



## 適航指令發布單

### Airworthiness Directive Issuance Form

民航局 AD 編號 AD number	CAA-2019-11-003	發布日期 Date issued	2019/11/14
適用之航空產品 Applied to (models, serial numbers or part numbers, as applicable)	This Airworthiness Directive is applicable to Embraer model EMB-505 airplanes, as identified in Embraer Service Bulletin N-505-55-A004, revision 2, data November 06, 2019.		
主旨摘要	This AD requires inspection of the mass-balance weights of the elevators, ailerons and ruder, and their attachment parts, and replacement as necessary.		
<div style="text-align: center;">民航局 CAA</div> <input type="checkbox"/> 本國產品 Native products  <input type="checkbox"/> 其他個案 Other	<div style="text-align: center;">設計國民航主管機構 Original Authorities</div> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> FAA  <input type="checkbox"/> EASA  <input checked="" type="checkbox"/> Brazil  <input type="checkbox"/> Transport Canada Civil Aviation  <input type="checkbox"/> DGAC         </div> <div style="width: 50%;"> <input type="checkbox"/> Germany LBA  <input type="checkbox"/> CAA-NL  <input type="checkbox"/> UK CAA  <input type="checkbox"/> Japan CAB  <input type="checkbox"/> CAA of Israel  <input type="checkbox"/> Other _____         </div> </div>		
	設計國 AD 編號 Original AD number	BR-2019-11-06	
	1. 直接採用原 AD 之內容?(Is the original AD directly adopted?) <input checked="" type="checkbox"/> 是(Yes) <input type="checkbox"/> 否(No) _ a. 生效日期另訂為(Re-specify the effective date as) : _____ b. 執行時限另訂為(Re-specify the compliance time or period as) : _____ 2. 使用人是否需要將 AD 執行結果向民航局提出報告?(Do Users need to report the status of compliance to the CAA?) <input type="checkbox"/> 是(Yes) <input checked="" type="checkbox"/> 否(No)		
備註 Note	ATA 55. Ref. Service Bulletin N-505-55-A004, revision 2, date November 06, 2019, or further revisions approved by the ANAC.		
註： 1. AD 內容後附。 2. 航空器產品使用人得向民航局提出豁免、替代符合方法、執行時限之展延之申請。 3. 如有任何問題，請聯絡交通部民用航空局初始適航科。Tel：(02)2349-6331~3, Fax：(02)2545-8464, e-mail： <a href="mailto:adcaa@mail.caa.gov.tw">adcaa@mail.caa.gov.tw</a> Note： 1. The AD text is enclosed. 2. Exemption, an alternative method of compliance or adjustment of the compliance time may be proposed to the CAA for approval. 3. For further information, please contact Civil Aeronautics Administration on Tel：(02)2349-6331~3, Fax：(02)2545-8464, e-mail： <a href="mailto:adcaa@mail.caa.gov.tw">adcaa@mail.caa.gov.tw</a>			



**AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL - BRAZIL**

**BRAZILIAN AIRWORTHINESS DIRECTIVE**

**AD No.: 2019-11-06**

**Effective Date: 08 Nov. 2019**

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.

**AD No. 2019-11-06 - EMBRAER / 39-1450.**

**APPLICABILITY:**

This Airworthiness Directive is applicable to Embraer model EMB-505 airplanes, as identified in Embraer Service Bulletin Nº 505-55-A004, revision 2, dated November 06, 2019.

**CANCELLATION / REVISION:**

Not applicable.

**REASON:**

It has been found the occurrence of corrosion in the mass-balance weights of the control surfaces. The corrosion may lead to loss of mass or the detachment of the mass-balance weights, resulting in an unbalanced control surface, which, in conjunction with certain flight conditions, could lead to flutter and possible loss of airplane control.

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

**REQUIRED ACTION:**

Inspection of the mass-balance weights of the elevators, ailerons and rudder, and their attachment parts, and replacement as necessary.

**COMPLIANCE:**

Required as indicated below, unless already accomplished.

Within 60 calendar days or 100 FH, whichever occurs first, after the effective date of this AD, carry out the actions in paragraphs (a) to (f) of this AD.

**(a) Elevator adjustable mass-balance and attachments inspection and replacement**

(1) Inspect the elevator adjustable mass-balance weight and attachment parts for integrity and corrosion.

(2) If no signs of corrosion or material fragmentation are found on the elevator adjustable mass-balance, before further flight, replace the attachment parts and apply primer on the mass-balance and reinstall the same mass-balance in accordance with the procedures established in Embraer Service Bulletin (SB) N° 505-55-A004, revision 2, dated November 06, 2019, or further revisions approved by the ANAC.

(3) If any sign of corrosion or material fragmentation is found on the elevator adjustable mass-balance, before further flight, replace the attachment parts and the mass-balance in accordance with the procedures established in Embraer Service Bulletin (SB) N° 505-55-A004, revision 2, dated November 06, 2019, or further revisions approved by the ANAC.

