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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2014-0511; Directorate Identifier 2014-CE-023-AD; Amendment 39-17953; AD 2014-15-51]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Embraer S.A. Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule; request for comments.

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**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain Embraer S.A. Model EMB-500 airplanes. This AD was sent previously to all known U.S. owners and operators of these airplanes as an emergency AD. This AD requires an inspection and replacement as necessary of the barrel nuts at the horizontal stabilizer to vertical stabilizer attachment joint. This AD was prompted by mandatory continuing airworthiness information (MCAI) issued by the aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as cracking of the barrel nuts at the horizontal stabilizer to vertical stabilizer attachment joint. We are issuing this AD to correct the unsafe condition on these products.

**DATES:** This AD is effective August 21, 2014 to all persons except those persons to whom it was made immediately effective by Emergency AD 2014-15-51, issued on July 25, 2014, which contained the requirements of this amendment.

The Director of the Federal Register approved the incorporation by reference of a certain publication identified in this AD as of August 21, 2014.

We must receive comments on this AD by October 6, 2014.

**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: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this AD, contact: EMBRAER S.A., Phenom Maintenance Support, Avenida Brigadeiro Faria Lima, 2170, Putim, CEP: 12227-901, Sao Jose dos Campos, Sao Paulo, Brasil; phone: (+55 12) 3927-1000; Fax: (+55 12) 3927-6600, Ext. 1448; email: phenom.reliability@embraer.com.br; Internet: <http://www.embraerexecutivejets.com/en-US/customer-support/Pages/Service-Center-Network.asp>.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0511; 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 this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations 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:** Jim Rutherford, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4165; fax: (816) 329-4090; email: [jim.rutherford@faa.gov](mailto:jim.rutherford@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Discussion**

On July 25, 2014, we issued Emergency AD 2014-15-51, which requires inspection and replacement as necessary of the barrel nuts at the horizontal stabilizer to vertical stabilizer attachment joint on Embraer S.A. Model EMB-500 airplanes. This emergency AD was sent previously to all known U.S. owners and operators of these airplanes. This action was prompted the Agencia Nacional De Aviacao Civil (ANAC), which is the aviation authority for Brazil, issuing emergency AD No.: 2014-07-02, dated July 25, 2014 (referred to after this as "the MCAI"), to correct an unsafe condition for Embraer S.A. Model EMB-500 airplanes. The MCAI states:

This EAD results from a report of cracking in the barrel nuts at the horizontal stabilizer-to-vertical stabilizer attachment joint found during an inspection at the assembly line. This EAD is being issued to detect and correct cracking of the barrel nuts at the horizontal stabilizer-to-vertical stabilizer attachment joint, which could result in reduced structural integrity of the affected part and consequent detachment of the horizontal stabilizer from the airplane.

Since this condition may exist in other airplanes of the same type and affects flight safety, an immediate corrective action is required. Thus, sufficient reason exists to request compliance with this EAD in the indicated time limit without prior notice.

You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0511.

#### **Relevant Service Information**

Embraer S.A. has issued Phenom Alert Service Bulletin No. 500-55-A004, Revision 02, dated July 25, 2014. The actions described in this service bulletin are intended to correct the unsafe condition identified in the MCAI.

## **FAA's Determination**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with this State of Design Authority, they have notified us of the unsafe condition described in the MCAI and service information referenced above. We are issuing this AD because we evaluated all information provided by the State of Design Authority and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design.

## **AD Requirements**

This AD requires an inspection and replacement as necessary of the barrel nuts at the horizontal stabilizer to vertical stabilizer attachment joint. This AD also requires sending the inspection results to Embraer.

## **FAA's 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 of a report of cracking in the barrel nuts at the horizontal stabilizer-to-vertical stabilizer attachment joint found during an inspection at the assembly line. This condition could result in reduced structural integrity of the affected part and consequent detachment of the horizontal stabilizer from the airplane. Since this condition may exist in other airplanes of the same type and affects flight safety, an immediate corrective action is required. Therefore, we determined that notice and opportunity for public comment before issuing this AD are impracticable and that good cause exists for making this amendment effective in fewer 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-2014-0511 and Directorate Identifier 2014-CE-023-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 will affect 45 products of U.S. registry. We also estimate that it would take about 2.5 work-hours 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 the AD on U.S. operators to be \$9,562.50 or \$212.50 per product.

In addition, we estimate that any necessary follow-on actions would take about 2 work-hours and require parts costing \$150, for a cost of \$320 per product. We have no way of determining the number of products that may need these actions.

According to the manufacturer, some of 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.

