



REPÚBLICA FEDERATIVA DO BRASIL  
AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL – ANAC

**BRAZILIAN AIRWORTHINESS DIRECTIVE**

**AD No.: 2006-05-09**

**Effective Date: 19 Jun. 2006**

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 de Homologação Aeronáutica (RBHA) 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. 2006-05-09 - EMBRAER - Amendment 39-1138.**

**APPLICABILITY:**

This Airworthiness Directive is applicable to all Embraer ERJ-190() aircraft models in operation.

**CANCELLATION / REVISION:**

Not applicable.

**REASON:**

It has been found cases where, during the deployment of the RAM-AIR-TURBINE (RAT), it may not fully deploy, because of excessive galling between the piston rod and gland housing in the actuator.

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 and, if necessary, replacement of the RAT deployment actuator.

**COMPLIANCE:**

Required as indicated below, unless already accomplished.

- (a) Perform a verification of each RAT deployment actuator in order to identify which actuators must be inspected and which one should be reidentified.
  - (1) If any actuator has serial number 0004, 0005, or 0101 thru 190, comply with items (b) and (c) below.
  - (2) If any actuator has serial number 191 thru 242, comply with item (c) below.
- (b) Within the next 600 flight hours or 3 calendar months after the effective date of this AD, whichever occurs first, deploy the RAT and perform an inspection for evidence of galling between the piston rod and gland housing in the actuator. The procedures should be carried out on aircraft equipped with actuator P/N 1703785, and with serial number 0004, 0005, and 0101 thru 0190.
  - (1) If the RAT deployment actuator fails to fully extend to the deployed position, it must be replaced immediately according to the instructions of the item (c) below.
  - (2) If the RAT deployment actuator extends to the fully deployed position without hesitation, but any evidence of galling on the RAT actuator piston rod is detected, it must be replaced immediately according to the instructions of the item (c) below.
  - (3) If the RAT deployment actuator extends to the fully deployed position without hesitation, and no evidence of galling on the RAT actuator piston rod is detected, repeat this inspection every 1200 flight hours or 5 calendar months, whichever occurs first, or every time the RAT is deployed, until the actuator has been replaced with a new one, as indicated in the item (c) below.

(c) Within the next 3000 flight hours or 12 calendar months, whichever occurs first:

- (1) Replace the current RAT deployment actuator of P/N 1703785 with a new one bearing P/N 1703785A;  
and
- (2) Reidentify the RAT actuators of serial numbers 191 thru 242.

**NOTE 1:** The RAT deployment actuators P/N 1703785 removed from the aircraft must be returned to Hamilton Sundstrand overhaul facilities for reworking according to Embraer Service Bulletin No. 190-24-0003.

**NOTE 2:** The item (c) above constitutes the terminal action to this AD.

The detailed instructions and procedures to accomplish this AD are described in the Embraer Service Bulletin No. 190-24-0003, original issue, or further revisions approved by the ANAC.

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

**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 Agency of Civil Aviation (ANAC).