

[Federal Register, Volume 89 Number 189 (Monday, September 30, 2024)]

[Rules and Regulations]

[Pages 79416-79418]

From the Federal Register Online via the Government Publishing Office [www.gpo.gov]

[FR Doc No: 2024-22318]

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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. FAA-2024-0994; Project Identifier MCAI-2023-01238-T; Amendment 39-22828; AD 2024-17-03]**

**RIN 2120-AA64**

**Airworthiness Directives; Embraer S.A. (Type Certificate Previously Held by Yaborã Indústria Aeronáutica S.A.; Embraer S.A.) Airplanes**

#### **AGENCY:**

Federal Aviation Administration (FAA), DOT.

#### **ACTION:**

Final rule.

#### **SUMMARY:**

The FAA is superseding Airworthiness Directive (AD) 2019-24-16, which applied to certain Embraer S.A. Model ERJ 190-100 STD, -100 LR, -100 IGW, and -100 ECJ airplanes; and Model ERJ 190-200 STD, -200 LR, and -200 IGW airplanes. AD 2019-24-16 required revising the existing maintenance or inspection program, as applicable, to incorporate new or more restrictive airworthiness limitations. Since the FAA issued AD 2019-24-16, the FAA has determined that new or more restrictive airworthiness limitations are necessary. This AD requires revising the existing maintenance or inspection program, as applicable, to incorporate new or more restrictive airworthiness limitations, as specified in an Agência Nacional de Aviação Civil (ANAC) AD, which is incorporated by reference (IBR). The FAA is issuing this AD to address the unsafe condition on these products.

#### **DATES:**

This AD is effective November 4, 2024.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of November 4, 2024.

The Director of the Federal Register approved the incorporation by reference of certain other publications listed in this AD as of February 3, 2020 ([84 FR 71772](#), December 30, 2019).

## ADDRESSES:

*AD Docket:* You may examine the AD docket at *regulations.gov* under Docket No. FAA-2024-0994; 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 mandatory continuing airworthiness information (MCAI), 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.

### *Material Incorporated by Reference:*

- For ANAC material identified in this AD, contact National Civil Aviation Agency (ANAC), Aeronautical Products Certification Branch (GGCP), Rua Dr. Orlando Feirabend Filho, 230—Centro Empresarial Aquarius—Torre B—Andares 14 a 18, Parque Residencial Aquarius, CEP 12.246-190—São José dos Campos—SP, Brazil; telephone 55 (12) 3203-6600; email [pac@anac.gov.br](mailto:pac@anac.gov.br); website [anac.gov.br/en/](http://anac.gov.br/en/). You may find this material on the ANAC website at [sistemas.anac.gov.br/certificacao/DA/DAE.asp](http://sistemas.anac.gov.br/certificacao/DA/DAE.asp).
- For Embraer material identified in this AD, contact Embraer S.A., Technical Publications Section (PC 060), Av. Brigadeiro Faria Lima, 2170—Putim—12227-901 São José dos Campos—SP—Brazil; telephone 55 (12) 3927-5852 or 55 (12) 3309-0732; fax 55 (12) 3927-7546; email [distrib@embraer.com.br](mailto:distrib@embraer.com.br); website [www.flyembraer.com](http://www.flyembraer.com).
- You may view this material at the FAA, Airworthiness Products Section, Operational Safety 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 at *regulations.gov* under Docket No. FAA-2024-0994.

## FOR FURTHER INFORMATION CONTACT:

Joshua Bragg, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 216-316-6418; email [joshua.k.bragg@faa.gov](mailto:joshua.k.bragg@faa.gov).

