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## No. CF-80-16R1

### 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-80-16R1 DE HAVILLAND

Applies to all Boeing Canada, de Havilland Division model DHC7 aircraft.

Compliance is required as indicated.

There have been two reported failures, by cracking and subsequent fracture, of DHC7 landing gear upper lock struts P/N 157073 which allowed inadvertent retraction of the main landing gear.

To preclude lock strut failure, accomplish the following:

1. Within 50 hours flight time, unless already accomplished, inspect the left and righthand landing gear upper lock struts, to determine the part number of the strut. Accomplish this inspection in accordance with de Havilland Alert Service Bulletin A73293, dated 30 January 1989 or later revision approved by the Director, Airworthiness Branch, Transport Canada, Ottawa.

2. If the part number is identified to be either 157075 (subassembly P/N 157097) or 157077 (subassembly P/N 157099) only, the aircraft may be returned to service.

3. If the part number is 157073 (subassembly P/N 157095) or cannot be positively identified, perform the following:

a) Remove paint at critical areas using chemical techniques.

The critical areas are a oneinch wide band around the strut immediately below and above the boss to which the springloaded cables reference P/N 155251 are attached.

b) Inspect the critical areas of the left and the righthand main landing gear upper lock struts, using either eddy current or dye penetrant methods in accordance with items (2a) and (2b) of Accomplishment Instruction of de Havilland Service Bulletin 73221 Rev. B, dated 1 October 1982 or later revision approved by the Director, Airworthiness Branch, Transport Canada, Ottawa.

c) Following the inspection in paragraph (b), before the first flight of each day, accomplish a visual inspection of the critical areas using minimum four power magnification.

d) Replace any cracked part before further flight.

e) Replace P/N 157073 (subassembly P/N 157095) with serviceable P/N 157075 (subassembly P/N 157097) or P/N 157077 (subassembly P/N 157099) before 15 July 1989. The installation of replacement parts is to be performed in accordance with items 5 through 8 of Accomplishment Instructions of de Havilland Service Bulletin 73221 Rev. B, dated 1 October 1982, or later revision approved by the Director, Airworthiness Branch, Transport Canada, Ottawa.

4. The visual inspection requirements of paragraph 3(c) above may be discontinued upon installation of a serviceable upper lock strut P/N 157075 (subassembly P/N 157097) or P/N 157077 (subassembly P/N 157099).

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 revision supersedes the original issue of Airworthiness Directive CF8016 which became effective 6 June 1980.

This directive becomes effective 15 May 1989.

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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