**AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL - BRAZIL**

# BRAZILIAN AIRWORTHINESS DIRECTIVE

**AD No.: 2026-01-02** **Effective Date: 21 Jan. 2026**

The following Brazilian Airworthiness Directive (AD), issued by the Agência Nacional de Aviação Civil (ANAC) in accordance with provisions of Chapter IV, Title III of Código Brasileiro de Aeronáutica - Law No. 7,565 dated 19 December 1986 - and Regulamento Brasileiro da Aviação Civil (RBAC) 39, applies to all aircraft registered in the Registro Aeronáutico Brasileiro. No person may operate an aircraft to which this AD applies, unless it has previously complied with the requirements established herein.

**[corrected in 26 February 2026]**

**AD No. 2026-01-02 - EMBRAER / 39-1597.**

**APPLICABILITY:**

This Airworthiness Directive (AD) applies to all Embraer S.A. airplanes model EMB-545 and EMB-550.

**CANCELLATION / REVISION:**

Not applicable.

**REASON:**

It has been found unexpected wear on the horizontal stabilizers (HS) elevator and wing aileron hinge bearings assemblies during the Functional Check (FNC) of both surfaces control system backlash, beyond the certification limits of the airplane. Excessive backlash may result in a Limit Cycle Oscillation (LCO) phenomenon exposing the surrounding structure and systems to unacceptable vibration levels and reducing the airplane controllability.

Since this condition may occur in other airplanes of the same type and affects flight safety, a corrective/preventive action is required. Thus, sufficient reason exists to mandate compliance with this AD in the indicated time limit.

**REQUIRED ACTION:**

FNC of the airplane Left-Hand (LH) and Right-Hand (RH) HS elevator control system backlash, FNC of the airplane LH and RH wing aileron control system backlash, and replacement of parts, if applicable.

**COMPLIANCE:**

Required as indicated below, unless already accomplished.

**(a) FNC of the airplane LH and RH HS elevator control system backlash.**

**(1)** For airplanes that have accumulated 5,500 Flight Hours Since New (FHSN) or less at

the effective date of this AD, before accumulating 6,000 FHSN, perform a new FNC of the LH and RH HS elevator control system backlash according to the Certification Maintenance Requirement (CMR) 27-32-01-902 task.

**NOTE 1:**If, during the execution of task CMR 27-32-01-902, any failure is identified, perform troubleshooting in accordance with the applicable Fault Isolation Manual (FIM) procedure before the next flight. Then, carry out a new Functional Check (FNC) of the LH and RH HS elevator control system backlash, according to the Certification Maintenance Requirement (CMR) 27-32-01-902 task.

**NOTE 2:** The FNC required by paragraph **(a)** of this AD are additional to the current required and therefore, an accomplishment of the CMR 27-32-01-902 task within its interval must not be considered to comply with paragraph **(a)** requirements of this AD, except if the interval in between them is less than 750 FH.

**(2)** If, at the effective date of this AD, the airplane has accumulated more than 5,500 FH , no action is required by this paragraph **(a)**.

**(b) Replacement of the airplane LH and RH HS elevator control system bearings and repetition of additional inspections.**

**(1)** Within the applicable intervals and limitations established in the "Table 01 – Bearings replacement compliance intervals" of this AD, replace the airplane LH and RH HS elevator control system bearings according to the detailed instructions and procedures described in the Embraer Service Bulletin Nº 550-57-0007, revision 02, dated October 14, 2025, or further revisions approved by ANAC.

Table 01 – Bearings replacement compliance intervals.

| Applicable airplane FHSN. | Initial Compliance interval in FH. |
|---|---|
| Airplanes with less than or equal to 7,400 FHSN. | Before the airplane accumulates 7,500 FHSN. |
| Airplanes with more than 7,400 FHSN and less than or equal to 9,000 FHSN. | Within the next 100 FH after the effective date of this AD or before the airplane accumulates 9,000 FHSN, whichever occurs later. |
| Airplanes with more than 9,000 FHSN. | Within the next 100 FH or 2 months after the effective date of this AD, whichever occurs first. |

**(2)** Replace the airplane LH and RH HS elevator control system bearings at each 7,500 FH after the first replacement required by paragraph **(b)(1)** of this AD.

**(3)** If any bearing of the airplane LH and RH HS elevator control system has been replaced on the FNC required by the paragraph **(a)** of this AD or during the accomplishment of CMR 27-32-01-902 task; replace it in intervals that do not exceed 7,500 FH since the last replacement.

**(4)** Repeat the FNC of the airplane LH and RH HS elevator control system backlash according to the Certification Maintenance Requirement (CMR) 27-32-01-902 task, at intervals that do not exceed 6,000 FH.

**NOTE:** The FNC required by paragraph **(b)(4)** of this AD are additional to the current required and therefore, an accomplishment of the CMR 27-32-01-902 task within its interval must not be considered to comply with paragraph **(b)(4)** requirements of this AD, except if the interval in between them is less than 750 FH.

**(c) FNC of the airplane LH and RH wing aileron control system backlash.**

**(1)** For airplanes that have accumulated 5,500 Flight Hours Since New (FHSN) or less at the effective date of this AD, before accumulating 6,000 FHSN, perform a new FNC of the LH and RH wing aileron system backlash according to the Certification Maintenance Requirement (CMR) 27-12-01-

902 task.