## SUPPLEMENTARY INFORMATION:

### Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend [14 CFR part 39](#) to supersede AD 2019-24-16, Amendment 39-21005 ([84 FR 71772](#), December 30, 2019) (AD 2019-24-16). AD 2019-24-16 applied to certain Embraer S.A. Model ERJ 190-100 STD, -100 LR, -100 IGW, and -100 ECJ airplanes; and Model ERJ 190-200 STD, -200 LR, and -200 IGW airplanes. AD 2019-24-16 required revising the existing maintenance or inspection program, as applicable, to incorporate new or more restrictive airworthiness limitations. The FAA issued AD 2019-24-16 to address fatigue cracking of structural components and to address failure of certain system components, which could result in reduced structural integrity and system reliability of the airplane.

The NPRM published in the **Federal Register** on April 4, 2024 ([89 FR 23529](#)). The NPRM was prompted by AD 2023-12-02, effective December 15, 2023, issued by ANAC, which is the aviation

authority for Brazil (ANAC AD 2023-12-02) (also referred to as the MCAI), for certain Embraer S.A. Model ERJ 190-100 STD, -100 LR, -100 IGW, -100 SR, and -100 ECJ airplanes; and Model ERJ 190-200 STD, -200 LR, and -200 IGW airplanes. Model ERJ 190-100SR airplanes are not on the U.S. Register; this AD therefore does not include those airplanes in the applicability. The MCAI states that new or more restrictive airworthiness limitations have been developed.

In the NPRM, the FAA proposed to retain all requirements of AD 2019-24-16, and require revising the existing maintenance or inspection program, as applicable, to incorporate additional new or more restrictive airworthiness limitations, as specified in ANAC AD 2023-12-02. The FAA is issuing this AD to address failure of certain system components. The unsafe condition, if not addressed, could result in reduced structural integrity and system reliability of the airplane.

You may examine the MCAI in the AD docket at *regulations.gov* under Docket No. FAA-2024-0994.

## Discussion of Final Airworthiness Directive

### Comments

The FAA received no comments on the NPRM or on the determination of the cost to the public.

### Conclusion

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA reviewed the relevant data and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on this product. Except for minor editorial changes, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

### Material Incorporated by Reference Under [1 CFR Part 51](#)

ANAC AD 2023-12-02 specifies procedures for new or more restrictive airworthiness limitations for airplane structures and safe life limits.

This AD also requires the following documents, which the Director of the Federal Register approved for incorporation by reference as of February 3, 2020 ([84 FR 71772](#), December 30, 2019).

- Appendix A—Airworthiness Limitations (AL), to the EMBRAER 190/195 Maintenance Review Board Report, MRB-1928, Revision 12, dated September 27, 2018.
- Appendix A—Airworthiness Limitations (AL), to the EMBRAER Lineage 1000/1000E Maintenance Planning Guide, MPG-2928, Revision 8, dated October 10, 2018.

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.

### Costs of Compliance

The FAA estimates that this AD affects 98 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

The FAA estimates the total cost per operator for the retained actions from AD 2019-24-16 to be \$7,650 (90 workhours × \$85 per work-hour).

The FAA has determined that revising the existing maintenance or inspection program takes an average of 90 workhours per operator, although the agency recognizes that this number may vary from operator to operator. Since operators incorporate maintenance or inspection program changes for their affected fleet(s), the FAA has determined that a per-operator estimate is more accurate than a per-airplane estimate.

The FAA estimates the total cost per operator for the new actions to be \$7,650 (90 work-hours × \$85 per work-hour).

### **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.

### **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

## 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:

- a. Removing Airworthiness Directive (AD) 2019-24-16, Amendment 39-21005 ( [84 FR 71772](#), December 30, 2019); and

- b. Adding the following new AD:

**2024-17-03 Embraer S.A. (Type Certificate Previously Held by Yaborã Indústria Aeronáutica S.A.; Embraer S.A.; Empresa Brasileira de Aeronáutica S.A. (EMBRAER)):** Amendment 39-22828; Docket No. FAA-2024-0994; Project Identifier MCAI-2023-01238-T.

#### **(a) Effective Date**

This airworthiness directive (AD) is effective November 4, 2024.

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

This AD replaces AD 2019-24-16, Amendment 39-21005 ([84 FR 71772](#), December 30, 2019) (AD 2019-24-16).

