AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below issues the following Airworthiness Directive (AD) under subregulation 39.001(1) of CASR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

Embraer EMB-135 and EMB-145 Series Aeroplanes

AD/EMB-145/8 Fuel Quantity Indication System Wiring Harness 8/2008

Applicability: EMB-145EP, EMB-145ER and EMB-145EU model aircraft.

Requirement:

1. Unless already accomplished, carry out a general visual inspection (GVI) of the Fuel Quantity Indication System (FQIS) and DC fuel pump harnesses for attachment conditions and proper segregation from each other in accordance with Embraer Service Bulletin 145-28-0025, original issue, or later revisions approved by the Brazilian Agência Nacional de Aviação Civil (ANAC).

Note 1: For the purpose of this Directive a general visual inspection (GVI) is: "A visual examination of an interior or exterior area, installation or assembly to detect obvious damage, failure or irregularity. This level of inspection is made from within touching distance unless otherwise specified. A mirror may be necessary to enhance visual access to all exposed surfaces in the inspection area. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight or drop-light, and may require removal or opening of access panels or doors. Stands, ladders or platforms may be required to gain proximity to the area being checked."

2. If, as a result of the Requirement 1 inspection, it is determined that the possibility exists for any harness chaffing against another harness, the aircraft structure or a mechanical component, reroute the DC Fuel Pump harness W505E by installing a tie down strap part number (P/N) MS3367-1-9X on both sides (LH and RH), according to the detailed instructions and procedures described in SB 145-28-0025 or later revisions approved by the ANAC.

Note 2: ANAC AD 2006-03-01R1 refers.

Compliance: For Requirement 1 - Within the next 5,000 hours time in service after 19 April 2006 (the effective date of the original issue of ANAC AD 2006-03-01).

For Requirement 2 - Before further flight after the Requirement 1 inspection.

This Airworthiness Directive becomes effective on 31 July 2008.

Embraer EMB-135 and EMB-145 Series Aeroplanes

AD/EMB-145/8 (continued)

Background: The ANAC has found that there is a possibility of occurrences of improper segregation and attachments of the FQIS harness from the DC Fuel Pump harness, which may lead to chafing between these harnesses or between some of the harnesses to the aircraft structure or between some of the harnesses to some mechanical component. In any case, a possible ignition source in the vicinity of the fuel tanks may develop.

This Directive requires iinspection of the FQIS and DC fuel pump harnesses and, if necessary, rerouting of the DC fuel pump W505E harness.

James Coyne
Delegate of the Civil Aviation Safety Authority

16 June 2008