AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL – BRAZIL

BRAZILIAN AIRWORTHINESS DIRECTIVE

AD No.: 2012-01-01 **Effective Date: 28 Jan. 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. 2012-01-01 - EMBRAER / 39-1349.

APPLICABILITY:

This Airworthiness Directive (AD) applies to Embraer S.A. model ERJ 190-100 STD, ERJ 190-100 LR, ERJ 190-100 IGW, ERJ 190-100 ECJ, ERJ 190-100 SR, ERJ 190-200 STD, ERJ 190-200 LR, and ERJ 190-200 IGW airplanes; as identified in Embraer Service Bulletins (SB) 190-57-0036, revision 02, dated August 12, 2011, and 190LIN-57-0016, original issue, dated June 10, 2011, as applicable.

CANCELLATION / REVISION:

Not Applicable.

REASON:

This AD results from reports of cracks on the Main Landing Gear (MLG) Side Stay. Further investigation has revealed that the cracks were caused by excessive friction on the MLG Side Stay Support Fitting due to its outer bushing migration. This AD is being issued to prevent such excessive bearing friction which may compromise the MLG free fall extension and; cause fatigue cracks on the MLG Side Stay and on the MLG Side Stay Support Assembly resulting in reduced structural integrity of the MLG.

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:

Inspection of MLG Side Stay, MLG Side Stay Support Assembly and replacement of the MLG Side Stay Support Fitting bushing by another improved one.

COMPLIANCE:

Required as indicated below, unless already accomplished.

MLG Side Stay Support Fitting bushing inspection and replacement:

(a) Within 100 flight cycles (FC) after the effective date of this AD, inspect the left hand (LH) and right hand (RH) MLG Side Stay Support Fitting to detect bushing migration in accordance with Part I of the Accomplishment Instructions of Embraer SB 190-57-0036 or SB 190LIN-57-0016, as applicable:

(1) If the distance of bushing migration is less than 5 mm, repeat the inspection required

by paragraph **(a)** of this AD at intervals not to exceed 100 FC until the actions required by paragraph **(b)** of this AD are accomplished.

(2) If the distance of bushing migration is equal to or more than 5 mm, do the actions required by paragraph **(b)** of this AD before the next flight.

(b) Within 1,200 FC after the effective date of this AD, replace the LH and RH MLG Side Stay Support Fitting bushing respectively in accordance with Part II and Part III of the Accomplishment Instructions of Embraer SB 190-57-0036 or SB 190LIN-57-0016, as applicable. Bushing replacement, as required by this paragraph, terminates the repetitive inspections required by paragraphs **(a)(1)** of this AD.

MLG Side Stay and MLG Side Stay Support Assembly inspection and repair:

(c) Perform a Detailed Inspection (DI) on the LH and RH MLG Side Stay Support Assembly and if any damage is found perform a Special Detailed Inspection (SDI) on the LH and RH MLG Side Stay Support Assembly and on the LH and RH Upper and Lower Side Stay in accordance with the Accomplishment Instructions of Embraer SB 190-32-0043 revision 02 or 190LIN-32-0017, as applicable, at the times specified in paragraphs **(c)(1)**, **(c)(2)** and **(c)(3)** of this AD.

(1) For airplanes with Embraer SB 190-57-0036 or 190LIN-57-0016, as applicable, already accomplished: within 100 FC after the effective date of this AD.

(2) For airplanes with Embraer SB 190-57-0036 or 190LIN-57-0016, as applicable, not accomplished: within 1,200 FC after the effective date of this AD.

(3) For airplanes with Embraer SB 190-32-0043 original issuance already accomplished and if any damage was found and repaired on the MLG Side Stay Support Assembly: within 600 FC after the effective date of this AD.

(d) If during any inspection required by paragraph **(c)** of this AD, any crack or damage is detected, replace or repair the affected part in accordance with the Accomplishment Instructions of Embraer SB 190-32-0043 revision 02 or SB 190LIN-32-0017, as applicable, before the next flight.

Credit for Actions Accomplished in Accordance With Previous Service Information

(e) Actions accomplished before the effective date of this AD in accordance with Embraer SB 190-57-0036, original and/or revision 01 and with Embraer SB 190-32-0043 revision 01, are considered acceptable for compliance with the corresponding actions specified in this AD.

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 190-32-0043 revision 02, SB 190-57-0036 revision 02, SB 190LIN-32-0017 original issuance and SB 190LIN-57-0016 original issuance, as applicable, or in its 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:

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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).