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

This AD applies to Embraer S.A. 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; certificated in any category; as identified in Agência Nacional de Aviação Civil (ANAC) AD 2023-12-02, effective December 15, 2023 (ANAC AD 2023-12-02).

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

Air Transport Association (ATA) of America Code 05, Time Limits/Maintenance Checks.

#### **(e) Unsafe Condition**

This AD was prompted by a determination that new or more restrictive airworthiness limitations are necessary. The FAA is issuing this AD to address failure of certain system components. The unsafe condition, if not addressed, could result in reduced structural integrity and system reliability of the airplane.

**(f) Compliance**

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

**(g) Retained Revision of the Existing Maintenance or Inspection Program, With No Changes**

This paragraph restates the requirements of paragraph (i) of AD 2019-24-16, with no changes. For airplanes having serial numbers 19000002, 19000004, 19000006 through 19000213 inclusive, 19000215 through 19000276 inclusive, 19000278 through 19000466 inclusive, 19000468 through 19000525 inclusive, and 19000527 through 19000758 inclusive: Do the revision required by paragraph (g)(1) or (2) of this AD, as applicable. Accomplishing the revision of the existing maintenance or inspection program required by paragraph (i) of this AD terminates the requirements of this paragraph.

(1) For Model ERJ 190-100 STD, ERJ 190-100 LR, ERJ 190-100 IGW, ERJ 190-200 STD, ERJ 190-200 LR, and ERJ 190-200 IGW airplanes: Within 90 days after February 3, 2020 (the effective date of AD 2019-24-16), revise the existing maintenance or inspection program, as applicable, to incorporate the information specified in Appendix A—Airworthiness Limitations (AL); to the EMBRAER 190/195 Maintenance Review Board Report, MRB-1928, Revision 12, dated September 27, 2018 (“EMBRAER 190/195 MRB-1928, Revision 12”). The initial compliance times for doing the tasks are at the later of the times specified in paragraphs (g)(1)(i) and (ii) of this AD.

(i) Within the applicable times specified in EMBRAER 190/195 MRB-1928, Revision 12. For the purposes of this AD, the initial compliance times (identified as “Threshold” or “T” in EMBRAER 190/195 MRB-1928, Revision 12) are expressed in “total flight cycles” or “total flight hours” as applicable.

(ii) Within 90 days or 600 flight cycles after February 3, 2020 (the effective date of AD 2019-24-16), whichever occurs later.

(2) For Model ERJ 190-100 ECJ airplanes: Within 90 days after February 3, 2020 (the effective date of AD 2019-24-16), revise the existing maintenance or inspection program, as applicable, to incorporate the tasks specified in Appendix A—Airworthiness Limitations (AL), to the EMBRAER Lineage 1000/1000E Maintenance Planning Guide, MPG-2928, Revision 8, dated October 10, 2018 (“EMBRAER Lineage 1000/1000E MPG-2928, Revision 8”). The initial compliance times for the tasks are at the later of the times specified in paragraphs (g)(2)(i) and (ii) of this AD.

(i) Within the applicable times specified in EMBRAER Lineage 1000/1000E MPG-2928, Revision 8. For the purposes of this AD, the initial compliance times (identified as “Threshold” or “T” in EMBRAER Lineage 1000/1000E MPG-2928, Revision 8) are expressed in “total flight cycles” or “total flight hours” as applicable.

(ii) Within 90 days or 600 flight cycles after February 3, 2020 (the effective date of AD 2019-24-16),

whichever occurs later.

#### **(h) Retained Restrictions on Alternative Actions, Intervals, and Critical Design Configuration Control Limitations (CDCCLs), With a New Exception**

This paragraph restates the requirements of paragraph (j) of AD 2019-24-16, with a new exception. Except as required by paragraph (i) of this AD: After the existing maintenance or inspection program has been revised as required by paragraph (g) of this AD, no alternative actions ( *e.g.*, inspections), intervals, or CDCCLs may be used unless the actions, intervals, and CDCCLs are approved as an AMOC in accordance with the procedures specified in paragraph (k)(1) of this AD.