### **Paperwork Reduction Act**

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to 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 control number for the collection of information required by this AD is 2120-0056. The paperwork cost associated with this AD has been detailed in the Costs of Compliance section of this document and includes time for reviewing instructions, as well as completing and reviewing the collection of information. Therefore, all reporting associated with this AD is 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.

### **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):



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**2014-15-51 Embraer S.A.:** Amendment 39-17953; Docket No. FAA-2014-0511; Directorate Identifier 2014-CE-023-AD.

**(a) Effective Date**

This AD is effective September 5, 2014 to all persons except those persons to whom it was made immediately effective by Emergency AD 2014-15-51, issued on July 25, 2014, which contained the requirements of this amendment.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Embraer S.A. Model EMB-500 airplanes, serial numbers 50000218 through 50000333, 50000336, 50000337, 50000339, and 50000341, certificated in any category.

**(d) Subject**

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 55, Stabilizers.

**(e) Unsafe Condition**

This AD was prompted by mandatory continuing airworthiness information (MCAI) issued by the aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as cracking of the barrel nuts at the horizontal stabilizer to vertical stabilizer attachment joint. We are issuing this AD to detect and correct cracking of the barrel nuts at the horizontal stabilizer to vertical stabilizer attachment joint that could result in reduced structural integrity of the affected part and consequent detachment of the horizontal stabilizer from the airplane.

**(f) Compliance**

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

**(g) Inspection**

Before further flight after the effective date of this AD, inspect all of the barrel self-locking nuts at the horizontal stabilizer to vertical stabilizer joint following the ACCOMPLISHMENT INSTRUCTIONS in Embraer S.A. Phenom Alert Service Bulletin No. 500-55-A004, Revision 02, dated July 25, 2014.

**(h) Replacement**

If, during the inspection required in paragraph (g) of this AD, any of the barrel nuts are found to be part number (P/N) NAS577B7A, before further flight, replace the applicable barrel nuts with new barrel nut P/N RMLH2577-070 following the ACCOMPLISHMENT INSTRUCTIONS in Embraer S.A. Phenom Alert Service Bulletin No. 500-55-A004, Revision 02, dated July 25, 2014.

**(i) Reporting Requirement**

Within 10 days after the inspection required in paragraph (g) of this AD, send the inspection results to Embraer using the "Service Bulletin Implementation and Evaluation Form" available on the Internet in the FLYEmbraer portal at: [www.flyembraer.com](http://www.flyembraer.com).

**(j) Credit for Actions Accomplished in Accordance With Previous Service Information**

This AD provides credit for the actions required in paragraphs (g), (h) and (i) of this AD, if those actions were performed before the effective date of this AD, using Embraer S.A. Phenom Alert Service Bulletin No. 500-55-A004, Revision 01, dated July 24, 2014, or Embraer S.A. Phenom Alert Service Bulletin No. 500-55-A004, Basic Revision, dated July 21, 2014.

**(k) Special Flight Permit**

No special flight permits allowed.

**(l) 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.

**(m) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Standards Office, Small 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 manager of the ACO, send it to the attention of the person identified in paragraph (n) 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.

## **(n) Related Information**

(1) For more information about this AD, contact: Jim Rutherford, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4165; fax: (816) 329-4090; email: jim.rutherford@faa.gov.

(2) Refer to MCAI Agencia De Aviacao Civil (ANAC) AD No.: 2014-07-02, dated July 25, 2014, and MCAI ANAC AD No.: 2014-07-03, dated July 25, 2014 for related information. You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0511.

Note 1 to paragraph (n)(2) of this AD: After the FAA issued Emergency AD 2014-15-51, ANAC issued AD No.: 2014-07-03, dated July 25, 2014, to supersede ANAC AD.: No. 2014-07-02. All requirement changes were incorporated into FAA emergency AD 2014-15-51 and are incorporated into this AD.

## **(o) Material Incorporated by Reference**

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

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

(i) Embraer S.A. Phenom Alert Service Bulletin No. 500-55-A004, Revision 02, dated July 25, 2014

(ii) Reserved.

(3) For Embraer S.A. service information identified in this AD, contact: EMBRAER S.A., Phenom Maintenance Support, Avenida Brigadeiro Faria Lima, 2170, Putim, CEP: 12227-901, Sao Jose dos Campos, Sao Paulo, Brasil; phone: (+55 12) 3927-1000; Fax: (+55 12) 3927-6600, Ext. 1448; email: phenom.reliability@embraer.com.br; Internet: <http://www.embraerexecutivejets.com/en-US/customer-support/Pages/Service-Center-Network.aspx>.

(4) You may view this 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.

(5) You may view this 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 Kansas City, Missouri, on August 11, 2014.

Earl Lawrence,  
Manager, Small Airplane Directorate,  
Aircraft Certification Service.