



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2019-0118; Product Identifier 2018-NM-143-AD; Amendment 39-19582; AD 2019-03-30]

RIN 2120-AA64

Airworthiness Directives; Empresa Brasileira de Aeronautica S.A. (Embraer) Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain Empresa Brasileira de Aeronautica S.A. (Embraer) Model EMB-135ER, -135KE, -135KL, and -135LR airplanes and Model EMB-145, -145ER, -145MR, -145LR, -145XR, -145MP, and -145EP airplanes. This AD was prompted by reports of internal corrosion of the stow/transit switches installed in the engine thrust reversers. This AD requires installation of new stow/transit switches. We are issuing this AD to address the unsafe condition on these products.

DATES: This AD becomes effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain other publication listed in this AD as of August 3, 2004 (69 FR 38819, June 29, 2004).

We must receive comments on this AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

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: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 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 final rule, 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; email distrib@embraer.com.br; Internet <http://www.flyembraer.com>. You may view this

referenced service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0118.

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-2019-0118; 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: Kathleen Arrigotti, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3218.

SUPPLEMENTARY INFORMATION:

Discussion

The Agência Nacional de Aviação Civil (ANAC), which is the aviation authority for Brazil, has issued Brazilian AD 2001-05-03R3, dated April 22, 2003 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for all Empresa Brasileira de Aeronautica S.A. (Embraer) Model

EMB-135 airplanes and Model EMB-145, 145ER, -145MR, -145LR, -145XR, -145MP, and 145EP airplanes. The MCAI states:

There have been found cases of internal corrosion of the stow/transit switches installed in the engine thrust reversers of EMB-145 () aircraft models. One case of severely contaminated transit switch resulted in uncommanded engine rollback to idle in flight. Spurious messages “ENG () REV DISAGREE” have also been displayed in the [Engine Indicating and Crew Alerting System] EICAS, due to the above internal corrosion, which have induced aborted takeoffs.

Since this condition may occur in other airplanes of the same type and affects flight safety, a corrective action [installation of stow/transit switches] is required. Thus, sufficient reason exists to request compliance with this [Brazilian] AD in the indicated time limit.

You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0118.

Relationship Between this AD and AD 2004-13-16, Amendment 39-13698 (69 FR 38819, June 29, 2004) (“AD 2004-13-16”)

We issued AD 2004-13-16 to correspond to the MCAI. However, AD 2004-13-16 referenced Embraer Service Bulletin 145-78-0035, Revision 02, dated January 31, 2003, which has been revised to include additional airplanes. We have determined that not all affected airplanes were listed in Embraer Service Bulletin 145-78-0035, Revision 02, dated January 31, 2003.

This final rule does not supersede AD 2004-13-16. Rather, we have determined that a stand-alone AD is more appropriate to address the airplanes that were not identified in the applicability of AD 2004-13-16.

Related Service Information under 1 CFR part 51

Embraer issued Service Bulletin 145-78-0035, Revision 03, dated November 26, 2004. This service information describes procedures for installing new stow/transit switches having part number 83-990-168 on both engines. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Embraer also issued Service Bulletin 145-78-0035, Revision 02, dated January 31, 2003, which the Director of the Federal Register approved for incorporation by reference as of August 3, 2004 (69 FR 38819, June 29, 2004).

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 the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are issuing this AD because we evaluated all pertinent information and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design.

Requirements of this AD

This AD requires accomplishing the actions specified in the service information described previously.

FAA's Justification and Determination of the Effective Date

Since there are currently no domestic operators of this product, notice and opportunity for public comment before issuing this AD are unnecessary. In addition, for

the reason stated above, we find that 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-2019-0118; Product Identifier 2018-NM-143-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 based on 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

Currently, there are no affected U.S.-registered airplanes. If an affected airplane is imported and placed on the U.S. Register in the future, we provide the following cost estimates to comply with this AD:

Estimated costs for required actions

Labor cost	Parts cost	Cost per product
8 work-hours X \$85 per hour = \$680	\$194	\$874

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.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes and associated appliances to the Director of the System Oversight Division.

