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**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2009-1001; Directorate Identifier 2009-NM-166-AD; Amendment 39-16071; AD 2008-04-18 R1]**

**RIN 2120-AA64**

**Airworthiness Directives; EMBRAER Model EMB-120, -120ER, -120FC, -120QC, and -120RT Airplanes**

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

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

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**SUMMARY:** We are adopting a new airworthiness directive (AD) for the products listed above that would revise an existing AD. 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:

It has been found that former revisions of the Maintenance Review Board Report (MRBR) of the EMB-120( ) aircraft do not fully comply with some Critical Design Configuration Control Limitations (CDCCL) and Fuel System Limitations (FSL). These limitations are necessary to preclude ignition sources in the fuel system, as required by RBHA-E88/SFAR-88 (Special Federal Aviation Regulation No. 88).

\* \* \* \* \*

The potential of ignition sources, in combination with flammable fuel vapors, could result in fuel tank explosions and consequent loss of the airplane. This AD requires actions that are intended to address the unsafe condition described in the MCAI.

**DATES:** This AD becomes effective November 16, 2009.

On April 3, 2008 (73 FR 10655, February 28, 2008), the Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD.

We must receive comments on this AD by December 14, 2009.

**ADDRESSES:** You may send comments 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 W12-40, 1200 New Jersey Avenue, SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

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>.

## **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 this AD, 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.

**FOR FURTHER INFORMATION CONTACT:** Todd Thompson, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1175; fax (425) 227-1149.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

On February 15, 2008, we issued AD 2008-04-18, Amendment 39-15390 (73 FR 10655, February 28, 2008). That AD applied to all EMBRAER Model EMB-120, -120ER, -120FC, -120QC, and -120RT airplanes. That AD required revising the Airworthiness Limitations Section of the Instructions for Continued Airworthiness to incorporate new limitations for fuel tank systems.

Critical design configuration control limitations (CDCCLs) are limitation requirements to preserve a critical ignition source prevention feature of the fuel tank system design that is necessary to prevent the occurrence of an unsafe condition. The purpose of a CDCCL is to provide instruction to retain the critical ignition source prevention feature during configuration change that may be caused by alterations, repairs, or maintenance actions. A CDCCL is not a periodic inspection.

Since we issued that AD, we have determined that it is necessary to clarify the AD's intended effect on spare and on-airplane fuel tank system components, regarding the use of maintenance manuals and instructions for continued airworthiness.

Section 91.403(c) of the Federal Aviation Regulations (14 CFR 91.403(c)) specifies the following:

No person may operate an aircraft for which a manufacturer's maintenance manual or instructions for continued airworthiness has been issued that contains an airworthiness limitation section unless the mandatory \* \* \* procedures \* \* \* have been complied with.

Some operators have questioned whether existing components affected by the new CDCCLs must be reworked. We did not intend for the AD to retroactively require rework of components that had been maintained using acceptable methods before the effective date of the AD. Owners and operators of the affected airplanes therefore are not required to rework affected components identified as airworthy or installed on the affected airplanes before the required revisions of the airworthiness limitations section. But once the CDCCLs are incorporated into the

airworthiness limitations section, future maintenance actions on components must be done in accordance with those CDCCLs.

### **FAA's Determination**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. For this reason, we are issuing this AD to revise AD 2008-04-18. This new AD retains the requirements of the existing AD, and adds a new note to clarify the intended effect of the AD on spare and on-airplane fuel tank system components. We have renumbered subsequent notes accordingly.

### **Explanation of Additional Change to AD**

AD 2008-04-18 allowed the use of later revisions of alternative inspections, inspection intervals, and CDCCLs, if they are part of a later revision of EMBRAER EMB-120 Brasilia Maintenance Review Board Report, MRB-HI-200, dated March 22, 2005. That provision has been removed from this AD. Allowing the use of "a later revision" of specific service documents violates Office of the Federal Register policies for approving materials that are incorporated by reference. Affected operators, however, may request approval to use a later revision of the referenced service documents as an alternative method of compliance, under the provisions of paragraph (g)(1) of this AD.

### **Differences Between the 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**

This revision imposes no additional economic burden. The current costs for this AD are repeated for the convenience of affected operators, as follows:

We estimate that this AD will affect about 109 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 \$80 per work-hour. Based on these figures, we estimate the cost of this AD to the U.S. operators to be \$8,720, or \$80 per product.

### **FAA's Justification and Determination of the Effective Date**

This revision merely clarifies the intended effect on spare and on-airplane fuel tank system components, and makes no substantive change to the AD's requirements. For this reason, it is found that notice and opportunity for prior public comment for this action are unnecessary, and 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 we did not precede it by notice and opportunity for public comment. We invite you to send any written relevant data,

views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2009-1001; Directorate Identifier 2009-NM-166-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.

### **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.

### **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 removing amendment 39-15390 (73 FR 10655, February 28, 2008) and adding the following new AD:



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**2008-04-18 R1 Empresa Brasileira de Aeronautica S.A. (EMBRAER):** Amendment 39-16071.  
Docket No. FAA-2009-1001; Directorate Identifier 2009-NM-166-AD.

**Effective Date**

- (a) This airworthiness directive (AD) becomes effective November 16, 2009.

**Affected ADs**

- (b) This AD revises AD 2008-04-18, Amendment 39-15390.

**Applicability**

- (c) This AD applies to all EMBRAER Model EMB-120, -120ER, -120FC, -120QC, and -120RT airplanes; certificated in any category.

