



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2019-0325; Product Identifier 2019-NM-038-AD; Amendment 39-19739; AD 2019-19-03]

RIN 2120-AA64

Airworthiness Directives; Embraer S.A. Airplanes

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

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Embraer S.A. Model ERJ 170 airplanes; 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. This AD was prompted by reports of the ram air turbine (RAT) compartment door seal peeling off and tangling up on the RAT rotor during flight test. This AD requires a general visual inspection for peeling-off of the RAT compartment door seal, bonding if necessary, and the rework of the RAT compartment door seal attachment. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Embraer S.A., 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 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-2019-0325.

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-2019-0325; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the regulatory evaluation, any comments received, and other information. The address for Docket Operations is 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 FURTHER INFORMATION CONTACT: Krista Greer, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3221.

SUPPLEMENTARY INFORMATION:

Discussion

The Agência Nacional de Aviação Civil (ANAC), which is the aviation authority for Brazil, has issued Brazilian AD 2019-02-02, dated February 28, 2019 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Embraer S.A. Model ERJ 170 airplanes; 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. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0325.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Embraer S.A. Model ERJ 170 airplanes; 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. The NPRM published in the Federal Register on May 29, 2019 (84 FR 24730). The NPRM was prompted by reports of the RAT compartment door seal peeling off and tangling up on the RAT rotor during flight test. The NPRM proposed to require a general visual inspection for peeling-off of the RAT compartment door seal, bonding if necessary, and the rework of the RAT compartment door seal attachment.

The FAA is issuing this AD to address the possible loss of the RAT function, which, when associated with an emergency electrical event, can result in the loss of airplane controllability. See the MCAI for additional background information.

Comments

The FAA gave the public the opportunity to participate in developing this final rule. The following presents the comments received on the NPRM and the FAA's response to each comment. The Air Line Pilots Association, International (ALPA) expressed support for the NPRM.

Request to Extend Compliance Time

JetBlue Airways and SkyWest Airlines Inc. requested an extension of the compliance time in paragraph (g)(1) of the proposed AD from 750 flight hours to 2,500 flight hours or 12 months. The commenters asserted that the new interval would align with the scheduled Maintenance Review Board tasks on the RAT, and that performing the AD at the same time as scheduled tasks would decrease the logistical burden of compliance.

The FAA disagrees with the commenters' request because the proposal contains no justification to show that an acceptable level of safety would be maintained. The FAA may, however, consider approving a longer compliance time as an alternative method of compliance (AMOC) with paragraph (g)(1) of this AD if sufficient substantiation is provided to show an acceptable level of safety. This AD has not been changed in this regard.

Conclusion

The FAA reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this final rule as proposed, except for minor editorial changes. The FAA has determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

Related Service Information under 1 CFR part 51

Embraer S.A. has issued Service Bulletin SB170-53-0142, Revision 01, dated December 12, 2018; Service Bulletin SB190-53-0098, Revision 01, dated December 12, 2018; and Service Bulletin SB190LIN-53-0072, Revision 01, dated January 9, 2019. This service information describes procedures for an inspection of the RAT compartment door seal, bonding, and rework of the RAT compartment door seal attachment, which includes installing fasteners around the RAT door seal attachment. These documents are distinct since they apply to different airplane models. 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.

Costs of Compliance

The FAA estimates that this AD affects 570 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated costs for required actions*

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
3 work-hours X \$85 per hour = \$255	\$0	\$255	\$145,350

*The FAA has received no definitive data that would enable the agency to provide a parts cost estimate for the actions specified in this AD.

The FAA has received no definitive data that would enable the agency to provide cost estimates for the on-condition actions specified in 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.

The FAA is 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

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) Will not affect intrastate aviation in Alaska, 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.

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):

2019-19-03 Embraer S.A.: Amendment 39-19739; Docket No. FAA-2019-0325;

Product Identifier 2019-NM-038-AD.

