



## AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL – BRAZIL

### BRAZILIAN AIRWORTHINESS DIRECTIVE

**AD No.: 2008-10-06**

**Effective Date: 10 Nov. 2008**

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. 2008-10-06 - EMBRAER - Amendment 39-1249.**

#### **APPLICABILITY:**

This Airworthiness Directive is applicable to Embraer ERJ 190 aircraft of serial numbers 19000002, 19000004 and 19000006 thru 19000152 in operation.

#### **CANCELLATION / REVISION:**

Not applicable.

#### **REASON:**

It has been found the possibility of cracks developing in the ram air turbine (RAT) machined support, located in the forward compartment of aircraft, due to downlock pin not pull during its retraction. In case of RAT failure or malfunction, it will not provide electrical power to essential systems of aircraft in electrical emergency situation.

Since this condition 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, rework and, if necessary, replacement of the RAT machined support with a new one bearing a new part number (P/N).

#### **COMPLIANCE:**

Required as indicated below, unless already accomplished.

**PART I** - Within the next 600 flight hours after the effective date of this AD, perform a detailed inspection (DET) in the RAT machined support for presence of cracks.

- (a) If no crack is detected in the RAT machined support accomplish with PART II of this AD.
- (b) If any crack is detected in the RAT machined support accomplish with the following instructions:
  - (1) If there are cracks in the upper and lower lugs of the RAT machined support, replace the RAT machined support by new one bearing the new P/N 170-18676-405 before the next flight; or
  - (2) If there is a crack in the upper lug of the RAT machined support, replace the RAT machined support by new one bearing the new P/N 170-18676-405 within the next 600 flight hours after inspection required by PART I of this AD, or after next RAT deployment (which can be a flight deployment or a MRB task procedure), whichever occurs first.

**PART II** - Within the next 5000 flight hours after the inspection required by PART I of this AD, or after the next two RAT deployment (which can be a flight deployment or a MRB task procedure), whichever occurs first, install reinforcements in the RAT machined support or replace the RAT machined support by new one bearing the new P/N 170-18676-405, in accordance to the detailed instructions and procedures described in the Embraer Service Bulletin No. 190-53-0027 original issue, or further revisions approved by the ANAC.

**NOTE:** For the purpose of this AD, a detailed inspection (DET) is: “An intensive examination of a specific item, installation or assembly to detect damage, failure or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses, etc., may be necessary. Surface cleaning and elaborate access procedures may be required.”

The detailed instructions and procedures to accomplish this AD are described in the Embraer Service Bulletin No. 190-53-0027 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 Civil Aviation Agency (ANAC).