AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive (AD) AD/EMB-120/27 Amdt 2 and issues the following AD under subregulation 39.1 (1) of CAR 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-120 (Brasilia) Series Aeroplanes

AD/EMB-120/27 Icing Conditions 7/2002
Amdt 3 TX

Applicability: All Model Embraer EMB-120 aeroplanes.

Requirement:

1. Superseded by new Requirements 6 through 11 below.

2. Superseded by new Requirement 4 below.

3. Remove leading edge deice boots inflation cycle control “light-heavy” switch as per the requirements detailed in Embraer SB 120-30-0032.

4. Remove the placards that were installed in accordance with Requirement 2 and install new placards on the main instrument panel, in accordance with Part 1 of either SB 120-30-0033 Rev 01 dated 6 September 2001, Rev 02 dated 14 September 2002 or Rev 03 dated 22 October 2001, with the following wording:

   Whenever ice is detected:
   immediately
   turn deice boots on

5. Install a low speed aural/visual alarm system in the center glare shield in accordance with SB 120-30-0033 Rev 01 dated 6 September 2001, Rev 02 dated 14 September 2002 or Rev 03 dated 22 October 2001.

Note 1: This system should be installed after or together with removal of the leading edge boots inflation cycle control "light-heavy" switch, as per Requirement 3.

6. Superseded by Requirement 13.

7. Superseded by Requirement 13.

8. Superseded by Requirement 13.

9. Superseded by Requirement 13.

10. Superseded by Requirement 13.

11. Superseded by Requirement 13.

Embraer EMB-120 (Brasilia) Series Aeroplanes

AD/EMB-120/27 Amdt 3 (Continued)

12. Modify the low speed aural/visual alarm system to permit inhibition of the alarm when landing gear is down and locked or cancellation of the aural alarm by flight crew in accordance with SB 120-30-0033 Rev 03.

13. Remove all Aircraft Flight Manual (AFM) revisions/amendments introduced by Amendment 1 or 2 of this Directive and ensure that AFM-120/813 has Revision 70 incorporated.

Note 2: Brazilian DAC AD 2001-05-02R2 Amdt 39-924 and AD 2001-0502R2 Errata refer.

Compliance: Requirement 1 - Not applicable.

Requirement 2 - Not applicable.

Requirement 3 - Remains unchanged, as 'Within 400 hours TIS or 180 days from the effective date of the original issue of this Directive whichever is later'.

Requirement 4 - No later than 28 June 2002.

Requirement 5 - No later than 28 June 2002.

Requirement 6 - Not applicable.

Requirement 7 - Not applicable.

Requirement 8 - Not applicable.

Requirement 9 - Not applicable.

Requirement 10 - Not applicable.

Requirement 11 - Not applicable.

Requirement 12 - No later than 28 June 2002.

Requirement 13 - Within seven days from the effective date of this Directive.

This Amendment becomes effective on 23 May 2002.

Background: The Brazilian Departamento de Aviação Civil (DAC) received reports of loss of control events when flying in icing conditions, indicating that flight crew can misjudge both the severity of ice accretion and the need to take immediate action to prevent excessive loss of airspeed, especially when using the autopilot. The original issue of this Directive imposed operational limitations in the AFM, together with installation of placards in the cockpit, and removal of the deice boots "light-heavy" switch.

Embraer EMB-120 (Brasilia) Series Aeroplanes

AD/EMB-120/27 Amdt 3 (Continued)

Amendment 1 required the replacement of the placards introduced by the original issue of the Directive, together with installation and modification of a low speed aural/visual alarm system. The amendment also required incorporation of the AFM amendment included in United States Federal Aviation Administration AD 2001-20-17 Amdt 39-12465 as a DAC approved AFM amendment was not available at that time.

Amendment 2 was issued following advice from Embraer, correcting the AFM amendment introduced by Amenment1 by reducing the minimum airspeed, with flaps 15% and gear up, from 160 to 140 KIAS.

Amendment 3 was issued following Australian approval of AFM-120/813.

The original issue of this Airworthiness Directive became effective on 12 July 2001.

Amendment 1 of the Airworthiness Directive became effective on 10 April 2002.

Amendment 2 of the Airworthiness Directive became effective on 12 April 2002.

James Coyne
Delegate of the Civil Aviation Safety Authority

21 May 2002

The above AD is notified in the *Commonwealth of Australia Gazette* on 23 May 2002.