**NOTE 1:**If, during the execution of task CMR 27-12-01-902, any failure is identified, perform troubleshooting in accordance with the applicable Fault Isolation Manual (FIM) procedure before the next flight. Then, carry out a new Functional Check (FNC) of the LH and RH wing aileron system backlash, , according to the Certification Maintenance Requirement (CMR) 27-12-01-902 task.

**NOTE 2:** The FNC required by paragraph **(c)** of this AD are additional to the current required and therefore, an accomplishment of the CMR 27-12-01-902 task within its interval must not be considered to comply with paragraph **(c)** requirements of this AD, except if the interval in between them is less than 750 FH.

**(2)** If, at the effective date of this AD, the airplane has accumulated more than 5,500 FH , no action is required by this paragraph **(c)**.

**(d) Replacement of the airplane LH and RH wing aileron control system bearings.**

**(1)** Within the applicable intervals and limitations established in the "Table 02 – Bearings replacement compliance intervals" of this AD, replace the airplane LH and RH wing aileron control system bearings according to the detailed instructions and procedures described in the Embraer Service Bulletin Nº 550-57-0007, revision 02, dated October 14, 2025, or further revisions approved by ANAC.

Table 02 – Bearings replacement compliance intervals.

| Applicable airplane FHSN. | Initial Compliance interval in FH. |
|---|---|
| Airplanes with less than or equal to 7,400 FHSN. | Before the airplane accumulates 7,500 FHSN. |
| Airplanes with more than 7,400 FHSN and less than or equal to 9,000 FHSN. | Within the next 100 FH after the effective date of this AD or before the airplane accumulates 9,000 FHSN, whichever occurs later. |
| Airplanes with more than 9,000 FHSN. | Within the next 100 FH or 2 months after the effective date of this AD, whichever occurs first. |

**(2)** Replace the airplane LH and RH wing aileron control system bearings at each 7,500 FH after the first replacement required by paragraph **(d)(1)** of this AD.

**(3)** If any bearing of the airplane LH and RH wing aileron control system has been replaced on the FNC required by the paragraph **(c)** of this AD or during the accomplishment of CMR 27-12-01-902 task; replace it in intervals that do not exceed 7,500 FH since the last replacement.

**(4)** Repeat the FNC of the airplane LH and RH wing aileron control system backlash according to the Certification Maintenance Requirement (CMR) 27-12-01-902 task, at intervals that do not exceed 6,000 FH.

**NOTE:** The FNC required by paragraph **(d)(4)** of this AD are additional to the current required and therefore, an accomplishment of the CMR 27-12-01-902 task within its interval must not be considered to comply with paragraph **(d)(4)** requirements of this AD, except if the interval in between them is less than 750 FH.

**(e) Credit for previous actions**

This paragraph provides credit for the actions specified in paragraphs (b) and (d), if they were performed before the effective date of this AD using the Embraer Service Bulletin Nº 550-57-0007, original issue, dated May 27, 2025 or the Embraer Service Bulletin Nº 550-57 0007 Revision 01, dated July 04, 2025.

**(f)Alternative methods of compliance (AMOCs).**

A different method or a different compliance time, with the requirements of this AD, may be used if approved by the Manager of the Continuing Airworthiness Technical Branch (GTAC) of ANAC.

**(g) Material incorporated by reference.**

You must use the Embraer Service Bulletin Nº 550-57-0007, revision 02, dated October 14, 2025; or further revisions approved by ANAC, to do the actions required by this AD, unless this AD specifies otherwise.

Record compliance with this AD in the applicable maintenance log book.

**CONTACT:**

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**APPROVAL:**

LUCIANA FERREIRA VIEIRA
Head of Airworthiness Department
ANAC

**NOTA:** Original in Portuguese language signed and available in the files of the Continuing Airworthiness Technical Branch (GTAC) of the National Civil Aviation Agency (ANAC)

**AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL – BRAZIL**

# BRAZILIAN AIRWORTHINESS DIRECTIVE

# ERRATA

**AD No: 2026-01-02** **Effective Date: 21 Jan. 2026**

**AD No. 2026-01-02 - EMBRAER / 39-1597.**

This Errata is issued to correct a printing error in the original English version of this Airworthiness Directive. NOTE 1 of paragraph **(c)(1)** requires a new FNC of the LH and RH HS elevator control system backlash is required instead of a new FNC of the LH and RH wing aileron control system backlash; it shall read as follows:

**NOTE 1:**

If, during the execution of task CMR 27-12-01-902, any failure is identified, perform troubleshooting in accordance with the applicable Fault Isolation Manual (FIM) procedure before the next flight. Then, carry out a new Functional Check (FNC) of the LH and RH wing aileron control system backlash , according to the Certification Maintenance Requirement (CMR) 27-12-01-902 task.

Please modify the original AD text and attach this Errata to it.

**APPROVAL:**

LUCIANA FERREIRA VIEIRA
Head of Airworthiness Superintendent
ANAC

**NOTE:** Original in Portuguese language signed and available in the files of the Continuing Airworthiness Technical Branch (GTAC) of the National Civil Aviation Agency (ANAC).

**Referência:** Processo nº 00066.012024/2025-11 SEI nº 12913165