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No. CF-90-27

AIRWORTHINESS DIRECTIVE

The following airworthiness directive (AD) may be applicable to an aircraft which our records indicate is registered in your name. ADs are issued pursuant to Canadian Aviation Regulation (CAR) 593. Pursuant to CAR 605.84 and the further details of CAR Standard 625, Appendix H, the continuing airworthiness of a Canadian registered aircraft is contingent upon compliance with all applicable ADs. Failure to comply with the requirements of an AD may invalidate the flight authorization of the aircraft. Alternative means of compliance shall be applied for in accordance with CAR 605.84 and the above- referenced Standard.

This AD has been issued by the Continuing Airworthiness Division (AARDG), Aircraft Certification Branch, Transport Canada, Ottawa, telephone (613) 952-4357.

CF-90-27 EMBRAER

Applies to Empresa Brasileira de Aeronautica S/A (Embraer) Model EMB-120 aircraft with serial numbers as indicated.

Compliance is required within 180 days after the effective date of this directive, unless already accomplished.

Two inadvertent gear-up landings have been reported wherein the crew failed to lower the landing gear prior to landing. In both accidents, the aural warning device did not sound.

To prevent a gear-up landing due to malfunction of the landing gear aural warning system, accomplish the following:

A. For aircraft serial number 120071:

- 1) Modify the landing gear aural warning system, calibrate new switches and install diode CR0357 in accordance with Embraer Service Bulletin (SB) No. 120-032-0048, Revision 3, dated 31 July 1989; or
- 2) If the aircraft has been modified in accordance with a previous issue of the service bulletin listed in paragraph A.1 above, install diode CR0357 and repeat the alarm tests specified in steps 2.12 and 2.13 of SB No. 120-032-0048, Revision 3, dated 31 July 1989.

B. For aircraft serial numbers 120004, 120006 through 120070, 120072 through 120080, and 120082 through 120099:

- 1) Modify the landing gear aural warning system, calibrate new switches, install diode CR0357 and remove speed switches where applicable in accordance with either Embraer SB No. 120-032-0052, Revision 2, dated 18 May 1990, or No. 120-032-0055, dated 16 March 1989.
- 2) If the aircraft, except serial numbers 120082 and 120087, has been modified in accordance with the basic issue of the Embraer SB No. 120-032-0052, dated 15 March 1989, install diode CR0357 and repeat the alarm tests specified in steps 2.12 and 2.13 of SB No. 120-032-0052, Revision 2, dated 18 May 1990.
- 3) If the aircraft serial number 120082 or 120087 has been modified in accordance with either the basic issue or Revision 1 of Embraer SB No. 120-032-0052, install the diode CR0357 and perform alarm tests in accordance with Embraer SB No. 120-032-061, dated 4 September 1989.

NOTE: Aircraft that have been modified in accordance with Embraer SB No. 120-032-0055, dated 16 March 1989, do not require additional action beyond step B.1 above.

C. For aircraft serial numbers 120081, 120100 through 120120, and 120122 equipped with ground proximity warning system (GPWS) and/or CAT II landing system:

Modify the aircraft by installing diode CR0357 in the landing gear warning system and perform the alarm test in accordance with Embraer SB No. 120-032-0060, dated 6 December 1989.

Alternative means of compliance with this directive may be used only if approved by the Director, Airworthiness Branch, Transport Canada, Ottawa. Any application should be made to the appropriate

regional office.

This directive becomes effective 1 January 1991.

Pursuant to CAR 202.51 the registered owner of a Canadian aircraft shall, within seven days, notify the Minister in writing of any change of his or her name or address. To request a change of address, contact the Civil Aviation Communications Centre (AARC) at Place de Ville, Ottawa, Ontario K1A 0N8, or 1-800-305-2059, or <http://www.tc.gc.ca/civilaviation/communications/centre/address.asp>.

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