(a) Effective Date

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Embraer S.A. airplanes, identified in paragraphs (c)(1) through (3) of this AD, certificated in any category.

(1) Model ERJ 170-100 LR, -100 STD, -100 SE, and -100 SU airplanes; and Model ERJ 170-200 LR, -200 SU, -200 STD, and -200 LL airplanes, as identified in Embraer Service Bulletin SB170-53-0142, Revision 01, dated December 12, 2018.

(2) Model ERJ 190-100 STD, -100 LR, and -100 IGW airplanes; and ERJ 190-200 STD, -200 LR, and -200 IGW airplanes, as identified in Embraer Service Bulletin SB190-53-0098, Revision 01, dated December 12, 2018.

(3) Model ERJ 190-100 ECJ airplanes, as identified in Embraer Service Bulletin SB190LIN-53-0072, Revision 01, dated January 9, 2019.

(d) Subject

Air Transport Association (ATA) of America Code 53, Fuselage.

(e) Reason

This AD was prompted by reports of the ram air turbine (RAT) compartment door seal peeling off and tangling up on the RAT rotor during flight test. The FAA is issuing this AD to address the possible loss of the RAT function, which, when associated with an emergency electrical event, could result in the loss of airplane controllability.

(f) Compliance

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

(g) Inspection and Rework

(1) For airplanes identified in paragraph (c)(1) of this AD: Within 750 flight hours after the effective date of this AD, do a general visual inspection of the RAT

compartment door seal for peeling-off conditions (disbonding), do all applicable bonding, and rework the RAT compartment door seal attachment, in accordance with the Accomplishment Instructions of the service information identified in paragraph (c)(1) of this AD. Do all applicable bonding before further flight.

(2) For airplanes identified in paragraph (c)(2) of this AD: Within 750 flight hours after the effective date of this AD, do a general visual inspection of the RAT compartment door seal for peeling-off conditions (disbonding), do all applicable bonding, and rework the RAT compartment door seal attachment, in accordance with the Accomplishment Instructions of the service information identified in paragraph (c)(2) of this AD. Do all applicable bonding before further flight.

(3) For airplanes identified in paragraph (c)(3) of this AD: Within 400 flight hours or 6 months after the effective date of this AD, whichever occurs first, do a general visual inspection of the RAT compartment door seal for peeling-off conditions (disbonding), do all applicable bonding, and rework the RAT compartment door seal attachment, in accordance with the Accomplishment Instructions of the service information identified in paragraph (c)(3) of this AD. Do all applicable bonding before further flight.

(h) 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 Embraer Service Bulletin 170-53-0142, dated December 8, 2017; Embraer Service Bulletin 190-53-0098, dated December 8, 2017; or Embraer Service Bulletin 190LIN-53-0072, dated December 15, 2017; as applicable.

(i) 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 (j)(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)*: Except as specified by paragraphs (g) and (i)(2) of this AD: For service information that contains steps that are labeled as RC, the provisions of paragraphs (i)(3)(i) and (ii) of this AD apply.

(i) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with the AD. If a step or substep is

labeled “RC Exempt,” then the RC requirement is removed from that step or substep. An AMOC is required for any deviations to RC steps, including substeps and identified figures.

(ii) Steps not labeled 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 RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

(j) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Brazilian AD 2019-02-02, dated February 28, 2019, 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-2019-0325.

(2) For more information about this AD, contact Krista Greer, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3221.

(3) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (k)(3) and (4) of this AD.

(k) 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.

(i) Embraer Service Bulletin SB170-53-0142, Revision 01, dated December 12, 2018.

(ii) Embraer Service Bulletin SB190-53-0098, Revision 01, dated December 12, 2018.

(iii) Embraer Service Bulletin 190LIN-53-0072, Revision 01, dated January 9, 2019.

(3) For service information identified in this AD, contact Embraer S.A., 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>.

(4) 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.

(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, email fedreg.legal@nara.gov, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Des Moines, Washington, on September 16, 2019.

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

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