DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2011-0216; Directorate Identifier 2010-NM-197-AD; Amendment 39-16796; AD 2011-18-14]

RIN 2120-AA64

Airworthiness Directives; Empresa Brasileira de Aeronautica S.A. (EMBRAER) Model ERJ 190 Airplanes

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

ACTION: Final rule.

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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:

> * * * The pylon internal shear pin was found cracked during a regular check. Further investigation revealed that the failure occurred due to hydrogen embrittlement. The ANAC [Agência Nacional de Aviação Civil] is issuing this [Brazilian] AD to prevent insufficient strength of the pylon to wing attachment, which in combination with an engine imbalance caused by a fan blade out could cause pylon to wing attachment failure and consequent engine separation.

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

DATES: This AD becomes effective October 14, 2011.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of October 14, 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; phone: 425-227-2768; fax: 425-227-1149; e-mail: cindy.ashforth@faa.gov.

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 March 14, 2011 (76 FR 13539). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

> * * * The pylon internal shear pin was found cracked during a regular check. Further investigation revealed that the failure occurred due to hydrogen embrittlement. The ANAC is issuing this [Brazilian] AD to prevent insufficient strength of the pylon to wing attachment, which in combination with an engine imbalance caused by a fan blade out could cause pylon to wing attachment failure and consequent engine separation.

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Required actions include replacing pylon shear pins in the rear outboard and inboard shear pin assembly in the right- and left-hand pylons with new parts. 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 considered the comments received.

Request for Further Inspection

JetBlue requested that, in addition to replacement of the pylon rear inboard and outboard internal shear pins, a detailed visual inspection of the pylon rear outboard and inboard external shear pins should be done to ensure that the external shear pins have no evidence of corrosion and corrosion products, or corrosion pitting. JetBlue found external shear pins with surface corrosion and pitting.

We disagree with the request. Embraer inspected the suspect external shear pins from JetBlue and found particles of sealant and other contaminants embedded in the inner surface, but there was no sign of corrosion or damage. The material of the external shear pin is corrosion-resistant stainless steel. No change has been made to the AD in this regard.

Request To Clarify Service Bulletin Reference

Embraer requested that paragraph (j) of the NPRM refer to EMBRAER Service Bulletin 190LIN-54-0001, dated June 21, 2010, rather than 190LIN-54-001.

We agree with the request and have made the change in paragraph (j) of this AD.

Conclusion

We reviewed the available data, including the comments received, and determined that air safety and the public interest require adopting the AD with the change described previously. We determined that this change will not increase the economic burden on any operator or increase the scope of the AD.

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 73 products of U.S. registry. We also estimate that it will take about 10 work-hours per product to comply with the basic requirements of this AD. The average labor rate is $85 per work-hour. Required parts will cost about $2,360 per product. Where the service information lists required parts costs that are covered under warranty, we have assumed that there will be no charge for these parts. As we do not control warranty coverage for affected parties, some parties may incur costs higher than estimated here. Based on these figures, we estimate the cost of this AD to the U.S. operators to be $234,330, or $3,210 per product.

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:

2011-18-14 Empresa Brasileira de Aeronautica S.A. (EMBRAER): Amendment 39-16796. Docket No. FAA-2011-0216; Directorate Identifier 2010-NM-197-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective October 14, 2011.

Affected ADs

(b) None.

Applicability

(c) This AD applies to all Empresa Brasileira de Aeronautica S.A. (EMBRAER) Model ERJ 190-100 STD, -100 LR, -100 ECJ, and -100 IGW airplanes; and Model ERJ 190-200 STD, -200 LR, and -200 IGW airplanes; certificated in any category.

Subject

(d) Air Transport Association (ATA) of America Code 54: Nacelles/Pylons.

Reason

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

> * * * The pylon internal shear pin was found cracked during a regular check. Further investigation revealed that the failure occurred due to hydrogen embrittlement. The ANAC [Agência Nacional de Aviação Civil] is issuing this [Brazilian] AD to prevent insufficient strength of the pylon to wing attachment, which in combination with an engine imbalance caused by a fan blade out could cause pylon to wing attachment failure and consequent engine separation.

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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.

Replace Shear Pins

(g) For Model ERJ 190-100 STD, -100 LR, -100 IGW; and ERJ 190-200 STD, -200 LR, and -200 IGW airplanes: Within 3,000 flight hours after the effective date of this AD, replace the shear pins having part number (P/N) 190-15178-003 and P/N 190-15181-003 in the rear outboard and inboard shear pin assembly in the right- and left-hand pylons, with new shear pins having P/N 190-

15178-005 and P/N 190-15181-005, respectively, in accordance with the Accomplishment Instructions of EMBRAER Service Bulletin 190-54-0010, dated May 19, 2010.

(h) For Model ERJ 190-100 ECJ airplanes: Within 3,000 flight hours or within 12 months after the effective date of this AD, whichever occurs first, replace the shear pins having P/N 190-15178-003 and P/N 190-15181-003, in the rear outboard and inboard shear pin assembly in the right- and left-hand pylons, with new shear pins having P/N 190-15178-005 and P/N 190-15181-005, respectively, in accordance with the Accomplishment Instructions of EMBRAER Service Bulletin 190LIN-54-0001, dated June 21, 2010.

FAA AD Differences

Note 1: This AD differs from the MCAI and/or service information as follows: The MCAI allows credit for previous installation of internal shear pins in accordance with EMBRAER 190 Aircraft Maintenance Manual Task 54-50-00-400, Revision 19, dated July 15, 2010. This AD does not allow credit for this task; however, under the provisions of paragraph (i) of this AD, we will consider requests for an alternative method of compliance.

Other FAA AD Provisions

(i) 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

(j) Refer to MCAI Agência Nacional de Aviação Civil (ANAC) Airworthiness Directive 2010-08-02, dated September 20, 2010; and EMBRAER Service Bulletins 190-54-0010, dated May 19, 2010, and 190LIN-54-0001, dated June 21, 2010; for related information.

Material Incorporated by Reference

(k) You must use EMBRAER Service Bulletin 190-54-0010, dated May 19, 2010; or EMBRAER Service Bulletin 190LIN-54-0001, dated June 21, 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 August 19, 2011.

Ali Bahrami,

Manager, Transport Airplane Directorate,

Aircraft Certification Service.