#### **(i) New Revision of the Existing Maintenance or Inspection Program**

Except as specified in paragraph (j) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, ANAC AD 2023-12-02. Accomplishing the revision of the existing maintenance or inspection program required by this paragraph terminates the requirements of paragraph (g) of this AD.

#### **(j) Exceptions to ANAC AD 2023-12-02**

(1) Where ANAC AD 2023-12-02 refers to its effective date, this AD requires using the effective date of this AD.

(2) This AD does not adopt paragraph (d) of ANAC AD 2023-12-02.

(3) Where paragraph (c) of ANAC AD 2023-12-02 refers to “alternative inspections or inspection intervals,” for this AD, replace that text with “alternative actions ( *e.g.*, inspections), intervals, and CDCCLs.”

#### **(k) Additional AD Provisions**

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, International Validation 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 responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the International Validation Branch, mail it to the address identified in paragraph (l) of this AD. Information may be emailed to: [9-AVS-AIR-730-AMOC@faa.gov](mailto:9-AVS-AIR-730-AMOC@faa.gov). Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards 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 Validation Branch, FAA; or ANAC; or ANAC's authorized Designee. If approved by the ANAC Designee, the approval must include the Designee's authorized signature.

#### **(l) Additional Information**

For more information about this AD, contact Joshua Bragg, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone (216) 316-6418; email [joshua.k.bragg@faa.gov](mailto:joshua.k.bragg@faa.gov).

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

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

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

(3) The following material was approved for IBR on [DATE 35 DAYS AFTER PUBLICATION OF THE FINAL RULE].

(i) Agência Nacional de Aviação Civil (ANAC) AD 2023-12-02, effective December 15, 2023.

(ii) [Reserved]

(4) The following material was approved for IBR on February 3, 2020 ([84 FR 71772](#), December 30, 2019).

(i) Appendix A—Airworthiness Limitations (AL); to the EMBRAER 190/195 Maintenance Review Board Report, MRB-1928, Revision 12, dated September 27, 2018.

(ii) Appendix A—Airworthiness Limitations (AL), to the EMBRAER Lineage 1000/1000E Maintenance Planning Guide, MPG-2928, Revision 8, dated October 10, 2018.

(5) For ANAC AD 2023-12-02 identified in this AD, contact ANAC, Aeronautical Products Certification Branch (GGCP), Rua Dr. Orlando Feirabend Filho, 230—Centro Empresarial Aquarius—Torre B—Andares 14 a 18, Parque Residencial Aquarius, CEP 12.246-190—São José dos Campos—SP, Brazil; telephone 55 (12) 3203-6600; email [pac@anac.gov.br](mailto:pac@anac.gov.br); website [anac.gov.br/en/](http://anac.gov.br/en/). You may find this ANAC AD on the ANAC website at [sistemas.anac.gov.br/certificacao/DA/DAE.asp](http://sistemas.anac.gov.br/certificacao/DA/DAE.asp).

(6) For Embraer material identified in this AD, contact Embraer S.A., Technical Publications Section (PC 060), Av. Brigadeiro Faria Lima, 2170—Putim—12227-901 São José dos Campos—SP—Brazil; telephone 55 (12) 3927-5852 or 55 (12) 3309-0732; fax 55 (12) 3927-7546; email [distrib@embraer.com.br](mailto:distrib@embraer.com.br); website [www.flyembraer.com](http://www.flyembraer.com).

(7) You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(8) You may view this material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, visit [www.archives.gov/federal-register/cfr/ibr-locations](http://www.archives.gov/federal-register/cfr/ibr-locations), or email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov).

Issued on August 20, 2024.

Suzanne Masterson,



Deputy Director, Integrated Certificate Management Division, Aircraft Certification Service.

[[FR Doc. 2024-22318](#) Filed 9-27-24; 8:45 am]

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