



AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL – BRAZIL

BRAZILIAN AIRWORTHINESS DIRECTIVE

AD No.: 2012-03-01

Effective Date: 20 Mar. 2012

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. 2012-03-01 - EMBRAER / 39-1351.

APPLICABILITY

This Airworthiness Directive (AD) applies to EMBRAER S.A. model EMB-505 airplane, identified in the following table:

<i>Airplanes</i>	<i>Affected Airplanes Serial Number (S/N):</i>	<i>Applicable AD paragraphs:</i>
GROUP 1	50500030, 50500033 thru 50500037, 50500039, 50500040, 50500044 and 50500046	a), f), and g)
GROUP 2	50500004 thru 50500059, 50500061, 50500063, 50500065 thru 50500068, 50500070, 50500074 and 50500075	b) , f), and g)
GROUP 3	50500072	c), d), f), and g)
GROUP 4	50500069, 50500071 and 50500073	e), f), and g)

CANCELLATION / REVISION

Not applicable.

REASON

It has been found that certain regions of the rudder, elevator, ailerons, and their tabs surfaces does not present adequate drainage capacity to avoid water accumulation inside of these control surfaces. Internal water accumulation may lead to flight control surfaces unbalancing possibly reducing the flutter margins, which could result in loss of airplane control.

Since this condition may occur in other airplanes 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

Perform a visual inspection on the control surfaces and their tabs surfaces in order to verify if any drain hole is missing, reworking the surface, if necessary.

COMPLIANCE

The actions required by this AD must be executed as indicated below, unless already accomplished before.

Visual inspection on RH and LH ailerons lower skin in order to verify if the drain holes are missing, drilling it, if necessary.

(a) For GROUP 1 affected airplanes: within next 100 Flight Hours (FH) or 03 Calendar Months (MO), which occurs first, after the effective date of this AD, perform a onetime visual inspection on RH and LH ailerons lower skin in order to verify if the drain holes are missing and if so, to drill them in accordance with the Accomplishment Instruction of Embraer Service Bulletin (SB) 505-57-0003 original issuance, or further revisions approved by the ANAC.

Addition of new drain holes into the control surfaces and their tab-surfaces.

(b) For GROUP 2 affected airplanes: within the next 24 MO, after the effective date of this AD, rework the ailerons, ailerons trim-tabs, ailerons horn cover, rudder, rudder trim-tab, elevators and elevators auto-tabs surfaces by drilling additional drain holes in accordance with the Accomplishment Instructions of Part I of Embraer SB 505-57-0002, original issuance, or further revisions approved by the ANAC.

(c) For GROUP 3 affected airplane: within the next 24 MO, after the effective date of this AD, rework the rudder, rudder trim-tab, elevators and elevators auto-tabs surfaces by drilling additional drain holes in accordance with the Accomplishment Instructions of Part II of Embraer SB 505-57-0002, original issuance, or further revisions approved by the ANAC.

Visual inspection on the control surfaces in order to verify if any drain hole is missing, reworking it, if necessary.

(d) For GROUP 3 affected airplane: within the next 24 MO, after the effective date of this AD, inspect and rework, if necessary, the Ailerons drain holes in accordance with the Accomplishment Instructions of Part II of Embraer SB 505-57-0004, original issuance, or further revisions approved by the ANAC.

(e) For GROUP 4 affected airplanes: within the next 24 MO, after the effective date of this AD, inspect and rework, if necessary, the Ailerons, Elevators, and Rudder drain holes in accordance with the Accomplishment Instructions of Part I of Embraer SB 505-57-0004, original issuance, or further revisions approved by the ANAC.

Material Incorporated by Reference.

(f) The detailed instructions and procedures to do the actions required by this AD, unless the AD specifies otherwise, are described in the Accomplishment Instructions of Embraer SB 505-57-0002, 505-57-0003 and 505-57-0004 original issuances, or further revisions approved by the ANAC.

Alternative means of Compliance (AMOC).

(g) A different method or a different compliance time, with requirements of this AD, may be used if approved by the General Manager of the Aeronautical Product Certification Branch (Gerência-Geral de Certificação de Produtos Aeronáuticos – GGCP).

CONTACT:

For additional technical information, contact:

National Civil Aviation Agency (ANAC)
Aeronautical Products Certification Branch (GGCP)
Av. Cassiano Ricardo, 521, Bloco B, 2º andar, Parque Residencial Aquarius
Fax: 55 (12) 3797-2330
12246-870 – São José dos Campos - SP, BRAZIL.
E-mail: pac@anac.gov.br

APPROVAL:

HÉLIO TARQUÍNIO JÚNIOR
General Manager
GGCP

DINO ISHIKURA
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).