AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL – BRAZIL

BRAZILIAN AIRWORTHINESS DIRECTIVE

AD No.: 2016-03-01 **Effective Date: 11 Mar. 2016**

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. 2016-03-01 – EMBRAER S.A. / 39-1396.

APPLICABILITY:

(a) This Airworthiness Directive (AD) applies to Embraer S.A airplanes, as specified in paragraphs (a)(1), (a)(2), (a)(3) and (a)(4) of this AD.

(1) Model EMB-145, EMB-145ER, EMB-145EU, EMB-145EP, EMB-145LR, EMB-145MR, EMB-145LU, EMB-135ER, EMB-135LR, EMB-145MP, EMB-145MK, EMB-135KE, EMB-135KL, and EMB-145XR airplanes, as identified in Embraer Service Bulletin 145-30-0056, original issue, dated December 19, 2013.
(2) Model EMB-135BJ airplanes, as identified in Embraer Service Bulletin 145LEG-30-0021, original issue, dated March 31, 2014.
(3) Model EMB-145, EMB-145ER, EMB-145EU, EMB-145EP, EMB-145LR, EMB-145MR, EMB-145LU, EMB-135ER, EMB-135LR, EMB-145MP, EMB-145MK, EMB-135KE, EMB-135KL, and EMB-145XR airplanes, manufacturer serial numbers 14501153, and on.
(4) Model EMB-135BJ airplanes, manufacturer serial numbers 14501190 through 14501197 inclusive, 14501199 through 14501210 inclusive, 14501212 through 14501227 inclusive, 14501229 through 14501249 inclusive, and on.

CANCELLATION / REVISION:

This AD replaces AD 2014-06-01, amendment 39-1382.

REASON:

This AD results from reports of main airspeed indications discrepancies during flight. The investigation has revealed that Pitot #1 and #2 total pressure line blockage may occur due to water accumulation and freezing during heavy rain conditions. We are issuing this AD to prevent water accumulation and freezing in the Pitot #1 and Pitot #2 total pressure lines, which could result in erroneous main airspeed indications and reduce the ability of the flight crew to maintain the safe flight and landing of the airplane.

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:

Modification of the Airplane Flight Manual (AFM), inspection of Pitot #1 and Pitot #2 tube assembly lines, and installation of a Ribbon Heater on the Pitot #1 and Pitot #2 tube assembly lines.

COMPLIANCE:

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

(b) Installation of the tube ribbon heater

(1) For airplanes identified in Group I of Embraer SB 145-30-0056: Within 6600 Flight Hours (FH) after June 17, 2014, the effective date of AD 2014-06-01, perform a General Visual Inspection (GVI) on the Pitot #1 and Pitot #2 tube assemblies for tube misalignment; and install tube ribbon heater on the Pitot #1 and Pitot #2 tube assemblies in accordance with Part I of Accomplishment Instructions of Embraer SB 145-30-0056.

(2) For airplanes identified in Group I of Embraer SB 145LEG-30-0021: Within 5000 FH or 48 months after June 17, 2014, the effective date of AD 2014-06-01, whichever occurs first, perform a GVI on the Pitot #1 and Pitot #2 tube assemblies for tube misalignment; and install tube ribbon heater on the Pitot #1 and Pitot #2 tube assemblies in accordance with Part I of Accomplishment Instructions of Embraer SB or 145LEG-30-0021, as applicable.

(c) Replacement of the tube ribbon heater.

(1) For airplanes identified in Group II of Embraer SB 145-30-0056: Within 6600 FH after June 17, 2014, the effective date of AD 2014-06-01, do a GVI on the Pitot #1 and Pitot #2 tube assemblies for tube misalignment; and replace of the tube ribbon heater of the Pitot #1 and Pitot #2 tube assemblies following the procedures in Part II of the Accomplishment Instructions of Embraer SB 145-30-0056.

(2) For airplanes identified in Group II of Embraer SB 145LEG-30-0021: Within 5000 FH or 48 months after June 17, 2014, the effective date of AD 2014-06-01, whichever occurs first, perform a GVI on the Pitot #1 and Pitot #2 tube assemblies for tube misalignment; and replace the tube ribbon heater of the Pitot #1 and Pitot #2 tube assemblies following the procedures in Part II of the Accomplishment Instructions of Embraer SB 145LEG-30-0021.

(d) AFM revision

(1) For airplanes identified in paragraphs (a)(1) of this AD: Within 60 days after June 17, 2014, the effective date of AD 2014-06-01, revise the ANAC-approved AFM to include the Unreliable Airspeed Procedure in the Emergency/Abnormal Procedures Section and to include, in the Performance Section, the Unreliable Airspeed Tables (corresponding to your airplane configuration); as presented in the Aircraft Operations Manual (AOM) 145/1114 revision 38.

(2) For airplanes identified in paragraph (a)(2) of this AD: Within 60 days after June 17, 2014, the effective date of AD 2014-06-01, revise the ANAC-approved AFM to include the Unreliable Airspeed Procedure in the Emergency/Abnormal Procedures Section, and to include, in the Performance Section, the Unreliable Airspeed Table (correspondent to your airplane configuration); as presented in the Aircraft Operations Manual (AOM) 135/1542 revision 17.

(3) For airplanes identified in paragraphs (a)(3) of this AD: Within 60 days after the effective date of this AD, revise the ANAC-approved AFM to include the Unreliable Airspeed Procedure in the Emergency/Abnormal Procedures Section and to include, in the Performance Section, the Unreliable Airspeed Tables corresponding to your airplane configuration; as presented in the Aircraft Operations Manual (AOM) 145/1114 revision 38.

(4) For airplanes identified in paragraph (a)(4) of this AD: Within 60 days after the effective date of this AD, revise the ANAC-approved AFM to include the Unreliable Airspeed Procedure in the Emergency/Abnormal Procedures Section, and to include, in the Performance Section, the Unreliable Airspeed Table corresponding to your airplane configuration; as presented in the Aircraft Operations Manual (AOM) 135/1542 revision 17.

(5) When a procedure identical to that required in paragraph (d)(1), (d)(2), (d)(3), or (d)(4) of this AD, as applicable, has been included in a general revision of the AFM, the general revision may be inserted into the AFM, and the copy of the AOM Procedure and the Unreliable Airspeed Table may be removed from the AFM.

(e) Material incorporated by reference in this AD

You must use the following service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(1) Embraer Service Bulletin 145-30-0056, original issue, dated December 19, 2013, or further revisions approved by the ANAC.
(2) Embraer Service Bulletin 145LEG-30-0021, original issue, dated March 31, 2014, or further revisions approved by the ANAC.
(3) Aircraft Operations Manual (AOM) 145/1114, revision 38, section 1-03-70, pages 5 to 47 inclusive.
(4) Aircraft Operation Manual (AOM) 135/1542, revision 17, section 1-03-55, pages 1 to 4 inclusive.

(f) Alternative Means of Compliance (AMOC)

A different method or a different compliance time with the requirements of this AD may be used if requested using the procedures of RBAC 39.19 and approved by the General Manager of ANAC's Aeronautical Product Certification Branch (Gerência-Geral de Certificação de Produtos Aeronáuticos – GGCP).

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

CONTACT:

For additional technical information, contact:

Agência Nacional de Aviação Civil (ANAC)
Gerência-Geral de Certificação de Produtos Aeronáuticos (GGCP)
Rua Laurent Martins, n° 209, Jardim Esplanada
CEP 12242-431 – São José dos Campos - SP
Telefone: (12) 3203-6600 ; E-mail: pac@anac.gov.br

APPROVAL:

MARIO IGAWA
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).