



[4910-13-P]

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. FAA-2019-0701; Product Identifier 2019-NM-107-AD]**

**RIN 2120-AA64**

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

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

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to adopt a new airworthiness directive (AD) for certain Embraer S.A. Model ERJ 190-100 STD, -100 LR, -100 IGW, -200 STD, -200 LR, and -200 IGW airplanes. This proposed AD was prompted by reports of structural cracks in the wing lower skin stringers on both half wings. This proposed AD would require repetitive inspections of the lower skin stringers on both half wings for cracking or fuel leakage, and applicable related investigative and corrective actions, as specified in an Agência Nacional de Aviação Civil (ANAC) Brazilian AD, which will be incorporated by reference. The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed 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: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For the material identified in this proposed AD that will be incorporated by reference (IBR), contact National Civil Aviation Agency, Aeronautical Products Certification Branch (GGCP), Rua Laurent Martins, nº 209, Jardim Esplanada, CEP 12242-431 – São José dos Campos - SP, Brazil; telephone 55 (12) 3203-6600; email [pac@anac.gov.br](mailto:pac@anac.gov.br); Internet [www.anac.gov.br/en/](http://www.anac.gov.br/en/). You may find this IBR material on the ANAC website at <https://sistemas.anac.gov.br/certificacao/DA/DAE.asp>. You may view this IBR material 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 in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0701.

### **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-2019-0701; 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 NPRM, the regulatory evaluation, any comments received, and other information. The street address for Docket Operations is listed above.

Comments will be available in the AD docket shortly after receipt.

**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:**

**Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2019-0701; Product Identifier 2019-NM-107-AD” at the beginning of your comments. The FAA specifically invites comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. The FAA will consider all comments received by the closing date and may amend this NPRM based on those comments.

The FAA will post all comments received, without change, to <http://www.regulations.gov>, including any personal information you provide. The FAA will also post a report summarizing each substantive verbal contact received about this NPRM.

**Discussion**

The ANAC, which is the aviation authority for Brazil, has issued Brazilian AD 2019-06-01, effective June 17, 2019 (“Brazilian AD 2019-06-01”) (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 190-100 STD, -100 LR, -100 IGW, -200 STD, -200 LR, and -200 IGW airplanes. The MCAI states:

It has been found the occurrence of structural cracks in the wing lower skin stringers between ribs 7 and 10 on both half wings. The cracks propagation on these wing lower skin stringers may result in fuel leakage and reduced wing structural integrity.

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

#### **Related IBR Material under 1 CFR part 51**

Brazilian AD 2019-06-01 describes procedures for repetitive detailed inspections of the lower skin stringers on both half wings for cracking or fuel leakage, and applicable related investigative and corrective actions. Related investigative actions include a high frequency eddy current (HFEC) inspection of any area with crack indications to confirm the damage extension. Corrective actions include repairs. This material 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.

#### **FAA’s Determination and Requirements of this Proposed AD**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to a bilateral agreement with the State of Design Authority, the FAA has been notified of the unsafe condition described in the MCAI referenced above. The FAA is proposing this AD because the agency

evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

### **Proposed AD Requirements**

This proposed AD would require accomplishing the actions specified in Brazilian AD 2019-06-01 described previously, as incorporated by reference, except for any differences identified as exceptions in the regulatory text of this AD.

### **Explanation of Required Compliance Information**

In the FAA's ongoing efforts to improve the efficiency of the AD process, the FAA initially worked with Airbus and the European Aviation Safety Agency (EASA) to develop a process to use certain EASA ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has since coordinated with other manufacturers and civil aviation authorities (CAAs) to use this process. As a result, Brazilian AD 2019-06-01 would be incorporated by reference in the FAA final rule. This proposed AD would, therefore, require compliance with Brazilian AD 2019-06-01 in its entirety, through that incorporation, except for any differences identified as exceptions in the regulatory text of this proposed AD. Service information specified in Brazilian AD 2019-06-01 that is required for compliance with Brazilian AD 2019-06-01 will be available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0701 after the FAA final rule is published.

### **Costs of Compliance**

The FAA estimates that this proposed AD affects 29 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

### Estimated costs for required actions

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
12 work-hours X \$85 per hour = \$1,020	\$0	\$1,020	\$29,580

The FAA estimates the following costs to do any necessary on-condition actions that would be required based on the results of any required actions. The FAA has no way of determining the number of aircraft that might need these on-condition actions:

### Estimated costs of on-condition actions

Labor cost	Parts cost	Cost per product
Up to 898 work-hours X \$85 per hour = Up to \$76,330	Negligible	Up to \$76,330

### 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 proposed 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**

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 proposed regulation:

- (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.

## **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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):

**Embraer S.A:** Docket No. FAA-2019-0701; Product Identifier 2019-NM-107-AD.

#### **(a) Comments Due Date**

The FAA must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to Embraer S.A. Model ERJ 190-100 STD, -100 LR, -100 IGW, -200 STD, -200 LR, and -200 IGW airplanes, certificated in any category, as identified in Agência Nacional de Aviação Civil (ANAC) Brazilian AD 2019-06-01, effective June 17, 2019 (“Brazilian AD 2019-06-01”).

#### **(d) Subject**

Air Transport Association (ATA) of America Code 57, Wings.

**(e) Reason**

This AD was prompted by reports of structural cracks in the wing lower skin stringers on both half wings. The FAA is issuing this AD to address such cracking, which could result in fuel leakage and reduced structural integrity of the wing.

**(f) Compliance**

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

**(g) Requirements**

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, Brazilian AD 2019-06-01.

**(h) Exceptions to Brazilian AD 2019-06-01**

(1) For purposes of determining compliance with the requirements of this AD: Where Brazilian AD 2019-06-01 refers to its effective date, this AD requires using the effective date of this AD.

(2) The “Alternative method of compliance (AMOC)” section of Brazilian AD 2019-06-01 does not apply to this AD.

(3) Where paragraph (a)(1) of Brazilian AD 2019-06-01 specifies an initial inspection time, this AD requires an initial inspection at the applicable time specified in paragraph (h)(3)(i) or (ii) of this AD, whichever occurs later.

(i) Before the accumulation of 17,000 total flight cycles or 27,000 total flight hours, whichever occurs first.

(ii) Within 680 flight cycles or 900 flight hours after the effective date of this AD, whichever occurs first.

(4) Where paragraph (a)(1)(ii) of Brazilian AD 2019-06-01 specifies to do a special detailed inspection (SDI) in case of any “signal” of cracks, this AD requires doing an SDI before further flight after the detection of any “sign” of structural cracks in the inspected area.

**(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 instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or ANAC; or ANAC’s authorized Designee. If approved by the ANAC Designee, the approval must include the Designee’s authorized signature.

**(j) Related Information**

(1) For information about Brazilian AD 2019-06-01, contact National Civil Aviation Agency, Aeronautical Products Certification Branch (GGCP), Rua Laurent Martins, nº 209, Jardim Esplanada, CEP 12242-431 – São José dos Campos - SP, Brazil; telephone 55 (12) 3203-6600; email [pac@anac.gov.br](mailto:pac@anac.gov.br); Internet [www.anac.gov.br/en/](http://www.anac.gov.br/en/).

You may find this IBR material on the ANAC website at

<https://sistemas.anac.gov.br/certificacao/DA/DAE.asp>. You may view this Brazilian AD 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. Brazilian AD 2019-06-01 may be found in the AD docket on the Internet at

<http://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0701.

(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.

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

Suzanne Masterson,  
Acting Director,  
System Oversight Division,  
Aircraft Certification Service.

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