

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2010-0870; Directorate Identifier 2010-CE-045-AD; Amendment 39-16505; AD 2010-23-16]

RIN 2120-AA64

Airworthiness Directives; Empresa Brasileira de Aeronautica S.A. (EMBRAER) Model EMB-500 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) issued 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:

It has been found the occurrences of failure of the Flow Control Shutoff Valve (FCSOV) in the closed position. Failure of the two valves (left and right) can cause the loss of the pneumatic source, and lead to loss of the cabin pressurization.

Since this condition affects flight safety, a corrective action is required. Thus, sufficient reason exists to request compliance with this AD.

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

DATES: This AD becomes effective December 14, 2010.

On December 14, 2010, the Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD.

ADDRESSES: You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at Document Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590.

For service information identified in this AD, contact EMBRAER Empresa Brasileira de Aeronáutica S.A., Phenom Maintenance Support, Av. Brig. Farina Lima, 2170, Sao Jose dos

Campos–SP, CEP: 12227-901–P.O. Box: 38/2, BRASIL, telephone: ++55 12 3927-5383; fax: ++55 12 3927-2610; E-mail: reliability.executive@embraer.com.br; Internet: <http://www.embraer.com.br>. You may review copies of the referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call 816-329-4148.

FOR FURTHER INFORMATION CONTACT: Karl Schletzbaum, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4146; fax: (816) 329-4090.

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 September 1, 2010 (75 FR 53609). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

It has been found the occurrences of failure of the Flow Control Shutoff Valve (FCSOV) in the closed position. Failure of the two valves (left and right) can cause the loss of the pneumatic source, and lead to loss of the cabin pressurization.

Since this condition affects flight safety, a corrective action is required. Thus, sufficient reason exists to request compliance with this AD.

The MCAI requires replacing both FCSOVs with new and improved FCSOVs. 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 FAA policies. Any such differences are highlighted in a NOTE within the AD.

Costs of Compliance

We estimate that this AD will affect 79 products of U.S. registry. We also estimate that it will take about 4 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 \$10,487 per product.

Based on these figures, we estimate the cost of the AD on U.S. operators to be \$855,333, or \$10,827 per product.

According to Embraer, the parts cost 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 cost 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

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 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 Management Facility 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 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:



2010-23-16 Empresa Brasileira de Aeronautica S.A. (EMBRAER): Amendment 39-16505;
Docket No. FAA-2010-0870; Directorate Identifier 2010-CE-045-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective December 14, 2010.

Affected ADs

- (b) None.

Applicability

(c) This AD applies to Empresa Brasileira de Aeronautica S.A. (EMBRAER) Model EMB-500 airplanes, serial numbers 50000005 through 50000118, 50000120, 50000122 through 50000126, 50000128, and 50000131, certificated in any category.

Subject

- (d) Air Transport Association of America (ATA) Code 36: Pneumatic.

Reason

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

It has been found the occurrences of failure of the Flow Control Shutoff Valve (FCSOV) in the closed position. Failure of the two valves (left and right) can cause the loss of the pneumatic source, and lead to loss of the cabin pressurization.

Since this condition affects flight safety, a corrective action is required. Thus, sufficient reason exists to request compliance with this AD.

The MCAI requires replacing both FCSOVs with new and improved FCSOVs.

Actions and Compliance

(f) Unless already done, at the next scheduled maintenance check or within 12 months after December 14, 2010 (the effective date of this AD) or within 600 hours time-in-service after December 14, 2010 (the effective date of this AD), whichever occurs first, replace both flow control shutoff valves, part number (P/N) 1300230-13 and P/N 1300230-23, with P/N 1300230-15 and P/N 1300230-25. Do the replacements following EMBRAER Phenom Service Bulletin 500-21-0001, dated December 9, 2009.

FAA AD Differences

Note: This AD differs from the MCAI and/or service information as follows: No differences.

Other FAA AD Provisions

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, Standards Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Karl Schletzbaum, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4146; fax: (816) 329-4090. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(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.

(3) Reporting Requirements: For any reporting requirement in this AD, 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.

Related Information

(h) Refer to MCAI AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL–BRAZIL (ANAC) AD No. 2010-08-01, dated September 3, 2010; and EMBRAER Phenom Service Bulletin 500-21-0001, dated December 9, 2009, for related information.

Material Incorporated by Reference

(i) You must use EMBRAER Phenom Service Bulletin 500-21-0001, dated December 9, 2009, 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 EMBRAER Empresa Brasileira de Aeronáutica S.A., Phenom Maintenance Support, Av. Brig. Farina Lima, 2170, Sao Jose dos Campos–SP, CEP: 12227-901–P.O. Box: 38/2, BRASIL, telephone: ++55 12 3927-5383; fax: ++55 12 3927-2610; E-mail: reliability.executive@embraer.com.br; Internet: <http://www.embraer.com.br>.

(3) You may review copies of the referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call 816-329-4148.

(4) You may also review copies of the service information incorporated by reference for this AD 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 Kansas City, Missouri, on October 29, 2010.

John Colomy,
Acting Manager, Small Airplane Directorate,
Aircraft Certification Service.