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No. CF-93-20

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-93-20 DE HAVILLAND

Applies to de Havilland Inc. DHC-8 Series 100 and 300 aircraft, serial numbers 3 through 214, which do not have Modification 8/1273 incorporated.

Compliance is required as indicated.

The electrical power supplies of the white anti-collision lights installed on pre-Modification 8/1273 (installation of Whelen strobe power supply and lights) aircraft may develop a fault which produces a strong parasitic electromagnetic (EM) waveform. This waveform, when coupled into the wiring of the proximity switch electronics unit (PSEU), can adversely affect operation of the associated systems. This has resulted in instances of:

- flashing of the landing gear green locked down advisory lights during cruise;
- fluctuation of cabin pressurization rate needle during cruise;
- retraction and extension of roll and ground spoilers during ground operation;
- nose gear steering inoperative subsequent to landing; and - normal wheel brakes not available below 35 - 40 knots.

To preclude incorrect operation of the PSEU and associated systems, accomplish the following:

A. Before further flight, insert a copy of this directive into the Aircraft Flight Manual (AFM) and advise flight crews of the following procedures:

1. In Flight

If one or more of the landing gear green locked down advisory lights illuminate continuously or intermittently with the landing gear retracted, or intermittently with the landing gear extended:

- (a) Select A/COL light switch - RED.
- (b) Following landing gear down selection or with landing gear previously selected down, confirm landing gear locked down via the gear locked down indicator lights. Paragraph 3.6.2 of the AFM refers.
- (c) Maintenance action is required prior to further flight.

2. On the Ground

If one or more of the landing gear green locked down advisory lights illuminate intermittently:

- (a) Select A/COL light switch - RED.
- (b) Maintenance action is required prior to further flight.

Note: In addition to the illumination of the landing gear green locked down advisory lights described in parts 1 and 2 above, there could also be continuous or intermittent illumination of the red gear unsafe or gear selector lever advisory lights and fluctuations of the cabin pressurization rate needle.



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Carry out the maintenance action required by items 1(c) and 2(b) above in accordance with de Havilland Dash 8 Alert Service Bulletin A8-33-33, dated 31 May 1993, or later revisions approved by the Director, Airworthiness Branch, Transport Canada, Ottawa.

B. Within 6 months after the effective date of this directive install de Havilland Modification 8/1273 (installation of Whelen strobe power supply and lights) in accordance with de Havilland Dash 8 Service Bulletin 8-33-19 Revision A, dated 31 May 1993, or later revisions approved by the Director, Airworthiness Branch, Transport Canada, Ottawa.

Incorporation of Modification 8/1273 constitutes terminating action to the requirements of this directive, and accordingly permits the copy of this AD to be removed from the Aircraft Flight Manual.

Alternative means of compliance with the requirements of 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 31 August 1993.

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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