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 ERJ-190 Series Aeroplanes

AD/ERJ-190/2 Full Authority Digital Engine Control Software 5/2008 TX

Applicability: All ERJ-190 models without engine Full Authority Digital Engine Control (FADEC) software version 5.10 or 5.20, as applicable, or higher.

Requirement:

1. If not previously accomplished, revise the Limitations Section of the approved Aircraft Flight Manual (AFM) to add the following statement:

   "After applying thrust reverser, do not move the throttle back to the forward thrust range, unless the REV icon on the EICAS is shown amber or green."

   This may be accomplished by inserting a copy of this Directive into the referred section of the AFM.

2. Install engine FADEC software version 5.10 or 5.20, as applicable, or higher in accordance with Embraer Service Bulletin (SB) 190-73-0005 dated 9 November 2006 or SB 190-73-0009 dated 21 December 2007 or later revisions approved by the Brazilian Agência Nacional de Aviação Civil (ANAC).

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

Compliance: For Requirement 1 - Within seven days after the effective date of this Directive.

For Requirement 2 - Within the next 1,200 hours time in service after the effective date of this Directive.

This Airworthiness Directive becomes effective on 20 March 2008.

Background: The ANAC has advised that it has been found during an actual landing operation that the re-stow of the thrust reverser may not occur as desired if the throttle lever is moved back out of the reverse range, immediately (that is, within less than 0.2 seconds) after the thrust reverser has been commanded. Although unlikely, if a pilot subsequently chooses to perform a take-off, the aeroplane may get airborne with a partially deployed thrust reverser, which is an unsafe condition.

Since this condition exists and may occur in other aeroplanes of the same type and affects flight safety, a corrective action is required.

Embraer ERJ-190 Series Aeroplanes

AD/ERJ-190/2 (continued)

This Directive initially requires an AFM amendment to alert the flight crew, followed by installation of new engine FADEC software.

David Punshon
Delegate of the Civil Aviation Safety Authority

13 March 2008