#### **(b) Elevator Horn mass-balance and attachments inspection and replacement**

(1) Inspect the Elevator Horn mass-balance weight and attachment parts for integrity and corrosion.

(2) If no signs of corrosion or material fragmentation are found on the Elevator Horn mass-balance, before further flight, replace the attachment parts and apply primer on the mass-balance, and reinstall the same mass-balance in accordance with the procedures established in Embraer Service Bulletin (SB) N° 505-55-A004, revision 2, dated November 06, 2019, or further revisions approved by the ANAC.

(3) If any sign of corrosion or material fragmentation is found on the Elevator Horn mass-balance, replace the attachment parts and replace or install the same mass-balance in accordance with the criteria and procedures established in Embraer SB N° 505-55-A004, revision 2, dated November 06, 2019, or further revisions approved by the ANAC.

#### **(c) Elevator internal mass-balance and attachments inspection and replacement**

(1) Perform a videoscope inspection in the elevator internal mass-balance and attachments for integrity, in accordance with the procedures established in Embraer Service Bulletin (SB) N° 505-55-A004, revision 2, dated November 06, 2019, or further revisions approved by the ANAC.

(2) If any sign of material fragmentation is found on the elevator internal mass-balance, before further flight, replace the mass-balance and attachment parts in accordance with the procedures established in Embraer Service Bulletin (SB) N° 505-55-A004, revision 2, dated November 06, 2019, or further revisions approved by the ANAC.

NOTE: if no signs of material fragmentation are found, no action is required.

#### **(d) Aileron mass-balance and attachments inspection and replacement**

(1) Perform a videoscope inspection in the aileron mass-balance and attachments for integrity, in accordance with the procedures established in Embraer Service Bulletin (SB) N° 505-55-A004, revision 2, dated November 06, 2019, or further revisions approved by the ANAC.

(2) If any sign of material fragmentation is found on the aileron mass-balance, before further flight, replace the attachment parts and replace or install the same mass-balance in accordance with the criteria and procedures established in Embraer SB N° 505-55-A004, revision 2, dated November 06, 2019, or further revisions approved by the ANAC.

NOTE: if no signs of material fragmentation are found, no action is required.

#### **(e) Rudder mass-balance and attachments inspection and replacement**

(1) Inspect the rudder mass-balance weight and attachment parts for integrity and corrosion.

NOTE: This inspection doesn't include the rudder internal mass-balance, which is to be inspected as per paragraph (f) of this AD.

(2) If no signs of corrosion or material fragmentation are found on the rudder mass-balance, before further flight, replace the attachment parts and apply primer on the mass-balance, and reinstall the same mass-balance in accordance with the procedures established in Embraer Service Bulletin (SB) N° 505-55-A004, revision 2, dated November 06, 2019, or further revisions approved by the ANAC.

(3) If any sign of corrosion or material fragmentation is found on the rudder mass-balance, before further flight, replace the attachment parts and the mass-balance in accordance with the procedures established in Embraer Service Bulletin (SB) N° 505-55-A004, revision 2, dated November 06, 2019, or further revisions approved by the ANAC.

**(f) Rudder internal mass-balance and attachments inspection and replacement**

(1) Perform a videoscope inspection in the rudder internal mass-balance and attachments for integrity, in accordance with the procedures established in Embraer Service Bulletin (SB) N° 505-55-A004, revision 2, dated November 06, 2019, or further revisions approved by the ANAC.

(2) If any sign of material fragmentation is found on the elevator internal mass-balance, before further flight, replace the attachment parts and replace or install the same mass-balance in accordance with the criteria and procedures established in Embraer SB N° 505-55-A004, revision 2, dated November 06, 2019, or further revisions approved by the ANAC.

NOTE: if no signs of material fragmentation are found, no action is required.

**(g) 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 General Manager of the Aeronautical Product Certification Branch (GGCP).

**(h) Service information.**

You must use Embraer Service Bulletin N° 505-55-A004, revision 2, dated November 06, 2019, or further revisions approved by the ANAC, to do the actions required in this AD.

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

**CONTACT:**

For additional technical information, contact:

National Civil Aviation Agency (ANAC)  
Aeronautical Products Certification Branch (GGCP)  
Rua Laurent Martins, nº 209, Jardim Esplanada  
CEP 12242-431 – São José dos Campos - SP, BRAZIL.  
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**APPROVAL:**

MÁRIO IGAWA  
General Manager  
GGCP

ROBERTO JOSÉ SILVEIRA HONORATO  
Airworthiness Superintendent  
ANAC

**NOTE:** Original in Portuguese language signed and available in the files of the Aeronautical Products Certification Branch (GGCP) of the National Civil Aviation Agency (ANAC).