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 that 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);
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):

2019-03-30 Empresa Brasileira de Aeronautica S.A. (Embraer): Amendment 39-19582; Docket No. FAA-2019-0118; Product Identifier 2018-NM-143-AD.

(a) Effective Date

This AD becomes effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Empresa Brasileira de Aeronautica S.A. (Embraer) Model EMB-135ER, -135KE, -135KL, and -135LR airplanes; and Model EMB-145, -145ER, -145MR, -145LR, -145XR, -145MP, and -145EP airplanes identified in Embraer Service Bulletin 145-78-0035, Revision 03, dated November 26, 2004; certificated in any category; except airplanes identified in Embraer Service Bulletin 145-78-0035, Revision 02, dated January 31, 2003.

(d) Subject

Air Transport Association (ATA) of America Code 78, Engine Exhaust.

(e) Reason

This AD was prompted by reports of internal corrosion of the stow/transit switches installed in the engine thrust reversers. We are issuing this AD to address corrosion of the stow/transit switches, which could result in uncommanded loss of engine power in-flight or erroneous signals in the Engine Indicating and Crew Alerting System (EICAS), which could induce aborted takeoffs.

(f) Compliance

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

(g) Installation of Stow/Transit Switches

Before the accumulation of 2,000 total flight hours, or within 400 flight hours after the effective date of this AD, whichever occurs later, install new stow/transit switches having part number (P/N) 83-990-168, on the #1 and #2 engine thrust reversers, in accordance with the Accomplishment Instructions of Embraer Service Bulletin 145-78-0035, Revision 03, dated November 26, 2004.

(h) Parts Installation Limitation

As of the effective date of this AD, no person may install, on any airplane, a stow/transit switch having P/N 83-990-137 or P/N 83-990-152.

(i) Credit for Previous Actions

This paragraph provides credit for actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using the applicable document specified in paragraphs (i)(1), (i)(2), and (i)(3) of this AD.

(1) Embraer Service Bulletin 145-78-0035, dated October 4, 2002. This document is not incorporated by reference in this AD.

(2) Embraer Service Bulletin 145-78-0035, Revision 01, dated December 11, 2002. This document is not incorporated by reference in this AD.

(3) Embraer Service Bulletin 145-78-0035, Revision 02, dated January 31, 2003. This document is incorporated by reference in AD 2004-13-16, Amendment 39-13698 (69 FR 38819, June 29, 2004).

(j) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, International Section, Transport Standards Branch, 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 Section, send it to the attention of the person identified in paragraph (k)(2) of this AD. Information may be emailed 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.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or the Agência Nacional de Aviação Civil (ANAC); or ANAC's authorized Designee. If approved by the ANAC Designee, the approval must include the Designee's authorized signature.

(3) *Required for Compliance (RC)*: If any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can

be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

(k) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Brazilian AD 2001-05-03R3, dated April 22, 2003, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0118.

(2) For more information about this AD, contact Kathleen Arrigotti, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3218.

(3) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (1)(5) and (1)(6) of this AD.

(l) 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 this AD specifies otherwise.

(3) The following service information was approved for IBR on [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(i) Embraer Service Bulletin 145-78-0035, Revision 03, dated November 26, 2004.

(ii) [Reserved]

(4) The following service information was approved for IBR on August 3, 2004 (69 FR 38819, June 29, 2004).

(i) Embraer Service Bulletin 145-78-0035, Revision 02, dated January 31, 2003. Pages 1 and 2 of this document are identified as Revision 02, dated January 31, 2003; pages 3 through 13 are identified as the original version, dated October 4, 2002.

(ii) [Reserved]

(5) 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; email distrib@embraer.com.br; Internet <http://www.flyembraer.com>.

(6) You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(7) 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 Des Moines, Washington, on February 28, 2019.

Michael Kaszycki,
Acting Director,
System Oversight Division,
Aircraft Certification Service.

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