Note 1: This AD requires revisions to certain operator maintenance documents to include new inspections. Compliance with these inspections is required by 14 CFR 91.403(c). For airplanes that have been previously modified, altered, or repaired in the areas addressed by these inspections, the operator may not be able to accomplish the inspections described in the revisions. In this situation, to comply with 14 CFR 91.403(c), the operator must request approval for an alternative method of compliance according to paragraph (g)(1) of this AD. The request should include a description of changes to the required inspections that will ensure the continued operational safety of the airplane.

**Subject**

- (d) Air Transport Association (ATA) of America Code 28: Fuel.

**Reason**

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

It has been found that former revisions of the Maintenance Review Board Report (MRBR) of the EMB-120() aircraft do not fully comply with some Critical Design Configuration Control Limitations (CDCCL) and Fuel System Limitations (FSL). These limitations are necessary to preclude ignition sources in the fuel system, as required by RBHA-E88/SFAR-88 (Special Federal Aviation Regulation No. 88).

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

The potential of ignition sources, in combination with flammable fuel vapors, could result in fuel tank explosions and consequent loss of the airplane. The corrective action is revising the Airworthiness Limitations Section (ALS) of the Instructions for Continued Airworthiness to incorporate new limitations for fuel tank systems.

## **Restatement of AD 2008-04-18 With Changes to Compliance Method**

### **Actions and Compliance**

(f) Unless already done, do the following actions.

(1) Within 1 month after April 3, 2008 (the effective date of AD 2008-04-18), revise the ALS of the Instructions for Continued Airworthiness to incorporate Tasks 15 to 18 of Section 6—"Part E—Fuel System Limitations," EMBRAER Temporary Revision No. 22-1, dated November 18, 2005, of the EMBRAER EMB-120 Brasilia Maintenance Review Board Report (MRBR), MRB-HI-200. For all tasks identified in the MRBR, the initial compliance times start from the later of the times specified in paragraphs (f)(1)(i) and (f)(1)(ii) of this AD, and the repetitive inspections must be accomplished thereafter at the interval specified in the MRBR, except as provided by paragraphs (f)(3) and (g)(1) of this AD.

(i) April 3, 2008.

(ii) The date of issuance of the original Brazilian standard airworthiness certificate or the date of issuance of the original Brazilian export certificate of airworthiness.

(2) Within 1 month after April 3, 2008, revise the ALS of the Instructions for Continued Airworthiness to incorporate the CDCCLs to include items (1) and (2), dated March 22, 2005, of Section 6—"Part D—Critical Design Configuration Control Limitation," of the EMBRAER EMB-120 Brasilia MRBR, MRB-HI-200.

(3) For the functional checks and detailed visual inspections, Tasks 15 to 18 of Section 6—"Part E—Fuel System Limitations," EMBRAER Temporary Revision No. 22-1, dated November 18, 2005, of the EMBRAER EMB-120 Brasilia MRBR, MRB-HI-200: The initial compliance time is within 4,000 flight hours or 48 months after April 3, 2008, whichever occurs first. Thereafter those tasks must be accomplished at the repetitive interval specified in Section 6—"Part E—Fuel System Limitations," EMBRAER Temporary Revision No. 22-1, dated November 18, 2005, of the EMBRAER EMB-120 Brasilia MRBR, MRB-HI-200.

(4) After accomplishing the actions specified in paragraphs (f)(1) and (f)(2) of this AD, no alternative inspections, inspection intervals, or CDCCLs may be used unless the inspections, intervals, or CDCCLs are approved as an alternative method of compliance in accordance with the procedures specified in paragraph (g)(1) of this AD.

### **New Information**

### **Explanation of CDCCL Requirements**

Note 2: Notwithstanding any other maintenance or operational requirements, components that have been identified as airworthy or installed on the affected airplanes before the revision of the ALS, as required by paragraph (f) of this AD, do not need to be reworked in accordance with the CDCCLs. However, once the ALS has been revised, future maintenance actions on these components must be done in accordance with the CDCCLs.

### **FAA AD Differences**

Note 3: 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, 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. Send information to ATTN: Todd Thompson,

Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1175; fax (425) 227-1149. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards 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.

(3) Reporting Requirements: For any reporting requirement in 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 and has assigned OMB Control Number 2120-0056.

### **Related Information**

(h) Refer to MCAI Brazilian Airworthiness Directive 2007-05-02, effective June 6, 2007; EMBRAER Temporary Revision No. 22-1, dated November 18, 2005, of the EMBRAER EMB-120 Brasilia MRBR, MRB-HI-200; and Section 6—"Part D—Critical Design Configuration Control Limitation," of the EMBRAER EMB-120 Brasilia MRBR, MRB-HI-200; for related information.

### **Material Incorporated by Reference**

(i) You must use EMBRAER Temporary Revision No. 22-1, dated November 18, 2005, of the EMBRAER EMB-120 Brasilia Maintenance Review Board Report, MRB-HI-200; and pages 6.III.1 and 6.III.2, dated March 22, 2005, of Section 6—"Part D—Critical Design Configuration Control Limitation," of the EMBRAER EMB-120 Brasilia Maintenance Review Board Report, MRB-HI-200; as applicable; to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register previously approved the incorporation by reference of this service information on April 3, 2008 (73 FR 10655, February 28, 2008).

(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](mailto: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 or 425-227-1152.

(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](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Renton, Washington, on October 22, 2009.

Ali Bahrami,  
Manager, Transport Airplane Directorate,  
Aircraft Certification Service.