the purposes of this AD, a detailed inspection is: "An intensive examination of a specific item, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirror, magnifying lenses, etc., may be necessary. Surface cleaning and elaborate procedures may be required."

FAA AD Differences

Note 2: This AD differs from the MCAI and/or service information as follows:

Although EMBRAER Service Bulletins 170-53-0082 and 190-53-0042, both Revision 01, both dated April 28, 2010, specify doing a general visual inspection, this AD requires doing a detailed inspection.

Other FAA AD Provisions

(h) The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, 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 International Branch, send it to Attn: Cindy Ashforth, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone 425-227-2768; fax 425-227-1149. Information may be e-mailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. 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. The AMOC approval letter must specifically reference this AD.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

Related Information

(i) Refer to MCAI Brazilian Airworthiness Directives 2010-06-01R1 and 2010-06-02R1, both dated August 25, 2010; and EMBRAER Service Bulletins 170-53-0082 and 190-53-0042, both Revision 01, both dated April 28, 2010; for related information.

Material Incorporated by Reference

(j) You must use EMBRAER Service Bulletin 170-53-0082, Revision 01, dated April 28, 2010; or EMBRAER Service Bulletin 190-53-0042, Revision 01, dated April 28, 2010; as applicable; to do the actions required by this AD, unless the AD specifies otherwise.

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

(2) For service information identified in this AD, contact Empresa Brasileira de Aeronautica S.A. (EMBRAER), Technical Publications Section (PC 060), Av. Brigadeiro Faria Lima, 2170–Putim–12227-901 São Jose dos Campos–SP–BRASIL; telephone +55 12 3927-5852 or +55 12 3309-0732; fax +55 12 3927-7546; e-mail distrib@embraer.com.br; Internet <http://www.flyembraer.com>.

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

(4) 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/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on April 20, 2011.
Kalene C. Yanamura,
Acting Manager, Transport Airplane Directorate,
Aircraft Certification Service.